Liebert® IntelliSlot™ Modbus and BACnet Protocols

Reference Guide

Modbus RTU and TCP, BACnet MSTP and IP Protocols

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures.

Visit https://www.vertiv.com/en-us/support/ for additional assistance.

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1 Vertiv™ Liebert® Equipment Compatibility

1.1 Connectivity to Liebert® Using Modbus RTU, Modbus TCP, BACnet MSTP or BACnet IP

This document describes the Modbus and BACnet communications protocols available for communication with Vertiv equipment. Included are the IntelliSlot™ Modbus and BACnet Protocols Modbus RTU, Modbus TCP, BACnet MSTP and the BACnet IP communications cards.

- The Modbus information includes implementation basics, supported types, frame format, function code support and similar subjects.
- The BACnet information includes the BACnet service listing, object types, device objects, analog objects, binary objects, multistate objects and BACnet engineering units.

NOTE: Some Modbus and BACnet Building Management Systems can be configured to send continuous updates for device setpoints, usually setting the same value. The BMS should be configured to send, on a sustained average, no more than two writes and two reads per second to the device. This will allow the device to catch up after a burst of updates when required while allowing other communication with the device to proceed.

The Vertiv™ Liebert® NX 225-600kVA UPS uses the Vertiv™ Chloride® Manage UPS Net Adapter +B card for Modbus support with the UPS' native processor. If the UPS is upgraded to use the optional MUND control board, then theVertiv™ Liebert® IS-UNITY-DP card may be used to provide both Modbus and BACnet support. Both sets of mapping tables are provided in this document and referenced in Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols on the next page and Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols on page 11

1.1.1 How to Use This Reference Guide

Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols on the next page , show the type of Vertiv™ Liebert® IntelliSlot™ card required for COMPLETE THIS selected products. Find the product first and the tables to reference; the columns to the right list the cards supported for the product.

The information is organized by Product Name, Table Number, Controller Protocol and Card Part Number.

Modbus tables are first and BACnet tables second, with products in the following sections:

- Thermal Management Products
- Power Distribution and Power Conditioning Products
- UPS Systems
- Battery Monitoring Products

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1.1.2 Modbus Equipment Compatibility Table

Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
Thermal Management Products				
Liebert® Challenger 3000	Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil on page 23 to Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 107	Liebert® iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® Challenger ITR		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® CRV	Liebert® CRV—Status and Coil on page 191 to Liebert® CRV—Glossary on page 202	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® CRV CRD10	Liebert® CRV CRD10—Status and Coil on page 186 to Liebert® CRV CRD10—Input and Holding on page 189	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV CR012	Vertiv™ Liebert® CRV CR012—Status and Coil on page 155 to Liebert® CRV CR012—Glossary on page 163	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV CR025,CRD25,CRD35	Liebert® CRV CR025,CRD25,CRD35—Status and Coil on page 166 to Liebert® CRV CR025,CRD25,CRD35—Glossary on page 172	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV CR030, CRC30, CRC60	Liebert® CRV CR030, CRC30, CRC60—Status and Coil on page 175 to Liebert® CRV CR030, CRC30, CRC60—Glossary on page 183	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CW	Modbus RTU and Modbus TCP Protocols on page 23 to Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 107	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® DCP	Liebert® DCP—Status and Coil on page 282 to Liebert® DCP—Glossary on page 303	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® Deluxe System/3	Modbus RTU and Modbus TCP Protocols on page 23 to Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 107	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® DS		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
Liebert® DSE		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® HPC (Chiller)	Liebert® HPC (Chiller)—Status and Coil on page 312 to Liebert® HPC (Chiller)—Glossary on page 323	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® HPM	Modbus RTU and Modbus TCP Protocols on page 23 to Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 107	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® PeX		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® PCW/PDX		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® DCL	Liebert® iCOM™ DCL—Status and Coil on page 327 to Liebert® iCOM™ DCL—Glossary on page 338	Liebert iCOM v4	IS-UNITY-DP	IS-UNITY-DP
Liebert® DS	Liebert® DS—Input Status and Coils on page 138 to Liebert® DS—Input and Holding on page 142	Liebert iCOM v3	—	OC485-LBDS
Liebert® PeX		Liebert iCOM v3	—	OC485-LBDS
Liebert® PeX4	Liebert® PEX4—Status and Coil on page 468 to Liebert® PEX4—Glossary on page 477	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® XDC	Liebert® XDC—Status and Coil on page 487 to Liebert® XDC—Glossary on page 507	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® XDF	Liebert® XDF—Status and Coil on page 512 to Liebert® XDF—Input and Holding on page 513	Liebert iCOM v3	—	OC485-LBDS
Liebert® XDM	Liebert® iCOM™ XDM - Status and Coil on page 344 to Liebert® iCOM XDM - Glossary on page 387	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-IPBML*
Liebert® XDP	Liebert® XDP—Status and Coil on page 516 to Liebert® XDP—Glossary on page 537	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® Challenger 3000	Liebert® Challenger 3000, Liebert® Deluxe System/3, Liebert® Himod, Liebert® ICS—Input and Holding—LAM on page 152	LAM	—	IS-WEBADPT OC485-ADPT*
Liebert® Deluxe System/3		LAM	—	IS-WEBADPT OC485-ADPT*
Liebert® Himod		LAM	—	IS-WEBADPT OC485-ADPT*

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
Liebert® ICS		LAM	—	IS-WEBADPT OC485-ADPT*
Liebert® DataMate	Liebert® DataMate, Liebert® Mini-Mate Plus, Liebert® Mini-Mate2—Input and Holding—L0B on page 269	L0B	—	IS-WEBADPT OC485-ADPT*
Liebert® Mini-Mate Plus		L0B	—	IS-WEBADPT OC485-ADPT*
Liebert® Mini-Mate2		L0B	—	IS-WEBADPT OC485-ADPT*
Liebert® DataMate	Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (ADPT-only) on page 271 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (Liebert® iCOM™ CMS-Only) on page 273	MM2	ICOM-CMS	IS-WEBADPT OC485-ADPT* ICOM-CMS
Liebert® Mini-Mate2		MM2	ICOM-CMS	IS-WEBADPT OC485-ADPT* ICOM-CMS
Liebert® DataMate	Liebert® MiniMate2 1-Ton to 5-Ton and 8-Ton—Input and Holding on page 409	MM2	IS-UNITY-DP	IS-UNITY-DP
Liebert® Mini-Mate2 1-Ton to 5-Ton		MM2	IS-UNITY-DP	IS-UNITY-DP
Liebert® Mini-Mate2 8-Ton		L8T	IS-UNITY-DP	IS-UNITY-DP
Liebert® Mini-Mate2 8 Ton	Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (ADPT-Only) on page 276 to Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (Liebert® iCOM™ CMS-Only) on page 279	L8T	ICOM-CMS	IS-WEBADPT OC485-ADPT* ICOM-CMS
Liebert® Mini-Mate Variable Capacity.	Liebert® Mini-Mate3 - Status and Coil on page 412 Liebert® Mini-Mate3 – Glossary on page 450	Liebert iCOM v4	IS-UNITY-DP	IS-UNITY-DP
Liebert® SRC	Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS on page 481	—	ICOM-CMS	ICOM-CMS
Liebert® Atlas Air	Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® LECS 15—Input and Holding—C10 2-Step on page 147	C10 2-step	—	IS-WEBADPT OC485-ADPT*
Liebert® Atlas PEC		C10 2-step	—	IS-WEBADPT OC485-ADPT*
Liebert® LECS 15		C10 2-step	—	IS-WEBADPT OC485-ADPT*
Liebert® Atlas Air	Liebert® Atlas Air, Liebert® Atlas	C100	—	IS-WEBADPT

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
	PEC, Liebert® CEMS 100—Input and Holding—C100 4-Step on page 149	4-step		OC485-ADPT*
Liebert® Atlas PEC		C100 4-step	—	IS-WEBADPT OC485-ADPT*
Liebert® CEMS 100		C100 4-step	—	IS-WEBADPT OC485-ADPT*
Liebert® Liqui-tect™ LP3000	Liebert® Liqui-tect™ LP3000 Output Registers on page 1263 and Liebert® Liqui-tect™ LP3000 Input Registers on page 1264	—	—	—
Liebert® Liqui-tect™ LP6000	Liebert® Liqui-tect™ LP6000 Output Registers on page 1276 and Liebert® Liqui-tect™ LP6000 Input Registers on page 1278	—	—	—
Liebert® XDU	Vertiv™ Liebert® XDU —Status and Coil on page 541 to Vertiv™Liebert® XDU - Glossary on page 563	Liebert®iCOM™v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-IPBML*
Liebert® CRV4	Vertiv™ Liebert® CRV4 Status and Coil on page 209 Vertiv™ Liebert® CRV4 Glossary on page 218	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CAHU	Vertiv™ Liebert® CAHU Status and Coil on page 248 to Vertiv™ Liebert® CAHU - Glossary on page 264	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® DME2	Vertiv™ Liebert® DME2 —Status and Coil on page 306 to Vertiv™ Liebert® DME2 - Glossary on page 310	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV4-12	Vertiv™ Liebert® CRV4-12 —Status and Coil on page 222 Vertiv™ Liebert® CRV4-12 —Glossary on page 231	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRD30-40	Liebert® CRD30-40—Status and Coil on page 236 to Liebert® CRD30-40—Glossary on page 244	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Power Distribution & Power Conditioning Products				

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
Liebert® EXC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil on page 576 , Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding on page 580 to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU— Glossary on page 594	LDMF	IS-UNITY-DP IS-IPBMS*	IS-UNITY-DP IS-485S*
Liebert® FDC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil on page 576 , to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU— Glossary on page 594	LDMF, CPM	IS-UNITY-DP IS-IPBMS*	IS-UNITY-DP IS-485S*
Liebert® FPC	Liebert® FPC, Liebert® PPC—Input and Holding on page 607 to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU— Glossary on page 594	VPMP, LDMF, CPM	IS-UNITY-DP IS-IPBMS*	IS-UNITY-DP IS-485S*
Liebert® PPC			IS-UNITY-DP IS-IPBMS*	IS-UNITY-DP IS-485S*
Liebert® RDC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil on page 1 , to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU— Glossary on page 594	LDMF, CPM	IS-UNITY-DP IS-IPBMS*	IS-UNITY-DP IS-485S*
Liebert® RX		LDMF	IS-UNITY-DP IS-IPBMS*	IS-UNITY-DP IS-485S*
Liebert® FPC	Liebert® FPC, Liebert® PPC—Input and Holding—PMP2 on page 598	PMP2	—	IS-WEBADPT OC485-ADPT*
Liebert® PPC		PMP2	—	IS-WEBADPT OC485-ADPT*
Liebert® Datawave	Liebert® Datawave, Liebert® FPC, Liebert® PPC—Input and Holding—PMP Option for Liebert® FPC and Liebert® PPC on page 600	PMP	—	IS-WEBADPT OC485-ADPT*
Liebert® FPC		PMP	—	IS-WEBADPT OC485-ADPT*
Liebert® PPC		PMP	—	IS-WEBADPT OC485-ADPT*
Liebert® STS	Liebert® STS, Liebert® STS/PDU—Input and Holding—STS on page 701	STS	—	IS-WEBADPT OC485-ADPT*

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
Liebert® STS/PDU		STS	—	IS-WEBADPT OC485-ADPT*
Liebert® STS2	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil on page 1 , to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU— Glossary on page 594	STS2	—	IS-WEBADPT OC485-ADPT*
Liebert® STS2/PDU	Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 on page 703	STS2	—	IS-WEBADPT OC485-ADPT*
	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil on page 576 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding on page 580 Liebert® STS, Liebert® STS/PDU—Input and Holding—STS on page 701 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 on page 703 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 on page 703	STS2 with LDMF	—	IS-WEBADPT OC485-ADPT*
Liebert® STS2/PDU	Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP on page 709 to Liebert®STS2, Liebert® STS2/PDU—Glossary— Liebert® IS-UNITY-DP on page 714	STS2	IS-UNITY-DP	IS-UNITY-DP
Liebert® RXA Liebert® RXV Liebert® TFX	Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range on page 619 to Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary on page 684	DPM	RDU101	RDU101
UPS Systems				
Liebert® APM	Liebert® APM, Liebert® NXC, Liebert® NXR—Status and Coil on page 718 to Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary on page 723	—	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-485L*
Liebert® APM 160	Liebert®APM 160—Status and Coil on page 727 Liebert®APM 160—Glossary on page 752	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® APM 600	Liebert® APM 600—Status and Coil on	—	IS-UNITY-DP	IS-UNITY-DP

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
	page 761 Liebert® APM 600—Glossary on page 774			
Liebert® APM2	Liebert® APM2—Status and Coil on page 781 to Liebert® APM2—Glossary on page 814	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® APS	Liebert® APS—Status and Coil on page 827 Liebert® APS—Glossary on page 836	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EPM	Liebert® EPM—Status and Coil on page 841 Liebert® EPM—Glossary on page 848	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXL	Liebert® EXL—Status and Coil on page 854 Liebert® EXL—Glossary on page 874	—	IS-UNITY-DP	IS-UNITY-DP
Liebert EXL S1	Liebert® EXL S1 – Status and Legacy Chloride Registers on page 885 Liebert® EXL S1 – Glossary on page 901	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXM	Liebert® EXM—Controller with LCD HMI—Status and Coil on page 907	Controller with LCD HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXM	Liebert® EXM—Controller with Touchscreen HMI—Status and Coil on page 926 to Liebert® EXM—Controller with Touchscreen HMI—Glossary on page 937	Controller with Touchscreen HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXM2/APM Plus	Liebert® EXM2/APM Plus—Status and Coil on page 944 Liebert®EXM2/APM Plus—Glossary on page 956	Controller with LCD HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXS	Liebert® EXS and Liebert® ITA2—Status and Coil on page 1036 Liebert® EXS and Liebert® ITA2—Glossary on page 1048	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXS Frame 2/3	Liebert® EXS Frame 2/3—Status and Coil on page 964 to Liebert® EXS Frame 2/3—Glossary on page 972	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXE3	Vertiv™ Liebert® GXE3—Status and Coil on page 979 Vertiv™ Liebert® GXE3—Glossary on page 987	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXT2	Liebert® GXT2 and Liebert® GXT3—Status and Coil on page 992 Liebert® GXT2 and Liebert® GXT3—Input and Holding on page 994	—	—	OC-485
Liebert® GXT3	Liebert® GXT2 and Liebert® GXT3—Status and Coil on page 992 to	—	—	OC-485

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
	Liebert® GXT2 and Liebert® GXT3—Input and Holding on page 994			
	Liebert® GXT3 and Liebert® GXT4—Status and Coil on page 995 Liebert® GXT3 and Liebert® GXT4—Glossary on page 1002	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXT4	Liebert® GXT3 and Liebert® GXT4—Status and Coil on page 995 Liebert® GXT3 and Liebert® GXT4—Glossary on page 1002		IS-UNITY-DP	IS-UNITY-DP
Liebert® GXT5	Liebert® GXT5—Status and Coil on page 1007 Liebert® GXT5—Glossary on page 1021	—	RDU101	RDU101
Liebert® HiNet	Liebert® HiNet—Status and Coil on page 1029 Liebert® HiNet—Input and Holding on page 1029	—	—	OC-485
Liebert® ITA2	Liebert® EXS and Liebert® ITA2—Status and Coil on page 1036 Liebert® EXS and Liebert® ITA2—Glossary on page 1048	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® MTP	Liebert® MTP—Status and Coil on page 1054 to Liebert® MTP—Glossary on page 1061	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® Nfinity™	Liebert® Nfinity—Status and Coil on page 1065 Liebert® Nfinity—Input and Holding on page 1066	—	—	OC-485
Liebert® NX	Liebert® NX—Status and Coil on page 1071 Liebert® NX—Input and Holding on page 1073	—	—	OC-485
Liebert® NX 225-600	Liebert® NX 225-600kVA UPS—Chloride ManageUPS—Input and Holding3 on page 1076 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding on page 1081 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Glossary on page 1088	Native	Chloride ManageUPS +B	Chloride ManageUPS +B
		Mund	IS-UNITY-DP	IS-UNITY-DP
Liebert® NXC	Liebert® APM, Liebert® NXC, Liebert® NXR—Status and Coil on page 718 to Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary on page 723	—	IS-485L* IS-UNITY-DP	IS-IPBML* IS-UNITY-DP
Liebert® NXR	Liebert® APM, Liebert® NXC, Liebert® NXR—Status and Coil on page 718	—	IS-485L IS-UNITY-DP	IS-IPBML IS-UNITY-DP

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
	to Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary on page 723			
Liebert® NXL, 60 Hz, UL version (Model 40—SA, SR, SN, MM, CD)	Liebert® NXL—60Hz, UL version (Model 40)—Status and Coil on page 1092 to Liebert® NXL—60Hz, UL version (Model 40)—Glossary on page 1111	—	IS-UNITY-DP IS-IPBMX*	IS-UNITY-DP IS-485X*
Liebert® NXL, 50 Hz, CE version (Model 48 and 49—SA, SR, SN, MM, CD)	Liebert® NXL—50Hz, CE version (Models 48 and 49)—Status and Coil on page 1118 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary on page 1138	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® PowerSure Interactive	Liebert® PowerSure Interactive (before July 2008)—Status and Coil on page 1149 Liebert® PowerSure Interactive (before July 2008)—Input and Holding on page 1150	—	—	OC-485
Liebert® PowerSure Interactive 2	Liebert® PowerSure Interactive 2—Status and Coil; Applies only to Liebert® PSI units manufactured before June 1, 2008 (Julian date 08153) on page 1152 Liebert® PowerSure Interactive 2—Input and Holding; Applies only to Liebert® PSI units manufactured before June 1, 2008 (Julian date 08153) on page 1154	—	—	OC-485
Vertiv™ PowerUPS 9000	Vertiv™ PowerUPS 9000—Status and Coil FDM on page 1155 to Vertiv™ PowerUPS 9000—Glossary on page 1187	—	RDU120	RDU120
Liebert® PSI5 / Vertiv Edge	Liebert® PSI5—Status and Coil on page 1196 to Liebert® PSI5—Glossary on page 1201	--	IS-UNITY-DP	IS-UNITY-DP
Liebert® Series 300 UPS	Liebert® Series 300 UPS—Status and Coil on page 1203 Liebert® Series 300 UPS—Input and Holding on page 1204	—	—	IS-WEBADPT OC485-ADPT*
Liebert® Series 600 UPS	Liebert® Series 600 UPS—Status and Coil on page 1207 Liebert® Series 600 UPS—Input and Holding on page 1208	—	—	IS-WEBADPT OC485-ADPT*
Liebert® Series 610 SCC UPS	Liebert® Series 610 SCC UPS—Status and Coil on page 1210 Liebert® Series 610 SCC UPS—Input and Holding on page 1211	—	—	IS-WEBADPT OC485-ADPT*
Liebert® HiPulse	Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM on page 1030	SMM/SSM	—	IS-WEBADPT OC485-ADPT*
Liebert® SICE 7200	Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM on page 1030	SMM/SSM	—	IS-WEBADPT OC485-ADPT*
Liebert® SICE 7200	Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM on page 1030	SSC	—	IS-WEBADPT

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Table 1.1 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Card Modbus RTU & Modbus TCP Protocols (continued)

S1 Product Supported	Refer to Table	Controller/Protocol	Compatible Card Part Number	
			Modbus TCP Card	Modbus RTU Card
	Liebert® SICE 7200—Input and Holding—SSC on page 1034			OC485-ADPT*
Liebert® Trinergy™ Cube	Liebert® Trinergy™ Cube—Status and Coil on page 1212 Liebert® Trinergy™ Cube—Glossary on page 1219	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® Trinergy™	Vertiv™ Liebert® Trinergy™—Status and Coil FDM on page 1224 to Vertiv™ Liebert® Trinergy™—Glossary on page 1247	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® Npower™	Liebert® Npower—Input and Holding—IMP on page 1068	IMP	—	IS-WEBADPT OC485-ADPT*
Battery Monitoring Products				
Alber™ BDSU	Alber™ BDSU—Status and Coil on page 1253 Alber™ BDSU - Glossary on page 1263	—	IS-UNITY-DP IS-IPBMX*	IS-UNITY-DP IS-485X*
** Communication cards marked with an asterisk are Discontinued.*				

1.1.3 BACnet Equipment Compatibility Table

Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACNet IP	BACnet MSTP
Thermal Management Products				
Liebert® Challenger 3000	Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data on page 1303 to Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 1416	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® Challenger ITR		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® CRV	Liebert® CRV—Binary Data on page 1494 to Liebert® CRV—Glossary on page 1506	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® CRV CRD10	Liebert® CRV CRD10—Binary Data on page 1477 to Liebert® CRV CRD10—Glossary on page 1488	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV CR012	Liebert® CRD012 - Analog Datato Liebert® CRV CR012—Glossary on page 1453	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP

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Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols (continued)

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACNet IP	BACnet MSTP
Liebert® CRV CR025,CRD25,CRD35	Vertiv™ Liebert® CRV CR025,CRD25,CRD35—Binary Data on page 1456 to Liebert® CRV CR025,CRD25,CRD35—Glossary on page 1462	iebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV CR030, CRC30, CRC60	Liebert® CRV CR030, CRC30, CRC60—Binary Data on page 1465 toLiebert® CRV CR030, CRC30, CRC60—Glossary on page 1473	Liebert iCOM Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CW	Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data on page 1303 to Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 1416	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® DCP	Liebert® DCP—Binary Data on page 1572 toLiebert® DCP—Glossary on page 1585	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® Deluxe System/3	Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data on page 1303 to Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 1416	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® DS		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® DSE		Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® HPC	Liebert® HPC—Binary Data on page 1602 to Liebert® HPC—Glossary on page 1610	Liebert iCOM v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® HPM	Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data on page 1303 to Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary on page 1416	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® PDX/PCW		Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® PeX		Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP

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Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols (continued)

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACNet IP	BACnet MSTP
Liebert® PeX (PEX4)	Liebert® PEX4—Binary Data on page 1746 to Liebert® PEX4—Glossary on page 1756	Liebert® iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® XDC	Liebert® XDC—Binary Data on page 1765 to Liebert® XDC—Glossary on page 1782	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® XDM	Liebert® iCOM XDM - Binary Data on page 1630 to Liebert® iCOM XDM - Glossary on page 1664	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP IS-IPBML*
Liebert® XDP	Liebert® XDP—Binary Data on page 1793 to Liebert® XDP—Glossary on page 1807	Liebert® iCOM™ v4	IS-UNITY-DP IS-IPBML*	IS-UNITY-DP
Liebert® DCL	Liebert® iCOM™ DCL—Binary Data on page 1614 to Liebert® iCOM™ DCL—Glossary on page 1623	Liebert® iCOM™ v4	IS-UNITY-DP	IS-UNITY-DP
Liebert® DataMate	Liebert® DataMate, Liebert® Mini-Mate2—MM2 (ADPT-only) on page 1567	MM2	IS-WEBADPT ICOM-CMS	ICOM-CMS
Liebert® Mini-Mate2	Liebert® DataMate, Liebert® Mini-Mate2—MM2 (Liebert® iCOM™ CMS only) on page 1569 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (ADPT-only) on page 1	MM2	IS-WEBADPT ICOM-CMS	ICOM-CMS
Liebert® DataMate	Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Binary Data on page 1687 to Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Glossary on page 1690	MM2	IS-UNITY-DP	IS-UNITY-DP
Liebert® Mini-Mate2 1-Ton to 5-Ton		MM2	IS-UNITY-DP	IS-UNITY-DP
Liebert® Mini-Mate2 8-Ton		L8T	IS-UNITY-DP	IS-UNITY-DP
Liebert® Mini-Mate2 8-Ton	Liebert® Mini-Mate2 8-Ton—L8T (ADPT-only) on page 1692 to Liebert® Mini-Mate2 8-ton—L8T (iCOM CMS only) on page 1694	L8T	IS-WEBADPT ICOM-CMS	ICOM-CMS
Liebert® Mini-Mate3	Liebert® Mini-Mate3—Binary Data on page 1697 to Liebert® Mini-Mate3 – Glossary on page 1728	Liebert iCOM v4	IS-UNITY-DP	IS-UNITY-DP
Liebert® SRC	Liebert® SRC—Liebert® iCOM™ CMS on page 1760	—	ICOM-CMS	ICOM-CMS
Liebert® Liqui-tect™ LP3000	Liebert® Liqui-tect™ LP3000—BACnet Object Data on page 1685	—	—	—
Liebert® Liqui-tect™ LP6000	Liebert® Liqui-tect™ LP6000—BACnet Object Data on page 1686	—	—	—
Liebert® XDU	Vertiv™ Liebert® XDU —Binary Data on	Liebert®iCOM™v4	IS-UNITY-DP	IS-UNITY-DP

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Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols (continued)

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACNet IP	BACnet MSTP
	page 1818 Vertiv™ Liebert® XDU—Glossary on page 1838		IS-IPBML*	IS-IPBML*
Liebert® CRV4	Vertiv™Liebert® CRV4 —Binary Data on page 1512 Vertiv™ Liebert® CRV4 Glossary on page 1523	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CAHU	Liebert®CAHU —Binary Data on page 1548 Liebert®CAHU —Glossary on page 1562	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® DME2	Vertiv™ Liebert® DME2 —Binary Data on page 1596 Vertiv™ Liebert® DME2 Glossary on page 1600	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRV4-12	Vertiv™ Liebert® CRV4-12 —Binary Data on page 1527 Vertiv™ Liebert® CRV4-12 —Multistate Data on page 1535	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Liebert® CRD30-40	Liebert® CRD30-40—Binary Data on page 1536 to Liebert® CRD30-40—Glossary on page 1544	Liebert®iCOM™ Edge	IS-UNITY-DP	IS-UNITY-DP
Power Distribution and Power Conditioning Products				
Liebert® EXC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data on page 1852 , Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data on page 1856 to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary on page 1880	LDMF	IS-UNITY-DP	IS-UNITY-DP IS-485S*
Liebert® FDC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data on page 1852 , Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data on page 1856 to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary on page 1880	LDMF, CPM	IS-UNITY-DP	IS-UNITY-DP IS-485S*
Liebert® FPC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data on page 1852	VPMP, LDMF, CPM	IS-UNITY-DP	IS-UNITY-DP IS-485S*

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Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols (continued)

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACnet IP	BACnet MSTP
Liebert® PPC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary on page 1880		IS-UNITY-DP	IS-UNITY-DP IS-485S*
Liebert® RDC	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data on page 1852 , Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data on page 1856 to Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary on page 1880	LDMF, CPM	IS-UNITY-DP	IS-UNITY-DP IS-485S*
Liebert® RX	Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data on page 1852 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Multistate Data on page 1866 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary on page 1880	LDMF	IS-UNITY-DP	IS-UNITY-DP IS-485S*
Liebert® STS2 (plus20)	Liebert® STS2 - Binary Data on page 1884 to Liebert® STS2 - Glossary on page 1891	STS2 with LDMF	—	IS-WEBADPT OC485-ADPT*
Liebert® RXA Liebert® RXV Liebert® TFX	Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data on page 1896 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary on page 1945	DPM	RDU101	RDU101
UPS Systems				
Liebert® APM	Liebert® APM, Liebert® NXC, Liebert® NXR—Binary Data on page 1963 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary on page 1967	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® APM 160	Liebert® APM 160—Binary Data on page 1972 to Liebert® APM 160—Glossary on page 1991	Controller with Touchscreen HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® APM 600	Liebert® APM 600 with GHMI—Binary Data on page 2000 to Liebert® APM 600 with GHMI—Glossary on page 2010	Controller with Touchscreen HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® APM2	Liebert® APM2—Binary Data on page 2018 to Liebert® APM2—Glossary on page 2051	—	IS-UNITY-DP	IS-UNITY-DP

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Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols (continued)

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACNet IP	BACnet MSTP
Liebert® APS	Liebert® APS—Binary Data on page 2064 to Liebert® APS—Glossary on page 2072	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EPM	Liebert® EPM—Binary Data on page 2077 , to Liebert® EPM—Glossary on page 2083	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXL	Liebert® EXL—Binary Data on page 2089 to Liebert® EXL—Glossary on page 2117	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXL S1	Liebert® EXL S1—Binary Data on page 2129 to Liebert® EXL S1—Glossary on page 2141	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXM	Liebert® EXM—Controller with LCD HMI—Binary Data on page 2146 to Liebert® EXM—Controller with LCD HMI—Glossary on page 2156	Controller with LCD HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXM	Liebert® EXM—Controller with Touchscreen HMI—Binary Data on page 2163 to Liebert® EXM—Controller with Touchscreen HMI—Glossary on page 2172	Controller with Touchscreen HMI	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXM2/APM Plus	Liebert® EXM2/APM Plus—Binary Data on page 2179 to Liebert® EXM2/APM Plus—Glossary on page 2190		IS-UNITY-DP	IS-UNITY-DP
Liebert® EXS	Liebert® EXS and Liebert® ITA2—Binary Data on page 2211 , to Liebert® EXS and Liebert® ITA2—Glossary on page 2224	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® EXS 15-30kVA 208V/30-80kVA 400V	Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Binary Data on page 2197 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary on page 2204	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXE3	Vertiv™Liebert®GXE3 —Binary Data on page 2240 Vertiv™Liebert® GXE3 Glossary on page 2248	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXT3	Liebert® GXT3 and Liebert® GXT4—Binary Data on page 2252 , to Liebert® GXT3 and Liebert® GXT4—Glossary on page 2258	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXT4	Liebert® GXT3 and Liebert® GXT4—Binary Data on page 2252 , to Liebert® GXT3 and Liebert® GXT4—Glossary on page 2258	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® GXT5	Liebert® GXT5—Binary Data on page 2262 to Bypass on page 2262	—	RDU101	RDU101
Liebert® ITA2	Liebert® EXS and Liebert® ITA2—Binary Data on page 2211 to Liebert® EXS and	—	IS-UNITY-DP	IS-UNITY-DP

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Table 1.2 Liebert® Equipment and Compatible Liebert® IntelliSlot™ Cards BACnet MSTP & BACnet IP Protocols (continued)

Product Supported	Refer to Tables:	Controller/ Protocol	Compatible Card Part Number	
			BACNet IP	BACnet MSTP
	Liebert® ITA2—Glossary on page 2224			
Liebert® MTP	Liebert® MTP—Binary Data on page 2231 to Liebert® MTP—Glossary on page 2236	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® NX 225-600	Liebert® NX 225-600 kVA—Binary Data on page 2285 , to Liebert® NX 225-600 kVA—Glossary on page 2291	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® NXC	Liebert® APM, Liebert® NXC, Liebert® NXR—Binary Data on page 1963 to Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary on page 1967	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® NXR	Liebert® APM, Liebert® NXC, Liebert® NXR—Binary Data on page 1963 to Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary on page 1967	IS-UNITY-DP	IS-UNITY-DP	
Liebert® NXL, 60Hz, UL version (Model 40)	Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data on page 2295 , to Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary on page 2313	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® NXL, 50Hz, CE version (Models 48 and 49)	Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Binary Data on page 2325 , to Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary on page 2342	—	IS-UNITY-DP	IS-UNITY-DP
Vertiv™ PowerUPS 9000	Vertiv™ PowerUPS 9000—Binary Data on page 2353 to Vertiv™ PowerUPS 9000—Glossary on page 2377	—	RDU120	RDU120
Liebert® PSI5 / Vertiv Edge	Liebert® PSI5—Binary Data on page 2386 , to Liebert® PSI5—Glossary on page 2390	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® Trinergy™ Cube	Liebert® Trinergy™ Cube—Binary Data on page 2393 to Liebert® Trinergy™ Cube—Glossary on page 2400	—	IS-UNITY-DP	IS-UNITY-DP
Liebert® Trinergy™	Vertiv™ Liebert® Trinergy™—Binary Data on page 2401 to Vertiv™ Liebert® Trinergy™—Glossary on page 2418	—	IS-UNITY-DP	IS-UNITY-DP
Battery Monitoring Products				
Alber™ BDSU	Alber™ BDSU—Binary Data on page 2424 , to Alber™ BDSU—Glossary on page 2442	—	IS-UNITY-DP	IS-UNITY-DP

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2 Modbus Communications

2.1 Implementation Basics

Modbus protocol provides control and data acquisition, through query and response, between Primary and Secondary devices. This protocol comprises the rules for communication, controlling the message format between devices, how Primary and Secondary devices initiate communications, as well as unit identification, message handling and error checking.

The Vertiv™ Liebert® 485/IP card acts as a Secondary device on a network. This network can be a multidrop configuration over EIA-485, where multiple Secondary reside on a common wire or loop.

2.2 Transmission Format

The Liebert® IntelliSlot™ 485/IP interface card supports Modbus Remote Terminal Unit (RTU) transmission modes.

Table 2.1 Modbus Remote Terminal Unit settings for IntelliSlot™ Modbus and BACnet Protocols 485/IP interface card

Physical Port	Transmission Mode	Baud Rate	Data Bits	Parity Bits	Stop Bits	Start Bits
EIA-485/422 2-wire	RTU	9600, 19200 or 38400	8	None	1	1

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2.3 Modbus Packet Format

Each Modbus packet consists of these fields:

- Device Address
- Function Code
- Data Field(s)
- Error Check Field

2.3.1 Device Address

The address field immediately follows the beginning of the frame and consists of 8-bits (RTU). This bit indicates the user assigned address of the Secondary device that is to receive the message from the attached Primary device.

Each Secondary device must be assigned a unique address. Only the addressed secondary device will respond to a query that contains its address.

2.3.2 Function Code

The function code field tells the addressed Secondary devices what function to perform. Function codes are designed to invoke a specific action by the Secondary device. The function code ranges from 1 to 127.

Table 2.2 Supported Modbus function codes

Code	Function	Description
01	Read Coils	Read from 1 to 2000 contiguous status of coils managed by the server. Coils in the response message are packed as one per bit of a byte, 1=On and 0=Off. If the requested quantity of coils is not a multiple of 8, zeros are padded in the final byte.
02	Read Discrete Inputs	Read from 1 to 2000 contiguous input status managed by the server. Discrete inputs in the response message are packed as one per bit of a byte, 1=On and 0=Off. If the requested number of inputs is not a multiple of 8, zeros are padded in the final byte.
03	Read Holding Registers	Read the contents of contiguous block of 1 to 127 holding registers. Data are packed as 2 bytes per register; the first byte contains the high order bits.
04	Read Input Registers	Read the contents of contiguous block of 1 to 127 Input registers. Data are packed as two bytes per register; the first byte contains the high order bits.
05	Force Single Coil	Write a single output to either On (1) or Off (0) mapped in coil section.
06	Write Single Register	Write a value into a single holding register;
15	Force Multiple Coils	Write On or Off. to a sequence of coils.
16	Write Multiple Registers	Write values into a block of contiguous registers (1 to 120)

2.3.3 Data Fields

The data field length varies, depending on whether the message is a request or a response to a packet. This field typically contains information required by the Secondary device to perform the command specified or to the response to a data request from the Primary device.

Because Modbus can return only positive numbers, in registers that contain signed numbers the negative numbers are encoded in two's-complement form. For example, in a 16-bit register a -7 becomes FFF9 in hexadecimal or 65529 in decimal.

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2.3.4 Error Check Field

The Error Check Field consists of a 16-bit (2 byte) Cyclical Redundancy Check (CRC16). It allows the receiving device to detect a packet that has been corrupted by transmission errors.

2.3.5 RTU Framing

The example below shows a typical query and response from a Liebert® IntelliSlot™ interface card. The Primary device initiates a query asking Secondary Device, with address 2, for holding registers starting at holding register 40051 (offset 50) and including the next two registers (three total).

Table 2.3 Query sample

Secondary Address	Function Code	Starting Register		Number of Registers		CRC16	
		Hi Byte	Lo Byte	Hi Byte	Lo Byte	Hi Byte	Lo Byte
02	03	00	32	00	03	E5	FA

Table 2.4 Response sample

Secondary Address	Function Code	Count: Bytes of Data	Register						CRC16	
			40051 Data		40052 Data		40053 Data		Hi Byte	Lo Byte
			Hi	Lo	Hi	Lo	Hi	Lo		
02	03	6	1	58	00	FA	00	54	1B	0D

The Secondary Device with address 2 responds to Function Code 3 with 6 bytes of hexadecimal data and ends with CRC16 checksum.

Register values:	40051 =	158 (hex) =	344 (decimal)
	40052 =	FA (hex) =	250 (decimal)
	40053 =	54 (hex) =	84 (decimal)

2.3.6 Coil and Register Numbering

Coil/Register Numbers can be thought of as location names since they do not appear in the actual messages. The Data Addresses are used in the messages.

For example, the first Holding Register, number 40001, has the Data Address **0000**.

The difference between these two values is the **offset**.

Each table has a different offset. 1, 10001, 30001 and 40001.

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Coil/Register Numbers	Data Addresses	Type	Table Name
1-9999	0000 to 270E	Read-Write	Discrete Output Coils
10001-19999	0000 to 270E	Read-Only	Discrete Input Contacts
30001-39999	0000 to 270E	Read-Only	Analog Input Registers
40001-49999	0000 to 270E	Read-Write	Analog Output Holding Registers

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3 Modbus RTU and Modbus TCP Protocols

3.1 Thermal Management Products - Modbus Protocols

Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (seeModbus RTU and Modbus TCP Protocols above 3
Ext Reheat Lockout	10009	-	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Humidifier Lockout	10010	-	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Minimum Chilled Water Temp Set Point Enable	10013	13	1	0 = disabled1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Return Air Sensor Event Control	10019	19	1	0 = disabled1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Air Sensor A Event Control	10020	20	1	0 = disabled1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Compressor Lockout	10021	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
System On/Off Control	—	25	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Fan State	10025	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Cooling State	10026	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Free Cooling State	10027	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Hot Water / Hot Gas State	10028	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Electric Reheat State	10029	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Humidifier State	10030	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (seeModbus RTU and Modbus TCP Protocols above 3
Dehumidifier State	10031	—	1	0 = off1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Main Fan Overload	10034	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Loss of Air Flow	10035	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Loss of Flow	10036	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor High Head Pressure	10037	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16
Compressor Low Suction Pressure	10038	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Thermal Overload	10039	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Pump Down Issue	10040	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor High Head Pressure 2	10041	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Low Suction Pressure 2	10042	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Thermal Overload 2	10043	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Pump Down Issue 2	10044	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Dig Scroll Comp Over Temp 1	10045	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Dig Scroll Comp Over Temp 2	10046	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Smoke Detected	10047	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Water Under Floor	10048	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Humidifier Issue	10049	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Standby Glycol Pump On	10050	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Standby Unit On	10051	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Condenser Pump High Water	10052	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Return Air Sensor Issue	10053	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Loss of Air Blower	10055	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Humidifier Low Water	10058	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Humidifier Over Current	10059	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Over Temperature	10060	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Shutdown - Loss Of Power	10061	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Supply Chilled Water Over Temp	10065	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Return Air Over Temperature	10067	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Return Air Under Temperature	10068	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
High Return Humidity	10069	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Low Return Humidity	10070	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Air Sensor A Over Temperature	10071	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Ext Air Sensor A Under Temperature	10072	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Air Sensor A High Humidity	10073	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Air Sensor A Low Humidity	10074	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Supply Chilled Water Loss of Flow	10075	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Clogged Air Filter	10076	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Supply Air Sensor Issue	10077	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Free Cooling Temp Sensor Issue	10078	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Air Sensor A Issue	10079	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Fan Hours Exceeded	10080	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Hours Exceeded 1	10081	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Hours Exceeded 2	10082	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Free Cooling Valve Hours Exceeded	10083	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Electric Reheater Hours Exceeded 1	10084	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Electric Reheater Hours Exceeded 2	10085	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Electric Reheater Hours Exceeded 3	10086	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Hot Water / Hot Gas Valve Hours Exceeded	10087	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Humidifier Hours Exceeded	10088	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Dehumidifier Hours Exceeded	10089	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Unit Communication Lost	10091	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Master Unit Communication Lost	10092	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Unit Code Missing	10094	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Service Required	10098	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Humidifier Control Board Not Detected	10099	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Customer Input 1	10104	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Customer Input 2	10105	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Customer Input 3	10106	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Customer Input 4	10107	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue 1	10108	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue 2	10109	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Supply Air Over Temperature	10209	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Supply Air Under Temperature	10210	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ambient Air Sensor Issue	10211	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Compressor Short Cycle 1	10212	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Short Cycle 2	10213	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Ext Free Cooling Lockout	10214	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Reheater Over Temperature	10215	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Humidifier Cylinder Worn	10216	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Humidifier Under Current	10217	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Fan Issue	10218	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Condenser TVSS Issue	10219	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Condenser VFD Issue	10220	—	1	Active on Alarm	1, 2, 4, 6, 10
Condenser Issue 1	10221	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Condenser Issue 2	10222	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
BMS Communications Timeout	10223	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Digital Output Board Not Detected 1	10224	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Digital Output Board Not Detected 2	10225	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Digital Output Board Not Detected 3	10226	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
RAM Battery Issue	10227	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Water Leakage Detector Sensor Issue	10228	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
External Fire Detected	10229	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Chilled Water Control Valve Failure 1	10230	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Chilled Water Control Valve Failure 2	10231	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unit Off	10232	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Unit On	10233	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Unit Partial Shutdown	10234	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Unit Shutdown	10235	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
High Power Shutdown	10236	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Unit Standby	10237	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Maintenance Due	10238	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Maintenance Completed	10239	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Low Pressure Transducer Issue 1	10240	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Low Pressure Transducer Issue 2	10241	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor High Pressure Transducer Issue 1	10242	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor High Pressure Transducer Issue 2	10243	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Compressor Capacity Reduced	10244	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Dew Point Over Temperature	10345	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Dew Point Under Temperature	10346	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Over Temperature	10347	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Under Temperature	10348	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Superheat Over Threshold 1	10349	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Superheat Over Threshold 2	10350	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unspecified General Event	10351	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Average Over Temperature	10352	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Average Under Temperature	10353	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Average Over Temperature	10354	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Average Under Temperature	10355	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 1	10356	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 2	10357	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 3	10358	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 4	10359	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 5	10360	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Remote Sensor Over Temperature 6	10361	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 7	10362	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 8	10363	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 9	10364	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temperature 10	10365	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 1	10366	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 2	10367	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 3	10368	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 4	10369	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 5	10370	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 6	10371	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 7	10372	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 8	10373	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 9	10374	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature 10	10375	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 1	10376	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14,15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Remote Sensor Issue 2	10377	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 3	10378	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 4	10379	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 5	10380	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 6	10381	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 7	10382	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 8	10383	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 9	10384	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue 10	10385	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Air Economizer Emergency Override	10386	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Air Economizer Reduced Airflow	10387	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Temperature Control Sensor Issue	10388	—	1	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
EEV Unspecified General Event	10488	—	1	Active on Alarm	4, 6, 7, 8, 11, 13, 14, 15, 16, 17
Static Pressure Sensor Issue	10489	—	1	Active on Alarm	3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
High Static Pressure	10490	—	1	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Low Static Pressure	10491	—	1	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Pump Unspecified General Event	10492	—	1	Active on Alarm	4, 6, 7, 8, 11, 13, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Condenser Unit Unspecified General Event	10493	—	1	Active on Alarm	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Circuit Unspecified General Event	10494	—	1	Active on Alarm	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Input Undervoltage 1	10500	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Input Undervoltage 2	10501	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Input Undervoltage 3	10502	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Input Undervoltage 4	10503	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Input Undervoltage 5	10504	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Input Undervoltage 6	10505	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Return Humidity Sensor Issue	10600	—	1	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Low Differential Pressure Lockout 1	10601	—	1	Active on Alarm	6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Low Differential Pressure Lockout 2	10602	—	1	Active on Alarm	6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Airflow Sensor Issue	10603	—	1	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Air Damper Position Issue	10604	—	1	Active on Alarm	3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Ext Power Source A Failure	10605	—	1	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Power Source B Failure	10606	—	1	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Static Pressure Sensor Out of Range	10607	—	1	Active on Alarm	3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Fluid Temperature Sensor Issue 1	10608	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Temperature Sensor Issue 2	10609	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Sensor Issue 1	10610	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Fluid Flow Sensor Issue 2	10611	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Mixed Mode Lockout	10620	—	1	Active on Alarm	6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Aux Air Temp Device Communication Lost	10630	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost 1	10640	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost 2	10641	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost 3	10642	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost 4	10643	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost 5	10644	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost 6	10645	—	1	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
External Condenser TVSS Issue	10655	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
External Condenser VFD Issue	10656	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temp Out of Operating Range 1	10677	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temp Out of Operating Range 2	10678	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Control Board Issue 1	10679	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Control Board Issue 2	10680	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temp Sensor Issue 1	10681	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Condenser Outside Air Temp Sensor Issue 2	10682	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Communication Lost 1	10683	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Communication Lost 2	10684	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Remote Shutdown 1	10685	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Remote Shutdown 2	10686	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser TVSS Issue 1	10687	—	1	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,15, 16, 17
Condenser TVSS Issue 2	10688	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Sensor Issue 1	10699	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Sensor Issue 2	10700	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Under Threshold 1	10701	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Under Threshold 2	10702	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Over Threshold 1	10703	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Over Threshold 2	10704	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue 1	10705	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue 2	10706	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Under Temp 1	10707	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Condenser Supply Refrigerant Under Temp 2	10708	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Over Temp 1	10709	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Over Temp 2	10710	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Max Fan Speed Override 1	10711	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Max Fan Speed Override 2	10712	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 1	10723	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 2	10724	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 3	10725	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 4	10726	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 5	10727	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 6	10728	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 7	10729	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Issue 8	10730	—	1	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Compressor 1B Thermal Overload	10741	—	1	Active on Alarm	9
Compressor 2B Thermal Overload	10742	—	1	Active on Alarm	9
Compressor 1B Hours Exceeded	10743	—	1	Active on Alarm	9
Compressor 2B Hours Exceeded	10744	—	1	Active on Alarm	9
Team Static Pressure Sensor Failure	10750	—	1	Active on Alarm	9
Heating Lockout	10751	—	1	Active on Alarm	9

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Free Cooling Stopped - High Room Temp	10752	—	1	Active on Alarm	9
Cold Aisle Temperature/Humidity Team Sensor Failure	10753	—	1	Active on Alarm	9
Cold Aisle Air Sensor Failure 1	10760	—	1	Active on Alarm	9
Cold Aisle Air Sensor Failure 2	10761	—	1	Active on Alarm	9
Cold Aisle Air Sensor Failure 3	10762	—	1	Active on Alarm	9
Chilled Water Inlet Temperature Control Active	10770	—	1	Active on Alarm	9
Chilled Water Inlet Temperature Sensor Failure 1	10780	—	1	Active on Alarm	—
Chilled Water Inlet Temperature Sensor Failure 2	10781	—	1	Active on Alarm	—
Chilled Water Outlet Temperature Sensor Failure 1	10782	—	1	Active on Alarm	—
Chilled Water Outlet Temperature Sensor Failure 2	10783	—	1	Active on Alarm	—
Chilled Water Flow Meter Sensor Failure 1	10784	—	1	Active on Alarm	—
Chilled Water Flow Meter Sensor Failure 2	10785	—	1	Active on Alarm	—
Supply NTC Air Sensor Issue	10790	—	1	Active on Alarm	11, 14, 15, 16, 17
External Air Sensor B Issue	10791	—	1	Active on Alarm	11, 14, 15, 16, 17
External Air Sensor C Issue	10792	—	1	Active on Alarm	11, 14, 15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
External Air Sensor D Issue	10793	—	1	Active on Alarm	11, 14, 15, 16, 17
External Air Sensor E Issue	10794	—	1	Active on Alarm	11, 14, 15, 16, 17
Compressor Hours Exceeded 3	10800	—	1	Active on Alarm	15, 16, 17
Compressor Hours Exceeded 4	10801	—	1	Active on Alarm	15, 16, 17
Compressor High Head Pressure 3	10802	—	1	Active on Alarm	15, 16, 17
Compressor High Head Pressure 4	10803	—	1	Active on Alarm	15, 16, 17
Compressor Low Suction Pressure 3	10804	—	1	Active on Alarm	15, 16, 17
Compressor Low Suction Pressure 4	10805	—	1	Active on Alarm	15, 16, 17
Compressor Short Cycle 3	10806	—	1	Active on Alarm	15, 16, 17
Compressor Short Cycle 4	10807	—	1	Active on Alarm	15, 16, 17
Compressor Pump Down Issue 3	10808	—	1	Active on Alarm	15, 16, 17
Compressor Pump Down Issue 4	10809	—	1	Active on Alarm	15, 16, 17
Compressor Thermal Overload 3	10810	—	1	Active on Alarm	15, 16, 17
Compressor Thermal Overload 4	10811	—	1	Active on Alarm	15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue 3	10812	—	1	Active on Alarm	15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue 4	10813	—	1	Active on Alarm	15, 16, 17
Dig Scroll Comp Over Temp 3	10814	—	1	Active on Alarm	15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Dig Scroll Comp Over Temp 4	10815	—	1	Active on Alarm	15, 16, 17
Compressor Low Pressure Transducer Issue 3	10816	—	1	Active on Alarm	15, 16, 17
Compressor Low Pressure Transducer Issue 4	10817	—	1	Active on Alarm	15, 16, 17
Compressor High Pressure Transducer Issue 3	10818	—	1	Active on Alarm	15, 16, 17
Compressor High Pressure Transducer Issue 4	10819	—	1	Active on Alarm	15, 16, 17
Compressor Superheat Over Threshold 3	10820	—	1	Active on Alarm	15, 16, 17
Compressor Superheat Over Threshold 4	10821	—	1	Active on Alarm	15, 16, 17
Compressor Low Differential Pressure Lockout 3	10822	—	1	Active on Alarm	15, 16, 17
Compressor Low Differential Pressure Lockout 4	10823	—	1	Active on Alarm	15, 16, 17
Condenser TVSS Issue 3	10824	—	1	Active on Alarm	15, 16, 17
Condenser TVSS Issue 4	10825	—	1	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Out of Operating Range 3	10826	—	1	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Out of Operating Range 4	10827	—	1	Active on Alarm	15, 16, 17
Condenser Control Board Issue 3	10828	—	1	Active on Alarm	15, 16, 17
Condenser Control Board Issue 4	10829	—	1	Active on Alarm	15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Condenser Outside Air Temp Sensor Issue 3	10830	—	1	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Sensor Issue 4	10831	—	1	Active on Alarm	15, 16, 17
Condenser Communication Lost 3	10832	—	1	Active on Alarm	15, 16, 17
Condenser Communication Lost 4	10833	—	1	Active on Alarm	15, 16, 17
Condenser Remote Shutdown 3	10834	—	1	Active on Alarm	15, 16, 17
Condenser Remote Shutdown 4	10835	—	1	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Sensor Issue 3	10836	—	1	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Sensor Issue 4	10837	—	1	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Under Threshold 3	10838	—	1	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Under Threshold 4	10839	—	1	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Over Threshold 3	10840	—	1	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Over Threshold 4	10841	—	1	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue 3	10842	—	1	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue 4	10843	—	1	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Under Temp 3	10844	—	1	Active on Alarm	15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Condenser Supply Refrigerant Under Temp 4	10845	—	1	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Over Temp 3	10846	—	1	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Over Temp 4	10847	—	1	Active on Alarm	15, 16, 17
Condenser Max Fan Speed Override 3	10848	—	1	Active on Alarm	15, 16, 17
Condenser Max Fan Speed Override 4	10849	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 9	10850	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 10	10851	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 11	10852	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 12	10853	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 13	10854	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 14	10855	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 15, 16	10856	—	1	Active on Alarm	15, 16, 17
Condenser Fan Issue 16	10857	—	1	Active on Alarm	15, 16, 17
TSA Control Input Issue	10860	—	1	Active on Alarm	14, 15, 16, 17
Chilled Water Valve Hours Exceeded	10861	—	1	Active on Alarm	14, 15, 16, 17
FSA Control Input Issue	10862	—	1	Active on Alarm	14, 15, 16, 17
Auto Tune License Expiring	10863	—	1	Active on Alarm	14, 15, 16, 17
Auto Tune License Expired	10864	—	1	Active on Alarm	14, 15, 16, 17
Unit In Standby Due To Cooling Loss	10865	—	1	Active on Alarm	14, 15, 16, 17
Control Units Remote Shutdown Mismatch	10866	—	1	Active on Alarm	15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (seeModbus RTU and Modbus TCP Protocols above 3
Slave Control Unit Communication Lost	10867	—	1	Active on Alarm	15, 16, 17
Control Units Unit Code Mismatch	10868	—	1	Active on Alarm	15, 16, 17
SSA Control Input Issue	10869	—	1	Active on Alarm	14, 15, 16, 17
Group Independent On	10870	—	1	Active on Alarm	15, 16, 17
Group Independent Off	10871	—	1	Active on Alarm	15, 16, 17
Compressor Freeze Protection 1	10872	—	1	Active on Alarm	15, 16, 17
Compressor Freeze Protection 2	10873	—	1	Active on Alarm	15, 16, 17
Compressor Freeze Protection 3	10874	—	1	Active on Alarm	15, 16, 17
Compressor Freeze Protection 4	10875	—	1	Active on Alarm	15, 16, 17
External Supply Fluid High Temperature 1	10876	—	1	Active on Alarm	15, 16, 17
External Supply Fluid High Temperature 2	10877	—	1	Active on Alarm	15, 16, 17
External Supply Fluid Temp Sensor Issue 1	10878	—	1	Active on Alarm	15, 16, 17
External Supply Fluid Temp Sensor Issue 2	10879	—	1	Active on Alarm	15, 16, 17
External Supply Fluid Flow Issue 1	10880	—	1	Active on Alarm	15, 16, 17
External Supply Fluid Flow Issue 2	10881	—	1	Active on Alarm	15, 16, 17
Audit Log Update	10882	—	1	Active on Alarm	15, 16, 17
Modbus Automatic Transfer Switch Communication Lost	10883	—	1	Active on Alarm	15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (seeModbus RTU and Modbus TCP Protocols above 3
Supply Fluid Temp Sensor Issue	10884	—	1	Active on Alarm	15, 16, 17
Return Fluid Temp Sensor Issue	10885	—	1	Active on Alarm	15, 16, 17
Flow Sensor Failure	10886	—	1	Active on Alarm	15, 16, 17
Check Water System	10887	—	1	Active on Alarm	15, 16, 17
Supply Fluid Over Temp	10888	—	1	Active on Alarm	15, 16, 17
Return Fluid Over Temp	10889	—	1	Active on Alarm	15, 16, 17
Pump Operating Without Flow	10890	—	1	Active on Alarm	15, 16, 17
Pump Inverter Failure 1	10891	—	1	Active on Alarm	15, 16, 17
Pump Inverter Failure 2	10892	—	1	Active on Alarm	15, 16, 17
Pump Flow Failure 1	10893	—	1	Active on Alarm	15, 16, 17
Pump Flow Failure 2	10894	—	1	Active on Alarm	15, 16, 17
Door Open	10895	—	1	Active on Alarm	15, 16, 17
Valve Communications Failure 1	10896	—	1	Active on Alarm	15, 16, 17
Valve Communications Failure 2	10897	—	1	Active on Alarm	15, 16, 17
Valve Issue 1	10898	—	1	Active on Alarm	15, 16, 17
Valve Issue 2	10899	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 1	10900	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 2	10901	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 3	10902	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 4	10903	—	1	Active on Alarm	15, 16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (seeModbus RTU and Modbus TCP Protocols above 3
Supply Fan Communication Lost 5	10904	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 6	10905	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 7	10906	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 8	10907	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 9	10908	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 10	10909	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 11	10910	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 12	10911	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 13	10912	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 14	10913	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 15, 16	10914	—	1	Active on Alarm	15, 16, 17
Supply Fan Communication Lost 16	10915	—	1	Active on Alarm	15, 16, 17
Supply Fluid Low Temp	10916	-	1	Active on Alarm	16, 17
Return Fluid Low Temp	10917	-	1	Active on Alarm	16, 17
Fluid High Differential Pressure	10918	-	1	Active on Alarm	16, 17
Fluid Low Differential Pressure	10919	-	1	Active on Alarm	16, 17
Fluid Flow Low Inlet Pressure	10920	-	1	Active on Alarm	16, 17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Fluid Flow High Supply Pressure	10921	-	1	Active on Alarm	16, 17
Fluid Low System Flow	10922	-	1	Active on Alarm	16, 17
Fluid Flow Blocked	10923	-	1	Active on Alarm	16, 17
Fluid Dewpoint Margin Control	10924	-	1	Active on Alarm	16, 17
Fluid Supply Pressure Sensor Issue	10925	-	1	Active on Alarm	16, 17
Fluid Return Pressure Sensor Issue	10926	-	1	Active on Alarm	16, 17
Fluid Inlet Pressure Sensor Issue	10927	-	1	Active on Alarm	16, 17
XD Pump Communication Lost 1	10928	-	1	Active on Alarm	16, 17
XD Pump Communication Lost 2	10929	-	1	Active on Alarm	16, 17
Water Leakage	10930	-	1	Active on Alarm	16, 17
PHE Sup Tem Snsr Fail	10931	-	1	Active on Alarm	16, 17
XDM Mix Valve Position Error	10932	-	1	Active on Alarm	17
XDM Flow and Load Cycling	10933	-	1	Active on Alarm	17
XDM Pump Pressure Sensor Fail 1	10936	-	1	Active on Alarm	17
XDM Pump Pressure Sensor Fail 2	10937	-	1	Active on Alarm	17
XDM Pump Not Avail 1	10938	-	1	Active on Alarm	17
XDM Pump Not Avail 2	10939	-	1	Active on Alarm	17
Air Econ High Mixed Temp	10940	-	1	Active on Alarm	17
Air Econ Low Mixed Temp	10941	-	1	Active on Alarm	17
Ret Damp Fdback Fail	10942	-	1	Active on Alarm	17

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Table 3.1 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Status and Coil (continued)

Controller	Liebert® iCOM™ v4				
Liebert Products	Units withLiebert® iCOM™ HPM	Units with Liebert® iCOM™ Firmware PA1.04.033.STD or later: Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® PeX			
Available Points					
Data Label	Status	Coil	Number of Bits	Notes	Extra Notes (see Modbus RTU and Modbus TCP Protocols above 3
Outdoor Dmp Fdback Fail	10943	-	1	Active on Alarm	17
Thermal Runaway	10944	-	1	Active on Alarm	17
Exhaust Damper Feedback Fail	10945	-	1	Active on Alarm	17
High Unit Differential Pressure	10946	-	1	Active on Alarm	17
Return T/H Sensor Failure	10947	-	1	Active on Alarm	17
Aggregate Remote Air Temp Sensor Fail	10948	-	1	Active on Alarm	17
Aggregate Mixed Air Temp Sensor Fail	10949	-	1	Active on Alarm	17

Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Free Cooling Internal Control Mode	30017	40017	1	—	0 = Disabled 1 = Contact 2 = Temperature 3 = Set Point	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Humidity Control Type	30018	40018	1	—	0 = Relative 1 = Compensated 2 = Predictive	1, 9, 10
Fan Speed Maximum Set Point	30019	40019	1	—	%Uint 16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Free Cooling Internal Temperature Delta	30021	40021	1	10	deg C Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Free Cooling Internal Temperature Delta	30734	40734	1	10	deg F Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16,17
Minimum Chilled Water Temp Set Point	30022	40022	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16,17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Minimum Chilled Water Temp Set Point	30735	40735	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16,17
Air Temperature Set Point	30023	40023	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Air Temperature Set Point	30736	40736	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16,17
Air Temperature Proportional Band	30024	40024	1	10	deg CUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16,17
Air Temperature Proportional Band	30737	40737	1	10	deg FUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Air Temperature Dead Band	30025	40025	1	10	deg CUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Air Temperature Dead Band	30738	40738	1	10	deg FUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Air Temperature Control Integration Time	30026	40026	1	10	minUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidity Set Point	30027	40027	1	-	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidity Proportional Band	30028	40028	1	-	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidity Control Integration Time	30029	40029	1	10	minUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidity Dead Band	30030	40030	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Auto Restart Delay	30031	40031	1	—	secUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Air Temperature Control Type	30033	40033	1	—	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID 3 = Intelligent	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
BMS Timeout Period	30045	40045	1	—	minUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
High Return Air Temperature Threshold	30050	40050	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
High Return Air Temperature Threshold	30739	40739	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Low Return Air Temperature Threshold	30051	40051	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Low Return Air Temperature Threshold	30740	40740	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp Threshold	30052	40052	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp Threshold	30741	40741	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp Threshold	30053	40053	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp Threshold	30742	40742	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
High Return Humidity Threshold	30054	40054	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Low Return Humidity Threshold	30055	40055	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A High Humidity Threshold	30056	40056	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity Threshold	30057	40057	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Hours Threshold	30070	40070	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Hours Threshold 1	30071	40071	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Hours Threshold 2	30072	40072	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Hours Threshold	30073	40073	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dehumidifier Hours Threshold	30074	40074	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Free Cooling Valve Hours Threshold	30075	40075	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold 1	30076	40076	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold 2	30077	40077	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold 3	30078	40078	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas Valve Hours Threshold	30079	40079	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Unit Operating State	30100	—	1	—	0 = off	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = on 2 = standby	
System Status	30102	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Speed	30103	—	1	—	%Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Utilization	30104	—	1	—	%Uint16	1, 9, 10
Free Cooling Valve Open Position	30105	—	1	—	%Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Reheat Utilization	30106	—	1	—	%Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Utilization	30107	—	1	—	%Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dehumidifier Utilization	30108	—	1	—	%Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
(Deprecated) Free Cooling Status	30109	—	1	—	0 = off 2 = on 3 = No Support	11, 12, 13, 14, 15, 16, 17
Return Air Temperature	30110	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Return Air Temperature	30743	—	1	10	deg F Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Supply Air Temperature	30112	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Supply Air Temperature	30744	—	1	10	deg F Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Supply Air Temperature Set Point	30113	—	1	—	deg C Int16	1, 9, 10
Supply Air Temperature Set Point	30745	—	1	—	deg F Int16	1, 9, 10

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Free Cooling Fluid Temperature	30115	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Free Cooling Fluid Temperature	30746	—	1	10	deg F Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Temperature	30116	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Temperature	30747	—	1	10	deg F Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor B Temperature	30117	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor B Temperature	30748	—	1	10	deg F Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor C Temperature	30118	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16,17
Ext Air Sensor C Temperature	30749	—	1	10	deg F Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp 1	30119	—	1	—	deg C Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp 1	30750	—	1	—	deg F Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp 2	30120	—	1	—	deg C Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp 2	30751	—	1	—	deg F Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Return Humidity	30130	—	1	10	% RH Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Humidity	30132	—	1	10	% RH Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor B Humidity	30133	—	1	10	% RH Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor C Humidity	30134	—	1	10	% RH Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's High Air Temperature	30151	—	1	10	deg C Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's High Air Temperature	30752	—	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's Low Air Temperature	30153	—	1	10	deg CInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Today's Low Air Temperature	30753	—	1	10	deg FInt16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's High Humidity	30155	—	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's Low Humidity	30157	—	1	10	% RHUint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Server Class	30257	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's High Air Temperature Time	30258	—	2	—	Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's Low Air Temperature Time	30260	—	2	—	Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Supply Air Temperature Sensor Control	30262	40262	1	—	0 = Disabled 1 = Limit 2 = Control 3 = Temp Only	1, 9, 10
Return Air Temperature Set Point	30263	40263	1	—	deg CInt16	1, 9, 10
Return Air Temperature Set Point	30754	40754	1	—	deg F Int16	1, 9, 10
Return Humidity Set Point	30264	40264	1	—	% RH Uint16	1, 9, 10
Today's High Humidity Time	30265	—	2	—	Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Today's Low Humidity Time	30267	—	2	—	Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor State 1	30269	—	1	—	0 = off / 1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor State 2	30270	—	1	—	0 = off / 1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Capacity Control State 1	30271	—	1	—	0 = off / 1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Capacity Control State 2	30272	—	1	—	0 = off / 1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Infrared Humidifier Flush Rate	30273	40273	1	—	%Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Control Mode	30274	40274	1	—	0 = Auto 1 = Manual 2 = Economy 4 = Delta	1, 9, 10
Analog Input Reading 1	30275	—	1	100	Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Analog Input Reading 2	30276	—	1	100	Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Analog Input Reading 3	30277	—	1	100	Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Analog Input Reading 4	30278	—	1	100	Int16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Unit Control Mode	30280	—	1	—	0 = Internal (Auto) 1 = External (Manual)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Unit Off Reason	30281	—	1	—	0 = None 1 = User 2 = Alarm 3 = Timer 4 = Monitoring 5 = Remote Off 6 = HCS12 Off	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Maintenance Ramp	30282	—	1	—	% Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Calculated Next Maintenance Month	30283	—	1	—	Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Calculated Next Maintenance Year	30284	—	1	—	Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas Valve Open Position	30285	—	1	—	% Uint16	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Maintenance Tracking State	30286	—	1	—	0 = off / 1 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 1 - Event Control	30287	40287	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 1 - Event Type	30288	40288	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Customer Input 2 - Event Control	30289	40289	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 2 - Event Type	30290	40290	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 3 - Event Control	30291	40291	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 3 - Event Type	30292	40292	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 4 - Event Control	30293	40293	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Customer Input 4 - Event Type	30294	40294	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Free Cooling Lockout - Event Control	30295	40295	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Free Cooling Lockout - Event Type	30296	40296	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Condenser Pump High Water - Event Control	30297	40297	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Condenser Pump High Water - Event Type	30298	40298	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Standby Glycol Pump On - Event Control	30299	40299	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Standby Glycol Pump On - Event Type	30300	40300	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Standby Unit On - Event Control	30301	40301	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Standby Unit On - Event Type	30302	40302	1	—	0 = Message 1 = Warning	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					2 = Alarm	
Ext Humidifier Lockout - Event Control	30303	40303	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Humidifier Lockout - Event Type	30304	40304	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Loss of Flow - Event Control	30305	40305	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Loss of Flow - Event Type	30306	40306	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Over Temperature - Event Control	30307	40307	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Over Temperature - Event Type	30308	40308	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Reheat Lockout - Event Control	30309	40309	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Reheat Lockout - Event Type	30310	40310	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
High Power Shutdown - Event Control	30311	40311	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
High Power Shutdown - Event Type	30312	40312	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Issue - Event Control	30313	40313	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Issue - Event Type	30314	40314	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Master Unit Communication Lost - Event Control	30315	40315	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Master Unit Communication Lost - Event Type	30316	40316	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Service Required - Event Control	30317	40317	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Service Required - Event Type	30318	40318	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Shutdown - Loss Of Power - Event Control	30319	40319	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Shutdown - Loss Of Power - Event Type	30320	40320	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Smoke Detected - Event Control	30321	40321	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Smoke Detected - Event Type	30322	40322	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Water Under Floor - Event Control	30323	40323	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Water Under Floor - Event Type	30324	40324	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Compressor Lockout - Event Control	30325	40325	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Compressor Lockout - Event Type	30326	40326	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Clogged Air Filter - Event Control	30327	40327	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Clogged Air Filter - Event Type	30328	40328	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Ext Loss of Air Blower - Event Control	30329	40329	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Loss of Air Blower - Event Type	30330	40330	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure - Event Control 1	30331	40331	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure - Event Control 2	30332	40332	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure - Event Type 1	30333	40333	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure - Event Type 2	30334	40334	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Control 1	30335	40335	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Control 2	30336	40336	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Type 1	30337	40337	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Type 2	30338	40338	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Control 1	30339	40339	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Control 2	30340	40340	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Type 1	30341	40341	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Type 2	30342	40342	1	—	0 = Message 1 = Warning	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					2 = Alarm	
Compressor Short Cycle - Event Control 1	30343	40343	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Control 2	30344	40344	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Type 1	30345	40345	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Type 2	30346	40346	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Control 1	30347	40347	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Control 2	30348	40348	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Type 1	30349	40349	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Type 2	30350	40350	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Ctrl 1	30351	40351	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Ctrl 2	30352	40352	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Type 1	30353	40353	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Type 2	30354	40354	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A High Humidity - Event Control	30355	40355	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Ext Air Sensor A High Humidity - Event Type	30356	40356	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity - Event Control	30357	40357	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity - Event Type	30358	40358	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp - Event Control	30359	40359	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp - Event Type	30360	40360	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp - Event Control	30361	40361	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp - Event Type	30362	40362	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16
High Return Humidity - Event Control	30363	40363	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
High Return Humidity - Event Type	30364	40364	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Low Return Humidity - Event Control	30365	40365	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Low Return Humidity - Event Type	30366	40366	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Return Air Over Temp - Event Control	30367	40367	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Return Air Over Temp - Event Type	30368	40368	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Return Air Under Temp - Event Control	30369	40369	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Return Air Under Temp - Event Type	30370	40370	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Hours Exceeded - Event Control	30371	40371	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Hours Exceeded - Event Type	30372	40372	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Issue - Event Control	30373	40373	1	—	0 = disabled 1 = enabled	1, 9, 10
Fan Issue - Event Type	30374	40374	1	—	0 = Message 1 = Warning 2 = Alarm	1, 9, 10
Main Fan Overload - Event Control	30375	40375	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Main Fan Overload - Event Type	30376	40376	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Condenser Issue - Event Control 1	30377	40377	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Condenser Issue - Event Control 2	30378	40378	1	—	0 = disabled 1 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Condenser Issue - Event Type 1	30379	40379	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Condenser Issue - Event Type 2	30380	40380	1	—	0 = Message 1 = Warning 2 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
System Event Acknowledge/Reset	—	40381	1	—	2 = Reset 4 = Acknowledge	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Air Temperature Control Sensor	30481	40481	1	—	0 = Supply 1 = Remote	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					2 = Return	
High Supply Air Temperature Threshold	30482	40482	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
High Supply Air Temperature Threshold	30755	40755	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Low Supply Air Temperature Threshold	30483	40483	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Low Supply Air Temperature Threshold	30756	40756	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Outside Air Temperature	30484	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Outside Air Temperature	30757	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Humidity Control Type	30485	40485	1	—	0 = Relative 1 = Compensated 2 = Predictive 3 = Dew Point	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Ext Air Sensor A Dew Point Temp	30486	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Ext Air Sensor A Dew Point Temp	30758	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Ext Dew Point Over Temp Threshold	30487	40487	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Ext Dew Point Over Temp Threshold	30759	40759	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Ext Dew Point Under Temp Threshold	30488	40488	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Ext Dew Point Under Temp Threshold	30760	40760	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Compressor Lockout	30489	40489	1	—	0 = disabled 1 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Main Chilled Water Valve	30491	40491	1	—	0 = Valve 1 1 = Valve 2	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Reheater Lockout	30492	40492	1	—	0 = disabled 1 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Humidifier Lockout	30493	40493	1	—	0 = disabled 1 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Control Sensor	30494	40494	1	—	0 = Supply 1 = Remote 2 = Return 3 = Manual	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Fan Speed Minimum Set Point	30495	40495	1	—	%Uint16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Fan Speed Temperature Set Point	30497	40497	1	10	deg CInt16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Fan Speed Temperature Set Point	30761	40761	1	10	deg FInt16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Standby Units	30498	40498	1	-	Uint16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Adjusted Humidity	30499	—	1	10	% RHUint16	2, 3, 4, 5, 6, 7, 8, 9, 10, 11,12, 13, 14, 15, 16, 17
Return Dew Point	30500	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Return Dew Point	30762	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Actual Air Temperature Set Point	30501	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Actual Air Temperature Set Point	30763	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Actual Humidity Set Point	30502	—	1	—	% RH Uint16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Dew Point Set Point	30503	40503	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Dew Point Set Point	30764	40764	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Supply Air Over/Under Temperature- Event Control	30504	40504	1	-	0 = disabled 1 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Over Temp Threshold	30505	40505	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Over Temp Threshold	30765	40765	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Under Temp Threshold	30506	40506	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Under Temp Threshold	30766	40766	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Remote Sensor Average Temperature	30507	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Average Temperature	30767	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Maximum Temperature	30508	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Maximum Temperature	30768	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor System Average Temperature	30509	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor System Average Temperature	30769	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor System Maximum Temperature	30510	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor System Maximum Temperature	30770	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 1	30551	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 1	30771	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 2	30552	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 2	30772	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 3	30553	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 3	30773	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 4	30554	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 4	30774	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature 5	30555	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature 5	30775	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 6	30556	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Remote Sensor Temperature 6	30776	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature 7	30557	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature 7	30777	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature 8	30558	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 8	30778	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 9	30559	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 9	30779	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 10	30560	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Remote Sensor Temperature 10	30780	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Air Economizer Availability	30561	—	1	—	0 = Not Available 1 = Available	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Air Economizer Control Source	30562	40562	1	—	0 = disabled 1 = internal 2 = external	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Cooling Capacity	30564	—	1	—	%Uint16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Cooling Control Temperature	30565	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Cooling Control Temperature	30781	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Fan Speed Control Temperature	30566	—	1	10	deg C Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Fan Speed Control Temperature	30782	—	1	10	deg F Int16	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Free Cooling Internal Control Mode	30567	40567	1	—	0 = Disabled 1 = Contact 2 = Temperature 3 = Set Point	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Humidity Control Sensor	30667	40667	1	—	0 = Supply	3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Remote 2 = Return	
Digital Scroll Compressor Loading 1	30668	—	1	—	% Uint16	3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Digital Scroll Compressor Loading 2	30669	—	1	—	% Uint16	3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Static Pressure Set Point	30672	40672	1	10	Pa Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Unit Static Pressure	30673	—	1	10	Pa Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
System Static Pressure	30674	—	1	10	Pa Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Low Noise Mode State	30675	—	1	—	0 = Inactive 1 = Active (Interval) 2 = Active (Full Day)	3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Condenser Low Noise Mode Schedule Control	30676	40676	1	—	0 = disabled 1 = enabled	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode Max Fan Speed	30677	40677	1	—	% Uint16	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Normal Mode Max Fan Speed	30678	40678	1	—	%Uint16	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode - Interval Days	30679	40679	1	—	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode - Full Days	30680	40680	1	—	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16,17
Condenser Low Noise Mode Start Time	30681	40681	2	—	Seconds since Midnight	3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Condenser Low Noise Mode Stop Time	30683	40683	2	—	Seconds since Midnight	3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Pump Hours 1	30685	40685	2	—	hr Uint32	6, 7, 8, 11, 13, 14, 15, 16, 17
Pump Hours 2	30687	40687	2	—	hr Uint32	6, 7, 8, 11, 13, 14, 15, 16, 17
System Input RMS A-N 1	30800	—	1	10	VAC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-N 2	30801	—	1	10	VACInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-N 3	30802	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-N 4	30803	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-N 5	30804	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-N 6	30805	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N 1	30810	—	1	10	VAC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N 2	30811	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N 3	30812	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N 4	30813	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N 5	30814	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N 6	30815	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N 1	30820	—	1	10	VAC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N 2	30821	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N 3	30822	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N 4	30823	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N 5	30824	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N 6	30825	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A 1	30830	—	1	10	A AC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A 2	30831	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A 3	30832	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A 4	30833	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A 5	30834	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A 6	30835	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
System Input RMS Current Phase B 1	30840	—	1	10	A AC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B 2	30841	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B 3	30842	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B 4	30843	—	1	10	A ACInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B 5	30844	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B 6	30845	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C 1	30850	—	1	10	A AC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C 2	30851	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C 3	30852	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C 4	30853	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C 5	30854	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C 6	30855	—	1	10	A AC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption 1	30870	40870	2	—	kWH Int32	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
Energy Consumption 2	30872	40872	2	—	kWH Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption 3	30874	40874	2	—	kWH Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption 4	30876	40876	2	—	kWH Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption 5	30878	40878	2	—	kWH Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption 6	30880	40880	2	—	kWH Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Input Temperature 1	30900	—	1	10	deg C Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Input Temperature 2	30901	—	1	10	deg CInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Input Temperature 1	30902	—	1	10	deg FInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Input Temperature 2	30903	—	1	10	deg FInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Output Temperature 1	30904	—	1	10	deg CInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Output Temperature 2	30905	—	1	10	deg CInt16	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fluid Output Temperature 1	30906	—	1	10	deg FInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Output Temperature 2	30907	—	1	10	deg FInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Rate 1	30908	—	2	10	l/min Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Rate 2	30910	—	2	10	l/min Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Unit Cooling Load	31001	—	2	10	kW Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Circuit Cooling Load 1	31003	—	2	10	kW Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Circuit Cooling Load 2	31005	—	2	10	kW Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power 1	31010	—	2	—	W Int32	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power 2	31012	—	2	—	W Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power 3	31014	—	2	—	W Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power 4	31016	—	2	—	W Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power 5	31018	—	2	—	W Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power 6	31020	—	2	—	W Int32	5, 8, 11, 12, 13, 14, 15, 16, 17
Raw Auxiliary Air Temperature	31050	41050	1	10	deg C Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
Raw Auxiliary Air Temperature	31051	41051	1	10	deg F Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
Actual Auxiliary Air Temperature	31052	—	1	10	deg CInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Actual Auxiliary Air Temperature	31053	—	1	10	deg FInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B 1	31060	—	1	10	VAC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B 2	31061	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B 3	31062	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B 4	31063	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B 5	31064	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B 6	31065	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C 1	31070	—	1	10	VAC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C 2	31071	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C 3	31072	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C 4	31073	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C 5	31074	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C 6	31075	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
System Input RMS C-A 1	31080	—	1	10	VAC Int16	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A 2	31081	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A 3	31082	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A 4	31083	—	1	10	VAC Int16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A 5	31084	—	1	10	VACInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A 6	31085	—	1	10	VA CInt16	5, 8, 11, 12, 13, 14, 15, 16, 17
Pump State 1	31100	—	1	—	0 = off 1 = on	7, 8, 11, 13, 14, 15, 16, 17
Pump State 2	31110	—	1	—	0 = off 1 = on	7, 8, 11, 13, 14, 15, 16, 17
Expected Condenser Unit Count	31130	—	1	—	Int16	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Type	31131	—	1	—	0 = R221 = R407C2 = R410A	3, 5, 7, 8, 11, 12, 13, 14, 15,16
Condenser Fan Reversal Requested 1	31142	41142	1	—	0 = false 1 = true	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Reversal Requested 2	31143	41143	1	—	0 = false 1 = true	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Outside Air Temperature 1	31144	—	1	10	deg C Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temperature 1	31145	—	1	10	deg F Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temperature 2	31146	—	1	10	deg C Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temperature 2	31147	—	1	10	deg F Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure 1	31158	—	1	10	bar Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Refrigerant Pressure 2	31159	—	1	10	bar Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Supply Refrigerant Temperature 1	31160	—	1	10	deg C Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Supply Refrigerant Temperature 1	31161	—	1	10	deg F Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Supply Refrigerant Temperature 2	31162	—	1	10	deg C Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Supply Refrigerant Temperature 2	31163	—	1	10	deg F Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Condenser Fan Speed 1	31174	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Condenser Fan Speed 2	31175	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Speed 3	31176	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Speed 4	31177	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Speed 5	31178	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Speed 6	31179	—	1	—	%Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Speed 7	31180	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Speed 8	31181	—	1	—	% Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 1	31182	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 2	31183	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 3	31184	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 4	31185	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 5	31186	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 6	31187	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 7	31188	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Condenser Fan Power 8	31189	—	1	—	W Int16	3, 5, 7, 8, 11, 12, 13, 14, 15,16, 17
Cold Aisle Humidity Calculation Method	31200	—	1	—	0 = Highest 1 = Average	9
Cold Aisle Temperature Calculation Method	31201	—	1	—	0 = Highest 1 = Average	9
Cold Aisle Control Enable	31202	—	1	—	0 = disabled 1 = enabled	9
Cold Aisle Force Max Fan/Cooling - Ext Control	31203	—	1	—	0 = disabled 1 = enabled	9
Actual Cold Aisle Humidity	31204	—	1	10	% RH Int16	9
Actual Cold Aisle Temperature	31205	—	1	10	deg C Int16	9
Actual Cold Aisle Temperature	31206	—	1	10	deg F Int16	9
Cold Aisle Cascade Fan Speed Max Set Point	31207	—	1	—	% Int16	9
Cold Aisle Fan Speed Min Set Point	31208	—	1	—	% Int16	9
Cold Aisle Fan Speed Max Set Point	31209	—	1	—	%Int16	9

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Chilled Water Valve Reset Enable	31211	—	1	—	0 = disabled 1 = enabled	9
Humidification Fan Speed Min Set Point	31212	—	1	—	% Int16	9
Heating Fan Speed Min Set Point	31213	—	1	—	% Int16	9
Dehumidification Fan Speed Min Set Point	31214	—	1	—	% Int16	9
Back Draft Control Fan Speed	31215	—	1	—	% Int16	9
Local Fan Override	31300	—	1	—	0 = Normal operation 1 = Increased for internal protection	8, 11, 12, 13, 14, 15, 16, 17
					2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection	
Local Cooling Override	31301	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
Local Electric Heat Override	31302	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Local Humidifier Override	31303	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
Local Dehumidifier Override	31304	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
Super Saver Call For Cooling	31320	—	1	—	%Int16	9, 11, 14, 15, 16, 17
Tandem 'B' Compressor State 1	31325	—	1	—	0 = off / 1 = on	8, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor State 2	31326	—	1	—	0 = off / 1 = on	8, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor Hours 1	31327	41327	2	—	hr Int32	8, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor Hours 2	31329	41329	2	-	hr Int32	8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current 1	31331	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 2	31332	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 3	31333	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 4	31334	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 5	31335	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 6	31336	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 7	31337	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17
Condenser Fan Current 8	31338	—	1	10	A AC Uint16	8, 11, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Compressor Hours 1	31340	41340	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Hours 2	31342	41342	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Chilled Water Valve Hours	31344	41344	2	—	hr Int32	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Free Cooling Valve Hours	31346	41346	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas Valve Hours	31348	41348	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16
Electric Reheater Hours 1	31350	41350	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours 2	31352	41352	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours 3	31354	41354	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Hours	31356	41356	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dehumidifier Hours	31358	41358	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Hours	31360	41360	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Chilled Water Valve Hours	30563	40563	2	—	hr Int32	2, 3, 4, 5, 6, 7, 8, 11, 12, 13,14, 15, 16, 17
Fan Hours	30141	40141	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Hours 1	30142	40142	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Hours 2	30143	40143	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Hours	30144	40144	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dehumidifier Hours	30145	40145	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Free Cooling Valve Hours	30146	40146	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours 1	30147	40147	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Electric Reheater Hours 2	30148	40148	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours 3	30149	40149	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas Valve Hours	30150	40150	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Static Pressure Set Point	31370	41370	1	1000	inWC Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Unit Static Pressure	31371	—	1	1000	inWC Int16	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
System Static Pressure	31372	—	1	1000	inWC Int16	3, 5, 7, 8, 9, 11, 12, 13, 14,15, 16, 17
Dew Point Proportional Band	31380	41380	1	10	deg C Int16	11, 14, 15, 16, 17
Dew Point Proportional Band	31382	41382	1	10	deg F Int16	11, 14, 15, 16, 17
Dew Point Dead Band	31384	41384	1	10	deg C Int16	11, 14, 15, 16, 17
Dew Point Dead Band	31386	41386	1	10	deg F Int16	11, 14, 15, 16, 17
Free Cooling Status	30109	—	1	—	0 = off 1 = start 2 = on	11, 12, 13, 14, 15, 16, 17
Thermal Control Override	31390	41390	1	—	0 = disabled 1 = enabled	11, 14, 15, 16, 17
Thermal Control Override - Temperature Control Type	31391	41391	1	—	0 = Cooling 1 = Heating	11, 14, 15, 16, 17
Thermal Control Override - Temperature Call	31392	41392	1	—	%Int16	11, 14, 15, 16, 17
Thermal Control Override - Humidity Control Type	31393	41393	1	—	0 = Dehumidification 1 = Humidification	11, 14, 15, 16, 17
Thermal Control Override - Humidity Call	31394	41394	1	—	% Int16	11, 14, 15, 16, 17
Underfloor Static Pressure Control Enable	31400	—	1	—	0 = disabled 1 = enabled 2 = visualization only	9
Return Damper Status	31401	—	1	—	0 = closed 1 = open	9
Air Filter Differential Pressure	31402	—	1	—	PaInt16	9
Air Filter Differential Pressure	31403	—	1	—	inWCInt16	9

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Cold Aisle Sensor Air Temperature 1	31410	—	1	10	deg CInt16	9
Cold Aisle Sensor Air Temperature 1	31416	—	1	10	deg FInt16	9
Cold Aisle Sensor Air Temperature 2	31411	—	1	10	deg CInt16	9
Cold Aisle Sensor Air Temperature 2	31417	—	1	10	deg FInt16	9
Cold Aisle Sensor Air Temperature 3	31412	—	1	10	deg CInt16	9
Cold Aisle Sensor Air Temperature 3	31418	—	1	10	deg FInt16	9
Cold Aisle Sensor Humidity 1	31413	—	1	10	% RHInt16	9
Cold Aisle Sensor Humidity 2	31414	—	1	10	% RHInt16	9
Cold Aisle Sensor Humidity 3	31415	—	1	10	% RHInt16	9
Chilled Water Inlet Temperature 1	31420	—	1	10	deg CInt16	9
Chilled Water Inlet Temperature 1	31424	—	1	10	deg FInt16	9
Chilled Water Inlet Temperature 2	31421	—	1	10	deg CInt16	9
Chilled Water Inlet Temperature 2	31425	—	1	10	deg FInt16	9
Chilled Water Outlet Temperature 1	31422	—	1	10	deg CInt16	9
Chilled Water Outlet Temperature 1	31426	—	1	10	deg FInt16	9
Chilled Water Outlet Temperature 2	31423	—	1	10	deg CInt16	9
Chilled Water Outlet Temperature 2	31427	—	1	10	deg FInt16	9
Compressor Hours Threshold 1	31430	41430	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Compressor Hours Threshold 2	31432	41432	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Free Cooling Valve Hours Threshold	31434	41434	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Hot Water / Hot Gas Valve Hours Threshold	31436	41436	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold 1	31438	41438	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold 2	31440	41440	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold 3	31442	41442	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Humidifier Hours Threshold	31444	41444	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Dehumidifier Hours Threshold	31446	41446	2	—	hrInt32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Fan Hours Threshold	31448	41448	2	—	hr Int32	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16, 17
Chilled Water Valve Operating Hours Threshold	31450	41450	2	—	hr Int32	11, 12, 13, 14, 15, 16, 17
Pump Speed 1	31452	—	1	—	% Uint16	11, 13, 14, 15, 16, 17
Pump Speed 2	31453	—	1	—	% Uint16	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature 1	31454	—	1	10	deg C Int16	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature 1	31461	—	1	10	deg F Int16	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature 2	31455	—	1	10	deg C Int16	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature 2	31462	—	1	10	deg F Int16	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature 1	31456	—	1	10	deg C Int16	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature 1	31463	—	1	10	deg F Int16	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature 2	31457	—	1	10	deg C Int16	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature 2	31464	—	1	10	deg FInt16	11, 13, 14, 15, 16, 17
Pump Hours Threshold	31458	41458	2	—	hr Int32	11, 13, 14, 15, 16, 17
Unit Calculated Airflow	31466	—	2	—	m3/h Uint32	11, 12, 13, 14, 15, 16, 17
PRE Operational Mode 1	31468	—	1	—	0 = Bootup 1 = Idle	11, 13, 14, 15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					2 = Manual 3 = Pump Automatic 4 = Test	
PRE Operational Mode 2	31469	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test	11, 13, 14, 15, 16, 17
Compressor State 3	31470	—	1	—	0 = off / 1 = on	15, 16, 17
Compressor State 4	31471	—	1	—	0 = off / 1 = on	15, 16, 17
Compressor Capacity Control State 3	31472	—	1	—	0 = off / 1 = on	15, 16, 17
Compressor Capacity Control State 4	31473	—	1	—	0 = off / 1 = on	15, 16, 17
Dig Scroll Comp Discharge Temp 3	31474	—	1	—	deg C Uint16	15, 16, 17
Dig Scroll Comp Discharge Temp 3	31475	—	1	—	deg F Uint16	15, 16, 17
Dig Scroll Comp Discharge Temp 4	31476	—	1	—	deg CUint16	15, 16,17
Dig Scroll Comp Discharge Temp 4	31477	—	1	—	deg FUint16	15, 16, 17
Digital Scroll Compressor Loading 3	31478	—	1	—	% Uint16	15, 16, 17
Digital Scroll Compressor Loading 4	31479	—	1	—	% Uint16	15, 16, 17
Compressor Hours 3	31480	41480	2	—	hr Int32	15, 16
Compressor Hours 4	31482	41482	2	—	hrInt32	15, 16
Tandem 'B' Compressor State 3	31484	—	1	—	0 = off / 1 = on	15, 16, 17
Tandem 'B' Compressor State 4	31485	—	1	—	0 = off / 1 = on	15, 16, 17
Tandem 'B' Compressor Hours 3	31486	41486	2	—	hr Int32	15, 16, 17
Tandem 'B' Compressor Hours 4	31488	41488	2	—	hr Int32	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Compressor Hours Threshold 3	31490	41490	2	—	hr Int32	15, 16, 17
Compressor Hours Threshold 4	31492	41492	2	—	hrInt32	15, 16, 17
Pump Hours 3	31494	41494	2	—	hr Uint32	15, 16, 17
Pump Hours 4	31496	41496	2	—	hr Uint32	15, 16, 17
Pump State 3	31498	—	1	—	0 = off / 1 = on	15, 16, 17
Pump State 4	31499	—	1	—	0 = off / 1 = on	15, 16, 17
PRE Operational Mode 3	31500	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test	15, 16, 17
PRE Operational Mode 4	31501	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test	15, 16, 17
Pump Speed 3	31502	—	1	—	%Uint16	15, 16, 17
Pump Speed 4	31503	—	1	—	%Uint16	15, 16, 17
Pump Inlet Refrigerant Temperature 3	31504	—	1	10	deg C Int16	15, 16, 17
Pump Inlet Refrigerant Temperature 3	31505	—	1	10	deg F Int16	15, 16, 17
Pump Inlet Refrigerant Temperature 4	31506	—	1	10	deg C Int16	15, 16, 17
Pump Inlet Refrigerant Temperature 4	31507	—	1	10	deg F Int16	15, 16, 17
Pump Outlet Refrigerant Temperature 3	31508	—	1	10	deg C Int16	15, 16, 17
Pump Outlet Refrigerant Temperature 3	31509	—	1	10	deg F Int16	15, 16, 17
Pump Outlet Refrigerant Temperature 4	31510	—	1	10	deg C Int16	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Pump Outlet Refrigerant Temperature 4	31511	—	1	10	deg F Int16	15, 16, 17
Condenser Outside Air Temperature 3	31512	—	1	10	deg C Int16	15, 16, 17
Condenser Outside Air Temperature 3	31513	—	1	10	deg F Int16	15, 16, 17
Condenser Outside Air Temperature 4	31514	—	1	10	deg C Int16	15, 16, 17
Condenser Outside Air Temperature 4	31515	—	1	10	deg F Int16	15, 16, 17
Condenser Fan Reversal Requested 3	31516	41516	1	—	0 = false / 1 = true	15, 16, 17
Condenser Fan Reversal Requested 4	31517	41517	1	—	0 = false / 1 = true	15, 16, 17
Condenser Refrigerant Pressure 3	31518	—	1	10	bar Int16	15, 16, 17
Condenser Refrigerant Pressure 4	31519	—	1	10	bar Int16	15, 16, 17
Condenser Supply Refrigerant Temperature 3	31520	—	1	10	deg C Int16	15, 16, 17
Condenser Supply Refrigerant Temperature 3	31521	—	1	10	deg FInt16	15, 16, 17
Condenser Supply Refrigerant Temperature 4	31522	—	1	10	deg C Int16	15, 16, 17
Condenser Supply Refrigerant Temperature 4	31523	—	1	10	deg F Int16	15, 16, 17
Condenser Fan Speed 9	31524	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 10	31525	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 11	31526	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 12	31527	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 13	31528	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 14	31529	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 15, 16	31530	—	1	—	% Int16	15, 16, 17
Condenser Fan Speed 16	31531	—	1	—	% Int16	15, 16, 17
Condenser Fan Power 9	31532	—	1	—	W Int16	15, 16, 17
Condenser Fan Power 10	31533	—	1	—	W Int16	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Condenser Fan Power 11	31534	—	1	—	W Int16	15, 16, 17
Condenser Fan Power 12	31535	—	1	—	W Int16	15, 16, 17
Condenser Fan Power 13	31536	—	1	—	W Int16	15, 16, 17
Condenser Fan Power 14	31537	—	1	—	W Int16	15, 16, 17
Condenser Fan Power 15, 16	31538	—	1	—	W Int16	15, 16, 17
Condenser Fan Power 16	31539	—	1	—	W Int16	15, 16, 17
Condenser Fan Current 9	31540	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 10	31541	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 11	31542	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 12	31543	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 13	31544	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 14	31545	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 15, 16	31546	—	1	10	A AC Uint16	15, 16, 17
Condenser Fan Current 16	31547	—	1	10	A AC Uint16	15, 16, 17
Master Cooling Fluid Source	31548	41548	1	-	0 = Supply 1 1 = Supply 2	14, 15, 16, 17
Dew Point Over Temp Threshold	31549	41549	1	10	deg C Int16	14, 15, 16, 17
Dew Point Over Temp Threshold	31550	41550	1	10	deg F Int16	14, 15, 16, 17
Dew Point Under Temp Threshold	31551	41551	1	10	deg C Int16	14, 15, 16, 17
Dew Point Under Temp Threshold	31552	41552	1	10	deg F Int16	14, 15, 16, 17
Compressor Suction Pressure 1	31554	—	1	10	bar Int16	15, 16, 17
Compressor Suction Pressure 2	31555	—	1	10	bar Int16	15, 16, 17
Compressor Suction Pressure 3	31556	—	1	10	bar Int16	15, 16, 17
Compressor Suction Pressure 4	31557	—	1	10	bar Int16	15, 16, 17
Group Independent Operation Enable	31562	41562	1	-	0 = disabled 1 = enabled	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Group Independent Operation	31563	41563	1	—	0 = No override (default) 1 = Override, forced on 2 = Override, forced off	15, 16, 17
Fan Back Draft Operation	31564	41564	1	—	0 = Disabled 1 = Standby 2 = Outdoor Temp	15, 16, 17
Supply Sensor Events Initial Delay	31565	41565	1	—	sec Int16	15, 16, 17
Return Sensor Events Initial Delay	31566	41566	1	—	sec Int16	15, 16, 17
Fluid Free Cooling Lockout Threshold	31567	41567	1	10	deg C Int16	15, 16, 17
Dehum Reheat Low Limit Sensor	31568	41568	1	—	0 = Supply 1 = Remote 2 = Return	15, 16,17
Dehum Reheat Low Limit Set Point	31569	41569	1	10	deg C Int16	15, 16, 17
Dehum Reheat Low Limit 1	31570	41570	1	10	deg C Int16	15, 16, 17
Dehum Reheat Low Limit 2	31571	41571	1	10	deg C Int16	15, 16, 17
Dehum Reheat Proportional Band	31572	41572	1	10	deg C Int16	15, 16, 17
Return Temp Threshold for Humidifier Disable	31573	41573	1	10	deg C Int16	15, 16, 17
Return Temp Hysteresis for Humidifier Disable	31574	41574	1	10	deg C Int16	15, 16, 17
Fan Back Draft Control Enable	31575	41575	1	—	0 = disabled 1 = enabled	15, 16, 17
Fan Back Draft Speed Set Point	31576	41576	1	10	VDC Int16	15, 16, 17
Fan Speed Temp Control Type	31577	41577	1	—	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID	15, 16, 17
Fan Speed Temp Control Proportional Band	31578	41578	1	10	deg C Int16	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Speed Temp Control Integration Time	31579	41579	1	10	min Int16	15, 16, 17
Fan Speed Temperature Dead Band	31580	41580	1	10	deg C Int16	15, 16, 17
Auto Restart Enable	31581	41581	1	—	0 = disabled 1 = enabled	15, 16, 17
Virtual Master Enable	31582	41582	1	—	0 = disabled 1 = enabled	15, 16, 17
Teamwork Mode	31583	41583	1	—	0 = No Teamwork Mode 1 = Mode 1 (parallel) 2 = Mode 2 (independent) 3 = Mode 3 (optimized aisle)	15, 16, 17
Unit Cascade Type	31584	41584	1	—	0 = None 1 = Temp/Humidity 2 = Cool/Heat 3 = Cooling 4 = Fan PI 5 = Fan Speed	15, 16, 17
Unit Cascade On Delay	31585	41585	1	—	min Int16	15, 16, 17
Quick Start Unit Cascade On Delay	31586	41586	1	—	sec Int16	15, 16, 17
Unit Cascade Control Delay	31587	41587	1	—	min Int16	15, 16, 17
Teamwork Temperature Calculation Method	31588	41588	1	—	0 = Average 1 = Maximum	15, 16, 17
Teamwork Average Calculation Unit Count	31589	41589	1	—	Int16	15, 16, 17
Networked Unit Rotation Time	31590	41590	2	—	Seconds since Midnight	15, 16, 17
Networked Unit Rotation Count	31592	41592	1	—	Uint16	15, 16, 17
Networked Unit Daily Rotation Frequency	31593	41593	1	—	0 = Every 24 hours 1 = Every 12 hours	15, 16,, 17
Force Networked Unit Rotation	31594	41594	1	—	0 = no / 1 = yes	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Networked Unit Rotation Frequency	31595	41595	1	—	0 = None 1 = Daily 2 = Weekly Monday 3 = Weekly Tuesday 4 = Weekly Wednesday 5 = Weekly Thursday 6 = Weekly Friday 7 = Weekly Saturday 8 = Weekly Sunday 9 = Monthly Monday 10 = Monthly Tuesday 11 = Monthly Wednesday 12 = Monthly Thursday 13 = Monthly Friday 14 = Monthly Saturday 15, 16 = Monthly Sunday	15, 16, 17
Start Standby Units on High Temperature	31596	41596	1	—	0 = false / 1 = true	15, 16, 17
Automatic Transfer Switch - Active Power Supply	31597	—	1	—	0 = Power Supply 11 = Power Supply 2	14, 15, 16, 17
Automatic Transfer Switch - Power Supply 1 Status	31598	—	1	—	0 = OK 1 = Not OK	14, 15, 16, 17
Automatic Transfer Switch - Power Supply 2 Status	31599	—	1	—	0 = OK 1 = Not OK	14, 15, 16, 17
EconoPhase Proportional Band Switchover	31600	41600	1	—	% Int16	15, 16, 17
Event Log Record Counter	31601	—	2	—	Int32	15, 16, 17
Audit Log Record Counter	31603	—	2	—	Int32	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Cooling Fluid Source Temperature 1	31605	—	1	10	deg C Int16	15, 16, 17
Cooling Fluid Source Temperature 2	31606	—	1	10	deg C Int16	15, 16, 17
Static Pressure Fan Control	31607	41607	1	—	0 = disabled 1 = Limit 2 = Control 3 = BMS Backup SP Ctrl	15, 16, 17
ATS Switch Mode	31608	—	1	—	0 = Off 1 = Manual 2 = Automatic 3 = Test	15, 16, 17
ATS Load Not Powered Timeout	31609	—	1	—	0 = false 1 = true	15, 16, 17
ATS Non Priority Load Breaker Timeout	31610	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: L1-L2 voltage 1	31611	—	1	—	VAC Int16	15, 16, 17
Power Source: L1-L2 voltage 2	31612	—	1	—	VAC Int16	15, 16, 17
Power Source: L2-L3 voltage 1	31613	—	1	—	VAC Int16	15, 16, 17
Power Source: L2-L3 voltage 2	31614	—	1	—	VAC Int16	15, 16, 17
Power Source: L3-L1 voltage 1	31615	—	1	—	VAC Int16	15, 16, 17
Power Source: L3-L1 voltage 2	31616	—	1	—	VAC Int16	15, 16, 17
Power Source: Line Frequency 1	31617	—	1	10	Hz Int16	15, 16, 17
Power Source: Line Frequency 2	31618	—	1	10	Hz Int16	15, 16, 17
Power Source: Breaker Operation Count 1	31619	—	2	—	Int32	15, 16, 17
Power Source: Breaker Operation Count 2	31621	—	2	—	Int32	15, 16, 17
Power Source: All status are okay 1	31623	—	1	—	0 = false 1 = true	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Power Source: All status are okay 2	31624	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltage Is Too Low 1	31625	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltage Is Too Low 2	31626	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltage Is Too High 1	31627	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltage Is Too High 2	31628	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltages Are Asymmetric 1	31629	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltages Are Asymmetric 2	31630	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltage Phase Loss 1	31631	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Voltage Phase Loss 2	31632	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Phase Sequence Issue 1	31633	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Phase Sequence Issue 2	31634	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Frequency Is Too Low 1	31635	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Frequency Is Too Low 2	31636	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Frequency Is Too High 1	31637	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Frequency Is Too High 2	31638	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker is closed 1	31639	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker is closed 2	31640	—	1	—	0 = false	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = true	
Power Source: Breaker command status closed 1	31641	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker command status closed 2	31642	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker withdrawn issue 1	31643	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker withdrawn issue 2	31644	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker Timeout Issue 1	31645	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker Timeout Issue 2	31646	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Line Operating Hour Exceeded 1	31647	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Line Operating Hour Exceeded 2	31648	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker Operating Hour Exceeded 1	31649	—	1	—	0 = false 1 = true	15, 16, 17
Power Source: Breaker Operating Hour Exceeded 2	31650	—	1	—	0 = false 1 = true	15, 16, 17
Supply Fluid Temperature	31651	—	1	10	deg C Int16	15, 16, 17
Supply Fluid Temperature	31674	—	1	10	deg F Int16	15, 16, 17
Return Fluid Temperature	31652	—	1	10	deg C Int16	15, 16, 17
Return Fluid Temperature	31675	—	1	10	deg F Int16	15, 16, 17
Flow Rate	31653	—	1	10	l/min Int16	15, 16, 17
Cooling Capacity	31654	—	1	10	kW Int16	15, 16, 17
Pump Speed	31655	—	1	—	% Int16	15, 16, 17
Flow Set Point	31656	41656	1	10	l/min Int16	15, 16, 17
Flow Proportional Band	31657	41657	1	10	l/min Int16	15, 16, 17
Flow Dead Band	31658	41658	1	10	l/min Int16	15, 16 , 17
Flow Integration Time	31659	41659	1	—	sec Int16	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Supply Fluid Over Temp Threshold	31660	41660	1	10	deg C Int16	15, 16, 17
Supply Fluid Over Temp Threshold	31676	41676	1	10	deg F Int16	15, 16, 17
Return Fluid Over Temp Threshold	31661	41661	1	10	deg C Int16	15, 16, 17
Return Fluid Over Temp Threshold	31677	41677	1	10	deg F Int16	15, 16, 17
Force Pump Rotate	-	41662	1	—	1 = Rotate	15, 16, 17
Reset Pump Speed Calibration	-	41663	1	—	1 = Reset	15, 16, 17
Pump Operating State 1	31664	—	1	—	0 = off / 1 = on	15, 16, 17
Pump Operating State 2	31665	—	1	—	0 = off1 = on	15, 16, 17
Pump Speed 1	31666	—	1	10	% Int16	15, 16, 17
Pump Speed 2	31667	—	1	10	% Int16	15, 16, 17
Pump Expected Speed 1	31668	—	1	10	% Int16	15, 16, 17
Pump Expected Speed 2	31669	—	1	10	% Int16	15, 16, 17
Pump Run Time 1	31670	—	2	—	hr Int32	15, 16, 17
Pump Run Time 2	31672	—	2	—	hr Int32	15, 16, 17
Communicate At Fan Power Off	31678	41678	1	—	0 = disabled 1 = enabled	15, 16, 17
Supply Fan Emergency Op	31679	41679	1	—	0 = disabled 1 = enabled	15, 16, 17
Fan Power 1	31680	—	2	—	W Int32	15, 16, 17
Fan Power 2	31682	—	2	—	W Int32	15, 16, 17
Fan Power 3	31684	—	2	—	W Int32	15, 16, 17
Fan Power 4	31686	—	2	—	W Int32	15, 16, 17
Fan Power 5	31688	—	2	—	W Int32	15, 16, 17
Fan Power 6	31690	—	2	—	W Int32	15, 16, 17
Fan Power 7	31692	—	2	—	W Int32	15, 16, 17
Fan Power 8	31694	—	2	—	W Int32	15, 16, 17
Fan Power 9	31696	—	2	—	W Int32	15, 16, 17
Fan Power 10	31698	—	2	—	W Int32	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Power 11	31700	—	2	—	W Int32	15, 16, 17
Fan Power 12	31702	—	2	—	W Int32	15, 16, 17
Fan Power 13	31704	—	2	—	W Int32	15, 16, 17
Fan Power 14	31706	—	2	—	W Int32	15, 16, 17
Fan Power 15, 16	31708	—	2	—	W Int32	15, 16, 17
Fan Power 16	31710	—	2	—	W Int32	15, 16, 17
Fan Current 1	31712	—	1	10	A DC Int16	15, 16, 17
Fan Current 2	31713	—	1	10	A DC Int16	15, 16, 17
Fan Current 3	31714	—	1	10	A DC Int16	15, 16, 17
Fan Current 4	31715	—	1	10	A DC Int16	15, 16, 17
Fan Current 5	31716	—	1	10	A DC Int16	15, 16, 17
Fan Current 6	31717	—	1	10	A DC Int16	15, 16, 17
Fan Current 7	31718	—	1	10	A DC Int16	15, 16, 17
Fan Current 8	31719	—	1	10	A DC Int16	15, 16, 17
Fan Current 9	31720	—	1	10	A DC Int16	15, 16, 17
Fan Current 10	31721	—	1	10	A DC Int16	15, 16, 17
Fan Current 11	31722	—	1	10	A DCInt16	15, 16, 17
Fan Current 12	31723	—	1	10	A DC Int16	15, 16, 17
Fan Current 13	31724	—	1	10	A DC Int16	15, 16, 17
Fan Current 14	31725	—	1	10	A DC Int16	15, 16, 17
Fan Current 15,16	31726	—	1	10	A DC Int16	15, 16, 17
Fan Current 16	31727	—	1	10	A DC Int16	15, 16, 17
Fan Error: Phase Failure 1	31728	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 2	31729	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 3	31730	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 4	31731	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 5	31732	—	1	—	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Error: Phase Failure 6	31733	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 7	31734	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 8	31735	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 9	31736	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 10	31737	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 11	31738	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 12	31739	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 13	31740	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 14	31741	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 15, 16	31742	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Phase Failure 16	31743	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 1	31744	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 2	31745	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 3	31746	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 4	31747	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 5	31748	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 6	31749	—	1	—	0 = OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Not OK	
Fan Error: Pwr Mod Overheated 7	31750	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 8	31751	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 9	31752	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 10	31753	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 11	31754	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 12	31755	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 13	31756	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 14	31757	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 15, 16	31758	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated 16	31759	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 1	31760	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 2	31761	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 3	31762	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 4	31763	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 5	31764	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 6	31765	—	1	—	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Error: Internal Comms Error 7	31766	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 8	31767	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 9	31768	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 10	31769	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 11	31770	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 12	31771	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 13	31772	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 14	31773	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 15, 16	31774	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Internal Comms Error 16	31775	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 1	31776	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 2	31777	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 3	31778	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 4	31779	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 5	31780	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 6	31781	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 7	31782	—	1	—	0 = OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Not OK	
Fan Error: General Failure 8	31783	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 9	31784	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 10	31785	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 11	31786	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 12	31787	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 13	31788	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 14	31789	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 15, 16	31790	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: General Failure 16	31791	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 1	31792	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 2	31793	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 3	31794	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 4	31795	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 5	31796	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 6	31797	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 7	31798	—	1	—	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Error: Motor Overheated 8	31799	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 9	31800	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 10	31801	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 11	31802	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 12	31803	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 13	31804	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 14	31805	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 15, 16	31806	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Motor Overheated 16	31807	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 1	31808	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 2	31809	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 3	31810	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 4	31811	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 5	31812	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 6	31813	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 7	31814	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 8	31815	—	1	—	0 = OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Not OK	
Fan Error: Hall Sensor Error 9	31816	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 10	31817	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 11	31818	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 12	31819	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 13	31820	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 14	31821	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 15, 16	31822	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error 16	31823	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 1	31824	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 2	31825	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 3	31826	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 4	31827	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 5	31828	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 6	31829	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 7	31830	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 8	31831	—	1	—	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Error: Locked Motor 9	31832	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 10	31833	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 11	31834	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 12	31835	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 13	31836	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 14	31837	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 15, 16	31838	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Locked Motor 16	31839	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 1	31840	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 2	31841	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 3	31842	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 4	31843	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 5	31844	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 6	31845	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 7	31846	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 8	31847	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 9	31848	—	1	—	0 = OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Not OK	
Fan Warning: High Supply Voltage 10	31849	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 11	31850	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 12	31851	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 13	31852	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 14	31853	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 15, 16	31854	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage 16	31855	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 1	31856	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 2	31857	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 3	31858	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 4	31859	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 5	31860	—	1	—	0 = OK 1 = Not OK	15, 16
Fan Warning: DC-link voltage high 6	31861	—	1	—	0 = OK 1 = Not OK	15, 16
Fan Warning: DC-link voltage high 7	31862	—	1	—	0 = OK 1 = Not OK	15, 16
Fan Warning: DC-link voltage high 8	31863	—	1	—	0 = OK 1 = Not OK	15, 16
Fan Warning: DC-link voltage high 9	31864	—	1	—	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Warning: DC-link voltage high 10	31865	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 11	31866	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 12	31867	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 13	31868	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 14	31869	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 15, 16	31870	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high 16	31871	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 1	31872	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 2	31873	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 3	31874	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 4	31875	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 5	31876	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 6	31877	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 7	31878	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 8	31879	—	1	—	0 = OK 1 = Not OK	15, 16, 7
Fan Warning: High Interior Temperature 9	31880	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 10	31881	—	1	—	0 = OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Not OK	
Fan Warning: High Interior Temperature 11	31882	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 12	31883	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 13	31884	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 14	31885	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 15, 16	31886	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature 16	31887	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 1	31888	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 2	31889	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 3	31890	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 4	31891	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 5	31892	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 6	31893	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 7	31894	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 8	31895	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 9	31896	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 10	31897	—	1	—	0 = OK 1 = Not OK	15, 16

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Warning: High Motor Temperature 11	31898	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 12	31899	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 13	31900	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 14	31901	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 15, 16	31902	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature 16	31903	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 1	31904	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 2	31905	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 3	31906	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 4	31907	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 5	31908	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 6	31909	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 7	31910	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 8	31911	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 9	31912	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 10	31913	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 11	31914	—	1	—	0 = OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					1 = Not OK	
Fan Error: DC-link undervoltage 12	31915	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 13	31916	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 14	31917	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 15, 16	31918	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage 16	31919	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 1	31920	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 2	31921	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 3	31922	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 4	31923	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 5	31924	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 6	31925	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 7	31926	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 8	31927	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 9	31928	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 10	31929	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 11	31930	—	1	—	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Warning: Identification 12	31931	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 13	31932	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 14	31933	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 15, 16	31934	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Fan Warning: Identification 16	31935	—	1	—	0 = OK 1 = Not OK	15, 16, 17
Analog Input Reading 5	31936	-	1	100	Int16	16, 17
Analog Input Reading 6	31937	-	1	100	Int16	16, 17
Analog Input Reading 7	31938	-	1	100	Int16	16, 17
Analog Input Reading 8	31939	-	1	100	Int16	16, 17
Unit Fluid Supply Temperature	31940	-	1	10	deg CInt16	16, 17
Unit Fluid Supply Temperature	31941	-	1	10	deg FInt16	16, 17
Unit Fluid Return Temperature	31942	-	1	10	deg CInt16	16, 17
Unit Fluid Return Temperature	31943	-	1	10	deg F Int16	16, 17
Unit Fluid Supply Pressure	31944	-	1	100	bar Uint16	16
Unit Fluid Return Pressure	31945	-	1	100	bar Uint16	16, 17
Unit Fluid Pump Speed	31946	-	1	-	% Uint16	16, 17
Unit Fluid Flow	31947	-	1	10	l/min Uint16	16, 17
Unit Fluid Diff Pressure	31948	-	1	100	bar Int16	16, 17
Unit Fluid Cooling Capacity	31949	-	1	10	kW Uint16	16, 17
System Fluid Flow	31950	-	2	10	l/min Int32	16, 17
System Fluid Diff Pressure	31952	-	1	100	bar Int16	16, 17
System Fluid Cooling Capacity	31953	-	2	10	kW Int32	16, 17
Fluid Temperature Set Point	31955	41955	1	10	deg C Int16	16, 17
Fluid Temperature Set Point	31956	41956	1	10	deg F Int16	16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fluid Temperature Control Type	31957	41957	1	-	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID 3 = Intelligent	16, 17
Fluid Temperature Proportional Band	31958	41958	1	10	deg CUint16	16, 17
Fluid Temperature Proportional Band	31959	41959	1	10	deg F Uint16	16, 17
Fluid Temperature Dead Band	31960	41960	1	10	deg C Uint16	16, 17
Fluid Temperature Dead Band	31961	41961	1	10	deg F Uint16	16, 17
Fluid Temperature Control Integration Time	31962	41962	1	10	min Uint16	16, 17
Fluid Control Type	31963	41963	1	-	0 = Flow Rate 1 = Differential Pressure 2 = Flow Rate with DP Limit 3 = Diff Prs with Flo Limit 4 = Manual	16, 17
Fluid Flow Set Point	31964	41964	1	-	l/min Uint16	16, 17
Fluid Flow Proportional Band	31965	41965	1	-	l/min Uint16	16, 17
Fluid Flow Dead Band	31966	41966	1	-	l/min Uint16	16, 17
Fluid Flow Control Integration Time	31967	41967	1	-	sec Uint16	16, 17
Fluid Diff Prs Set Point	31968	41968	1	100	bar Uint16	16, 17
Fluid Diff Prs Prop Band	31969	41969	1	100	bar Uint16	16, 17
Flow Diff Prs Dead Band	31970	41970	1	100	bar Uint16	16, 17
Fluid Diff Prs Control Integration Time	31971	41971	1	-	sec Uint16	16, 17
Flow Manual Pump Speed	31972	41972	1	-	% Uint16	16, 17
Pump Operation Period	31973	41973	1	-	day Uint16	16, 17
Pump Operation Duration	31974	41974	1	-	min Uint16	16, 17
Pump Operation Speed	31975	41975	1	-	% Uint16	16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Pump Operation Type	31976	41976	1	-	0 = Unit On or Standby 1 = Unit On, Off, or Standby	16, 17
Fluid Dew Pnt Margin	31977	41977	1	-	0 = disabled 1 = enabled	16, 17
Dew Point Max Adjust	31978	41978	1	100	deg C Uint16	16, 17
Dew Point Max Adjust	31979	41979	1	100	deg F Uint16	16, 17
System Dew Point	31980	-	1	10	deg C Int16	16, 17
System Dew Point	31981	-	1	10	deg F Int16	16, 17
Unit Dew Point	31982	-	1	10	deg C Int16	16, 17
Unit Dew Point	31983	-	1	10	deg F Int16	16, 17
Pump Motor Power 1	31984	-	1	100	kW Int16	16, 17
Pump Motor Power 2	31985	-	1	100	kW Int16	16, 17
Pump Motor Amps 1	31986	-	1	100	A ACInt16	16, 17
Pump Motor Amps 2	31987	-	1	100	A AC Int16	16, 17
Inverter Temperature 1	31988	-	1	10	deg C Int16	16, 17
Inverter Temperature 1	31989	-	1	10	deg F Int16	16, 17
Inverter Temperature 2	31990	-	1	10	deg C Int16	16, 17
Inverter Temperature 2	31991	-	1	10	deg F Int16	16, 17
Pump Drive Overload 1	31992	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Overload 2	31993	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Over Temperature 1	31994	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Over Temperature 2	31995	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Warning 1	31996	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Warning 2	31997	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Low AC Alarm 1	31998	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Low AC Alarm 2	31999	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Phase Loss Active 1	32000	-	1	-	0 = no / 1 = yes	16, 17
Pump Drive Phase Loss Active 2	32001	-	1	-	0 = no / 1 = yes	16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Pump Drive Product Identification 1	32002	-	1	-	0 = OK / 1 = Not OK	16, 17
Pump Drive Product Identification 2	32003	-	1	-	0 = OK 1 = Not OK	16, 17
Pump Drive Communications 1	32004	-	1	-	0 = OK 1 = Not OK	16, 17
Pump Drive Communications 2	32005	-	1	-	0 = OK 1 = Not OK	16, 17
Fan Error: Speed Limit or Rotor Sens Calib 1	32006	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 2	32007	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 3	32008	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 4	32009	-	1	-	0 = OK 1 = Not OK	16, 17
Fan Error: Speed Limit or Rotor Sens Calib 5	32010	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 6	32011	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 7	32012	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 8	32013	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 9	32014	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 10	32015	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 11	32016	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 12	32017	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 13	32018	-	1	-	0 = OK 1 = Not OK	15, 16, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Fan Error: Speed Limit or Rotor Sens Calib 14	32019	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 15	32020	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib 16	32021	-	1	-	0 = OK 1 = Not OK	15, 16, 17
Analog Input Reading 9	32022	-	1	100	Int16	16, 17
Analog Input Reading 10	32023	-	1	100	Int16	16, 17
Analog Input Reading 11	32024	-	1	100	Int16	16, 17
Analog Input Reading 12	32025	-	1	100	Int16	16, 17
PHE Fluid Supply Temperature	32026	-	1	10	deg C Int16	16, 17
PHE Fluid Supply Temperature	32027	-	1	10	deg F Int16	16, 17
Fan Speed Min Dehum	32028	42028	1	-	% Int16	15, 16, 17
Supply Fan Measured Speed 1	32029	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 2	32030	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 3	32031	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 4	32032	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 5	32033	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 6	32034	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 7	32035	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 8	32036	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 9	32037	-	1	-	RPM Uint16	15, 17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
Supply Fan Measured Speed 10	32038	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 11	32039	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 12	32040	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 13	32041	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 14	32042	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 15	32043	-	1	-	RPM Uint16	15, 17
Supply Fan Measured Speed 16	32044	-	1	-	RPM Uint16	15, 17
Analog Output 1	32045	-	1	-	% Uint16	15, 17
Analog Output 2	32046	-	1	-	% Uint16	15, 17
Analog Output 3	32047	-	1	-	% Uint16	15, 17
Analog Output 4	32048	-	1	-	% Uint16	15, 17
Analog Output 5	32049	-	1	-	% Uint16	15, 17
Analog Output 6	32050	-	1	-	% Uint16	15, 17
Fluid Control Valve Position 1	32051	-	1	-	% Uint16	15, 17
Fluid Control Valve Position 2	32052	-	1	-	% Uint16	15, 17
Air Econ Ret Damp Min Open Limit	32053	42053	1	-	% Uint16	17
Supply Humidity	32054	-	1	-	% RH	17

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Table 3.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes	Extrs Notes (see notes key on page 113)
					Uint16	
Mixed Air Temp	32055	-	1	10	deg C Int16	17
Mixed Air Temp	32061	-	1	10	deg F Int16	17
Return Damper Position	32056	-	1	-	% Int16	17
Outdoor Damper Position	32057	-	1	-	% Int16	17
Exhaust Damper Position	32058	-	1	-	% Int16	17
Aggregated Outdoor Temperature	32059	-	1	10	deg C Int16	17
Aggregated Outdoor Temperature	32062	-	1	10	deg F Int16	17
Aggregated Outdoor Humidity	32060	-	1	10	% RH Int16	17
Remote Sensor Minimum Temperature	32063	-	1	10	deg C Int16	17
Remote Sensor Minimum Temperature	32068	-	1	10	deg F Int16	17
Remote Sensor Average Humidity	32064	-	1	10	% RH Int16	17
Remote Sensor Maximum Humidity	32065	-	1	10	% RH Int16	17
Remote Sensor Minimum Humidity	32066	-	1	10	% RH Int16	17
Unit Aggregated Remote Humidity	32067	-	1	10	% RH Int16	17
Air Econ Ret Damp Min Open Limit 2	32069	42069	1	-	% Uint16	17
System Date and Time	39998	49998	2	—	Secs since Epoch (UTC)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, 14, 15, 16

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Table 3.3 Notes key

Number	Description
1	This point is supported on: iCOM controller version 1.04.042.STD.
2	This point is supported on: iCOM controller version 2.00.11R for US iCOM controller version 2.00.12R (for Japan and China – language corrections only).
3	This point is supported on: iCOM controller version 2.01.29.07R.
4	This point is supported on: iCOM controller version 2.02.21R.
5	This point is supported on: iCOM controller version 2.01.45R.
6	This point is supported on: iCOM controller version 2.03.27.06R.
7	This point is supported on: iCOM controller version 2.03.33R.
8	This point is supported on: iCOM controller version 2.04.32R.
9	This point is supported on: iCOM controller version A9HB-1.04.xx. (Similar to Liebert PDX and to be replaced by separate family branch.).
10	This point is supported on: iCOM controller version 1.04.37O-STD.
11	This point is supported on: iCOM controller version 2.05.30R.
12	This point is supported on: iCOM controller version 2.01.53R.
13	This point is supported on: iCOM controller version 2.04.???R (TBD).
14	This point is supported on: iCOM controller version 2.05.41R.
15	This point is supported on: iCOM controller version PA 2.06.57R.
16	This point is supported on: iCOM controller version 2.07.x
17	This point is supported on iCOM controller version 2.08.x

Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary

Data Label	Data Description
(Deprecated) Free Cooling Status	(Deprecated) Free cooling status.
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Cold Aisle Humidity	Actual humidity value being used for cold aisle humidity control. The value is calculated from multiple humidity measurements using [Cold Aisle Humidity Calculation Method].
Actual Cold Aisle Temperature	Actual temperature value being used for cold aisle temperature control. The value is calculated from multiple temperature measurements using [Cold Aisle Temperature Calculation Method].
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Aggregate Mixed Air	Failure of Aggregated Mixed Air Temperature Sensor. This event is active when Remote Sensor Issue and External Air Sensor

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Temp Sensor Fail	E Issue are active.
Aggregate Remote Air Temp Sensor Fail	Failure of Aggregated Remote Air Temperature Sensor. This event is active when all configured Remote Sensor Issue events are active.
Aggregated Outdoor Humidity	Aggregated Outdoor Humidity
Aggregated Outdoor Temperature	Aggregated Outdoor Temperature
Air Econ High Mixed Temp	Air Economizer High Mixed Temperature
Air Econ Low Mixed Temp	Air Economizer Low Mixed Temperature
Air Econ Ret Damp Min Open Limit	Air Economizer Return Damper Minimum Open Limit
Air Econ Ret Damp Min Open Limit 2	Air Economizer Return Damper Minimum Open Limit Secondary
Air Economizer Availability	Indicates if the outside air conditions are appropriate for cooling with the air economizer or glycol freecooling.
Air Economizer Control Source	Source of control of the air economizer.
Air Economizer Emergency Override	Indoor room temperature has exceeded its upper threshold and the outdoor air damper has been opened for emergency cooling.
Air Economizer Reduced Airflow	Air economizer filter is dirty and needs to be cleaned or replaced.
Air Filter Differential Pressure	Differential pressure across the air filter.
Air Temperature Control Integration Time	Time value used when system is under integral air temperature control.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Control Type	Type of algorithm used to control the system's output air temperature.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Analog Input Reading	Generic analog input reading (unitless).
Analog Output	Analog output
ATS Load Not Powered Timeout	Automatic Transfer Switch Load not powered timeout
ATS Non Priority Load Breaker Timeout	Automatic Transfer Switch Non-priority load breaker timeout
ATS Switch Mode	ATS Switch Mode
Audit Log Record Counter	Number of audit log records that have been sent to the client.
Audit Log Update	Audit log has been updated.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart Enable	Enable/disable automatic restart of unit after a power cycle.
Auto Tune License Expired	License for the AutoTune feature has expired.
Auto Tune License Expiring	License for the AutoTune feature has not been refreshed in 30 days and will be expiring soon.
Automatic Transfer Switch - Active Power Supply	Indicates which power supply is in use by the Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 1 Status	Status of power supply 1 in Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 2 Status	Status of power supply 2 in Automatic Transfer Switch.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
Back Draft Control Fan Speed	Fan speed when in back draft control mode.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Check Water System	Fluid check water system

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Flow Meter Sensor Failure	Chilled water flow meter sensor is disconnected or the signal is out of range.
Chilled Water Inlet Temperature Control Active	Chilled water inlet temperature control is active.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature Sensor Failure	Chilled water outlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours Exceeded	[Chilled Water Valve Hours] has exceeded [Chilled Water Valve Operating Hours Threshold].
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Operating Hours Threshold	Operating hours threshold for the chilled water valve. When the number of operating hours reaches this threshold, an event is generated.
Chilled Water Valve Reset Enable	Enable/disable the ability to reset the chilled water valve.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Cold Aisle Air Sensor Failure	Cold aisle sensor measuring air temperature and humidity is disconnected or the signal is out of range.
Cold Aisle Cascade Fan Speed Max Set Point	Cold aisle maximum fan speed when system is in cascade mode and one or more units in the system are in standby.
Cold Aisle Control Enable	Enable/disable cold aisle control.
Cold Aisle Fan Speed Max Set Point	Cold aisle maximum fan speed when system is not in cascade mode OR when system is in cascade mode and no units in the system are in standby.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Cold Aisle Fan Speed Min Set Point	Cold aisle minimum fan speed.
Cold Aisle Force Max Fan/Cooling - Ext Control	The cold aisle fan speed and system cooling can be forced to 100% via an external input signal. Use this value to enable/disable that feature.
Cold Aisle Humidity Calculation Method	Algorithm used to calculate a single cold aisle humidity value from multiple humidity measurements.
Cold Aisle Sensor Air Temperature	Air temperature measured by cold aisle sensor.
Cold Aisle Sensor Humidity	Humidity measured by cold aisle sensor.
Cold Aisle Temperature Calculation Method	Algorithm used to calculate a single cold aisle temperature value from multiple temperature measurements.
Cold Aisle Temperature/Humidity Team Sensor Failure	Cold aisle team sensor measuring air temperature and humidity is disconnected or the signal is out of range.
Communicate At Fan Power Off	Communicate with fans at power off
Compressor 1B Hours Exceeded	Fixed compressor 1B run hours have exceeded the threshold.
Compressor 1B Thermal Overload	Fixed compressor 1B is shut down due to thermal overload.
Compressor 2B Hours Exceeded	Fixed compressor 2B run hours have exceeded the threshold.
Compressor 2B Thermal Overload	Fixed compressor 2B is shut down due to thermal overload.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor Freeze Protection	Compressor has entered the freeze protection phase.
Compressor High Head Pressure - Event Control	Enable/disable the activation of the [Compressor High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor High Head Pressure - Event Type	The event type for the [Compressor High Head Pressure] event.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor High Pressure Transducer Issue	Compressor high pressure transducer is disconnected or the signal is out of range.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Lockout	Enable/disable the use of the compressor.
Compressor Low Differential Pressure Lockout	Compressor exceeded maximum startup attempts due to low differential pressure. Compressor is shutdown and has been disabled.
Compressor Low Pressure Transducer Issue	Compressor low pressure transducer is disconnected or the signal is out of range.
Compressor Low Suction Pressure - Event Control	Enable/disable the activation of the [Compressor Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Low Suction Pressure - Event Type	The event type for the [Compressor Low Suction Pressure] event.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Pump Down Issue - Event Control	Enable/disable the activation of the [Compressor Pump Down Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Pump Down Issue - Event Type	The event type for the [Compressor Pump Down Issue] event.
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Compressor Short Cycle - Event Control	Enable/disable the activation of the [Compressor Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Short Cycle - Event Type	The event type for the [Compressor Short Cycle] event.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor State	Compressor operational state.
Compressor Suction Pressure	Refrigerant pressure at the input of the compressor.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload - Event Control	Enable/disable the activation of the [Compressor Thermal Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Thermal Overload - Event Type	The event type for the [Compressor Thermal Overload] event.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Compressor Utilization	Present compressor utilization expressed as a percentage of the maximum rated capacity.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Communication Lost	Communication with condenser unit has been lost.
Condenser Control Board Issue	The condenser control board is reporting an issue.
Condenser Fan Current	Condenser fan's measured input current.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Reversal Requested	Request the condenser fans to rotate in the reverse direction.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Issue - Event Control	Enable/disable the activation of the [Condenser Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser Issue - Event Type	The event type for the [Condenser Issue] event.
Condenser Issue	Condenser is not operating within its operational parameters.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Condenser Outside Air Temp Out of Operating Range	[Condenser Outside Air Temperature] is either above an upper threshold or below a lower threshold.
Condenser Outside Air Temp Sensor Issue	Condenser outside air temperature sensor is disconnected or the signal is out of range.
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Pressure Over Threshold	Condenser refrigerant pressure has exceeded a threshold.
Condenser Refrigerant Pressure Sensor Issue	Condenser refrigerant pressure sensor is disconnected or the signal is out of range.
Condenser Refrigerant Pressure Under Threshold	Condenser refrigerant pressure has dropped below a threshold.
Condenser Refrigerant Pressure	Pressure of the refrigerant in a condenser circuit.
Condenser Refrigerant Type	Condenser refrigerant type.
Condenser Remote Shutdown	Condenser is shut down by a remote signal.
Condenser Supply Refrigerant Over Temp	Condenser supply refrigerant temperature has exceeded a threshold.
Condenser Supply Refrigerant Temp Sensor Issue	Condenser supply refrigerant temperature sensor is disconnected or the signal is out of range.
Condenser Supply Refrigerant Temperature	Temperature of the supply refrigerant in a condenser circuit.
Condenser Supply Refrigerant Under Temp	Condenser supply refrigerant temperature has dropped below a specified threshold.
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline.
Control Units Remote Shutdown Mismatch	The remote shutdown status of the master control unit does not match the remote shutdown status of the slave control unit.
Control Units Unit Code Mismatch	Unit codes for the master and slave control units do not match.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling Fluid Source Temperature	Temperature of the cooling fluid being provided by the source.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4
Dehum Reheat Low Limit 1	Value added to [Dehum Reheat Low Limit Set Point]. If the air temperature measured by [Dehum Reheat Low Limit Sensor] falls below the sum of those values, compressor operation will be limited.
Dehum Reheat Low Limit 2	Value added to [Dehum Reheat Low Limit Set Point]. If the air temperature measured by [Dehum Reheat Low Limit Sensor] falls below the sum of those values, all compressors will be turned off for dehumidification.
Dehum Reheat Low Limit Sensor	Air temperature sensor whose measurements will be compared against [Dehum Reheat Low Limit Set Point] to determine when a compressor and reheat are used to support dehumidification.
Dehum Reheat Low Limit Set Point	Air temperature set point used to determine when a compressor and reheat are used to support dehumidification.
Dehum Reheat Proportional Band	Size of temperature band below [Dehum Reheat Low Limit Set Point] used to determine the temperatures at which each reheater is activated. As the temperature falls further below the set point, more reheaters are activated.
Dehumidification Fan Speed Min Set Point	Minimum fan speed when system dehumidification is active.
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Dehumidifier Hours Threshold	Threshold value used in the [Dehumidifier Hours Exceeded] event.
Dehumidifier Hours	Operating hours for dehumidifier since last reset of this value.
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Max Adjust	Dew Point Margin Maximum Set Point Adjust
Dew Point Over Temp Threshold	Threshold value used in the [Dew Point Over Temperature] event.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temp Threshold	Threshold value used in the [Dew Point Under Temperature] event.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Dig Scroll Comp Discharge Over Temp - Event Ctrl	Enable/disable the activation of the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Over Temp - Event Type	The event type for the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Temp Sensor Issue	Digital scroll compressor discharge temperature sensor is disconnected or the signal is out of range.
Dig Scroll Comp Discharge Temp	Digital scroll compressor discharge temperature.
Dig Scroll Comp Over Temp	Digital scroll compressor is shut down due to head temperature exceeding an upper threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Digital Scroll Compressor Loading	Present digital scroll compressor utilization expressed as a percentage of the maximum rated capacity.
Door Open	An open door was detected

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
EconoPhase Proportional Band Switchover	After entering EconoPhase mode, the threshold for continuing EconoPhase operation is gradually reduced to this percentage of [Air Temperature Proportional Band]. If the air temperature cannot be maintained within this reduced proportional band, the system will switch over to compressor control.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours Exceeded	[Electric Reheater Hours] has exceeded [Electric Reheaters Hours Threshold].
Electric Reheater Hours Threshold	Threshold value used in the [Electric Reheater Hours Exceeded] event.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Energy Consumption	Energy consumption since the last reset of this value.
Event Log Record Counter	Number of event log records that have been sent to the client.
Exhaust Damper Feedback Fail	Exhaust Damper Feedback Failure Alarm
Exhaust Damper Position	Exhaust Damper Current Position Open Percentage (%)
Expected Condenser Unit Count	Number of physical condenser units that are expected to be connected to the system.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Free Cooling Lockout	Free cooling is disabled by an external input signal.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Humidifier Lockout	The humidifier is shut down and disabled by an external input signal.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Reheat Lockout	The reheater is shut down and disabled by an external input signal.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed, as indicated by an external input signal.
External Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Supply Fluid Flow Issue	Supply fluid flow issue, as indicated by an external input signal.
External Supply Fluid High Temperature	Supply fluid temperature has exceeded a threshold, as indicated by an external input signal.
External Supply Fluid Temp Sensor Issue	Supply fluid temperature sensor is disconnected or the signal is out of range, as indicated by an external input signal.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fan Back Draft Control Enable	Enable/disable fan back draft control.
Fan Back Draft Operation	Operational mode of the fan back draft control.
Fan Back Draft Speed Set Point	If [Fan Back Draft Control Enable] is enabled and unit is in standby, its evaporator fan will run at a fixed speed corresponding to this value.
Fan Control Mode	Fan control mode.
Fan Control Sensor	Sensor to be used for fan speed control.
Fan Current	Supply Fan Measured Current
Fan Error: DC-link undervoltage	Fan Error: DC-link undervoltage
Fan Error: General Failure	Supply Fan Error: General Failure
Fan Error: Hall Sensor Error	Supply Fan Error: Hall Sensor Error
Fan Error: Internal Comms Error	Supply Fan Error: Internal Communications Error
Fan Error: Locked Motor	Supply Fan Error: Locked Motor
Fan Error: Motor Overheated	Supply Fan Error: Motor Overheated
Fan Error: Phase Failure	Supply Fan Error: Phase Failure
Fan Error: Pwr Mod Overheated	Supply Fan Error: Power Module Overheated
Fan Error: Speed Limit or Rotor Sens Calib	Supply Fan Error: Speed Limit or Rotor Sens Calib
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours Threshold	Threshold value used in the [Fan Hours Exceeded] event.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue - Event Control	Enable/disable the activation of the [Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Issue - Event Type	The event type for the [Fan Issue] event.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Power	Supply Fan Measured Power

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed Maximum Set Point	Maximum fan speed. This value may only be modified if iCOM is enabled to allow fan speed changes by the BMS.
Fan Speed Min Dehum	Minimum fan speed for dehumidification operation
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Temp Control Integration Time	Integration time value used when [Fan Speed Temperature Control Type] contains an integral term.
Fan Speed Temp Control Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Fan Speed Temperature Set Point].
Fan Speed Temp Control Type	Type of algorithm used to control the fan speed when in decoupled mode. The algorithm is applied to the difference between the selected fan control sensor temperature and [Fan Speed Temperature Set Point].
Fan Speed Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fan Speed Temperature Set Point]. If the fan control air temperature sensor is within this range, no changes to the fan speed will occur (unless overridden for internal safeguards).
Fan Speed Temperature Set Point	If fan is in decoupled mode and not under manual control, the fan speed will vary depending on the delta between the selected fan control sensor temperature and this set point.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Fan Warning: DC-link voltage high	Supply Fan Warning: DC-link voltage high
Fan Warning: High Interior Temperature	Supply Fan Warning: High Interior Electronic Temperature
Fan Warning: High Motor Temperature	Supply Fan Warning: High Motor Temperature
Fan Warning: High Supply Voltage	Supply Fan Warning: High Supply Voltage
Fan Warning: Identification	Supply Fan Warning: Unexpected Fan Identification - Check Fan Firmware Version
Flow Dead Band	Fluid flow dead band
Flow Diff Prs Dead Band	Flow Diff Pressure Dead Band
Flow Integration Time	Fluid flow integration time
Flow Manual Pump Speed	Flow Manual Pump Speed
Flow Proportional Band	Fluid flow proportional band
Flow Rate	Fluid measured flow volume rate
Flow Sensor Failure	Fluid flow sensor failure

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Flow Set Point	Fluid flow rate set point
Fluid Control Type	Fluid flow algorithm control type
Fluid Control Valve Position	Fluid Control Valve Position
Fluid Dew Pnt Margin	Fluid Dew Point Margin Control Operation
Fluid Dewpoint Margin Control	Fluid Loop Dewpoint Margin Control is active
Fluid Diff Prs Control Integration Time	Fluid Diff Pressure Control Integration Time
Fluid Diff Prs Prop Band	Flow Diff Pressure Proportional Band
Fluid Diff Prs Set Point	Fluid Diff Pressure Set Point
Fluid Flow Blocked	Fluid Loop Flow Blocked (Loss of Flow with High Supply Pressure)
Fluid Flow Control Integration Time	Fluid Flow Control Integration Time
Fluid Flow Dead Band	Fluid Flow Dead Band; evenly split above/below set point
Fluid Flow High Supply Pressure	Fluid Loop Flow High Supply Pressure
Fluid Flow Low Inlet Pressure	Fluid Loop Flow Low Inlet Pressure
Fluid Flow Proportional Band	Fluid Flow Proportional Band; evenly split above/below set point
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Flow Sensor Issue	The fluid flow sensor is disconnected or the signal is out of range.
Fluid Flow Set Point	Fluid Flow Set Point
Fluid Free Cooling Lockout Threshold	If the temperature of the cooling fluid drops below this value, fluid free cooling will be disabled.
Fluid High Differential Pressure	Fluid Loop High Differential Pressure (Supply - Return)
Fluid Inlet Pressure Sensor Issue	Fluid Loop Inlet Pressure Sensor Issue
Fluid Input Temperature	Temperature of the fluid entering the cooling coil.
Fluid Low Differential Pressure	Fluid Loop Low Differential Pressure (Supply - Return)
Fluid Low System Flow	Fluid Loop Low System Flow (Low total flow for units in group)
Fluid Output Temperature	Temperature of the fluid exiting the cooling coil.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fluid Return Pressure Sensor Issue	Fluid Loop Return Pressure Sensor Issue
Fluid Supply Pressure Sensor Issue	Fluid Loop Supply Pressure Sensor Issue
Fluid Temperature Control Integration Time	Time value used when system is under integral fluid temperature control.
Fluid Temperature Control Type	Type of algorithm used to control the system's output fluid temperature.
Fluid Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fluid Temperature Set Point].
Fluid Temperature Proportional Band	Value that is divided evenly to form proportional temperature control.
Fluid Temperature Sensor Issue	The fluid temperature sensor is disconnected or the signal is out of range.
Fluid Temperature Set Point	Desired chiller fluid temperature.
Force Networked Unit Rotation	If networked units are configured to rotate between standby and running, force the rotation to occur immediately.
Force Pump Rotate	Fluid force pump rotation (swap pump lead/lag operation)
Free Cooling Fluid Temperature	Free cooling fluid temperature.
Free Cooling Internal Control Mode	Free cooling internal control mode
Free Cooling Internal Temperature Delta	Minimum temperature delta required between supply fluid and internal ambient air temperatures in order to enable free cooling.
Free Cooling State	Free cooling operational state.
Free Cooling Status	Free cooling status.
Free Cooling Stopped - High Room Temp	Free cooling is temporarily disabled due to room temperature exceeding a preset delta above the the set point.
Free Cooling Temp Sensor Issue	The free cooling fluid temperature sensor is disconnected or the signal is out of range.
Free Cooling Valve Hours Exceeded	[Free Cooling Valve Hours] has exceeded [Free Cooling Valve Hours Threshold].
Free Cooling Valve Hours Threshold	Threshold value used in the [Free Cooling Valve Hours Exceeded] event.
Free Cooling Valve Hours	Operating hours for free cooling valve since last reset of this value.
Free Cooling Valve Open Position	Free cooling valve open position.
FSA Control Input Issue	The analog input used to set the air temperature set point for fan speed control is disconnected or the signal is out of range.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Group Independent Off	The group standby/cascade state for this unit has been overridden. The unit has been forced off.
Group Independent On	The group standby/cascade state for this unit has been overridden. The unit has been forced on.
Group Independent Operation Enable	Enable/disable group independent operation. If enabled, the user can override the unit's on/off state being controlled by its standby/cascade group.
Group Independent Operation	If this unit is part of a standby/cascade group, this value can be used to override the group control of the unit's on/off state.
Heating Fan Speed Min Set Point	Minimum fan speed when system heating is active.
Heating Lockout	Heating is shut down and disabled.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Static Pressure	High static pressure event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
High Unit Differential Pressure	High Unit Differential Pressure Alarm
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Hours Exceeded	[Hot Water / Hot Gas Valve Hours] has exceeded [Hot Water / Hot Gas Valve Hours Threshold].
Hot Water / Hot Gas Valve Hours Threshold	Threshold value used in the [Hot Water / Hot Gas Valve Hours Exceeded] event.
Hot Water / Hot Gas Valve Hours	Operating hours for hot water / hot gas valve since last reset of this value.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Humidification Fan Speed Min Set Point	Minimum fan speed when system humidification is active.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Humidifier Cylinder Worn	Humidifier cylinder is not operating properly and needs to be replaced.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours Threshold	Threshold value used in the [Humidifier Hours Exceeded] event.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier Lockout	Enable/disable the use of the humidifier.
Humidifier Low Water	The water level in the humidifier has dropped below its threshold.
Humidifier Over Current	The electrical current to the humidifier has exceeded its upper threshold.
Humidifier State	Humidifier operational state.
Humidifier Under Current	The electrical current to the humidifier has dropped below its lower threshold.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Infrared Humidifier Flush Rate	A multiple of an internal time constant that determines the flush duration of the infrared humidifier water pan.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.
Inverter Temperature	Inverter Temperature

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Static Pressure	Low static pressure event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Main Chilled Water Valve	The master valve in a dual valve chilled water system.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Main Fan Overload	Main fan is shut down due to thermal overload.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.

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Data Label	Data Description
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Chilled Water Temp Set Point Enable	Enable/disable the activation of [Minimum Chilled Water Temp Set Point].
Minimum Chilled Water Temp Set Point	Minimum desired chilled water temperature.
Mixed Air Temp	Current Mixed Air Temperature Reading
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.
Modbus Automatic Transfer Switch Communication Lost	Communications with Modbus Automatic Transfer Switch has been lost
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Networked Unit Daily Rotation Frequency	If [Networked Unit Rotation Frequency] is set to 'Daily', this sets the frequency of rotation within each day.
Networked Unit Rotation Count	If networked units are configured to rotate between standby and running, this is the number of units that will rotate at the selected rotation time.
Networked Unit Rotation Frequency	Configures the frequency with which networked units will rotate between a running state and a standby state.
Networked Unit Rotation Time	If networked units are configured to rotate between standby and running, this is the time the rotation will occur on the day specified by [Networked Unit Rotation Frequency].
Outdoor Damper Position	Outdoor Damper Current Position Open Percentage (%)
Outdoor Dmp Fdback Fail	Outdoor Damper Feedback Failure
Outside Air Temperature	Ambient outside air temperature.
PHE Fluid Supply Temperature	Plate Heat Exchanger Fluid Supply Temperature
PHE Sup Tem Snsr Fail	Plate Heat Exchanger Supply Temperature Sensor Fail
Power Source: All status are okay	Automatic Transfer Switch Power Source: All status are okay
Power Source: Breaker command status closed	Automatic Transfer Switch Power Source: Breaker command status closed
Power Source: Breaker is closed	Automatic Transfer Switch Power Source: Breaker is closed
Power Source: Breaker Operating Hour Exceeded	Automatic Transfer Switch Power Source: Breaker operating hour exceeded
Power Source: Breaker Operation Count	Automatic Transfer Switch Power Source: Breaker Operation Count

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Power Source: Breaker Timeout Issue	Automatic Transfer Switch Power Source: Breaker timeout issue
Power Source: Breaker withdrawn issue	Automatic Transfer Switch Power Source: Breaker withdrawn issue
Power Source: Frequency Is Too High	Automatic Transfer Switch Power Source: Frequency is too high
Power Source: Frequency Is Too Low	Automatic Transfer Switch Power Source: Frequency is too low
Power Source: L1-L2 voltage	Automatic Transfer Switch Power Source: L1-L2 voltage
Power Source: L2-L3 voltage	Automatic Transfer Switch Power Source: L2-L3 voltage
Power Source: L3-L1 voltage	Automatic Transfer Switch Power Source: L3-L1 voltage
Power Source: Line Frequency	Automatic Transfer Switch Power Source: Line Frequency
Power Source: Line Operating Hour Exceeded	Automatic Transfer Switch Power Source: Line operating hour exceeded
Power Source: Phase Sequence Issue	Automatic Transfer Switch Power Source: Phase sequence issue
Power Source: Voltage Is Too High	Automatic Transfer Switch Power Source: Voltage is too high
Power Source: Voltage Is Too Low	Automatic Transfer Switch Power Source: Voltage is too low
Power Source: Voltage Phase Loss	Automatic Transfer Switch Power Source: Voltage phase loss
Power Source: Voltages Are Asymmetric	Automatic Transfer Switch Power Source: Voltages are asymmetric
PRE Operational Mode	Pumped Refrigerant Economizer operational mode.
Master Cooling Fluid Source	Master source of fluid for cooling purposes.
Pump Drive Communications	Pump Drive Communications Status
Pump Drive Low AC Alarm	Pump Drive Low AC Alarm
Pump Drive Over Temperature	Pump Drive Over Temperature
Pump Drive Overload	Pump Drive Overload

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Data Label	Data Description
Pump Drive Phase Loss Active	Pump Drive Phase Loss Active
Pump Drive Product Identification	Pump Drive Product Identification
Pump Drive Warning	Pump Drive Warning
Pump Expected Speed	Fluid pump expected speed for flow set point
Pump Flow Failure	Fluid pump flow failure
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Inlet Refrigerant Temperature	Refrigerant temperature at the inlet of the pump.
Pump Inverter Failure	Fluid pump inverter failure
Pump Motor Amps	Pump Motor Amps
Pump Motor Power	Pump Motor Power
Pump Operating State	Fluid pump operating state
Pump Operating Without Flow	Fluid pump operation with no flow
Pump Operation Duration	Pump periodic operation duration
Pump Operation Period	Pump shall periodically operate if off for too long
Pump Operation Speed	Pump periodic operation speed
Pump Operation Type	Pump periodic operation type
Pump Outlet Refrigerant Temperature	Refrigerant temperature at the outlet of the pump.
Pump Run Time	Fluid pump run time
Pump Speed	Fluid pump speed
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump State	Pump operational state.
Pump Unspecified General Event	One or more unspecified pump events active. See local unit display for further details.
Quick Start Unit Cascade On Delay	When a Teamwork unit restarts after a power cycle, this value is used instead of [Unit Cascade On Delay]. The system will return to the use of [Unit Cascade On Delay] after a period of time determined by a predefined algorithm.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reheater Lockout	Enable/disable the use of the reheater.
Reheater Over Temperature	The temperature of the reheater has exceeded its threshold.
Remote Sensor Average Humidity	Average value of remote sensor humidity measurements.
Remote Sensor Average Over Temperature	[Remote Sensor Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Average Under Temperature	[Remote Sensor Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Humidity	Maximum value of remote sensor humidity measurements.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Minimum Humidity	Minimum value of remote sensor humidity measurements.
Remote Sensor Minimum Temperature	Minimum value of remote sensor temperature measurements.
Remote Sensor Over Temp Threshold	Threshold value used in the remote air sensor over temperature events.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Over Temperature	[Remote Sensor System Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Temperature	Average value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor System Average Under Temperature	[Remote Sensor System Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor System Maximum Temperature	Maximum value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temp Threshold	Threshold value used in the remote air sensor under temperature events.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Reset Pump Speed Calibration	Fluid reset pump speed calibration
Ret Damp Fdback Fail	Return Damper Feedback Failure
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Damper Position	Return Damper Current Position Open Percentage (%)
Return Damper Status	Status of the return damper.
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Fluid Low Temp	[Return Fluid Temperature] below Return Fluid Low Temp Threshold.
Return Fluid Over Temp Threshold	Threshold value used in the [Return Fluid Over Temp] event.
Return Fluid Over Temp	[Return Fluid Temperature] has exceeded a specified threshold.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity Set Point	Desired relative humidity at the inlet of the unit.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any return sensor events are detected and annunciated.
Return T/H Sensor Failure	Return Temperature/Humidity Sensor Failure
Return Temp Hysteresis for Humidifier Disable	If return air temperature has exceeded [Return Temperature Threshold for Humidifier Disable], the humidifer will remain disabled until the temperature has dropped below the threshold minus this hysteresis value.
Return Temp Threshold for Humidifier Disable	If return air temperature exceeds this threshold, the humidifier will be disabled.
Slave Control Unit Communication Lost	The master control unit has lost Ethernet communications with the slave control unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
SSA Control Input Issue	The analog input used to set the static pressure set point for fan speed control is disconnected or the signal is out of range.
Standby Units	The number of standby units.
Start Standby Units on High Temperature	Force the system to start all standby units if any unit in operation reports a high air temperature warning.
Static Pressure Fan Control	Static Pressure Fan Control type
Static Pressure Sensor Issue	The static pressure sensor is disconnected or the signal is out of range.
Static Pressure Sensor Out of Range	Static pressure sensor signal is out of its configured range.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Static Pressure Set Point	Desired static pressure.
Super Saver Call For Cooling	Call for cooling value used for Super Saver functionality. A higher call for cooling value indicates a need for a lower coolant temperature.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature Sensor Control	Control mode to be used with the supply air temperature sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Fan Communication Lost	Communications with Supply Fan has been lost
Supply Fan Emergency Op	Supply Fan Emergency Fan operate at communications disconnect
Supply Fan Measured Speed	Supply Fan Measured Speed
Supply Fluid Low Temp	[Supply Fluid Temperature] below Supply Fluid Low Temp Threshold.
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply fluid temperature.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply NTC Air Sensor Issue	The supply NTC air sensor is disconnected or the signal is out of range.
Supply Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any supply sensor events are detected and annunciated.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
System Dew Point	System aggregated dew point
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Fluid Cooling Capacity	Chiller system-level cooling capacity in use, expressed in kilowatts.
System Fluid Diff Pressure	Chiller system-level fluid differential pressure
System Fluid Flow	Chiller system-level fluid measured flow volume rate
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Static Pressure	Static pressure measurement among a group of interconnected units in a single system.
System Status	The operating status for the system
Tandem 'B' Compressor Hours	Operating hours for the 'B' compressor in a tandem configuration since last reset of this value.
Tandem 'B' Compressor State	Operational state for the 'B' compressor in a tandem configuration.
Team Static Pressure Sensor Failure	The team static pressure sensor is disconnected or the signal is out of range.
Teamwork Average Calculation Unit Count	If [Teamwork Temperature Calculation Method] is set to Average, this value specifies the maximum number of units in the Teamwork group used to calculate the average.
Teamwork Mode	Teamwork mode. Provides the ability to group multiple networked units for the purpose of operating based on shared system parameters.
Teamwork Temperature Calculation Method	Method used for calculating the single Teamwork Mode air temperature from the temperature sensor values provided by the units in the Teamwork group. Each unit provides a single air temperature sensor value.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Thermal Control Override - Humidity Call	If [Thermal Control Override] is enabled, this value sets the percent call for humidification or dehumidification.
Thermal Control Override - Humidity Control Type	If [Thermal Control Override] is enabled, this value selects if the humidity override is applied to humidification or dehumidification.
Thermal Control Override - Temperature Call	If [Thermal Control Override] is enabled, this value sets the percent call for cooling or heating.
Thermal Control Override - Temperature Control Type	If [Thermal Control Override] is enabled, this value selects if the temperature override is applied to cooling or heating.
Thermal Control Override	Override internal programmatic control of thermal conditions. This includes, but may not be limited to, temperature and humidity. The ability to enable this override may require additional system configuration.
Thermal Runaway	Thermal Runaway
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
TSA Control Input Issue	The analog input used to set the air temperature set point for cooling control is disconnected or the signal is out of range.
Underfloor Static Pressure Control Enable	Enable/disable the underfloor static pressure control.
Unit Aggregated Remote Humidity	The aggregate air humidity computed from remote sensors connected to a single unit. This value will be used for monitoring only. No control is associated with it.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Cascade Control Delay	When a Teamwork unit transitions from 'standby' to 'running' due to cascading, its local control operations are delayed for this amount of time. Control operations can include, but are not limited to, heating, cooling, humidification, and/or dehumidification.
Unit Cascade On Delay	If [Unit Cascade Type] is set to anything other than 'No', and the measured value has reached the transition threshold, a Teamwork unit in 'standby' will transition to 'running' after delaying this amount of time.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Unit Cascade Type	If a unit is a member of a Teamwork group, it can be configured to cascade, i.e. automatically transition between 'standby' and 'running'. The decision of when to perform the transition is determined by comparing the value of this parameter type against a given transition threshold.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit Dew Point	Unit aggregated dew point
Unit Fluid Cooling Capacity	Chiller unit-level cooling capacity in use, expressed in kilowatts.
Unit Fluid Diff Pressure	Chiller unit-level fluid differential pressure
Unit Fluid Flow	Chiller unit-level fluid measured flow volume rate
Unit Fluid Pump Speed	Chiller unit-level fluid pump speed
Unit Fluid Return Pressure	Chiller unit-level fluid return pressure
Unit Fluid Return Temperature	Chiller unit-level entering return fluid temperature
Unit Fluid Supply Pressure	Chiller unit-level fluid supply pressure
Unit Fluid Supply Temperature	Chiller unit-level leaving supply fluid temperature
Unit In Standby Due To Cooling Loss	Unit forced into standby because it is unable to provide any cooling.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unit Static Pressure	Static pressure measurement for a single unit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Valve Communications Failure	A valve is configured to exist but communications cannot be established.
Valve Issue	Valve is reporting abnormal operating condition.

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Table 3.4 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Virtual Master Enable	Enable/disable the virtual master feature.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Leakage	Water Leakage - Typically indicates unit internal water leakage
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Pump Communication Lost	Communications with XD Pump has been lost
XDM Flow and Load Cycling	XDM Flow is Cycling Between Flow and Load
XDM Mix Valve Position Error	XDM Mix Valve is reporting Out of Position
XDM Pump Not Avail	XDM Pump is Not Available
XDM Pump Pressure Sensor Fail	XDM Pump Pressure Sensor Has Failed

Table 3.5 Liebert® DS—Input Status and Coils

Data Description	Status	Coil#	# bit	-	Notes	iCOM Reference
Sleep on Monday	10001	1	1			U603
Sleep on Tuesday	10002	2	1			U603
Sleep on Wednesday	10003	3	1			U603
Sleep on Thursday	10004	4	1			U603
Sleep on Friday	10005	5	1			U603
Sleep on Saturday	10006	6	1			U603
Sleep on Sunday	10007	7	1			U603
Supply Limit Enable	10008	8	1			S105
Reheat Lockout	10009	9	1			S271
Humidifier Lockout	10010	10	1			S272
Temperature Indication [1]	10011	11	1			U404
Timer Mode Type	10012	12	1			U610
Minimum Chilled Water Temp Enable	10013	13	1			S128
Std. Sensor Alarms Enable	10019	19	1			U202

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Table 3.5 Liebert® DS—Input Status and Coils (continued)

Data Description	Status	Coil#	# bit	-	Notes	iCOM Reference
Sensor A Alarms Enable	10020	20	1			U207
Compressor Lockout	10021	21	1			S274
VSD Fan speed	10022	22	1			S131
Unit Control	-	25	1			EnvState. SysCtrl
Reset Alarm	-	26	1		..	EnvState.AlarmCtrl.1
Acknowledge Alarm	-	27	1		..	EnvState. AlarmCtrl.2
Reset Total Run Hours Fan Motor	-	28	1		..	U502
Reset Comp1Run Hour	-	29	1		..	U503
Reset Comp2Run Hour	-	30	1		..	U504
Reset Humidifier Run Hour	-	31	1		..	U510
Reset Dehumidifier Run Hour	-	32	1		..	U511
Reset CW/FC Run Hour	-	33	1		..	U505
Reset E-Heater 1 Run Hour	-	34	1		..	U507
Reset E-Heater 2 Run Hour	-	35	1		..	U508
Reset E-Heater 3 Run Hour	-	36	1		..	U509
Reset HG/HW Run Hour	-	37	1		..	U506
Fan On	10025	-	1			FanSym
Cool On	10026	-	1			CoolSym
Free Cool On	10027	-	1			FCSym
Hot Water On	10028	-	1			HWSym
Electrical Heater On	10029	-	1			HeatSym
Humidification On	10030	-	1			HumSym
Dehumidification On	10031	-	1			DehumSym
Audible Alarm On	10032	-	1			HornSym
Reserved	10033	-	1			087
MAIN FAN OVERLOAD	10034	-	1			006
LOSS OF AIRFLOW	10035	-	1			007
LOSS OF FLOW	10036	-	1			107
COMP 1 HIGH PRESSURE	10037	-	1			001
COMP 1 LOW PRESSURE	10038	-	1			002
COMP 1 OVERLOAD	10039	-	1			071
COMP 1 PUMPDOWN FAIL	10040	-	1			091

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Table 3.5 Liebert® DS—Input Status and Coils (continued)

Data Description	Status	Coil#	# bit	-	Notes	iCOM Reference
COMP 2 HIGH PRESSURE	10041	-	1			058
COMP 2 LOW PRESSURE	10042	-	1			059
COMP 2 OVERLOAD	10043	-	1			072
COMP 2 PUMPDOWN FAIL	10044	-	1			096
DIG SCROLL1 HIGH TEMP	10045	-	1			097
DIG SCROLL2 HIGH TEMP	10046	-	1			98
SMOKE DETECTED	10047	-	1			104
WATER UNDER FLOOR	10048	-	1			105
HUMIDIFIER PROBLEM	10049	-	1			086
STBY GLYCOL PUMP ON	10050	-	1			108
STANDBY UNIT ON	10051	-	1			109
COND PUMP-HIGH WATER	10052	-	1			106
ROOM SENSOR FAILURE	10053	-	1			031
LOSS COMPRESSOR POWER	10054	-	1			135
LOSS OF AIR BLOWER 1	10055	-	1			017
HUMIDIFIER LOW WATER	10058	-	1			153
HUMIDIFIER HIGH AMPS	10059	-	1			152
HIGH TEMPERATURE	10060	-	1			016
LOSS OF POWER	10061	-	1			142
UNSPECIFIED EVENT(S) [1]	10064	-	1			
HIGH CW TEMP	10065	-	1			003
RESERVED	10066	-	1			005
HIGH ROOM TEMP	10067	-	1			018
LOW ROOM TEMP	10068	-	1			019
HIGH ROOM HUM	10069	-	1			020
LOW ROOM HUM	10070	-	1			021
HIGH TEMP SENSOR A	10071	-	1			022
LOW TEMP SENSOR A	10072	-	1			023
HIGH HUM SENSOR A	10073	-	1			024
LOW HUM SENSOR A	10074	-	1			025
LOSS OF CW FLOW	10075	-	1			004
CLOGGED FILTERS	10076	-	1			008

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Table 3.5 Liebert® DS—Input Status and Coils (continued)

Data Description	Status	Coil#	# bit	-	Notes	iCOM Reference
SUPPLY SENSOR FAILURE	10077	-	1			029
FREECOOL TEMP SENSOR	10078	-	1			062
SENSOR A FAILURE	10079	-	1			032
UNIT HRS EXCEEDED	10080	-	1			026
COMP 1 HRS EXCEEDED	10081	-	1			027
COMP 2 HRS EXCEEDED	10082	-	1			060
FC HRS EXCEEDED	10083	-	1			089
EL HEAT1 HRS EXCEEDED	10084	-	1			111
EL HEAT2 HRS EXCEEDED	10085	-	1			112
EL HEAT3 HRS EXCEEDED	10086	-	1			113
HW/HG HRS EXCEEDED	10087	-	1			110
HUM HRS EXCEEDED	10088	-	1			028
DEHUM HRS EXCEEDED	10089	-	1			088
NETWORK FAILURE	10091	-	1			034
NO CONNECTION W/UNIT 1	10092	-	1	..		070
UNIT(S) DISCONNECTED	10093	-	1			(042)-(057)
UNIT CODE MISSING	10094	-				114
UNIT CODE MISMATCH	10095	-				115-132
CALL SERVICE	10096	-				015
Low Memory 1	10097	-				069
RAM / Battery Failure	10098	-				068
HCB not connected	10099	-				094
(Parallel flash) MEMORY 1 FAIL	10100	-				092
(Serial flash) MEMORY 2 FAIL	10101	-				093
CUSTOMER INPUT 1	10104	-				009
CUSTOMER INPUT 2	10105	-				010
CUSTOMER INPUT 3	10106	-				011
CUSTOMER INPUT 4	10107	-				012
DSCROLL 1 SENSOR FAIL	10108	-				030
DSCROLL 2 SENSOR FAIL	10109	-				061

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Table 3.6 Liebert® DS—Input and Holding

Data Description	Input Register	Holding Reg	# Regs	Scale	Note	iCOM Reference
Vendor Id	30001	40001	1	1		-
Device ID	30002	40002	1	1		-
version number	30003	40003	1	1		-
Ups/Env/Pwr	30004	40004	1	1		-
Timer Mode[2]	30016	40016	1	1	..	U609
Type of DT Room-FC [3]	30017	40017	1	1		S126
Humidity Control Type [4]	30018	40018	1	1		S114
VSD Setpoint	30019	40019	1	1	% (HP)	S132
Supply temperature Limit	30020	40020	1	x10	C°	U106
DT between Room and FC	30021	40021	1	x10	C°	S127
Minimum CW Temperature	30022	40022	1	x10	C°	S128
Temperature Setpoint	30023	40023	1	x10	C°	S102
Temperature proportional band	30024	40024	1	x10	C°	S104
Temperature Dead band	30025	40025	1	x10	C°	S108
Temperature Integration time	30026	40026	1	1	Min	S105
Humidity Setpoint	30027	40027	1	1		S113
Humidity proportional band	30028	40028	1	1	%	S115
Humidity Integration time	30029	40029	1	1	Min	S116
Humidity Dead band	30030	40030	1	1		S117
Single unit Auto-restart Delay	30031	40031	1	1	Sec	S417
Infrared Flush Rate	30032	40032	1	1	%	S414
Temp Control Type[5]	30033	40033	1	1		S103
Sleep Interval 1 Start Time Hour:Minute	30040	40040	1		MSB:Hr	U605(FROM)
Sleep Interval 1 End Time Hour:Minute	30041	40041	1		MSB:Hr	U605(TO)

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Table 3.6 Liebert® DS—Input and Holding (continued)

Data Description	Input Register	Holding Reg	# Regs	Scale	Note	iCOM Reference
Sleep Interval 2 Start Time Hour:Minute	30042	40042	1		MSB:Hr	U607(from)
Sleep Interval 2 End Time Hour:Minute	30043	40043	1		MSB:Hr	U607(to)
Timer Dead Band	30044	40044	1	X10	C°	U611
Manual VSD Timer/Counter[6]	30045	40045	1			
High Temperature	30050	40050	1	X10	C°	U203
Low Temperature	30051	40051	1	X10	C°	U204
High Temperature Sensor A	30052	40052	1	X10	C°	U208
Low Temperature Sensor A	30053	40053	1	X10	C°	U209
High Humidity	30054	40054	1	1		U205
Low Humidity	30055	40055	1	1	%	U206
High Humidity Sensor A	30056	40056	1	1	%	U210
Low Humidity Sensor A	30057	40057	1	1	%	U211
Fan Run Hour Threshold	30070	40070		1	Hour	U502
Compressor 1 Run Hour Threshold	30071	40071		1	Hour	U503
Compressor 2 Run Hour Threshold	30072	40072		1	Hour	U504
Humidifier run hours Threshold	30073	40073		1	Hour	U510
Dehumidification run hours Threshold	30074	40074		1	Hour	U511
CW/FC run hours Threshold	30075	40075		1	Hour	U505
Electrical Heaters #1 run hours Threshold	30076	40076		1	Hour	U507
Electrical Heaters #2 run hours Threshold	30077	40077		1	Hour	U508
Electrical Heaters #3 run hours Threshold	30078	40078		1	Hour	U509
Hot Water / Hot Gas run hours Threshold	30079	40079		1	Hour	U506

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Table 3.6 Liebert® DS—Input and Holding (continued)

Data Description	Input Register	Holding Reg	# Regs	Scale	Note	iCOM Reference
Operating State[7]	30100	-		1	-	EnbState. OperatingState
Number of Active Events/Alarm	30101	-		-		EnvState.EventCount
Summary Alarm Status[8]	30102	-		-	-	EnvState. AlarmState
Fan Ramp	30103	-		1	%	EnvState. FanRamp
Cooling Ramp	30104	-		1	%	EnvState. CoolRamp
Free Cooling Ramp	30105	-		1	%	EnvState. FCRamp
Heating Ramp	30106	-		1	%	EnvState. HeatRamp
Humidification Ramp	30107	-		1	%	EnvState. HumRamp
Dehumidifier Ramp	30108	-		1	%	EnvState. DehumRamp
FreeCooling Status[9]	30109	-		1	%	U312
Return Temperature	30110	-		x10	C°	EnvState. ActTemp
Actual Temperature SP	30111	-		x10	C°	U301(ActTemp Set)
Supply Temperature	30112	-		x10	C°	EnvState.ActSup
Actual Supply Temperature SP	30113	-		x10	C°	EnvState. ActSupSet
FC Temperature	30115	-		x10	C°	U309
Sensor A Temperature	30116	-		x10	C°	U303
Sensor B Temperature	30117	-		x10	C°	U305
Sensor C Temperature	30118	-		x10	C°	U307
Digi Scroll 1 Temperature	30119	-		x10	C°	U310
Digi Scroll 2 Temperature	30120	-		x10	C°	U311
Return Humidity	30130	-		1	%	EnvState.ActTemp
Actual Humidity SP	30131	-		1	%	U302 (ActHumSet)
Sensor A Humidity	30132	-		1	%	U304
Sensor B Humidity	30133	-		1	%	U306
Sensor C Humidity	30134	-		1	%	U308
Fan Run Hour	30141	-		1	Hour	S502

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Table 3.6 Liebert® DS—Input and Holding (continued)

Data Description	Input Register	Holding Reg	# Regs	Scale	Note	iCOM Reference
Compressor 1 Run Hour	30142	-		1	Hour	S503
Compressor 2 Run Hour	30143	-		1	Hour	S504
Humidifier run hours	30144	-		1	Hour	S510
Dehumidification run hours	30145	-		1	Hour	S511
Free cooling run hours	30146	-		1	Hour	S505
Electrical Heaters #1 run hours	30147	-		1	Hour	S507
Electrical Heaters #2 run hours	30148	-		1	Hour	S508
Electrical Heaters #3 run hours	30149	-		1	Hour	S509
Hot Water / Hot Gas run hours	30150	-		1	Hour	S506
Daily High Temperature	30151	-		x10	C°	S313
Daily High Temp Time	30152	-		x1	Hh:mm	S313
Daily Low Temperature	30153	-		x10	C°	S314
Daily Low Temp Time	30154	-		x1	Hh:mm	S314
Daily High Humidity	30155	-		x1	%RH	S315
Daily High Hum Time	30156	-		x1	Hh:mm	S315

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Table 3.6 Liebert® DS—Input and Holding (continued)

Data Description	Input Register	Holding Reg	# Regs	Scale	Note	iCOM Reference
Daily Low Humidity	30157	-		x1	%RH	S316
Daily Low Hum Time	30158	-		x1	Hh:mm	S316

NOTE:

[1] Any non-recognized alarm code by current firmware received from the DS control will trigger this event.

[2] Timer mode: 0= no, 1= yes.

[3] Type of DT Room-Glycol: 0= no, 1= contact, 2= value.

[4] Predictive Hum Control: 0= relative, 1= compensated, 2= predictive.

[5] Temp Control Algorithm: 0= proportional, 1= PD, 2= PD, 3= intelligent.

[6] When VFD is set to manual mode (coil 22), the host can control the VFD by the value of register 40019. The Manual VSD Timer will start to count down. Once it reaches 0, the VFD control mode will switch to auto. The host will need to periodically reset this timer in order to maintain the manual mode. Consult factory for BMS timer information.

[7] Operating State:

- **Bit 0-1:** 00 unit off, 01 unit on, 10 unit standby
- **Bit 2-3:** 00 auto, 01 manual
- **Bit 4-7:**

  0000 none,

  0001 local user,

  0010 alarm,

  0011 schedule,

  0100 remote user,

  0101 external device,

  0110 local display.

[8] Alarm state bit map:

Bit0= Reset state,

bit1= Active state,

bit2= Acknowledge state,

bit3-7= Alarm Type:

00000: Message,

00001: Warning,

00010: Alarm.

[9] Free-cool state: 0= Off, 1= Start, 2= On.

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Table 3.7 Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® LECS 15—Input and Holding—C10 2-Step

Controller	C10				
Liebert Products	Liebert Atlas Air Liebert Atlas PEC Liebert LECS 15				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Unit Number	—	40001	1	—	1-99
Average Return Air Temp.	—	40002	1	10	deg C
Average Return Air Humidity	—	40003	1	10	%
Average Supply Air Temp.	—	40004	1	10	deg C
Average Supply Air Humidity	—	40005	1	10	%
Fan Status	—	40007	1	—	1=On / 0=Off
Cool 1 Status	—	40008	1	—	1=On / 0=Off
Cool 2 Status	—	40009	1	—	1=On / 0=Off
Heat 1 Status	—	40010	1	—	1=On / 0=Off
Heat 2 Status	—	40011	1	—	1=On / 0=Off
Humidifier Status	—	40012	1	—	—
De-humidifier Status	—	40013	1	—	—
Cooling Capacity	—	40014	1	—	%
Heating Capacity	—	40015	1	—	%
Temperature Control Status	—	40019	1	—	0=Return / 1=Supply
Battery Voltage Level	—	40020	1	10	V
Remote Shutdown Status	—	40021	1	—	1=Enabled / 0=Disabled
Temperature Control Select	—	40024	1	—	0=Return / 1=Supply 2=Remote / 3=Auto
Alarm Points					
Communications	—	40289	1	—	Bit 0
Faulty Sensor	—	40289	1	—	Bit 1
High Temperature	—	40289	1	—	Bit 2
Low Temperature	—	40289	1	—	Bit 3
High Humidity	—	40289	1	—	Bit 4
Low Humidity	—	40289	1	—	Bit 5

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Table 3.7 Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® LECS 15—Input and Holding—C10 2-Step (continued)

Controller	C10				
Liebert Products	Liebert Atlas Air Liebert Atlas PEC Liebert LECS 15				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Loss of Airflow	—	40289	1	—	Bit 6
Water Under Floor	—	40289	1	—	Bit 7
Cool 1 Low Pressure Alarm	—	40289	1	—	Bit 8
Cool 2 Low Pressure Alarm	—	40289	1	—	Bit 9
Cool 1 High Pressure Alarm	—	40289	1	—	Bit 10
Cool 2 High Pressure Alarm	—	40290	1	—	Bit 0
Cool Service	—	40290	1	—	Bit 1
Humidifier Service	—	40290	1	—	Bit 2
Filter Service	—	40290	1	—	Bit 3
Humidity Low Level	—	40290	1	—	Bit 4
Battery Level Low	—	40290	1	—	Bit 5
Loss of Power	—	40290	1	—	Bit 6
Local Alarm 1	—	40290	1	—	Bit 7
Local Alarm 2	—	40290	1	—	Bit 8
Setpoints (View)					
Return Air Temperature	—	40016	1	10	deg C (R/W)
Return Air Humidity	—	40017	1	10	deg C (R/W)
Supply Air Temperature	—	40018	1	10	deg C (R/W)
High Temp Alarm	—	40025	1	10	deg C (R/W)
Low Temp Alarm	—	40026	1	10	deg C (R/W)
High Hum Alarm	—	40027	1	10	% (R/W)
Low Hum Alarm	—	40028	1	10	% (R/W)
Restart Delay	—	40029	1	—	Seconds (R/W)
Control Points (Set)					
Activation Mode	—	40006	1	—	1=On / 0=Off (R/W)
General Alarm Status	—	40022	1	—	1=On / 0=Off; write 0 to reset alarm
Audible Alarm Status	—	40023	1	—	1=On / 0=Off; write 0 to ack alarm

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Table 3.7 Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® LECS 15—Input and Holding—C10 2-Step (continued)

Controller	C10				
Liebert Products	Liebert Atlas Air Liebert Atlas PEC Liebert LECS 15				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Return Air Temperature	—	40349	1	10	deg C (R/W)
Return Air Humidity	—	40350	1	10	deg C (R/W)
Supply Air Temperature	—	40351	1	10	deg C (R/W)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.8 Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® CEMS 100—Input and Holding—C100 4-Step

Controller	Liebert® CEMS 100				
Liebert Products	Liebert Atlas Air Liebert Atlas PEC Liebert CEMS 100				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Unit Number	—	40001	1	—	1-99
Average Return Air Temp.	—	40002	1	10	deg C
Average Return Air Humidity	—	40003	1	10	%
Average Supply Air Temp.	—	40004	1	10	deg C
Average Supply Air Humidity	—	40005	1	10	%
Fan Status	—	40007	1	—	1=On / 0=Off
Cool 1 Status	—	40008:0	1	—	1=On / 0=Off
Cool 2 Status	—	40009:0	1	—	1=On / 0=Off
Cool 3 Status	—	40008:4	1	—	1=On / 0=Off
Cool 4 Status	—	40009:4	1	—	1=On / 0=Off
Heat 1 Status	—	40010	1	—	1=On / 0=Off
Heat 2 Status	—	40011	1	—	1=On / 0=Off
Humidifier Status	—	40012	1	—	—
De-humidifier Status	—	40013	1	—	—

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Table 3.8 Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® CEMS 100—Input and Holding—C100 4-Step (continued)

Controller	Liebert® CEMS 100				
Liebert Products	Liebert Atlas Air Liebert Atlas PEC Liebert CEMS 100				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Cooling Capacity	—	40014	1	—	%
Heating Capacity	—	40015	1	—	%
Temperature Control Status	—	40019	1	—	0=Return / 1=Supply
Battery Voltage Level	—	40020	1	100	V
Remote Shutdown Status	—	40021	1	—	1=Enabled / 0=Disabled
Temperature Control Select	—	40024	1	—	0=Return / 1=Supply 2=Remote / 3=Auto
Alarm Points					
Communications	—	40289	1	—	Bit 0
Faulty Sensor	—	40289	1	—	Bit 1
High Temperature	—	40289	1	—	Bit 2
Low Temperature	—	40289	1	—	Bit 3
High Humidity	—	40289	1	—	Bit 4
Low Humidity	—	40289	1	—	Bit 5
Loss of Airflow	—	40289	1	—	Bit 6
Water Under Floor	—	40289	1	—	Bit 7
Cool 1 Low Pressure Alarm	—	40289	1	—	Bit 8
Cool 2 Low Pressure Alarm	—	40289	1	—	Bit 9
Cool 1 High Pressure Alarm	—	40289	1	—	Bit 10
Cool 2 High Pressure Alarm	—	40290	1	—	Bit 0
Cool Service	—	40290	1	—	Bit 1
Humidifier Service	—	40290	1	—	Bit 2
Filter Service	—	40290	1	—	Bit 3
Humidity Low Level	—	40290	1	—	Bit 4
Battery Level Low	—	40290	1	—	Bit 5
Loss of Power	—	40290	1	—	Bit 6
Local Alarm 1	—	40290	1	—	Bit 7

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Table 3.8 Liebert® Atlas Air, Liebert® Atlas PEC, Liebert® CEMS 100—Input and Holding—C100 4-Step (continued)

Controller	Liebert® CEMS 100				
Liebert Products	Liebert Atlas Air Liebert Atlas PEC Liebert CEMS 100				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Local Alarm 2	—	40290	1	—	Bit 8
Cool 3 Low Pressure	—	40290	1	—	Bit 9
Cool 4 Low Pressure	—	40290	1	—	Bit 10
Cool 3 High Pressure	—	40290	1	—	Bit 11
Cool 4 High Pressure	—	40290	1	—	Bit 12
Air Flow 2 Loss	—	40290	1	—	Bit 13
Setpoints (View)					
Return Air Temperature	—	40016	1	10	deg C (R/W)
Return Air Humidity	—	40017	1	10	deg C (R/W)
Supply Air Temperature	—	40018	1	10	deg C (R/W)
High Temp Alarm	—	40025	1	10	deg C (R/W)
Low Temp Alarm	—	40026	1	10	deg C (R/W)
High Hum Alarm	—	40027	1	10	% (R/W)
Low Hum Alarm	—	40028	1	10	% (R/W)
Restart Delay	—	40029	1	—	Seconds (R/W)
Control Points (Set)					
Activation Mode	—	40006	1	—	1=On / 0=Off (R/W)
General Alarm Status	—	40022	1	—	1=On / 0=Off; write 0 to reset alarm
Audible Alarm Status	—	40023	1	—	1=On / 0=Off; write 0 to ack alarm
Return Air Temperature	—	40349	1	10	deg C (R/W)
Return Air Humidity	—	40350	1	10	deg C (R/W)
Supply Air Temperature	—	40351	1	10	deg C (R/W)

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

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Table 3.9 Liebert® Challenger 3000, Liebert® Deluxe System/3, Liebert® Himod, Liebert® ICS—Input and Holding—LAM

Controller	Advanced Microprocessor - LAM				
Liebert Products	Liebert Challenger 3000 Liebert Deluxe System/3 Liebert Himod (LNA version - Using Liebert SiteScan®) Liebert ICS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Temperature	—	40001	1	—	—
Humidity	—	40002	1	—	—
Cooling	—	40003	1	—	1=On 0=Off
Heating	—	40004	1	—	1=On 0=Off
Humidification	—	40005	1	—	1=On 0=Off
De-humidification	—	40006	1	—	1=On 0=Off
Econ-O-Cycle	—	40007	1	—	1=On 0=Off
Stages	—	40008	1	—	—
% Capacity	—	40009	1	—	—
Unit Status (On / Off)	—	40018	1	—	1=On 0=Off (Read Only)
Alarm Points					Discrete alarm objects available; use autodiscover for this unit
Communications	—	40289	1	—	Bit 0
Local Off	—	40289	1	—	Bit 1
Remote Off	—	40289	1	—	Bit 2
High Head Pressure 1	—	40289	1	—	Bit 3
High Head Pressure 2	—	40289	1	—	Bit 4
Loss of Airflow	—	40289	1	—	Bit 5
Standby Glycol Unit On	—	40289	1	—	Bit 6
Liquid Detected	—	40289	1	—	Bit 7
Change Filters	—	40289	1	—	Bit 8

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Table 3.9 Liebert® Challenger 3000, Liebert® Deluxe System/3, Liebert® Himod, Liebert® ICS—Input and Holding—LAM (continued)

Controller	Advanced Microprocessor - LAM				
Liebert Products	Liebert Challenger 3000 Liebert Deluxe System/3 Liebert Himod (LNA version - Using Liebert SiteScan®) Liebert ICS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
High Temperature	—	40289	1	—	Bit 9
Low Temperature	—	40289	1	—	Bit 10
High Humidity	—	40290	1	—	Bit 0
Low Humidity	—	40290	1	—	Bit 1
Humidifier Problem	—	40290	1	—	Bit 2
No Water in Humidifier Pan	—	40290	1	—	Bit 3
Compressor 1 Overload	—	40290	1	—	Bit 4
Compressor 2 Overload	—	40290	1	—	Bit 5
Main Fan Overload	—	40290	1	—	Bit 6
Manual Override	—	40290	1	—	Bit 7
Smoke Detected	—	40290	1	—	Bit 8
Loss of Water	—	40290	1	—	Bit 9
Standby Unit On	—	40290	1	—	Bit 10
Low Suction	—	40291	1	—	Bit 0
Short Cycle	—	40291	1	—	Bit 1
Loss of Power	—	40291	1	—	Bit 2
Inverter on Bypass	—	40291	1	—	Bit 3
Standby Fan On	—	40291	1	—	Bit 4
Loss of Emergency Power	—	40291	1	—	Bit 5
Local Alarm 1	—	40291	1	—	Bit 6
Local Alarm 2	—	40291	1	—	Bit 7
Off by Remote Shutdown	—	40291	1	—	Bit 8
Local Alarm 3	—	40291	1	—	Bit 9
Local Alarm 4	—	40291	1	—	Bit 10
Compressor 1 Run Hours	—	40019	1	—	—

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Table 3.9 Liebert® Challenger 3000, Liebert® Deluxe System/3, Liebert® Himod, Liebert® ICS—Input and Holding—LAM (continued)

Controller	Advanced Microprocessor - LAM				
Liebert Products	Liebert Challenger 3000 Liebert Deluxe System/3 Liebert Himod (LNA version - Using Liebert SiteScan®) Liebert ICS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Compressor 2 Run Hours	—	40020	1	—	—
Fan Motor Run Hours	—	40021	1	—	—
Humidifier Run Hours	—	40022	1	—	—
Setpoints (View)					
Temperature Setpoint	—	40010	1	—	(R/W)
Temperature Tolerance	—	40011	1	—	(R/W)
Humidity Setpoint	—	40012	1	—	(R/W)
Humidity Tolerance	—	40013	1	—	(R/W)
High Temp Alarm Setpoint	—	40014	1	—	(R/W)
Low Temp Alarm Setpoint	—	40015	1	—	(R/W)
High Humd Alarm Setpoint	—	40016	1	—	(R/W)
Low Humidity Alarm Setpoint	—	40017	1	—	(R/W)
Winter Start Delay	—	40028	1	—	Minutes (R/W)
Auto Flush Rate	—	40029	1	—	% (R/W)
Chill Water Flush Rate	—	40030	1	—	Hours (R/W)
Auto Restart Delay	—	40031	1	—	0.1 minute (R/W)
Control Points (Set)					
Unit On / Off	—	40349	1	—	Bit 0 On=unit Off; Bit 1 On=unit On
Temperature Setpoint	—	40350	1	—	—
Temperature Tolerance	—	40350	1	1000	—
Humidity Setpoint	—	40351	1	—	—
Humidity Tolerance	—	40351	1	1000	—
Reheat Lockout	—	40349	1	—	Bit 2 On=RH Off; Bit 3 On=RH On
Humidifier Lockout	—	40349	1	—	Bit 4 On=HL Off; Bit 5 On=HL On
Trendable Points (Set)					

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Table 3.9 Liebert® Challenger 3000, Liebert® Deluxe System/3, Liebert® Himod, Liebert® ICS—Input and Holding—LAM (continued)

Controller	Advanced Microprocessor - LAM				
Liebert Products	Liebert Challenger 3000 Liebert Deluxe System/3 Liebert Himod (LNA version - Using Liebert SiteScan®) Liebert ICS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Temperature	—	—	1	—	—
Humidity	—	—	1	—	—
Reports	—	—		—	—
Trend	—	—	1	—	—
Status	—	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.10 Vertiv™ Liebert® CRV CR012—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Supply Air Over Temperature	10131		1	Active on Alarm
Loss of Airflow Sensor Failure	10263		1	Active on Alarm
High Return Humidity	10135		1	Active on Alarm
Low Return Humidity	10136		1	Active on Alarm
Loss of Airflow	10040		1	Active on Alarm
Supply Air Under Temperature	10132		1	Active on Alarm
Return Air Over Temperature	10129		1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215		1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216		1	Active on Alarm

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Table 3.10 Vertiv™ Liebert® CRV CR012—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
ReturnAirTempSensor				
Return Air Sensor Issue	10209		1	Active on Alarm
RemoteTempSensor 1				
External Air Sensor Issue	10225		1	Active on Alarm
RemoteTempSensor 2				
External Air Sensor Issue	10226		1	Active on Alarm
RemoteTempSensor 10				
External Air Sensor Issue	10234		1	Active on Alarm
ReturnAirHumidtySensor				
Return Humidity Sensor Issue	10212		1	Active on Alarm
Airfilter				
Clogged Air Filter	10039		1	Active on Alarm
Filter Maintenance Due	10082		1	Active on Alarm
Compressor				
Compressor Drive Failure U00	10273		1	Active on Alarm
Compressor Drive Failure U01	10274		1	Active on Alarm
Compressor Drive Failure U02	10275		1	Active on Alarm
Compressor Drive Failure U03	10276		1	Active on Alarm
Compressor Drive Failure U04	10277		1	Active on Alarm
Compressor Drive Failure U05	10278		1	Active on Alarm
Compressor Drive Failure U06	10279		1	Active on Alarm
Compressor Drive Failure U07	10280		1	Active on Alarm
Compressor Drive Failure U08	10281		1	Active on Alarm

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Table 3.10 Vertiv™ Liebert® CRV CR012—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Compressor Drive Failure U09	10282		1	Active on Alarm
Compressor Drive Failure U10	10283		1	Active on Alarm
Compressor Drive Failure U11	10284		1	Active on Alarm
Compressor Drive Failure U12	10285		1	Active on Alarm
Compressor Drive Failure U13	10286		1	Active on Alarm
Compressor Drive Failure U14	10287		1	Active on Alarm
Compressor Drive Failure U15	10288		1	Active on Alarm
EEV Driver Unselect Refrigerant	10289		1	Active on Alarm
Compressor Info				
High Compressor Pressure Abnormal	10171		1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170		1	Active on Alarm
Low Compressor Discharge Superheat	10169		1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166		1	Active on Alarm
High Compressor Discharge Temperature	10165		1	Active on Alarm
Low Compressor Pressure Lockout	10164		1	Active on Alarm
Low Compressor Pressure	10163		1	Active on Alarm
High Compressor Presssure Lockout	10162		1	Active on Alarm
High Compressor Pressure	10161		1	Active on Alarm
Compressor Driver Communication Failure	10181		1	Active on Alarm
High Compressor Pressure Sensor Failure	10193		1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195		1	Active on Alarm

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Table 3.10 Vertiv™ Liebert® CRV CR012—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Low Compressor Pressure Sensor Failure Lockout	10197		1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199		1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201		1	Active on Alarm
Fan Issue 1				
Fan Issue	10097		1	Active on Alarm
Fan Issue 2				
Fan Issue	10098		1	Active on Alarm
Fan Issue 4				
Fan Issue	10100		1	Active on Alarm
Humidifier				
Humidifier State	10003		1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004		1	Active on Alarm
Reheater				
Electric Reheat State	10002		1	Active on Alarm
Electrical Heater Failure	10115		1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067		1	Active on Alarm
Input Overvoltage	10066		1	Active on Alarm
Input Frequency Deviation	10068		1	Active on Alarm
Power Loss Of Phase	10069		1	Active on Alarm
System Operations				
Cooling State	10001		1	Active on Alarm
System Events				

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Table 3.10 Vertiv™ Liebert® CRV CR012—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Repeated Teamwork Address	10064		1	Active on Alarm
Loss of Teamwork Slave	10063		1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062		1	Active on Alarm
Water Under Floor	10034		1	Active on Alarm
Internal Communications Failure	19990		1	Active on Alarm
System Lack Of Refrigerant	10290		1	Active on Alarm
Ext Condenser Pump High Water	10038		1	Active on Alarm
Ext Remote Shutdown	10033		1	Active on Alarm
Shutdown - Loss Of Power	10065		1	Active on Alarm
EEV Drive				
EEV Driver Communication Failure	10177		1	Active on Alarm

Table 3.11 Vertiv™ Liebert® CRV CR012—Input and Holding

Data Label	Input	Holding	Number of Bits	Scale	Notes/Units
Air					
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	30042		1	10	Units : deg C

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Table 3.11 Vertiv™ Liebert® CRV CR012—Input and Holding (continued)

Data Label	Input	Holding	Number of Bits	Scale	Notes/Units
					Int16
Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	30043		1	10	Units : deg C Int16
Return AirTempSensor					
Return Air Sensor Temperature	30036		1	10	Units : deg C Int16
RemoteTempSensor 1					
Remote Sensor Temperature	30048		1	10	Units : deg C Int16
RemoteTempSensor 2					
Remote Sensor Temperature	30049		1	10	Units : deg C Int16
RemoteTempSensor 10					
Remote Sensor Temperature	30057		1	10	Units : deg C Int16
ReturnAirHumidtySensor					
Return Sensor Humidity		30039		1	10
AirfilterInfo					
Air Filter Hours	30116	40116	1		Units : hr Uint16
Compressor					
Compressor Control Mode	30004	40004	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
CompressorInfo					
Compressor Suction Superheat	30105		1	10	Units : deg C Int16
Compressor Discharge Superheat	30104		1	10	Units : deg C

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Table 3.11 Vertiv™ Liebert® CRV CR012—Input and Holding (continued)

Data Label	Input	Holding	Number of Bits	Scale	Notes/Units
					Int16
Compressor Suction Temperature	30103		1	10	Units : deg C Int16
Compressor Discharge Temperature	30102		1	10	Units : deg C Int16
Compressor Low Pressure	30101		1	10	Units : bar Uint16
Compressor High Pressure	30100		1	10	Units : bar Uint16
Cooling Capacity (Master)	30080		1		Units : % Uint16
Compressor Hours	30111	40111	1		Units : hr Uint16
Fan					
Fan Control Mode	30003	40003	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
FanInfo					
Fan Speed	30079		1		Units : % Uint16
Fan Hours	30110	40110	1		Units : hr Uint16
Condenser					
Condenser Fan Speed	30082		1		Units : % Uint16
CondensatePump					
Condensate Pump Hours	30117	40117	1		Units : hr

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Table 3.11 Vertiv™ Liebert® CRV CR012—Input and Holding (continued)

Data Label	Input	Holding	Number of Bits	Scale	Notes/Units
					Uint16
ReheaterInfo					
Electric Reheater Hours	30113	40113	1		Units : hr Uint16
PowerMeasurement					
System Input RMS A-N	30021		1	10	Units : VAC Int16
System Input RMS B-N	30022		1	10	Units : VAC Int16
System Input RMS C-N	30023		1	10	Units : VAC Int16
System Input Frequency	30024		1	10	Units : Hz Int16
System Operations					
Teamwork Status	30002		1		0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1		16 = on 31 = off
System Info					
System Operating State	30001		1		0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout
System Status	38900		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

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Table 3.12 Liebert® CRV CR012—Glossary

Data Label	Data Description
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive Failure U00	Compressor Drive Failure U00
Compressor Drive Failure U01	Compressor Drive Failure U01
Compressor Drive Failure U02	Compressor Drive Failure U02
Compressor Drive Failure U03	Compressor Drive Failure U03
Compressor Drive Failure U04	Compressor Drive Failure U04
Compressor Drive Failure U05	Compressor Drive Failure U05
Compressor Drive Failure U06	Compressor Drive Failure U06
Compressor Drive Failure U07	Compressor Drive Failure U07
Compressor Drive Failure U08	Compressor Drive Failure U08
Compressor Drive Failure U09	Compressor Drive Failure U09
Compressor Drive Failure U10	Compressor Drive Failure U10
Compressor Drive Failure U11	Compressor Drive Failure U11
Compressor Drive Failure U12	Compressor Drive Failure U12
Compressor Drive Failure U13	Compressor Drive Failure U13
Compressor Drive Failure U14	Compressor Drive Failure U14
Compressor Drive Failure U15	Compressor Drive Failure U15
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.

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Table 3.12 Liebert® CRV CR012—Glossary (continued)

Data Label	Data Description
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Unselect Refrigerant	EEV Driver Unselect Refrigerant
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Pressure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.

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Table 3.12 Liebert® CRV CR012—Glossary (continued)

Data Label	Data Description
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Under Temperature	Supply air low temperature event.
System Input Frequency	The system input frequency

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Table 3.12 Liebert® CRV CR012—Glossary (continued)

Data Label	Data Description
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Lack Of Refrigerant	System Lack Of Refrigerant
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 3.13 Liebert® CRV CR025,CRD25,CRD35—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Supply Air Over Temperature	10131	—	1	Active on Alarm
Loss of Airflow Sensor Failure	10263	—	1	Active on Alarm
High Return Humidity	10135	—	1	Active on Alarm
Low Return Humidity	10136	—	1	Active on Alarm
Loss of Airflow	10040	—	1	Active on Alarm
Supply Air Under Temperature	10132	—	1	Active on Alarm
Return Air Over Temperature	10129	—	1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215	—	1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216	—	1	Active on Alarm
ReturnAirTempSensor				
Return Air Sensor Issue	10209	—	1	Active on Alarm
RemoteTempSensor 1				
External Air Sensor Issue	10225	—	1	Active on Alarm
RemoteTempSensor 2		—		
External Air Sensor Issue	10226	—	1	Active on Alarm
. . .		—		
RemoteTempSensor 10				
External Air Sensor Issue	10234	—	1	Active on Alarm

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Table 3.13 Liebert® CRV CR025,CRD25,CRD35—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
ReturnAirHumidtySensor		—		
Return Humidity Sensor Issue	10212	—	1	Active on Alarm
Airfilter				
Clogged Air Filter	10039	—	1	Active on Alarm
Filter Maintenance Due	10082	—	1	Active on Alarm
Compressor				
EEV Driver Unselect Refrigerant	10289	—	1	Active on Alarm
Compressor Drive Heatsink High Temperature	10295	—	1	Active on Alarm
Compressor Drive Over Current	10296	—	1	Active on Alarm
Compressor Drive Phase Loss	10297	—	1	Active on Alarm
Compressor Drive DC Power Abnormal	10298	—	1	Active on Alarm
CompressorInfo				
High Compressor Pressure Abnormal	10171	—	1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170	—	1	Active on Alarm
Low Compressor Discharge Superheat	10169	—	1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166	—	1	Active on Alarm
High Compressor Discharge Temperature	10165	—	1	Active on Alarm
Low Compressor Pressure Lockout	10164	—	1	Active on Alarm
Low Compressor Pressure	10163	—	1	Active on Alarm
High Compressor Presssure Lockout	10162	—	1	Active on Alarm
High Compressor Pressure	10161	—	1	Active on Alarm
Compressor Driver Failure	10185	—	1	Active on Alarm
Compressor Driver Communication Failure	10181	—	1	Active on Alarm
High Compressor Pressure Sensor Failure	10193	—	1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195	—	1	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	10197	—	1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199	—	1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201	—	1	Active on Alarm
FanIssue 1				
Fan Issue	10097	—	1	Active on Alarm
FanIssue 2				
Fan Issue	10098	—	1	Active on Alarm

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Table 3.13 Liebert® CRV CR025,CRD25,CRD35—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
. . .		—		
FanIssue 4				
Fan Issue	10100	—	1	Active on Alarm
Humidifier				
Humidifier State	10003	—	1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004	—	1	Active on Alarm
Reheater				
Electric Reheat State	10002	—	1	Active on Alarm
Electrical Heater Failure	10115	—	1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067	—	1	Active on Alarm
Input Overvoltage	10066	—	1	Active on Alarm
Power Loss Of Phase	10069	—	1	Active on Alarm
SystemOperations				
Cooling State	10001	—	1	Active on Alarm
SystemEvents				
Repeated Teamwork Address	10064	—	1	Active on Alarm
Loss of Teamwork Slave	10063	—	1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062	—	1	Active on Alarm
Water Under Floor	10034	—	1	Active on Alarm
Humidifier Issue	10117	—	1	Active on Alarm
Internal Communications Failure	19990	—	1	Active on Alarm
System Lack Of Refrigerant	10290	—	1	Active on Alarm
Ext Condenser Pump High Water	10038	—	1	Active on Alarm
Ext Remote Shutdown	10033	—	1	Active on Alarm
Shutdown - Loss Of Power	10065	—	1	Active on Alarm
EEVDrive				
EEV Driver Communication Failure	10177	—	1	Active on Alarm

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Table 3.14 Liebert® CRV CR025,CRD25,CRD35—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
SupplyAirTempSensor 1					
Supply Air Sensor Temperature	30042	—	1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043	—	1	10	Units : deg C Int16
ReturnAirTempSensor					
Return Air Sensor Temperature	30036	—	1	10	Units : deg C Int16
RemoteTempSensor 1					
Remote Sensor Temperature	30048	—	1	10	Units : deg C Int16
RemoteTempSensor 2					
Remote Sensor Temperature	30049	—	1	10	Units : deg C Int16
. . .					
RemoteTempSensor 10					
Remote Sensor Temperature	30057	—	1	10	Units : deg C Int16
ReturnAirHumidtySensor					
Return Sensor Humidity	30039	—	1	10	Units : % RH Uint16
AirfilterInfo					
Air Filter Hours	30116	40116	—	1	Units : hr Uint16

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Table 3.14 Liebert® CRV CR025,CRD25,CRD35—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Compressor					
Compressor Control Mode	30004	40004	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
CompressorInfo					
Compressor Suction Superheat	30105	—	1	10	Units : deg C Int16
Compressor Discharge Superheat	30104	—	1	10	Units : deg C Int16
Compressor Suction Temperature	30103	—	1	10	Units : deg C Int16
Compressor Discharge Temperature	30102	—	1	10	Units : deg C Int16
Compressor Low Pressure	30101	—	1	10	Units : bar Uint16
Compressor High Pressure	30100	—	1	10	Units : bar Uint16
Cooling Capacity (Master)	30080	—	1	—	Units : % Uint16
Compressor Hours	30111	40111	1	—	Units : hr Uint16 Fan
Fan					
Fan Control Mode	30003	40003	1	—	0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
FanInfo					
Fan Speed	30079		1	—	Units : % Uint16
Fan Hours	30110	40110	1	—	Units : hr Uint16

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Table 3.14 Liebert® CRV CR025,CRD25,CRD35—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
CondensatePump					
Condensate Pump Hours	30117	40117	1	—	Units : hr Uint16
HumidifierInfo					
Humidifier Hours	30114	40114	1	—	Units : hr Uint16
ReheaterInfo					
Electric Reheater Hours	30113	40113	1	—	Units : hr Uint16
PowerMeasurement					
System Input RMS A-N	30021	—	1	10	Units : VAC Int16
System Input RMS B-N	30022	—	1	10	Units : VAC Int16
System Input RMS C-N	30023	—	1	10	Units : VAC Int16
System Input Frequency	30024	—	1	10	Units : Hz Int16
SystemOperations					
Teamwork Status	30002	—	1	—	0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1	—	16 = on 31 = off
SystemInfo					
System Operating State	30001	—	1	—	0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout
System Status	38900	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

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Table 3.15 Liebert® CRV CR025,CRD25,CRD35—Glossary

Data Label	Data Description
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive DC Power Abnormal	Compressor Drive DC Power Abnormal
Compressor Drive Heatsink High Temperature	Compressor Drive Heatsink High Temperature
Compressor Drive Over Current	Compressor Drive Over Current
Compressor Drive Phase Loss	Compressor Drive Phase Loss
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Unselect Refrigerant	EEV Driver Unselect Refrigerant
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.

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Table 3.15 Liebert® CRV CR025,CRD25,CRD35—Glossary (continued)

Data Label	Data Description
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.

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Table 3.15 Liebert® CRV CR025,CRD25,CRD35—Glossary (continued)

Data Label	Data Description
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Under Temperature	Supply air low temperature event.
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Lack Of Refrigerant	System Lack Of Refrigerant
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

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Table 3.16 Liebert® CRV CR030, CRC30, CRC60—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Remote Sensor Under Temperature	10134	—	1	Active on Alarm
Supply Air Over Temperature	10131	—	1	Active on Alarm
Loss of Airflow Sensor Failure	10263	—	1	Active on Alarm
High Return Humidity	10135	—	1	Active on Alarm
Remote Sensor Over Temperature	10133	—	1	Active on Alarm
Low Return Humidity	10136	—	1	Active on Alarm
Return Air Under Temperature	10130	—	1	Active on Alarm
Loss of Airflow	10040	—	1	Active on Alarm
Low Supply Air Humidity	10138	—	1	Active on Alarm
High Supply Air Humidity	10137	—	1	Active on Alarm
Low Remote Air Humidity	10140	—	1	Active on Alarm
High Remote Air Humidity	10139	—	1	Active on Alarm
Supply Air Under Temperature	10132	—	1	Active on Alarm
Return Air Over Temperature	10129	—	1	Active on Alarm
Supply Air Temp Sensor 1				
Supply Air Sensor Issue	10215	—	1	Active on Alarm
Supply Air Temp Sensor 2				
Supply Air Sensor Issue	10216	—	1	Active on Alarm
Supply Air Temp Sensor 4				
Supply Air Sensor Issue	10378	—	1	Active on Alarm
Return Air Temp Sensor 1				
Return Air Sensor Issue	10209	—	1	Active on Alarm
Return Air Temp Sensor 2				
Return Air Sensor Issue	10210	—	1	Active on Alarm
Return Air Temp Sensor 3				
Return Air Sensor Issue	10211	—	1	Active on Alarm
Remote Temp Sensor 1				
External Air Sensor Issue	10225	—	1	Active on Alarm
Remote Temp Sensor 2				
External Air Sensor Issue	10226	—	1	Active on Alarm
Remote Temp Sensor 10				

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Table 3.16 Liebert® CRV CR030, CRC30, CRC60—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
External Air Sensor Issue	10234	—	1	Active on Alarm
Supply Air Humidty Sensor 1				
Supply Humidity Sensor Issue	10218	—	1	Active on Alarm
Supply Air Humidty Sensor 2				
Supply Humidity Sensor Issue	10219	—	1	Active on Alarm
Supply Air Humidty Sensor 3				
Supply Humidity Sensor Issue	10220	—	1	Active on Alarm
Return Air Humidty Sensor 1				
Return Humidity Sensor Issue	10212	—	1	Active on Alarm
Return Air Humidty Sensor 2				
Return Humidity Sensor Issue	10213	—	1	Active on Alarm
Return Air Humidty Sensor 3				
Return Humidity Sensor Issue	10214	—	1	Active on Alarm
Remote Humid Sensor 1				
External Humidity Sensor Issue	10241	—	1	Active on Alarm
Remote Humid Sensor 2				
External Humidity Sensor Issue	10242	—	1	Active on Alarm
Remote Humid Sensor 10				
External Humidity Sensor Issue	10250	—	1	Active on Alarm
Airfilter				
Clogged Air Filter	10039	—	1	Active on Alarm
Filter Maintenance Due	10082	—	1	Active on Alarm
AirFilter Differential Filter				
Filter Pressure Difference Sensor Failure	10265	—	1	Active on Alarm
Chilled Water				
Fluid Valve Hours Exceeded	10085	—	1	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	10203	—	1	Active on Alarm
Chilled Water Outlet Temperature Sensor Failure	10205	—	1	Active on Alarm
Outlet Fluid Under Temp	10148	—	1	Active on Alarm
Outlet Fluid Over Temp	10147	—	1	Active on Alarm
Inlet Fluid Under Temp	10146	—	1	Active on Alarm
Inlet Fluid Over Temp	10145	—	1	Active on Alarm

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Table 3.16 Liebert® CRV CR030, CRC30, CRC60—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Supply Chilled Water Loss of Flow	10151	—	1	Active on Alarm
Water Valve				
Water Valve Failure	10113	—	1	Active on Alarm
Water Pressure Sensor 1				
Water Pressure Sensor Failure	10259	—	1	Active on Alarm
Water Pressure Sensor 2				
Water Pressure Sensor Failure	10260	—	1	Active on Alarm
Water Flow				
Water Flow Sensor Failure	10261	—	1	Active on Alarm
Supply Fluid Low Flow	10152	—	1	Active on Alarm
Fan				
Fan Hours Exceeded	10081	—	1	Active on Alarm
Fan Detection Board Communication Failure	10189	—	1	Active on Alarm
Fan Issue 1				
Fan Issue	10097	—	1	Active on Alarm
Fan Issue 2				
Fan Issue	10098	—	1	Active on Alarm
Fan Issue 10				
Fan Issue	10106	—	1	Active on Alarm
Static Pressure 1				
Fan Static Pressure Sensor Failure	10257	—	1	Active on Alarm
Static Pressure 2				
Fan Static Pressure Sensor Failure	10258	—	1	Active on Alarm
Condensate Pump 1				
Condensate Pump Failure	10121	—	1	Active on Alarm
Condensate Pump 2				
Condensate Pump Failure	10122	—	1	Active on Alarm
Humidifier				
Humidifier State	10003	—	1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004	—	1	Active on Alarm
Reheater				

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Table 3.16 Liebert® CRV CR030, CRC30, CRC60—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Electric Reheat State	10002	—	1	Active on Alarm
Electrical Heater Failure	10115	—	1	Active on Alarm
Power Measurement				
Input Undervoltage	10067	—	1	Active on Alarm
Input Overvoltage	10066	—	1	Active on Alarm
DC Power Supply Fail	10072	—	1	Active on Alarm
Input Frequency Deviation	10068	—	1	Active on Alarm
Surge Protection Device Alarm	10037	—	1	Active on Alarm
AC Power Supply Fail	10071	—	1	Active on Alarm
Power Opposite Phase	10070	—	1	Active on Alarm
Power Loss Of Phase	10069	—	1	Active on Alarm
System Operations				
Cooling State	10001	—	1	Active on Alarm
System Events				
Repeated Teamwork Address	10064	—	1	Active on Alarm
Loss of Teamwork Slave	10063	—	1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062	—	1	Active on Alarm
Smoke Detected	10035	—	1	Active on Alarm
Water Under Floor	10034	—	1	Active on Alarm
External Fire Detected	10036	—	1	Active on Alarm
Humidifier Issue	10117	—	1	Active on Alarm
Internal Communications Failure	19990	—	1	Active on Alarm
Ext Condenser Pump High Water	10038	—	1	Active on Alarm
Ext Remote Shutdown	10033	—	1	Active on Alarm
Shutdown - Loss Of Power	10065	—	1	Active on Alarm
Custom Alarm 1				
Custom Alarm	10049	—	1	Active on Alarm
Custom Alarm 2				
Custom Alarm	10050	—	1	Active on Alarm
Custom Alarm 6				
Custom Alarm	10054	—	1	Active on Alarm

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Table 3.17 Liebert® CRV CR030, CRC30, CRC60—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
SupplyAirTempSensor 1					
Supply Air Sensor Temperature	30042	—	1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043	—	1	10	Units : deg C Int16
SupplyAirTempSensor 4					
Supply Air Sensor Temperature	30226	—	1	10	Units : deg C Int16
Return Air Temp Sensor 1					
Return Air Sensor Temperature	30036	—	1	10	Units : deg C Int16
Return Air Temp Sensor 2					
Return Air Sensor Temperature	30037	—	1	10	Units : deg C Int16
ReturnAirTemp Sensor 3					
Return Air Sensor Temperature	30038	—	1	10	Units : deg C Int16
Remote Temp Sensor 1					
Remote Sensor Temperature	30048	—	1	10	Units : deg C Int16
Remote Temp Sensor 2					
Remote Sensor Temperature	30049	—	1	10	Units : deg C Int16
RemoteTemp Sensor 10					
Remote Sensor Temperature	30057	—	1	10	Units : deg C

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Table 3.17 Liebert® CRV CR030, CRC30, CRC60—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Supply Air Humidty Sensor 1					
Supply Sensor Humidity	30045	—	1	10	Units : % RH Uint16
Supply Air Humidty Sensor 2					
Supply Sensor Humidity	30046	—	1	10	Units : % RH Uint16
Supply Air Humidty Sensor 3					
Supply Sensor Humidity	30047	—	1	10	Units : % RH Uint16
Return Air Humidty Sensor 1					
Return Sensor Humidity	30039	—	1	10	Units : % RH Uint16
Return Air Humidty Sensor 2					
Return Sensor Humidity	30040	—	1	10	Units : % RH Uint16
Return Air Humidty Sensor 3					
Return Sensor Humidity	30041	—	1	10	Units : % RH Uint16
Remote Humid Sensor 1					
Relative Humidity	30058	—	1	10	Units : % RH Uint16
Remote Humid Sensor 2					
Relative Humidity	30059	—	1	10	Units : % RH Uint16
Remote Humid Sensor 10					
Relative Humidity	30067	—	1	10	Units : % RH Uint16
Airfilter Info					
Air Filter Hours	30116	40116	1	—	Units : hr Uint16
Chilled Water					
Chilled Water Inlet Temperature	30068	—	1	10	Units : deg C Int16
Chilled Water Outlet Temperature	30069	—	1	10	Units : deg C Int16
Fluid Flow Rate	30072	—	1	10	Units : m3/h Uint16

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Table 3.17 Liebert® CRV CR030, CRC30, CRC60—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Inlet Fluid Pressure	30070	—	1	—	Units : kPa Uint16
Outlet Fluid Pressure	30071	—	1	—	Units : kPa Uint16
Water Valve					
Chilled Water Valve Open Position	30081	—	1	—	Units : % Uint16
Chilled Water Valve Hours	30112	40112	1	—	Units : hr Uint16
Water Valve Control Mode	30005	40005	1	—	0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
Fan					
Fan Temperature Difference Setpoint	30092	40092	1	10	Units : deg C Uint16
Fan Control Mode	30003	40003	1	—	0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
Static Pressure 1					
Fan Static Pressure	30073	—	1	—	Units : Pa Uint16
Static Pressure 2					
Fan Static Pressure	30074	—	1	—	Units : Pa Uint16
Fan Info					
Fan Speed	30079	—	1	—	Units : % Uint16
Fan Hours	30110	40110	1	—	Units : hr Uint16
Condensate Pump 1					

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Table 3.17 Liebert® CRV CR030, CRC30, CRC60—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Condensate Pump Hours	30117	40117	1	—	Units : hr Uint16
Condensate Pump 2					
Condensate Pump Hours	30118	40118	1	—	Units : hr Uint16
Humidifier Info					
Humidifier Hours	30114	40114	1	—	Units : hr Uint16
Reheater Info					
Electric Reheater Hours	30113	40113	1	—	Units : hr Uint16
Power Measurement					
System Input RMS A-N	30021	—	1	10	Units : VAC Int16
System Input RMS B-N	30022	—	1	10	Units : VAC Int16
System Input RMS C-N	30023	—	1	10	Units : VAC Int16
System Input Frequency	30024	—	1	10	Units : Hz Int16
System Operations					
Teamwork Status	30002	—	1	—	0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1	—	16 = on 31 = off
System Info					
System Operating State	30001	—	1	—	0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout
System Status	38900	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

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Table 3.18 Liebert® CRV CR030, CRC30, CRC60—Glossary

Data Label	Data Description
AC Power Supply Fail	A failure of the AC Power Supply has been detected.
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature Sensor Failure	Chilled water outlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Open Position	Chilled water valve open position.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Condensate Pump Failure	Condensate Pump Failure
Condensate Pump Hours	Condensate Pump Hours
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
DC Power Supply Fail	A failure of the DC Power Supply has been detected.
Dehumidifier State	Dehumidifier operational state.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Detection Board Communication Failure	Communication with the fan detection board has failed.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.

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Table 3.18 Liebert® CRV CR030, CRC30, CRC60—Glossary (continued)

Data Label	Data Description
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
Filter Pressure Difference Sensor Failure	Filter pressure difference sensor is disconnected or the signal is out of range.
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Valve Hours Exceeded	Operating hours for the fluid valve have exceeded the threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
High Supply Air Humidity	Supply air humidity has exceeded a threshold.
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Inlet Fluid Over Temp	Inlet fluid temperature has exceeded a threshold.
Inlet Fluid Pressure	The inlet water/fluid pressure.
Inlet Fluid Under Temp	Inlet fluid temperature has dropped below a threshold.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Low Supply Air Humidity	Supply air humidity has dropped below a threshold.
Monitoring ON/OFF	Monitoring ON/OFF
Outlet Fluid Over Temp	Outlet fluid temperature has exceeded a threshold.
Outlet Fluid Pressure	The outlet water/fluid pressure.
Outlet Fluid Under Temp	Outlet fluid temperature has dropped below a threshold.

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Table 3.18 Liebert® CRV CR030, CRC30, CRC60—Glossary (continued)

Data Label	Data Description
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Fluid Low Flow	Supply fluid flow has dropped below a threshold.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral

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Table 3.18 Liebert® CRV CR030, CRC30, CRC60—Glossary (continued)

Data Label	Data Description
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Flow Sensor Failure	Water flow sensor is disconnected or the signal is out of range.
Water Pressure Sensor Failure	Water pressure sensor is disconnected or the signal is out of range.
Water Under Floor	Water under the floor is detected.
Water Valve Control Mode	Water Valve Control Mode
Water Valve Failure	There is an issue with the chilled water valve.

Table 3.19 Liebert® CRV CRD10—Status and Coil

Data Label	Status	Coil	Number of Bits	Scale	Notes
Cooling State	10001	—	1	—	0 = off 1 = on
Heating State	10002	—	1	—	0 = off 1 = on
Humidifying State	10003	—	1	—	0 = off 1 = on
Dehumidifying State	10004	—	1	—	0 = off 1 = on
Remote Shutdown Alarm	10033	—	1	—	Active on Alarm
Water Under Floor Alarm	10034	—	1	—	Active on Alarm
Smoke Alarm	10035	—	1	—	Active on Alarm
Fire Alarm	10036	—	1	—	Active on Alarm
Condensate High Water Level Alarm	10038	—	1	—	Active on Alarm
Filter Clogged Alarm	10039	—	1	—	Active on Alarm
Loss of Airflow Alarm	10040	—	1	—	Active on Alarm
Custom Alarm 1	10049	—	1	—	Active on Alarm
Loss of Teamwork Master Alarm	10062	—	1	—	Active on Alarm
Loss of Teamwork Slave Alarm	10063	—	1	—	Active on Alarm
Repeated Teamwork Address Alarm	10064	—	1	—	Active on Alarm
Loss of Power Alarm	10065	—	1	—	Active on Alarm
Power Overvoltage Alarm	10066	—	1	—	Active on Alarm
Power Undervoltage Alarm	10067	—	1	—	Active on Alarm
Power Frequency Offset Alarm	10068	—	1	—	Active on Alarm
Filter Maintenance Alarm	10082	—	1	—	Active on Alarm
Fan Failure 1	10097	—	1	—	Active on Alarm

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Table 3.19 Liebert® CRV CRD10—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Scale	Notes
Fan Failure 2	10098	—	1	—	Active on Alarm
Fan Failure 3	10099	—	1	—	Active on Alarm
Fan Failure 4	10100	—	1	—	Active on Alarm
Fan Failure 5	10101	—	1	—	Active on Alarm
Fan Failure 6	10102	—	1	—	Active on Alarm
Fan Failure 7	10103	—	1	—	Active on Alarm
Fan Failure 8	10104	—	1	—	Active on Alarm
Fan Failure 9	10105	—	1	—	Active on Alarm
Fan Failure 10	10106	—	1	—	Active on Alarm
Electrical Heater Failure	10115	—	1	—	Active on Alarm
High Return Air Temperature Alarm	10129	—	1	—	Active on Alarm
Low Return Air Temperature Alarm	10130	—	1	—	Active on Alarm
High Supply Air Temperature Alarm	10131	—	1	—	Active on Alarm
Low Supply Air Temperature Alarm	10132	—	1	—	Active on Alarm
High Remote Air Temperature Alarm	10133	—	1	—	Active on Alarm
Low Remote Air Temperature Alarm	10134	—	1	—	Active on Alarm
High Return Air Humidity Alarm	10135	—	1	—	Active on Alarm
Low Return Air Humidity Alarm	10136	—	1	—	Active on Alarm
High Supply Air Humidity Alarm	10137	—	1	—	Active on Alarm
Low Supply Air Humidity Alarm	10138	—	1	—	Active on Alarm
High Remote Air Humidity Alarm	10139	—	1	—	Active on Alarm
Low Remote Air Humidity Alarm	10140	—	1	—	Active on Alarm
High Pressure Alarm	10161	—	1	—	Active on Alarm
High Pressure Lockout Alarm	10162	—	1	—	Active on Alarm
Low Pressure Alarm	10163	—	1	—	Active on Alarm
Low Pressure Lockout Alarm	10164	—	1	—	Active on Alarm
High Discharge Temperature Alarm	10165	—	1	—	Active on Alarm
High Discharge Temperature Lockout Alarm	10166	—	1	—	Active on Alarm
Low Discharge Superheat Alarm	10169	—	1	—	Active on Alarm
Low Discharge Superheat Lockout Alarm	10170	—	1	—	Active on Alarm
EEV Drive Communication Failure	10177	—	1	—	Active on Alarm
Compressor Drive Communication Failure	10181	—	1	—	Active on Alarm

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Table 3.19 Liebert® CRV CRD10—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Scale	Notes
Compressor Drive Failure Lockout	10187	—	1	—	Active on Alarm
Fan Detection Board Communication Failure	10189	—	1	—	Active on Alarm
High Pressure Sensor Failure	10193	—	1	—	Active on Alarm
Low Pressure Sensor Failure	10195	—	1	—	Active on Alarm
Discharge Temperature Sensor Failure	10199	—	1	—	Active on Alarm
Suction Temperature Sensor Failure	10201	—	1	—	Active on Alarm
Return Air Temperature Sensor Failure 1	10209	—	1	—	Active on Alarm
Return Air Humidity Sensor Failure 1	10212	—	1	—	Active on Alarm
Supply Air Temperature Sensor Failure 1	10215	—	1	—	Active on Alarm
Supply Air Temperature Sensor Failure 2	10216	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 1	10225	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 2	10226	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 3	10227	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 4	10228	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 5	10229	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 6	10230	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 7	10231	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 8	10232	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 9	10233	—	1	—	Active on Alarm
Remote Air Temperature Sensor Failure 10	10234	—	1	—	Active on Alarm
Loss of Airflow Sensor Failure	10263	—	1	—	Active on Alarm
Compressor Drive Failure U00	10273	—	1	—	Active on Alarm
Compressor Drive Failure U01	10274	—	1	—	Active on Alarm
Compressor Drive Failure U02	10275	—	1	—	Active on Alarm
Compressor Drive Failure U03	10276	—	1	—	Active on Alarm
Compressor Drive Failure U04	10277	—	1	—	Active on Alarm
Compressor Drive Failure U05	10278	—	1	—	Active on Alarm
Compressor Drive Failure U06	10279	—	1	—	Active on Alarm
Compressor Drive Failure U07	10280	—	1	—	Active on Alarm
Compressor Drive Failure U08	10281	—	1	—	Active on Alarm
Compressor Drive Failure U09	10282	—	1	—	Active on Alarm
Compressor Drive Failure U10	10283	—	1	—	Active on Alarm

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Table 3.19 Liebert® CRV CRD10—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Scale	Notes
Compressor Drive Failure U11	10284	—	1	—	Active on Alarm
Compressor Drive Failure U12	10285	—	1	—	Active on Alarm
Compressor Drive Failure U13	10286	—	1	—	Active on Alarm
Compressor Drive Failure U14	10287	—	1	—	Active on Alarm
Compressor Drive Failure U15	10288	—	1	—	Active on Alarm
10DI Sensor Communication Fail	10300	—	1	—	Active on Alarm

Table 3.20 Liebert® CRV CRD10—Input and Holding

Data Label	Input Register	Holding Register	# of Reg	Scale	Notes / Units
System Operating State	30001	—	1	—	0:Run 1:Standby 2:Display OFF 3:Remote OFF 4:Monitoring OFF 5:Lockout
Teamwork Status	30002	—	1	—	0:No Teamwork 1:Teamwork Mode 0 2:Teamwork Mode 1
Fan Control Mode	30003	40003	1	—	0:Return Air Average Temperature 1:Return Air Maximum Temperature 2:Return Air Minimum Temperature 3:Supply Air Average Temperature 4:Supply Air Maximum Temperature 5:Supply Air Minimum Temperature 6:Remote Average Temperature 7:Remote Maximum Temperature 8:Remote Minimum Temperature 9:Temperature Difference 10:Static Pressure
Compressor Control Mode	30004	40004	1	—	0:Return Air Average Temperature 1:Return Air Maximum Temperature 2:Return Air Minimum Temperature 3:Supply Air Average Temperature 4:Supply Air Maximum Temperature 5:Supply Air Minimum Temperature 6:Remote Average Temperature 7:Remote Maximum Temperature 8:Remote Minimum Temperature
Monitoring ON / OFF	30006	40006	1	—	0x10:ON;0x1F:OFF
Phase A Voltage	30021	—	1	10	V
Phase B Voltage	30022	—	1	10	V
Phase C Voltage	30023	—	1	10	V
Power Frequency	30024	—	1	10	Hz

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Table 3.20 Liebert® CRV CRD10—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg	Scale	Notes / Units
Return Air Temperature 1	30036	—	1	10	°C
Return Air Humidity 1	30039	—	1	10	%RH
Supply Air Temperature 1	30042	—	1	10	°C
Supply Air Temperature 2	30043	—	1	10	°C
Remote Air Temperature 1	30048	—	1	10	°C
Remote Air Temperature 2	30049	—	1	10	°C
Remote Air Temperature 3	30050	—	1	10	°C
Remote Air Temperature 4	30051	—	1	10	°C
Remote Air Temperature 5	30052	—	1	10	°C
Remote Air Temperature 6	30053	—	1	10	°C
Remote Air Temperature 7	30054	—	1	10	°C
Remote Air Temperature 8	30055	—	1	10	°C
Remote Air Temperature 9	30056	—	1	10	°C
Remote Air Temperature 10	30057	—	1	10	°C
Fan Speed	30079	—	1	—	%
Compressor Capacity	30080	—	1	—	%
Condenser Fan Speed	30082	—	1	—	%
Return Air Temperature Setpoint	30089	40089	1	10	°C
Supply Air Temperature Setpoint	30090	40090	1	10	°C
Remote Air Temperature Setpoint	30091	40091	1	10	°C
Fan Temperature Difference Setpoint	30092	40092	1	10	°C
Humidity Setpoint	30093	40093	1	10	%RH
Temperature Proportional Band	30094	40094	1	10	K
Humidity Proportional Band	30095	40095	1	10	%RH
Return Average Air Temperature	30096	—	1	10	°C
Supply Average Air Temperature	30097	—	1	10	°C
Remote Average Air Temperature	30098	—	1	10	°C
High Pressure	30100	—	1	10	Bar
Low Pressure	30101	—	1	10	Bar
Discharge Temperature	30102	—	1	10	°C
Suction Temperature	30103	—	1	10	°C
Discharge Superheat	30104	—	1	10	°C

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Table 3.20 Liebert® CRV CRD10—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg	Scale	Notes / Units
Suction Superheat	30105	—	1	10	°C
Return Average Air Humidity	30106	—	1	10	%RH
Supply Theory Air Humidity	30109	—	1	10	%RH
Fan Hours	30110	40110	1	—	hr
Compressor Hours	30111	40111	1	—	hr
Heater Hours	30113	40113	1	—	hr
Filter Hours	30116	40116	1	—	hr

Table 3.21 Liebert® CRV—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air Temperature				
Supply Air Over Temperature	10001		1	Active on Alarm
Supply Air Under Temperature	10002		1	Active on Alarm
Return Air Over Temperature	10003		1	Active on Alarm
Supply Air Sensor Issue	10004		1	Active on Alarm
Return Air Sensor Issue	10077		1	Active on Alarm
Auxiliary Air				
Aux Air Temp Device Communication Lost	10111		1	Active on Alarm
Humidity				
High Return Humidity	10005		1	Active on Alarm
Low Return Humidity	10006		1	Active on Alarm
Humidifier Hours Exceeded	10007		1	Active on Alarm
Dehumidifier Hours Exceeded	10008		1	Active on Alarm
Humidifier Under Current	10009		1	Active on Alarm
Humidifier Over Current	10010		1	Active on Alarm
Humidifier Low Water	10011		1	Active on Alarm
Humidifier Cylinder Worn	10012		1	Active on Alarm
Humidifier Issue	10013		1	Active on Alarm
Ext Humidifier Lockout	10014		1	Active on Alarm
Humidifier Control Board Not Detected	10015		1	Active on Alarm
Return Humidity Out Of Proportional Band	10016		1	Active on Alarm
Fans				
Loss of Air Flow	10017		1	Active on Alarm

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Table 3.21 Liebert® CRV—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Fan Hours Exceeded	10018		1	Active on Alarm
Top Fan Issue	10019		1	Active on Alarm
Bottom Fan Issue	10020		1	Active on Alarm
Remote Sensors 1				
Remote Sensor Issue	10021		1	Active on Alarm
Remote Sensors 2				
Remote Sensor Issue	10022		1	Active on Alarm
Remote Sensors 10				
Remote Sensor Issue	10030		1	Active on Alarm
Compressor				
Compressor 1 High Head Pressure	10031		1	Active on Alarm
Compressor 1 Low Suction Pressure	10032		1	Active on Alarm
Compressor 1 Hours Exceeded	10033		1	Active on Alarm
Dig Scroll Comp 1 Temp Sensor Issue	10034		1	Active on Alarm
Dig Scroll Comp 1 Over Temp	10035		1	Active on Alarm
Compressor 1 Low Pressure Transducer Issue	10036		1	Active on Alarm
Ext Compressor Lockout	10037		1	Active on Alarm
Compressor 1 Short Cycle	10038		1	Active on Alarm
Compressor 1 High Pressure Transducer Issue	10039		1	Active on Alarm
Compressor 1 Pump Down Issue	10040		1	Active on Alarm
Reheater				
Reheater Over Temperature	10041		1	Active on Alarm
Electric Reheater Hours Exceeded	10042		1	Active on Alarm
Ext Reheat Lockout	10043		1	Active on Alarm
Condenser				
Condenser 1 Issue	10044		1	Active on Alarm
Condenser VFD Issue	10045		1	Active on Alarm
Condenser TVSS Issue	10046		1	Active on Alarm
Chilled Water				
Supply Chilled Water Over Temp	10047		1	Active on Alarm
Chilled Water Control Valve Failure	10048		1	Active on Alarm
Supply Chilled Water Loss of Flow	10049		1	Active on Alarm

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Table 3.21 Liebert® CRV—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
System Events				
Supply Fluid Temp Sensor Issue	10050		1	Active on Alarm
Customer Input 1	10051		1	Active on Alarm
Customer Input 2	10052		1	Active on Alarm
Customer Input 3	10053		1	Active on Alarm
Customer Input 4	10054		1	Active on Alarm
Smoke Detected	10055		1	Active on Alarm
Water Under Floor	10056		1	Active on Alarm
Service Required	10057		1	Active on Alarm
Shutdown - Loss Of Power	10058		1	Active on Alarm
Ext Over Temperature	10059		1	Active on Alarm
Ext Loss of Flow	10060		1	Active on Alarm
Ext Condenser Pump High Water	10061		1	Active on Alarm
Ext Standby Glycol Pump On	10062		1	Active on Alarm
External Fire Detected	10063		1	Active on Alarm
Unit On	10064		1	Active on Alarm
Unit Off	10065		1	Active on Alarm
Unit Standby	10066		1	Active on Alarm
Unit Partial Shutdown	10067		1	Active on Alarm
Unit Shutdown	10068		1	Active on Alarm
Water Leakage Detector Sensor Issue	10069		1	Active on Alarm
BMS Communications Timeout	10070		1	Active on Alarm
Maintenance Due	10071		1	Active on Alarm
Maintenance Completed	10072		1	Active on Alarm
Clogged Air Filter	10073		1	Active on Alarm
RAM Battery Issue	10074		1	Active on Alarm
Master Unit Communication Lost	10075		1	Active on Alarm
High Power Shutdown	10076		1	Active on Alarm
Unspecified General Event	10100		1	Active on Alarm
Liebert Condenser				
Condenser Unit Unspecified General Event	10101		1	Active on Alarm
Condenser Circuit Unspecified General Event	10102		1	Active on Alarm

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Table 3.22 Liebert® CRV—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30459		1		1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Air Temperature					
Supply Air Temperature	30385		1	10	Units : deg C Int16
Supply Air Temperature	30386		1	10	Units : deg F Int16
Return Air Temperature	30387		1	10	Units : deg C Int16
Return Air Temperature	30388		1	10	Units : deg F Int16
Return Dew Point	30389		1	10	Units : deg C Int16
Return Dew Point	30390		1	10	Units : deg F Int16
Remote Sensor Minimum Temperature	30391		1	10	Units : deg C Int16
Remote Sensor Minimum Temperature	30392		1	10	Units : deg F Int16
Remote Sensor Maximum Temperature	30393		1	10	Units : deg C Int16
Remote Sensor Maximum Temperature	30394		1	10	Units : deg F Int16
Remote Sensor Average Temperature	30395		1	10	Units : deg C Int16
Remote Sensor Average Temperature	30396		1	10	Units : deg F Int16
Air Temperature Set Point	30397	40397	1	10	Units : deg C Int16
Air Temperature Set Point	30398	40398	1	10	Units : deg F Int16

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Cooling Proportional Band	30399	40399	1	10	Units : deg C Uint16
Cooling Proportional Band	30400	40400	1	10	Units : deg F Uint16
Heating Proportional Band	30401	40401	1	10	Units : deg C Uint16
Heating Proportional Band	30402	40402	1	10	Units : deg F Uint16
Air Temperature Dead Band	30403	40403	1	10	Units : deg C Uint16
Air Temperature Dead Band	30404	40404	1	10	Units : deg F Uint16
Supply Air Over Temp Threshold	30405	40405	1	10	Units : deg C Int16
Supply Air Over Temp Threshold	30406	40406	1	10	Units : deg F Int16
Supply Air Under Temp Threshold	30407	40407	1	10	Units : deg C Int16
Supply Air Under Temp Threshold	30408	40408	1	10	Units : deg F Int16
Return Air Over Temp Threshold	30409	40409	1	10	Units : deg C Int16
Return Air Over Temp Threshold	30410	40410	1	10	Units : deg F Int16
Air Temperature Control Sensor	30460	40460	1		0 = Supply 1 = Remote 2 = Return
Remote Sensor Temperature Calculation	30461	40461	1		0 = Average 1 = Maximum
Auxiliary Air					
Raw Auxiliary Air Temperature	30510	40510	1	10	Units : deg C Int16
Raw Auxiliary Air Temperature	30511	40511	1	10	Units : deg F Int16
Actual Auxiliary Air Temperature	30512		1	10	Units : deg C

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Actual Auxiliary Air Temperature	30513		1	10	Units : deg F Int16
Auxiliary Air Temperature Enable	30514	40514	1		0 = disabled 1 = enabled
Auxiliary Proxy Status	30515		1		0 = Disabled 1 = Initializing 2 = Active 3 = Inactive 4 = Comm Lost
Humidity					
Supply Humidity	30411		1	10	Units : % RH Uint16
Return Humidity	30412		1	10	Units : % RH Uint16
Humidity Set Point	30413	40413	1		Units : % RH Uint16
Humidification Proportional Band	30414	40414	1		Units : % RH Uint16
Dehumidification Proportional Band	30415	40415	1		Units : % RH Uint16
Humidity Dead Band	30416	40416	1	10	Units : % RH Uint16
High Return Humidity Threshold	30417	40417	1	10	Units : % RH Uint16
Low Return Humidity Threshold	30418	40418	1	10	Units : % RH Uint16
Fans					
Fan Speed Proportional Band	30419	40419	1	10	Units : deg C Uint16
Fan Speed Proportional Band	30420	40420	1	10	Units : deg F Uint16
Fan Speed Manual Set Point	30421	40421	1		Units : % Uint16
Fan Speed Maximum Set Point	30422	40422	1		Units : %

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Fan Speed Minimum Set Point	30423	40423	1		Units : % Uint16
Fan Control Mode	30462	40462	1		0 = Internal (Auto) 1 = External (Manual)
Fan Control Sensor	30463	40463	1		0 = Supply 1 = Remote 2 = Return
Remote Sensors 1					
Remote Sensor Temperature	30424		1	10	Units : deg C Int16
Remote Sensor Temperature	30434		1	10	Units : deg F Int16
Remote Sensor Function	30464	40464	1		0 = Disable 1 = Reference 2 = Control
Remote Sensors 2					
Remote Sensor Temperature	30425		1	10	Units : deg C Int16
Remote Sensor Temperature	30435		1	10	Units : deg F Int16
Remote Sensor Function	30465	40465	1		0 = Disable 1 = Reference 2 = Control
Remote Sensors 10					
Remote Sensor Temperature	30433		1	10	Units : deg C Int16
Remote Sensor Temperature	30443		1	10	Units : deg F Int16
Remote Sensor Function	30473	40473	1		0 = Disable 1 = Reference 2 = Control
Chilled Water					
Supply Chilled Water Temperature	30444		1	10	Units : deg C Int16

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Supply Chilled Water Temperature	30445		1	10	Units : deg F Int16
Supply Chilled Water Over Temp Threshold	30446	40446	1	10	Units : deg C Int16
Supply Chilled Water Over Temp Threshold	30447	40447	1	10	Units : deg F Int16
System Info					
BMS Timeout Period	30448	40448	1		Units : min Uint16
Auto Restart Delay	30449	40449	1		Units : sec Uint16
System Status	30474		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Operating State	30475		1		0 = off 1 = on 2 = standby
System Control Mode	30476		1		0 = Internal (Auto) 1 = External (Manual)
System Operating State Reason	30477		1		0 = Reason Unknown 1 = Network Display 2 = Alarm 3 = Schedule 4 = Remote System 5 = External Input 6 = Local Display
System Operations					
Operating Efficiency	30450		1		Units : % Uint16
Fan Speed	30451		1		Units : % Uint16
Cooling Capacity (Master)	30452		1		Units : % Uint16

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Dehumidifier Utilization	30453		1		Units : % Uint16
Reheat Utilization	30454		1		Units : % Uint16
Humidifier Utilization	30455		1		Units : % Uint16
Calculated Next Maintenance Month	30456		1		Uint16
Calculated Next Maintenance Year	30457		1		Uint16
Maintenance Ramp	30458		1		Units : % Uint16
System On/Off Control	30478	40478	1		0 = off 1 = on
Event Configuration					
Smoke Detected - Event Control	30592	40592	1		0 = disabled 1 = enabled
Smoke Detected - Event Type	30593	40593	1		0 = Message 1 = Warning 2 = Alarm
Water Under Floor - Event Control	30594	40594	1		0 = disabled 1 = enabled
Water Under Floor - Event Type	30595	40595	1		0 = Message 1 = Warning 2 = Alarm
Customer Input 1 - Event Control	30596	40596	1		0 = disabled 1 = enabled
Customer Input 1 - Event Type	30597	40597	1		0 = Message 1 = Warning 2 = Alarm
Customer Input 2 - Event Control	30598	40598	1		0 = disabled 1 = enabled
Customer Input 2 - Event Type	30599	40599	1		0 = Message 1 = Warning 2 = Alarm
Customer Input 3 - Event Control	30600	40600	1		0 = disabled 1 = enabled

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Customer Input 3 - Event Type	30601	40601	1		0 = Message 1 = Warning 2 = Alarm
Customer Input 4 - Event Control	30602	40602	1		0 = disabled 1 = enabled
Customer Input 4 - Event Type	30603	40603	1		0 = Message 1 = Warning 2 = Alarm
Service Required - Event Control	30604	40604	1		0 = disabled 1 = enabled
Service Required - Event Type	30605	40605	1		0 = Message 1 = Warning 2 = Alarm
Shutdown - Loss Of Power - Event Control	30606	40606	1		0 = disabled 1 = enabled
Shutdown - Loss Of Power - Event Type	30607	40607	1		0 = Message 1 = Warning 2 = Alarm
Ext Loss of Flow - Event Control	30608	40608	1		0 = disabled 1 = enabled
Ext Loss of Flow - Event Type	30609	40609	1		0 = Message 1 = Warning 2 = Alarm
Ext Reheat Lockout - Event Control	30610	40610	1		0 = disabled 1 = enabled
Ext Reheat Lockout - Event Type	30611	40611	1		0 = Message 1 = Warning 2 = Alarm
Ext Humidifier Lockout - Event Control	30612	40612	1		0 = disabled 1 = enabled
Ext Humidifier Lockout - Event Type	30613	40613	1		0 = Message 1 = Warning 2 = Alarm
Ext Compressor Lockout - Event Control	30614	40614	1		0 = disabled 1 = enabled

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext Compressor Lockout - Event Type	30615	40615	1		0 = Message 1 = Warning 2 = Alarm
Ext Over Temperature - Event Control	30616	40616	1		0 = disabled 1 = enabled
Ext Over Temperature - Event Type	30617	40617	1		0 = Message 1 = Warning 2 = Alarm
Condenser VFD Issue - Event Control	30618	40618	1		0 = disabled 1 = enabled
Condenser VFD Issue - Event Type	30619	40619	1		0 = Message 1 = Warning 2 = Alarm
Condenser TVSS Issue - Event Control	30620	40620	1		0 = disabled 1 = enabled
Condenser TVSS Issue - Event Type	30621	40621	1		0 = Message 1 = Warning 2 = Alarm
Condenser 1 Issue - Event Control	30622	40622	1		0 = disabled 1 = enabled
Condenser 1 Issue - Event Type	30623	40623	1		0 = Message 1 = Warning 2 = Alarm
GC Low Noise Mode					
Condenser Low Noise Mode State	30490		1		0 = Inactive 1 = Active (Interval) 2 = Active (Full Day)
Condenser Low Noise Mode Schedule Control	30491	40491	1		0 = disabled 1 = enabled
Condenser Low Noise Mode Max Fan Speed	30492	40492	1		Units : % Uint16
Condenser Normal Mode Max Fan Speed	30493	40493	1		Units : % Uint16
Condenser Low Noise Mode - Interval Days	30494	40494	1		1 = Monday 2 = Tuesday

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Table 3.22 Liebert® CRV—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode - Full Days	30495	40495	1		1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode Start Time	30496	40496	2		Units : Seconds since Midnight
Condenser Low Noise Mode Stop Time	30498	40498	2		Units : Seconds since Midnight
Super Saver					
Super Saver Call For Cooling	30502		1		Units : % Int16
Time					
System Date and Time	39998	49998	2		Units : Secs since Epoch(UTC)

Table 3.23 Liebert® CRV—Glossary

Data Label	Data Description
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
Auxiliary Air Temperature Enable	Enable/disable the use of an external auxiliary air temperature value.
Auxiliary Proxy Status	Status of the proxy device providing the external auxiliary air temperature value.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Bottom Fan Issue	The bottom fan is not operating within its normal parameters.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor 1 High Head Pressure	Compressor 1 high head pressure.
Compressor 1 High Pressure Transducer Issue	Compressor 1 high pressure transducer is disconnected or the signal is out of range.
Compressor 1 Hours Exceeded	Operating hours for compressor 1 have exceeded the threshold.
Compressor 1 Low Pressure Transducer Issue	Compressor 1 low pressure transducer is disconnected or the signal is out of range.
Compressor 1 Low Suction Pressure	Compressor 1 low suction pressure.
Compressor 1 Pump Down Issue	Unable to pump down suction-side pressure during compressor 1 shutdown.
Compressor 1 Short Cycle	Compressor 1 short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Condenser 1 Issue - Event Control	Enable/disable the activation of the [Condenser 1 Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser 1 Issue - Event Type	The event type for the [Condenser 1 Issue] event.
Condenser 1 Issue	Condenser 1 is not operating within its normal parameters.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Condenser TVSS Issue - Event Control	Enable/disable the activation of the [Condenser TVSS or SPD Issue] event (Transient Voltage Surge Suppressor or Surge Protection Device). If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser TVSS Issue - Event Type	The event type for the [Condenser TVSS or SPD Issue] event (Transient Voltage Surge Suppressor or Surge Protection Device).
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Condenser VFD Issue - Event Control	Enable/disable the activation of the [Condenser VFD Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser VFD Issue - Event Type	The event type for the [Condenser VFD Issue] event.
Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1.
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer input 2.
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer input 3.
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer input 4.
Dehumidification Proportional Band	Humidity control band above [Humidity Set Point]. If measured humidity is within this band, dehumidification operations are proportionally controlled.
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Dig Scroll Comp 1 Over Temp	Digital scroll compressor 1 shut off because its head temperature has exceeded the upper threshold.
Dig Scroll Comp 1 Temp Sensor Issue	Digital scroll compressor 1 temperature sensor is disconnected or the signal is out of range.
Electric Reheater Hours Exceeded	Operating hours for electric reheater have exceeded the threshold.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Humidifier Lockout	The humidifier is shut down and disabled by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Reheat Lockout	The reheater is shut down and disabled by an external input signal.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Mode	Fan control mode. Allowable modes are: (0) Auto - Fan speed is controlled via the selected fan control sensor, and, (1) Manual - Fan will operate at a fixed speed.
Fan Control Sensor	Sensor from which air temperature measurements will be used for fan speed control.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Speed Manual Set Point	Manual fan speed.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Fan Speed Maximum Set Point	Maximum fan speed.
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Proportional Band	Temperature control band above the temperature set point calculated for proportional fan speed control. If measured air temperature is within this band, fan speed operations are proportionally controlled.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Heating Proportional Band	Temperature control band below [Air Temperature Set Point]. If measured air temperature is within this band, heating operations are proportionally controlled.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Humidifier Cylinder Worn	Humidifier cylinder is not operating properly and needs to be replaced.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier Low Water	The water level in the humidifier has dropped below its threshold.
Humidifier Over Current	The electrical current to the humidifier has exceeded its upper threshold.
Humidifier Under Current	The electrical current to the humidifier has dropped below its lower threshold.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Set Point	Desired relative humidity.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Master Unit Communication Lost	Communication with master unit has been lost.
Operating Efficiency	The ratio of cooling energy provided to the amount of total energy being used.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reheater Over Temperature	The temperature of the reheater has exceeded its threshold.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Function	Function assigned to remote sensor. Available values are: (0) Control - sensor will be used in calculation of remote sensor temperature that may be used for heating and cooling control, (1) Reference - sensor will not be used in calculation of remote sensor temperature, but is enabled, (2) Disable - sensor is disabled
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Minimum Temperature	Minimum value of remote sensor temperature measurements.
Remote Sensor Temperature Calculation	Calculation method applied to temperature readings from the remote sensors to determine a single temperature measurement value for cooling and heating control.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Humidity Out Of Proportional Band	[Return Humidity] has exceeded the upper limit of [Dehumidification Proportional Band], or has dropped below the lower limit of [Humidification Proportional Band]], for an extended period of time.
Return Humidity	Relative humidity measured at the inlet of the unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Super Saver Call For Cooling	Call for cooling value used for Super Saver functionality. A higher call for cooling value indicates a need for a lower coolant temperature.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Chilled Water Over Temp	[Supply Fluid Temperature] has exceeded [High Supply Fluid Temperature Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Humidity	Relative humidity at the outlet of the unit.
System Date and Time	The system date and time
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Top Fan Issue	The top fan is not operating within its normal parameters.
Unit Control Mode	Unit control mode.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State Reason	The reason the unit is in the current operating state.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.

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Table 3.23 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.

Table 3.24 Vertiv™ Liebert® CRV4 Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Remote Sensor Under Temperature	10134		1	Active on Alarm
Supply Air Over Temperature	10131		1	Active on Alarm
Loss of Airflow Sensor Failure	10263		1	Active on Alarm
High Return Humidity	10135		1	Active on Alarm
Remote Sensor Over Temperature	10133		1	Active on Alarm
Low Return Humidity	10136		1	Active on Alarm
Return Air Under Temperature	10130		1	Active on Alarm
Loss of Airflow	10040		1	Active on Alarm
Low Remote Air Humidity	10140		1	Active on Alarm
High Remote Air Humidity	10139		1	Active on Alarm
Supply Air Under Temperature	10132		1	Active on Alarm
Return Air Over Temperature	10129		1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215		1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216		1	Active on Alarm
SupplyAirTempSensor 4				
Supply Air Sensor Issue	10378		1	Active on Alarm
ReturnAirTempSensor 1				
Return Air Sensor Issue	10209		1	Active on Alarm
ReturnAirTempSensor 2				
Return Air Sensor Issue	10210		1	Active on Alarm
ReturnAirTempSensor 3				
Return Air Sensor Issue	10211		1	Active on Alarm
RemoteTempSensor 1				

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Table 3.24 Vertiv™ Liebert® CRV4 Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
External Air Sensor Issue	10225		1	Active on Alarm
RemoteTempSensor 2				
External Air Sensor Issue	10226		1	Active on Alarm
RemoteTempSensor 10				
External Air Sensor Issue	10234		1	Active on Alarm
SupplyAirHumidtySensor 1				
Supply Humidity Sensor Issue	10218		1	Active on Alarm
SupplyAirHumidtySensor 2				
Supply Humidity Sensor Issue	10219		1	Active on Alarm
SupplyAirHumidtySensor 3				
Supply Humidity Sensor Issue	10220		1	Active on Alarm
ReturnAirHumidtySensor 1				
Return Humidity Sensor Issue	10212		1	Active on Alarm
ReturnAirHumidtySensor 2				
Return Humidity Sensor Issue	10213		1	Active on Alarm
ReturnAirHumidtySensor 3				
Return Humidity Sensor Issue	10214		1	Active on Alarm
RemoteHumidSensor 1				
External Humidity Sensor Issue	10241		1	Active on Alarm
RemoteHumidSensor 2				
External Humidity Sensor Issue	10242		1	Active on Alarm
RemoteHumidSensor 10				
External Humidity Sensor Issue	10250		1	Active on Alarm
Airfilter				
Clogged Air Filter	10039		1	Active on Alarm
Filter Maintenance Due	10082		1	Active on Alarm
Compressor				
Compressor Drive Failure U00	10273		1	Active on Alarm
Compressor Drive Failure U01	10274		1	Active on Alarm
Compressor Drive Failure U02	10275		1	Active on Alarm
Compressor Drive Failure U03	10276		1	Active on Alarm
Compressor Drive Failure U04	10277		1	Active on Alarm

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Table 3.24 Vertiv™ Liebert® CRV4 Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Compressor Drive Failure U05	10278		1	Active on Alarm
Compressor Drive Failure U06	10279		1	Active on Alarm
Compressor Drive Failure U07	10280		1	Active on Alarm
Compressor Drive Failure U08	10281		1	Active on Alarm
Compressor Drive Failure U09	10282		1	Active on Alarm
Compressor Drive Failure U10	10283		1	Active on Alarm
Compressor Drive Failure U11	10284		1	Active on Alarm
Compressor Drive Failure U12	10285		1	Active on Alarm
Compressor Drive Failure U13	10286		1	Active on Alarm
Compressor Drive Failure U14	10287		1	Active on Alarm
Compressor Drive Failure U15	10288		1	Active on Alarm
CompressorInfo				
High Compressor Pressure Abnormal	10171		1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170		1	Active on Alarm
Low Compressor Discharge Superheat	10169		1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166		1	Active on Alarm
High Compressor Discharge Temperature	10165		1	Active on Alarm
Low Compressor Pressure Lockout	10164		1	Active on Alarm
Low Compressor Pressure	10163		1	Active on Alarm
High Compressor Presssure Lockout	10162		1	Active on Alarm
High Compressor Pressure	10161		1	Active on Alarm
Compressor Driver Failure Lockout	10187		1	Active on Alarm
Compressor Driver Communication Failure	10181		1	Active on Alarm
Compressor Driver Communication Failure Lockout	10183		1	Active on Alarm
High Compressor Pressure Sensor Failure	10193		1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195		1	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	10197		1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199		1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201		1	Active on Alarm
FanIssue 1				
Fan Issue	10097		1	Active on Alarm
FanIssue 2				

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Table 3.24 Vertiv™ Liebert® CRV4 Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Fan Issue	10098		1	Active on Alarm
FanIssue 10				
Fan Issue	10106		1	Active on Alarm
StaticPressure 1				
Fan Static Pressure Sensor Failure	10257		1	Active on Alarm
StaticPressure 2				
Fan Static Pressure Sensor Failure	10258		1	Active on Alarm
Humidifier				
Humidifier State	10003		1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004		1	Active on Alarm
Reheater				
Electric Reheat State	10002		1	Active on Alarm
Electrical Heater Failure	10115		1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067		1	Active on Alarm
Input Overvoltage	10066		1	Active on Alarm
Input Frequency Deviation	10068		1	Active on Alarm
Surge Protection Device Alarm	10037		1	Active on Alarm
Power Opposite Phase	10070		1	Active on Alarm
Power Loss Of Phase	10069		1	Active on Alarm
SystemOperations				
Cooling State	10001		1	Active on Alarm
SystemEvents				
Repeated Teamwork Address	10064		1	Active on Alarm
Loss of Teamwork Slave	10063		1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062		1	Active on Alarm
Smoke Detected	10035		1	Active on Alarm
Water Under Floor	10034		1	Active on Alarm
External Fire Detected	10036		1	Active on Alarm
Humidifier Issue	10117		1	Active on Alarm
Internal Communications Failure	19990		1	Active on Alarm

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Table 3.24 Vertiv™ Liebert® CRV4 Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
10DI Sensor Communication Fail	10300		1	Active on Alarm
Ext Condenser Pump High Water	10038		1	Active on Alarm
Ext Remote Shutdown	10033		1	Active on Alarm
Shutdown - Loss Of Power	10065		1	Active on Alarm
CustomAlarm 1				
Custom Alarm	10049		1	Active on Alarm
CustomAlarm 2				
Custom Alarm	10050		1	Active on Alarm
EEVDrive				
EEV Driver Communication Failure	10177		1	Active on Alarm
EEV Driver Failure	10179		1	Active on Alarm

Table 3.25 Vertiv™ Liebert® CRV4 Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Supply Air Temperature	30097		1	10	Units : deg C Int16
Return Air Temperature	30096		1	10	Units : deg C Int16
Remote Sensor Average Temperature	30098		1	10	Units : deg C Int16
Supply Air Theoretical Humidity	30109		1	10	Units : % RH Uint16
Return Humidity	30106		1	10	Units : % RH Uint16
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C

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Table 3.25 Vertiv™ Liebert® CRV4 Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
Supply Air Sensor Temperature	30042		1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043		1	10	Units : deg C Int16
SupplyAirTempSensor 4					
Supply Air Sensor Temperature	30226		1	10	Units : deg C Int16
ReturnAirTempSensor 1					
Return Air Sensor Temperature	30036		1	10	Units : deg C Int16
ReturnAirTempSensor 2					
Return Air Sensor Temperature	30037		1	10	Units : deg C Int16
ReturnAirTempSensor 3					
Return Air Sensor Temperature	30038		1	10	Units : deg C Int16
RemoteTempSensor 1					
Remote Sensor Temperature	30048		1	10	Units : deg C Int16
RemoteTempSensor 2					
Remote Sensor Temperature	30049		1	10	Units : deg C Int16
RemoteTempSensor 10					
Remote Sensor Temperature	30057		1	10	Units : deg C Int16
SupplyAirHumidtySensor 1					
Supply Sensor Humidity	30045		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 2					

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Table 3.25 Vertiv™ Liebert® CRV4 Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Supply Sensor Humidity	30046		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 3					
Supply Sensor Humidity	30047		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 1					
Return Sensor Humidity	30039		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 2					
Return Sensor Humidity	30040		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 3					
Return Sensor Humidity	30041		1	10	Units : % RH Uint16
RemoteHumidSensor 1					
Relative Humidity	30058		1	10	Units : % RH Uint16
RemoteHumidSensor 2					
Relative Humidity	30059		1	10	Units : % RH Uint16
RemoteHumidSensor 10					
Relative Humidity	30067		1	10	Units : % RH Uint16
AirfilterInfo					
Air Filter Hours	30116	40116	1		Units : hr Uint16
Compressor					
Compressor Control Mode	30004	40004	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp

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Table 3.25 Vertiv™ Liebert® CRV4 Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					8 = RemoteMinTemp
CompressorInfo					
Compressor Suction Superheat	30105		1	10	Units : deg C Int16
Compressor Discharge Superheat	30104		1	10	Units : deg C Int16
Compressor Suction Temperature	30103		1	10	Units : deg C Int16
Compressor Discharge Temperature	30102		1	10	Units : deg C Int16
Compressor Low Pressure	30101		1	10	Units : bar Uint16
Compressor High Pressure	30100		1	10	Units : bar Uint16
Cooling Capacity (Master)	30080		1		Units : % Uint16
Compressor Hours	30111	40111	1		Units : hr Uint16
Fan					
Fan Temperature Difference Setpoint	30092	40092	1	10	Units : deg C Uint16
Fan Control Mode	30003	40003	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
StaticPressure 1					
Fan Static Pressure	30073		1		Units : Pa Uint16

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Table 3.25 Vertiv™ Liebert® CRV4 Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
StaticPressure 2					
Fan Static Pressure	30074		1		Units : Pa Uint16
FanInfo 1					
Fan Speed	30079		1		Units : % Uint16
Fan Hours	30110	40110	1		Units : hr Uint16
FanInfo 2					
Fan Speed	30179		1		Units : % Uint16
Fan Hours	30120	40120	1		Units : hr Uint16
CondensatePump					
Condensate Pump Hours	30117	40117	1		Units : hr Uint16
HumidifierInfo					
Humidifier Hours	30114	40114	1		Units : hr Uint16
ReheaterInfo					
Electric Reheater Hours	30113	40113	1		Units : hr Uint16
PowerMeasurement					
System Input RMS A-N	30021		1	10	Units : VAC Int16
System Input RMS B-N	30022		1	10	Units : VAC Int16
System Input RMS C-N	30023		1	10	Units : VAC Int16
System Input Frequency	30024		1	10	Units : Hz Int16
SystemOperations					
Teamwork Status	30002		1		0 = Single 1 = TeamworkMode0

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Table 3.25 Vertiv™ Liebert® CRV4 Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1		16 = on 31 = off
SystemInfo					
System Operating State	30001		1		0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout

Table 3.26 Vertiv™ Liebert® CRV4 Glossary

Data Label	Data Description
10DI Sensor Communication Fail	10DI Sensor Communication Fail
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected, or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive Failure U00	Compressor Drive Failure U00
Compressor Drive Failure U01	Compressor Drive Failure U01
Compressor Drive Failure U02	Compressor Drive Failure U02
Compressor Drive Failure U03	Compressor Drive Failure U03
Compressor Drive Failure U04	Compressor Drive Failure U04
Compressor Drive Failure U05	Compressor Drive Failure U05
Compressor Drive Failure U06	Compressor Drive Failure U06
Compressor Drive Failure U07	Compressor Drive Failure U07
Compressor Drive Failure U08	Compressor Drive Failure U08
Compressor Drive Failure U09	Compressor Drive Failure U09

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Table 3.26 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Compressor Drive Failure U10	Compressor Drive Failure U10
Compressor Drive Failure U11	Compressor Drive Failure U11
Compressor Drive Failure U12	Compressor Drive Failure U12
Compressor Drive Failure U13	Compressor Drive Failure U13
Compressor Drive Failure U14	Compressor Drive Failure U14
Compressor Drive Failure U15	Compressor Drive Failure U15
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected, or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected, or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.

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Table 3.26 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
External Humidity Sensor Issue	The external humidity sensor is disconnected, or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected, or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Pressure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected, or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected, or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network

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Table 3.26 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected, or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].

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Table 3.26 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 3.27 Vertiv™ Liebert® CRV4-12 —Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Remote Sensor Under Temperature	10134		1	Active on Alarm
Supply Air Over Temperature	10131		1	Active on Alarm
Loss of Airflow Sensor Failure	10263		1	Active on Alarm
High Return Humidity	10135		1	Active on Alarm
Remote Sensor Over Temperature	10133		1	Active on Alarm
Low Return Humidity	10136		1	Active on Alarm
Return Air Under Temperature	10130		1	Active on Alarm
Loss of Airflow	10040		1	Active on Alarm
Low Remote Air Humidity	10140		1	Active on Alarm
High Remote Air Humidity	10139		1	Active on Alarm
Supply Air Under Temperature	10132		1	Active on Alarm

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Table 3.27 Vertiv™ Liebert® CRV4-12 —Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Return Air Over Temperature	10129		1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215		1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216		1	Active on Alarm
SupplyAirTempSensor 4				
Supply Air Sensor Issue	10378		1	Active on Alarm
ReturnAirTempSensor 1				
Return Air Sensor Issue	10209		1	Active on Alarm
ReturnAirTempSensor 2				
Return Air Sensor Issue	10210		1	Active on Alarm
ReturnAirTempSensor 3				
Return Air Sensor Issue	10211		1	Active on Alarm
RemoteTempSensor 1				
External Air Sensor Issue	10225		1	Active on Alarm
RemoteTempSensor 2				
External Air Sensor Issue	10226		1	Active on Alarm
RemoteTempSensor 10				
External Air Sensor Issue	10234		1	Active on Alarm
SupplyAirHumidtySensor 1				
Supply Humidity Sensor Issue	10218		1	Active on Alarm
SupplyAirHumidtySensor 2				
Supply Humidity Sensor Issue	10219		1	Active on Alarm
SupplyAirHumidtySensor 3				
Supply Humidity Sensor Issue	10220		1	Active on Alarm
ReturnAirHumidtySensor 1				
Return Humidity Sensor Issue	10212		1	Active on Alarm
ReturnAirHumidtySensor 2				
Return Humidity Sensor Issue	10213		1	Active on Alarm
ReturnAirHumidtySensor 3				
Return Humidity Sensor Issue	10214		1	Active on Alarm
RemoteHumidSensor 1				

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Table 3.27 Vertiv™ Liebert® CRV4-12 —Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
External Humidity Sensor Issue	10241		1	Active on Alarm
RemoteHumidSensor 2				
External Humidity Sensor Issue	10242		1	Active on Alarm
RemoteHumidSensor 10				
External Humidity Sensor Issue	10250		1	Active on Alarm
Airfilter				
Clogged Air Filter	10039		1	Active on Alarm
Filter Maintenance Due	10082		1	Active on Alarm
Compressor				
Compressor Drive Failure U00	10273		1	Active on Alarm
Compressor Drive Failure U01	10274		1	Active on Alarm
Compressor Drive Failure U02	10275		1	Active on Alarm
Compressor Drive Failure U03	10276		1	Active on Alarm
Compressor Drive Failure U04	10277		1	Active on Alarm
Compressor Drive Failure U05	10278		1	Active on Alarm
Compressor Drive Failure U06	10279		1	Active on Alarm
Compressor Drive Failure U07	10280		1	Active on Alarm
Compressor Drive Failure U08	10281		1	Active on Alarm
Compressor Drive Failure U09	10282		1	Active on Alarm
Compressor Drive Failure U10	10283		1	Active on Alarm
Compressor Drive Failure U11	10284		1	Active on Alarm
Compressor Drive Failure U12	10285		1	Active on Alarm
Compressor Drive Failure U13	10286		1	Active on Alarm
Compressor Drive Failure U14	10287		1	Active on Alarm
Compressor Drive Failure U15	10288		1	Active on Alarm
CompressorInfo				
High Compressor Pressure Abnormal	10171		1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170		1	Active on Alarm
Low Compressor Discharge Superheat	10169		1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166		1	Active on Alarm
High Compressor Discharge Temperature	10165		1	Active on Alarm
Low Compressor Pressure Lockout	10164		1	Active on Alarm

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Table 3.27 Vertiv™ Liebert® CRV4-12 —Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Low Compressor Pressure	10163		1	Active on Alarm
High Compressor Presssure Lockout	10162		1	Active on Alarm
High Compressor Pressure	10161		1	Active on Alarm
Compressor Driver Failure Lockout	10187		1	Active on Alarm
Compressor Driver Communication Failure	10181		1	Active on Alarm
Compressor Driver Communication Failure Lockout	10183		1	Active on Alarm
High Compressor Pressure Sensor Failure	10193		1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195		1	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	10197		1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199		1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201		1	Active on Alarm
FanIssue 1				
Fan Issue	10097		1	Active on Alarm
FanIssue 2				
Fan Issue	10098		1	Active on Alarm
FanIssue 10				
Fan Issue	10106		1	Active on Alarm
StaticPressure 1				
Fan Static Pressure Sensor Failure	10257		1	Active on Alarm
StaticPressure 2				
Fan Static Pressure Sensor Failure	10258		1	Active on Alarm
Humidifier				
Humidifier State	10003		1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004		1	Active on Alarm
Reheater				
Electric Reheat State	10002		1	Active on Alarm
Electrical Heater Failure	10115		1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067		1	Active on Alarm
Input Overvoltage	10066		1	Active on Alarm
Input Frequency Deviation	10068		1	Active on Alarm

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Table 3.27 Vertiv™ Liebert® CRV4-12 —Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Surge Protection Device Alarm	10037		1	Active on Alarm
Power Opposite Phase	10070		1	Active on Alarm
Power Loss Of Phase	10069		1	Active on Alarm
SystemOperations				
Cooling State	10001		1	Active on Alarm
SystemEvents				
Repeated Teamwork Address	10064		1	Active on Alarm
Loss of Teamwork Slave	10063		1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062		1	Active on Alarm
Smoke Detected	10035		1	Active on Alarm
Water Under Floor	10034		1	Active on Alarm
External Fire Detected	10036		1	Active on Alarm
Humidifier Issue	10117		1	Active on Alarm
Internal Communications Failure	19990		1	Active on Alarm
10DI Sensor Communication Fail	10300		1	Active on Alarm
Ext Condenser Pump High Water	10038		1	Active on Alarm
Ext Remote Shutdown	10033		1	Active on Alarm
Shutdown - Loss Of Power	10065		1	Active on Alarm
CustomAlarm 1				
Custom Alarm	10049		1	Active on Alarm
CustomAlarm 2				
Custom Alarm	10050		1	Active on Alarm
EEVDrive				
EEV Driver Communication Failure	10177		1	Active on Alarm
EEV Driver Failure	10179		1	Active on Alarm

Table 3.28 Vertiv™ Liebert® CRV4-12 —Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Supply Air Temperature	30097		1	10	Units : deg C Int16
Return Air Temperature	30096		1	10	Units : deg C Int16

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Table 3.28 Vertiv™ Liebert® CRV4-12 —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Average Temperature	30098		1	10	Units : deg C Int16
Supply Air Theoretical Humidity	30109		1	10	Units : % RH Uint16
Return Humidity	30106		1	10	Units : % RH Uint16
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
SupplyAirTempSensor 1					
Supply Air Sensor Temperature	30042		1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043		1	10	Units : deg C Int16
SupplyAirTempSensor 4					
Supply Air Sensor Temperature	30226		1	10	Units : deg C Int16
ReturnAirTempSensor 1					
Return Air Sensor Temperature	30036		1	10	Units : deg C Int16
ReturnAirTempSensor 2					
Return Air Sensor Temperature	30037		1	10	Units : deg C Int16
ReturnAirTempSensor 3					

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Table 3.28 Vertiv™ Liebert® CRV4-12 —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Return Air Sensor Temperature	30038		1	10	Units : deg C Int16
RemoteTempSensor 1					
Remote Sensor Temperature	30048		1	10	Units : deg C Int16
RemoteTempSensor 2					
Remote Sensor Temperature	30049		1	10	Units : deg C Int16
RemoteTempSensor 10					
Remote Sensor Temperature	30057		1	10	Units : deg C Int16
SupplyAirHumidtySensor 1					
Supply Sensor Humidity	30045		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 2					
Supply Sensor Humidity	30046		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 3					
Supply Sensor Humidity	30047		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 1					
Return Sensor Humidity	30039		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 2					
Return Sensor Humidity	30040		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 3					
Return Sensor Humidity	30041		1	10	Units : % RH Uint16
RemoteHumidSensor 1					
Relative Humidity	30058		1	10	Units : % RH Uint16
RemoteHumidSensor 2					
Relative Humidity	30059		1	10	Units : % RH

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Table 3.28 Vertiv™ Liebert® CRV4-12 —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
RemoteHumidSensor 10					
Relative Humidity	30067		1	10	Units : % RH Uint16
AirfilterInfo					
Air Filter Hours	30116	40116	1		Units : hr Uint16
Compressor					
Compressor Control Mode	30004	40004	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
CompressorInfo					
Compressor Suction Superheat	30105		1	10	Units : deg C Int16
Compressor Discharge Superheat	30104		1	10	Units : deg C Int16
Compressor Suction Temperature	30103		1	10	Units : deg C Int16
Compressor Discharge Temperature	30102		1	10	Units : deg C Int16
Compressor Low Pressure	30101		1	10	Units : bar Uint16
Compressor High Pressure	30100		1	10	Units : bar Uint16
Cooling Capacity (Master)	30080		1		Units : % Uint16
Compressor Hours	30111	40111	1		Units : hr Uint16
Fan					

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Table 3.28 Vertiv™ Liebert® CRV4-12 —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Temperature Difference Setpoint	30092	40092	1	10	Units : deg C Uint16
Fan Control Mode	30003	40003	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
StaticPressure 1					
Fan Static Pressure	30073		1		Units : Pa Uint16
StaticPressure 2					
Fan Static Pressure	30074		1		Units : Pa Uint16
FanInfo					
Fan Speed	30079		1		Units : % Uint16
Fan Hours	30110	40110	1		Units : hr Uint16
Condenser					
Condenser Fan Speed	30082		1		Units : % Uint16
CondensatePump					
Condensate Pump Hours	30117	40117	1		Units : hr Uint16
HumidifierInfo					
Humidifier Hours	30114	40114	1		Units : hr Uint16
ReheaterInfo					
Electric Reheater Hours	30113	40113	1		Units : hr

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Table 3.28 Vertiv™ Liebert® CRV4-12 —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
PowerMeasurement					
System Input RMS A-N	30021		1	10	Units : VAC Int16
System Input RMS B-N	30022		1	10	Units : VAC Int16
System Input RMS C-N	30023		1	10	Units : VAC Int16
System Input Frequency	30024		1	10	Units : Hz Int16
SystemOperations					
Teamwork Status	30002		1		0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1		16 = on 31 = off
SystemInfo					
System Operating State	30001		1		0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout

Table 3.29 Vertiv™ Liebert® CRV4-12 —Glossary

Data Label	Data Description
10DI Sensor Communication Fail	10DI Sensor Communication Fail
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.

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Table 3.29 Vertiv™ Liebert® CRV4-12 —Glossary (continued)

Data Label	Data Description
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive Failure U00	Compressor Drive Failure U00
Compressor Drive Failure U01	Compressor Drive Failure U01
Compressor Drive Failure U02	Compressor Drive Failure U02
Compressor Drive Failure U03	Compressor Drive Failure U03
Compressor Drive Failure U04	Compressor Drive Failure U04
Compressor Drive Failure U05	Compressor Drive Failure U05
Compressor Drive Failure U06	Compressor Drive Failure U06
Compressor Drive Failure U07	Compressor Drive Failure U07
Compressor Drive Failure U08	Compressor Drive Failure U08
Compressor Drive Failure U09	Compressor Drive Failure U09
Compressor Drive Failure U10	Compressor Drive Failure U10
Compressor Drive Failure U11	Compressor Drive Failure U11
Compressor Drive Failure U12	Compressor Drive Failure U12
Compressor Drive Failure U13	Compressor Drive Failure U13
Compressor Drive Failure U14	Compressor Drive Failure U14
Compressor Drive Failure U15	Compressor Drive Failure U15
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.

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Table 3.29 Vertiv™ Liebert® CRV4-12 —Glossary (continued)

Data Label	Data Description
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].

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Table 3.29 Vertiv™ Liebert® CRV4-12 —Glossary (continued)

Data Label	Data Description
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.

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Table 3.29 Vertiv™ Liebert® CRV4-12 —Glossary (continued)

Data Label	Data Description
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

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Table 3.30 Liebert® CRD30-40—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
SystemOperations				
Cooling State	10001		1	Active on Alarm
Reheater				
Electric Reheat State	10002		1	Active on Alarm
Electrical Heater Failure	10115		1	Active on Alarm
Humidifier				
Humidifier State	10003		1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004		1	Active on Alarm
SystemEvents				
Ext Remote Shutdown	10033		1	Active on Alarm
Water Under Floor	10034		1	Active on Alarm
Smoke Detected	10035		1	Active on Alarm
External Fire Detected	10036		1	Active on Alarm
Ext Condenser Pump High Water	10038		1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062		1	Active on Alarm
Loss of Teamwork Slave	10063		1	Active on Alarm
Repeated Teamwork Address	10064		1	Active on Alarm
Shutdown - Loss Of Power	10065		1	Active on Alarm
Humidifier Hours Exceeded	10084		1	Active on Alarm
Humidifier Issue	10117		1	Active on Alarm
Energy Meter Communication Failure	10395		1	Active on Alarm
Internal Communications Failure	19990		1	Active on Alarm
Airfilter				
Clogged Air Filter	10039		1	Active on Alarm
Air				
Loss of Airflow	10040		1	Active on Alarm
Return Air Over Temperature	10129		1	Active on Alarm
Return Air Under Temperature	10130		1	Active on Alarm
Supply Air Over Temperature	10131		1	Active on Alarm
Supply Air Under Temperature	10132		1	Active on Alarm
Remote Sensor Over Temperature	10133		1	Active on Alarm

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Table 3.30 Liebert® CRD30-40—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Remote Sensor Under Temperature	10134		1	Active on Alarm
High Return Humidity	10135		1	Active on Alarm
Low Return Humidity	10136		1	Active on Alarm
CustomAlarm				
Custom Alarm	10049		1	Active on Alarm
PowerMeasurement				
Input Overvoltage	10066		1	Active on Alarm
Input Undervoltage	10067		1	Active on Alarm
Input Frequency Deviation	10068		1	Active on Alarm
FanIssue 1				
Fan Issue	10097		1	Active on Alarm
FanIssue 2				
Fan Issue	10098		1	Active on Alarm
FanIssue 10				
Fan Issue	10106		1	Active on Alarm
CompressorInfo				
High Compressor Pressure	10161		1	Active on Alarm
High Compressor Presssure Lockout	10162		1	Active on Alarm
Low Compressor Pressure	10163		1	Active on Alarm
Low Compressor Pressure Lockout	10164		1	Active on Alarm
High Compressor Discharge Temperature	10165		1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166		1	Active on Alarm
Low Compressor Discharge Superheat	10169		1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170		1	Active on Alarm
Compressor Driver Communication Failure	10181		1	Active on Alarm
Compressor Driver Failure Lockout	10187		1	Active on Alarm
High Compressor Pressure Sensor Failure	10193		1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195		1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199		1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201		1	Active on Alarm
EEVDrive				
EEV Driver Communication Failure	10177		1	Active on Alarm

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Table 3.30 Liebert® CRD30-40—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
EEV Driver Failure	10179		1	Active on Alarm
ReturnAirTempSensor 1				
Return Air Sensor Issue	10209		1	Active on Alarm
ReturnAirTempSensor 2				
Return Air Sensor Issue	10210		1	Active on Alarm
ReturnAirTempSensor 3				
Return Air Sensor Issue	10211		1	Active on Alarm
ReturnAirHumidtySensor				
Return Humidity Sensor Issue	10212		1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215		1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216		1	Active on Alarm
SupplyAirTempSensor 3				
Supply Air Sensor Issue	10217		1	Active on Alarm
RemoteTempSensor 1				
External Air Sensor Issue	10225		1	Active on Alarm
RemoteTempSensor 2				
External Air Sensor Issue	10226		1	Active on Alarm
RemoteTempSensor 10				
External Air Sensor Issue	10234		1	Active on Alarm
StaticPressure				
Fan Static Pressure Sensor Failure	10257		1	Active on Alarm
Compressor				
Compressor Drive Failure U00	10273		1	Active on Alarm
Compressor Drive Failure U01	10274		1	Active on Alarm
Compressor Drive Failure U02	10275		1	Active on Alarm
Compressor Drive Failure U03	10276		1	Active on Alarm
Compressor Drive Failure U04	10277		1	Active on Alarm
Compressor Drive Failure U05	10278		1	Active on Alarm
Compressor Drive Failure U06	10279		1	Active on Alarm
Compressor Drive Failure U07	10280		1	Active on Alarm

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Table 3.30 Liebert® CRD30-40—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Compressor Drive Failure U08	10281		1	Active on Alarm
Compressor Drive Failure U09	10282		1	Active on Alarm
Compressor Drive Failure U10	10283		1	Active on Alarm
Compressor Drive Failure U11	10284		1	Active on Alarm
Compressor Drive Failure U12	10285		1	Active on Alarm
Compressor Drive Failure U13	10286		1	Active on Alarm
Compressor Drive Failure U14	10287		1	Active on Alarm
Compressor Drive Failure U15	10288		1	Active on Alarm
Sensor10DI				
10DI Sensor Communication Fail	10300		1	Active on Alarm
OutdoorFan 1				
Outdoor Fan Communication Failure	10391		1	Active on Alarm
Outdoor Fan Driver Failure	10393		1	Active on Alarm
OutdoorFan 2				
Outdoor Fan Communication Failure	10392		1	Active on Alarm
Outdoor Fan Driver Failure	10394		1	Active on Alarm

Table 3.31 Liebert® CRD30-40—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
SystemInfo					
System Operating State	30001		1		0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout
System Status	38900		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
SystemOperations					
Teamwork Status	30002		1		0 = Single 1 = TeamworkMode0 2 = TeamworkMode1

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Table 3.31 Liebert® CRD30-40—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1		16 = on 31 = off
Fan					
Fan Control Mode	30003	40003	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
Fan Temperature Difference Setpoint	30092	40092	1	10	Units : deg C Uint16
Compressor					
Compressor Control Mode	30004	40004	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
PowerMeasurement					
System Input RMS A-N	30021		1	10	Units : VAC Int16
System Input RMS B-N	30022		1	10	Units : VAC Int16
System Input RMS C-N	30023		1	10	Units : VAC Int16
System Input Frequency	30024		1	10	Units : Hz

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Table 3.31 Liebert® CRD30-40—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
System Input RMS Current Phase A	30025		1	10	Units : A AC Int16
System Input RMS Current Phase B	30026		1	10	Units : A AC Int16
System Input RMS Current Phase C	30027		1	10	Units : A AC Int16
Energy Consumption	30029		2		Units : kWH Uint32
Active Power	30235		1	100	Units : kW Uint16
ReturnAirTempSensor 1					
Return Air Sensor Temperature	30036		1	10	Units : deg C Int16
ReturnAirTempSensor 2					
Return Air Sensor Temperature	30037		1	10	Units : deg C Int16
ReturnAirTempSensor 3					
Return Air Sensor Temperature	30038		1	10	Units : deg C Int16
ReturnAirHumidtySensor					
Return Sensor Humidity	30039		1	10	Units : % RH Uint16
SupplyAirTempSensor 1					
Supply Air Sensor Temperature	30042		1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043		1	10	Units : deg C Int16
SupplyAirTempSensor 3					
Supply Air Sensor Temperature	30044		1	10	Units : deg C Int16
SupplyAirHumidtySensor 1					
Supply Sensor Humidity	30045		1	10	Units : % RH

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Table 3.31 Liebert® CRD30-40—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
SupplyAirHumidtySensor 2					
Supply Sensor Humidity	30046		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 3					
Supply Sensor Humidity	30047		1	10	Units : % RH Uint16
RemoteTempSensor 1					
Remote Sensor Temperature	30048		1	10	Units : deg C Int16
RemoteTempSensor 2					
Remote Sensor Temperature	30049		1	10	Units : deg C Int16
RemoteTempSensor 10					
Remote Sensor Temperature	30057		1	10	Units : deg C Int16
StaticPressure					
Fan Static Pressure	30073		1		Units : Pa Uint16
FanInfo					
Fan Speed	30079		1		Units : % Uint16
Fan Hours	30110	40110	1		Units : hr Uint16
CompressorInfo					
Cooling Capacity (Primary)	30080		1		Units : % Uint16
Compressor High Pressure	30100		1	10	Units : bar Uint16
Compressor Low Pressure	30101		1	10	Units : bar Uint16
Compressor Discharge Temperature	30102		1	10	Units : deg C Int16
Compressor Suction Temperature	30103		1	10	Units : deg C

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Table 3.31 Liebert® CRD30-40—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Compressor Discharge Superheat	30104		1	10	Units : deg C Int16
Compressor Suction Superheat	30105		1	10	Units : deg C Int16
Compressor Hours	30111	40111	1		Units : hr Uint16
Condenser					
Condenser Fan Speed	30082		1		Units : % Uint16
Condensate Fan Hours	30119	40119	1		Units : hr Uint16
Air					
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
Return Air Temperature	30096		1	10	Units : deg C Int16
Supply Air Temperature	30097		1	10	Units : deg C Int16
Remote Sensor Average Temperature	30098		1	10	Units : deg C Int16
Return Humidity	30106		1	10	Units : % RH Uint16
Supply Air Theoretical Humidity	30109		1	10	Units : % RH Uint16

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Table 3.31 Liebert® CRD30-40—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
ReheaterInfo					
Electric Reheater Hours	30113	40113	1		Units : hr Uint16
HumidifierInfo					
Humidifier Hours	30114	40114	1		Units : hr Uint16
AirfilterInfo					
Air Filter Hours	30116	40116	1		Units : hr Uint16
CondensatePump					
Condensate Pump Hours	30117	40117	1		Units : hr Uint16

Table 3.32 Liebert® CRD30-40—Glossary

Data Label	Data Description
10DI Sensor Communication Fail	10DI Sensor Communication Fail
Active Power	Active Power
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive Failure U00	Compressor Drive Failure U00
Compressor Drive Failure U01	Compressor Drive Failure U01
Compressor Drive Failure U02	Compressor Drive Failure U02
Compressor Drive Failure U03	Compressor Drive Failure U03
Compressor Drive Failure U04	Compressor Drive Failure U04
Compressor Drive Failure U05	Compressor Drive Failure U05
Compressor Drive Failure U06	Compressor Drive Failure U06
Compressor Drive Failure U07	Compressor Drive Failure U07
Compressor Drive Failure U08	Compressor Drive Failure U08
Compressor Drive Failure U09	Compressor Drive Failure U09

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Table 3.32 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
Compressor Drive Failure U10	Compressor Drive Failure U10
Compressor Drive Failure U11	Compressor Drive Failure U11
Compressor Drive Failure U12	Compressor Drive Failure U12
Compressor Drive Failure U13	Compressor Drive Failure U13
Compressor Drive Failure U14	Compressor Drive Failure U14
Compressor Drive Failure U15	Compressor Drive Failure U15
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Fan Hours	Condensate Fan Hours
Condensate Pump Hours	Condensate Pump Hours
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Cooling Capacity (Primary)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Energy Consumption	Energy consumption since the last reset of this value.
Energy Meter Communication Failure	Energy Meter Communication Failure
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.

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Table 3.32 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor DischargeTemperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.

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Table 3.32 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Outdoor Fan Communication Failure	Outdoor Fan Communication Failure
Outdoor Fan Driver Failure	Outdoor Fan Driver Failure
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.

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Table 3.32 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 3.33 Vertiv™ Liebert® CAHU Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Remote Sensor Under Temperature	10134		1	Active on Alarm
Supply Air Over Temperature	10131		1	Active on Alarm
Loss of Airflow Sensor Failure	10263		1	Active on Alarm
High Return Humidity	10135		1	Active on Alarm
Remote Sensor Over Temperature	10133		1	Active on Alarm
Low Return Humidity	10136		1	Active on Alarm
Return Air Under Temperature	10130		1	Active on Alarm
Loss of Airflow	10040		1	Active on Alarm
Low Remote Air Humidity	10140		1	Active on Alarm
High Remote Air Humidity	10139		1	Active on Alarm

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Supply Air Under Temperature	10132		1	Active on Alarm
Return Air Over Temperature	10129		1	Active on Alarm
Supply Air Volume Sensor Communication Failure	10382		1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215		1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216		1	Active on Alarm
SupplyAirTempSensor 4				
Supply Air Sensor Issue	10378		1	Active on Alarm
ReturnAirTempSensor 1				
Return Air Sensor Issue	10209		1	Active on Alarm
ReturnAirTempSensor 2				
Return Air Sensor Issue	10210		1	Active on Alarm
ReturnAirTempSensor 3				
Return Air Sensor Issue	10211		1	Active on Alarm
RemoteTempSensor 1				
External Air Sensor Issue	10225		1	Active on Alarm
RemoteTempSensor 2				
External Air Sensor Issue	10226		1	Active on Alarm
RemoteTempSensor 10				
External Air Sensor Issue	10234		1	Active on Alarm
SupplyAirHumidtySensor 1				
Supply Humidity Sensor Issue	10218		1	Active on Alarm
SupplyAirHumidtySensor 2				

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Supply Humidity Sensor Issue	10219		1	Active on Alarm
SupplyAirHumidtySensor 3				
Supply Humidity Sensor Issue	10220		1	Active on Alarm
ReturnAirHumidtySensor 1				
Return Humidity Sensor Issue	10212		1	Active on Alarm
ReturnAirHumidtySensor 2				
Return Humidity Sensor Issue	10213		1	Active on Alarm
ReturnAirHumidtySensor 3				
Return Humidity Sensor Issue	10214		1	Active on Alarm
RemoteHumidSensor 1				
External Humidity Sensor Issue	10241		1	Active on Alarm
RemoteHumidSensor 2				
External Humidity Sensor Issue	10242		1	Active on Alarm
RemoteHumidSensor 10				
External Humidity Sensor Issue	10250		1	Active on Alarm
Airfilter				
Clogged Air Filter	10039		1	Active on Alarm
Filter Maintenance Due	10082		1	Active on Alarm
AirFilterDifferentialFilter 1				
Filter Pressure Difference Sensor Failure	10265		1	Active on Alarm
Air Filter Differential Pressure Sensor Failure	10388		1	Active on Alarm
AirFilterDifferentialFilter 2				
Filter Pressure Difference Sensor Failure	10266		1	Active on Alarm

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Air Filter Differential Pressure Sensor Failure	10389		1	Active on Alarm
ChilledWater				
Inlet Fluid Under Temp	10146		1	Active on Alarm
Inlet Fluid Over Temp	10145		1	Active on Alarm
WaterValve				
Water Valve Failure	10113		1	Active on Alarm
WaterFlow 1				
Water Flow Sensor Failure	10261		1	Active on Alarm
Supply Fluid Low Flow	10152		1	Active on Alarm
WaterFlow 2				
Water Flow Sensor Failure	10262		1	Active on Alarm
Supply Fluid Low Flow	10153		1	Active on Alarm
Compressor				
Compressor in Alarm Condition	10377		1	Active on Alarm
CompressorInfo 1				
Compressor Pressure Difference Lockout	10174		1	Active on Alarm
Compressor Pressure Difference	10173		1	Active on Alarm
Low Compressor Pressure Abnormal	10172		1	Active on Alarm
High Compressor Pressure Abnormal	10171		1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170		1	Active on Alarm
Low Compressor Discharge Superheat	10169		1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166		1	Active on Alarm

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
High Compressor Discharge Temperature	10165		1	Active on Alarm
Low Compressor Pressure Lockout	10164		1	Active on Alarm
Low Compressor Pressure	10163		1	Active on Alarm
High Compressor Presssure Lockout	10162		1	Active on Alarm
High Compressor Pressure	10161		1	Active on Alarm
Compressor Driver Failure	10185		1	Active on Alarm
Compressor Driver Failure Lockout	10187		1	Active on Alarm
Compressor Driver Communication Failure	10181		1	Active on Alarm
Compressor Driver Communication Failure Lockout	10183		1	Active on Alarm
High Compressor Pressure Sensor Failure	10193		1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195		1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199		1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201		1	Active on Alarm
CompressorInfo 2				
Compressor Pressure Difference Lockout	10374		1	Active on Alarm
Compressor Pressure Difference	10373		1	Active on Alarm
Low Compressor Pressure Abnormal	10372		1	Active on Alarm
High Compressor Pressure Abnormal	10371		1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10370		1	Active on Alarm
Low Compressor Discharge Superheat	10369		1	Active on Alarm
High Compressor Discharge Temperature Lockout	10366		1	Active on Alarm

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
High Compressor Discharge Temperature	10365		1	Active on Alarm
Low Compressor Pressure Lockout	10364		1	Active on Alarm
Low Compressor Pressure	10363		1	Active on Alarm
High Compressor Presssure Lockout	10362		1	Active on Alarm
High Compressor Pressure	10361		1	Active on Alarm
Compressor Driver Failure	10186		1	Active on Alarm
Compressor Driver Failure Lockout	10188		1	Active on Alarm
Compressor Driver Communication Failure	10182		1	Active on Alarm
Compressor Driver Communication Failure Lockout	10184		1	Active on Alarm
High Compressor Pressure Sensor Failure	10194		1	Active on Alarm
Low Compressor Pressure Sensor Failure	10196		1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10200		1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10202		1	Active on Alarm
Fan				
Fan Communication Failure	10379		1	Active on Alarm
FanIssue 1				
Fan Issue	10097		1	Active on Alarm
FanIssue 2				
Fan Issue	10098		1	Active on Alarm
FanIssue 10				
Fan Issue	10106		1	Active on Alarm

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
StaticPressure 1				
Fan Static Pressure Sensor Failure	10257		1	Active on Alarm
StaticPressure 2				
Fan Static Pressure Sensor Failure	10258		1	Active on Alarm
Humidifier				
Humidifier State	10003		1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004		1	Active on Alarm
Reheater				
Electric Reheat State	10002		1	Active on Alarm
Electrical Heater Failure	10115		1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067		1	Active on Alarm
Input Overvoltage	10066		1	Active on Alarm
Input Frequency Deviation	10068		1	Active on Alarm
Power Opposite Phase	10070		1	Active on Alarm
Power Loss Of Phase	10069		1	Active on Alarm
SystemOperations				
Cooling State	10001		1	Active on Alarm
SystemEvents				
Repeated Teamwork Address	10064		1	Active on Alarm
Loss of Teamwork Slave	10063		1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062		1	Active on Alarm

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Smoke Detected	10035		1	Active on Alarm
Water Under Floor	10034		1	Active on Alarm
External Fire Detected	10036		1	Active on Alarm
Humidifier Issue	10117		1	Active on Alarm
Internal Communications Failure	19990		1	Active on Alarm
Ext Condenser Pump High Water	10038		1	Active on Alarm
Ext Remote Shutdown	10033		1	Active on Alarm
Shutdown - Loss Of Power	10065		1	Active on Alarm
Emergency Cooling	10080		1	Active on Alarm
Aisle Static Pressure Sensor Failure	10267		1	Active on Alarm
BPHE Communication Failure	10383		1	Active on Alarm
Data Collector Communication Failure	10384		1	Active on Alarm
EPIV Failure	10385		1	Active on Alarm
ATS Communication Failure	10381		1	Active on Alarm
BMS Communications Timeout	10380		1	Active on Alarm
APF Communication Failure	10390		1	Active on Alarm
CustomAlarm 1				
Custom Alarm	10049		1	Active on Alarm
CustomAlarm 2				
Custom Alarm	10050		1	Active on Alarm
CustomAlarm 4				

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Table 3.33 Vertiv™ Liebert® CAHU Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Custom Alarm	10052		1	Active on Alarm
EEVDrive 1				
EEV Driver Communication Failure	10177		1	Active on Alarm
EEV Driver Failure	10179		1	Active on Alarm
EEVDrive 2				
EEV Driver Communication Failure	10178		1	Active on Alarm
EEV Driver Failure	10180		1	Active on Alarm
MotorizedBallValve 1				
Motorized Ball Valve Failure	10386		1	Active on Alarm
MotorizedBallValve 2				
Motorized Ball Valve Failure	10387		1	Active on Alarm

Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Supply Air Temperature	30097		1	10	Units : deg C Int16
Return Air Temperature	30096		1	10	Units : deg C Int16
Remote Sensor Average Temperature	30098		1	10	Units : deg C Int16
Supply Humidity	30107		1	10	Units : % RH Uint16
Supply Air Theoretical Humidity	30109		1	10	Units : % RH Uint16
Return Humidity	30106		1	10	Units : % RH Uint16
Average Relative Humidity	30108		1	10	Units : % RH Uint16
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
Supply Air Flowrate	30220		1		Units : m3/h Uint16
Upper Module Supply Air Average Temperature	30229		1	10	Units : deg C Int16
Lower Module Supply Air Average Temperature	30230		1	10	Units : deg C Int16
SupplyAirTempSensor 1					
Supply Air Sensor Temperature	30042		1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043		1	10	Units : deg C Int16
SupplyAirTempSensor 4					
Supply Air Sensor Temperature	30226		1	10	Units : deg C Int16
ReturnAirTempSensor 1					
Return Air Sensor Temperature	30036		1	10	Units : deg C Int16
ReturnAirTempSensor 2					
Return Air Sensor Temperature	30037		1	10	Units : deg C Int16
ReturnAirTempSensor 3					
Return Air Sensor Temperature	30038		1	10	Units : deg C Int16

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
RemoteTempSensor 1					
Remote Sensor Temperature	30048		1	10	Units : deg C Int16
RemoteTempSensor 2					
Remote Sensor Temperature	30049		1	10	Units : deg C Int16
RemoteTempSensor 10					
Remote Sensor Temperature	30057		1	10	Units : deg C Int16
SupplyAirHumidtySensor 1					
Supply Sensor Humidity	30045		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 2					
Supply Sensor Humidity	30046		1	10	Units : % RH Uint16
SupplyAirHumidtySensor 3					
Supply Sensor Humidity	30047		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 1					
Return Sensor Humidity	30039		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 2					
Return Sensor Humidity	30040		1	10	Units : % RH Uint16
ReturnAirHumidtySensor 3					
Return Sensor Humidity	30041		1	10	Units : % RH Uint16
RemoteHumidSensor 1					
Relative Humidity	30058		1	10	Units : % RH Uint16
RemoteHumidSensor 2					
Relative Humidity	30059		1	10	Units : % RH Uint16
RemoteHumidSensor 10					

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Relative Humidity	30067		1	10	Units : % RH Uint16
SupplyAirDewpointTemp 1					
Supply Air Dewpoint Temperature	30218		1	10	Units : deg C Int16
SupplyAirDewpointTemp 2					
Supply Air Dewpoint Temperature	30219		1	10	Units : deg C Int16
AirfilterInfo					
Air Filter Hours	30116	40116	1		Units : hr Uint16
ChilledWater					
Chilled Water Inlet Temperature	30068		1	10	Units : deg C Int16
Chilled Water Outlet Temperature	30069		1	10	Units : deg C Int16
Fluid Flow Rate	30072		1	10	Units : m3/h Uint16
WaterValve					
Chilled Water Valve Open Position	30081		1		Units : % Uint16
Chilled Water Valve Hours	30112	40112	1		Units : hr Uint16
Water Valve Control Mode	30005	40005	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
Water Valve Feedback	30181		1		Units : % Uint16

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Compressor					
Compressor Control Mode	30004	40004	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
CompressorInfo 1					
Compressor Status	30224		1		0 = Stop 1 = Run
Compressor Suction Superheat	30105		1	10	Units : deg C Int16
Compressor Discharge Superheat	30104		1	10	Units : deg C Int16
Compressor Suction Temperature	30103		1	10	Units : deg C Int16
Compressor Discharge Temperature	30102		1	10	Units : deg C Int16
Compressor Low Pressure	30101		1	10	Units : bar Uint16
Compressor High Pressure	30100		1	10	Units : bar Uint16
Cooling Capacity (Master)	30080		1		Units : % Uint16
Compressor Hours	30111	40111	1		Units : hr Uint16
CompressorInfo 2					
Compressor Status	30225		1		0 = Stop 1 = Run
Compressor Suction Superheat	30205		1	10	Units : deg C Int16

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Compressor Discharge Superheat	30204		1	10	Units : deg C Int16
Compressor Suction Temperature	30203		1	10	Units : deg C Int16
Compressor Discharge Temperature	30202		1	10	Units : deg C Int16
Compressor Low Pressure	30201		1	10	Units : bar Uint16
Compressor High Pressure	30200		1	10	Units : bar Uint16
Cooling Capacity (Master)	30180		1		Units : % Uint16
Compressor Hours	30121	40121	1		Units : hr Uint16
Fan					
Fan Control Mode	30003	40003	1		0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
Fan Control	30210	40210	1		0 = Stop 1 = Run
BMS Fan Speed Setting	30211	40211	1		Units : % Uint16
Fan Speed Minimum Set Point	30212	40212	1		Units : % Uint16
Fan Control Status	30215	40215	1		0 = Local 1 = Remote

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
StaticPressure 1					
Fan Static Pressure	30073		1		Units : Pa Uint16
StaticPressure 2					
Fan Static Pressure	30074		1		Units : Pa Uint16
FanInfo 1					
Fan Speed	30079		1		Units : % Uint16
Fan Hours	30110	40110	1		Units : hr Uint16
FanInfo 2					
Fan Speed	30179		1		Units : % Uint16
Fan Hours	30120	40120	1		Units : hr Uint16
HumidifierInfo					
Humidifier Hours	30114	40114	1		Units : hr Uint16
ReheaterInfo 1					
Electric Reheater Hours	30113	40113	1		Units : hr Uint16
ReheaterInfo 2					
Electric Reheater Hours	30123	40123	1		Units : hr Uint16
PowerMeasurement					
System Input RMS A-N	30021		1	10	Units : VAC Int16
System Input RMS B-N	30022		1	10	Units : VAC Int16
System Input RMS C-N	30023		1	10	Units : VAC Int16
System Input Frequency	30024		1	10	Units : Hz Int16

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Master Power Source Status	30213		1		0 = off 1 = on
Slave Power Source Status	30214		1		0 = off 1 = on
Compressor Instantaneous Power	30221		1	100	Units : kW Uint16
Total Input THDI Phase A	30031		1		Units : % Uint16
Total Input THDI Phase B	30032		1		Units : % Uint16
Total Input THDI Phase C	30033		1		Units : % Uint16
Power Factor	30034		1		Units : % Uint16
SystemOperations					
Teamwork Status	30002		1		0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1		16 = on 31 = off
Current Heartbeat Timer	30222		1		Units : unknown Uint16
Heartbeat Timer Setpoint	30223		1		1 = 1200 2 = 2400 3 = 4800 4 = 9600 5 = 19200
BPHEValve 1					
BPHE Valve Opening	30216		1		Units : % Uint16
BPHE Valve Feedback	30227		1		Units : % Uint16
BPHEValve 2					

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Table 3.34 Vertiv™ Liebert® CAHU —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
BPHE Valve Opening	30217		1		Units : % Uint16
BPHE Valve Feedback	30228		1		Units : % Uint16
SystemInfo					
System Operating State	30001		1		0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout

Table 3.35 Vertiv™ Liebert® CAHU - Glossary

Data Label	Data Description
Air Filter Differential Pressure Sensor Failure	Air Filter Differential Pressure Sensor Failure
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Aisle Static Pressure Sensor Failure	Aisle static pressure sensor failure
APF Communication Failure	Active Power Filter Communication Failure
ATS Communication Failure	ATS Communication Failure
Average Relative Humidity	Average value of humidity sensor measurements.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Fan Speed Setting	Fan speed setting when under the manual control of the Building Management System.
BPHE Communication Failure	Brazed Plate Heat Exchanger Communication Failure
BPHE Valve Feedback	Brazed Plate Heat Exchangeer Valve Feedback Status
BPHE Valve Opening	Brazed Plate Heat Exchanger Valve Opening
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Open Position	Chilled water valve open position.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.

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Table 3.35 Vertiv™ Liebert® CAHU - Glossary (continued)

Data Label	Data Description
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor in Alarm Condition	Compressor in Alarm Condition
Compressor Instantaneous Power	Compressor Instantaneous Power
Compressor Low Pressure	Compressor low pressure detected.
Compressor Pressure Difference Lockout	Compressor lockout occurred due to multiple compressor pressure differences.
Compressor Pressure Difference	Compressor pressure difference is out of range.
Compressor Status	Compressor Status
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Current Heartbeat Timer	Current Heartbeat Timer
Custom Alarm	Custom Alarm
Data Collector Communication Failure	Data Collector Communication Failure
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.

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Table 3.35 Vertiv™ Liebert® CAHU - Glossary (continued)

Data Label	Data Description
Emergency Cooling	Emergency Cooling
EPIV Failure	Electronic Pressure Independent Control Valve Failure
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Communication Failure	Fan Communication Failure
Fan Control Mode	Fan Control Mode
Fan Control Status	Fan Control Status
Fan Control	Fan Control
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
Filter Pressure Difference Sensor Failure	Filter pressure difference sensor is disconnected or the signal is out of range.
Fluid Flow Rate	Flow rate of fluid used for cooling.
Heartbeat Timer Setpoint	Heartbeat Timer Setpoint
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.

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Table 3.35 Vertiv™ Liebert® CAHU - Glossary (continued)

Data Label	Data Description
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Inlet Fluid Over Temp	Inlet fluid temperature has exceeded a threshold.
Inlet Fluid Under Temp	Inlet fluid temperature has dropped below a threshold.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Abnormal	Compressor pressure has dropped below a normal threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Lower Module Supply Air Average Temperature	Average supply air termperature for the lower module.
Monitoring ON/OFF	Monitoring ON/OFF
Motorized Ball Valve Failure	Motorized Ball Valve Failure
Power Factor	Power Factor
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Master Power Source Status	Master Power Source Status
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.

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Table 3.35 Vertiv™ Liebert® CAHU - Glossary (continued)

Data Label	Data Description
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Slave Power Source Status	Slave Power Source Status
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Dewpoint Temperature	Supply Air Dewpoint Temperature
Supply Air Flowrate	Supply Air Flowrate
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Air Volume Sensor Communication Failure	Supply Air Volume Sensor Communication Failure
Supply Fluid Low Flow	Supply fluid flow has dropped below a threshold.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
System Input Frequency	The system input frequency

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Table 3.35 Vertiv™ Liebert® CAHU - Glossary (continued)

Data Label	Data Description
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Total Input THDI Phase A	Total Input THDI Phase A
Total Input THDI Phase B	Total Input THDI Phase B
Total Input THDI Phase C	Total Input THDI Phase C
Upper Module Supply Air Average Temperature	Average supply air termperature for the upper module.
Water Flow Sensor Failure	Water flow sensor is disconnected or the signal is out of range.
Water Under Floor	Water under the floor is detected.
Water Valve Control Mode	Water Valve Control Mode
Water Valve Failure	There is an issue with the chilled water valve.
Water Valve Feedback	Water Valve Feedback Status

Table 3.36 Liebert® DataMate, Liebert® Mini-Mate Plus, Liebert® Mini-Mate2—Input and Holding—L0B

Controller	Small Systems - L0B				
Liebert Products	Liebert DataMate Liebert Mini-Mate Plus Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Temperature	—	40001	1	—	—
Humidity	—	40002	1	—	—
Cooling	—	40003	1	—	1=On / 0=Off
Heating	—	40004	1	—	1=On / 0=Off
Humidification	—	40005	1	—	1=On / 0=Off
Dehumidification	—	40006	1	—	1=On / 0=Off
Econ-o-Cycle	—	40007	1	—	1=On / 0=Off
Stages	—	40008	1	—	—

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Table 3.36 Liebert® DataMate, Liebert® Mini-Mate Plus, Liebert® Mini-Mate2—Input and Holding—L0B (continued)

Controller	Small Systems - L0B				
Liebert Products	Liebert DataMate Liebert Mini-Mate Plus Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
% Capacity	—	40009	1	—	—
Alarm Points					
Communications	—	40289	1	—	Bit 0
Local Off	—	40289	1	—	Bit 1
Remote Off	—	40289	1	—	Bit 2
High Temperature	—	40289	1	—	Bit 3
Low Temperature	—	40289	1	—	Bit 4
High Humidity	—	40289	1	—	Bit 5
Low Humidity	—	40289	1	—	Bit 6
Setpoints (View)					
None	—	—	1	—	—
Control Points (Set)					
Unit On/Off	—	40011	1	—	1=On / 0=Off (R/W)
Remote On/Off	—	40349	1	—	Bit 0 On=unit Off Bit 1 On=unit On (W)
Trendable Points (Set)					
Temperature	—	—	1	—	—
Humidity	—	—	1	—	—
Reports	—	—		—	—
Trend	—	—	1	—	—
Status	—	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.37 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (ADPT-only)

Controller	MM2				
Liebert Products	Liebert DataMate Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Temperature	—	40001	1	—	—
Humidity	—	40002	1	—	—
Cooling	—	40003	1	—	1=On / 0=Off
Heating	—	40004	1	—	1=On / 0=Off
Humidification	—	40005	1	—	1=On / 0=Off
Dehumidification	—	40006	1	—	1=On / 0=Off
Econ-o-Cycle	—	40007	1	—	1=On / 0=Off
Stages	—	40008	1	—	—
% Capacity	—	40009	1	—	—
Alarm Points					
Communications	—	40289	1	—	Bit 0
Local Off	—	40289	1	—	Bit 1
Remote Off	—	40289	1	—	Bit 2
High Head Pressure 1	—	40289	1	—	Bit 3
Loss of Airflow	—	40289	1	—	Bit 5
Change Filters	—	40289	1	—	Bit 8
High Temperature	—	40289	1	—	Bit 9
Low Temperature	—	40289	1	—	Bit 10
High Humidity	—	40290	1	—	Bit 0
Low Humidity	—	40290	1	—	Bit 1
Humidifier Problem	—	40290	1	—	Bit 2
Smoke Detected	—	40290	1	—	Bit 8
Loss of Water Flow	—	40290	1	—	Bit 9
Short Cycle	—	40291	1	—	Bit 1
Loss of Power	—	40291	1	—	Bit 2
Local Alarm 1	—	40291	1	—	Bit 6

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Table 3.37 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (ADPT-only) (continued)

Controller	MM2				
Liebert Products	Liebert DataMate Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Local Alarm 2	—	40291	1	—	Bit 7
High Water	—	40291	1	—	Bit 9
Run Hours (View)					
Compressor 1	—	40019	1	—	—
Fan Motor	—	40020	1	—	—
Humidifier	—	40021	1	—	—
Setpoints (View)					
Temperature	—	40010	1	—	—
Temp Tolerance	—	40011	1	—	—
Humidity	—	40012	1	—	—
Humidity Tolerance	—	40013	1	—	—
High Temperature Alarm	—	40014	1	—	—
Low Temperature Alarm	—	40015	1	—	—
High Humidity Alarm	—	40016	1	—	—
Low Humidity Alarm	—	40017	1	—	—
Chill Water Flush Rate	—	40023	1	—	Hours (R/W)
Auto Restart Delay	—	40024	1	—	0.1 minute (R/W)
Control Points (Set)					
Unit On/Off	—	40018	1	—	1=On / 0=Off (Read Only)
Remote On/Off	—	40349	1	—	Bit 0 On=unit Off Bit 1 On=unit On (W)
Temperature Setpoint	—	40350	1	—	(W)
Temperature Tolerance	—	40350	1	1000	Multiply desired value by 1000 (Modbus only) 0=No Change (W)
Humidity Setpoint	—	40351	1	-	(W)
Humidity Tolerance	—	40351	1	100	Multiply desired value by 100 (Modbus only) 0=No Change (W)
Trendable Points (Set)					
Temperature	—	—	1	—	—

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Table 3.37 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (ADPT-only) (continued)

Controller	MM2				
Liebert Products	Liebert DataMate Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Humidity	—	—	1	—	—
Reports					
Trend	—	—	1	—	—
Status	—	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.38 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (Liebert® iCOM™ CMS-Only)

Controller	MM2				
Liebert Products	Liebert DataMate Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Temperature	—	40001	1	—	—
Humidity	—	40002	1	—	—
Cooling	—	40003	1	—	1=On / 0=Off
Heating	—	40004	1	—	1=On / 0=Off
Humidification	—	40005	1	—	1=On / 0=Off
Dehumidification	—	40006	1	—	1=On / 0=Off
Econ-o-Cycle	—	40007	1	—	1=On / 0=Off
Stages	—	40008	1	—	—
% Capacity	—	40009	1	—	—
Alarm Points					
Communications	—	40289	1	—	Bit 0
Local Off	—	40289	1	—	Bit 1
Remote Off	—	40289	1	—	Bit 2
High Head Pressure 1	—	40289	1	—	Bit 3

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Table 3.38 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (Liebert® iCOM™ CMS-Only) (continued)

Controller	MM2				
Liebert Products	Liebert DataMate Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Loss of Airflow	—	40289	1	—	Bit 5
Standby Glycol Unit On	—	40289	1	—	Bit 6
Change Filters	—	40289	1	—	Bit 8
High Temperature	—	40289	1	—	Bit 9
Low Temperature	—	40289	1	—	Bit 10
High Humidity	—	40290	1	—	Bit 0
Low Humidity	—	40290	1	—	Bit 1
Humidifier Problem	—	40290	1	—	Bit 2
Smoke Detected	—	40290	1	—	Bit 8
Loss of Water Flow	—	40290	1	—	Bit 9
Standby Unit On	—	40290	1	—	Bit 10
Short Cycle	—	40291	1	—	Bit 1
Loss of Power	—	40291	1	—	Bit 2
Local Alarm 1	—	40291	1	—	Bit 6
Local Alarm 2	—	40291	1	—	Bit 7
High Water	—	40291	1	—	Bit 9
Run Hours (View)					
Compressor 1	—	40019	1	—	—
Fan Motor	—	40020	1	—	—
Humidifier	—	40021	1	—	—
Setpoints (View)					
Temperature	—	40010	1	—	—
Temp Tolerance	—	40011	1	—	—
Humidity	—	40012	1	—	—
Humidity Tolerance	—	40013	1	—	—
High Temperature Alarm	—	40014	1	—	—
Low Temperature Alarm	—	40015	1	—	—

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Table 3.38 Liebert® DataMate, Liebert® Mini-Mate2—Input and Holding—MM2 (Liebert® iCOM™ CMS-Only) (continued)

Controller	MM2				
Liebert Products	Liebert DataMate Liebert Mini-Mate2				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
High Humidity Alarm	—	40016	1	—	—
Low Humidity Alarm	—	40017	1	—	—
Chill Water Flush Rate	—	40025	1	—	Hours (R/W)
Auto Restart Delay	—	40026	1	—	0.1 minute (R/W)
Control Points (Set)					
Unit On/Off	—	40018	1	—	1=On / 0=Off (Read Only)
Remote On/Off	—	40349	1	—	Bit 0 On=unit Off Bit 1 On=unit On (W)
Temperature Setpoint	—	40350	1	—	(W)
Temperature Tolerance	—	40350	1	1000	Multiply desired value by 1000 (Modbus only) 0=No Change (W)
Humidity Setpoint	—	40351	1	-	(W)
Humidity Tolerance	—	40351	1	100	Multiply desired value by 100 (Modbus only) 0=No Change (W)
Trendable Points (Set)					
Temperature	—	—	1	—	—
Humidity	—	—	1	—	—
Reports					
Trend	—	—	1	—	—
Status	—	—	1	—	—

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Table 3.39 Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (ADPT-Only)

Controller	L8T				
Liebert Products	Liebert Mini-Mate2 8 Ton				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Temperature	—	40001	1	—	—
Humidity	—	40002	1	—	—
Cooling	—	40003	1	—	1=On / 0=Off
Heating	—	40004	1	—	1=On / 0=Off
Humidification	—	40005	1	—	1=On / 0=Off
De-humidification	—	40006	1	—	1=On / 0=Off
Econ-O-Cycle	—	40007	1	—	1=On / 0=Off
Stages	—	40008	1	—	—
% Capacity	—	40009	1	—	—
Analog input 1	—	40023	1	—	A/D raw value w/ slope =1 and offset = 0
Analog input 2	—	40024	1	—	A/D raw value w/ slope =1 and offset = 0
Analog input 3	—	40025	1	—	A/D raw value w/ slope =1 and offset = 0
Analog input 4	—	40026	1	—	A/D raw value w/ slope =1 and offset = 0
Alarm Points					
Communications	—	40289	1	—	Bit 0
Local Off	—	40289	1	—	Bit 1
Remote Off	—	40289	1	—	Bit 2
High Head Pressure 1	—	40289	1	—	Bit 3
High Head Pressure 2	—	40289	1	—	Bit 4
Loss of Airflow	—	40289	1	—	Bit 5
Standby Glycol Unit On	—	40289	1	—	Bit 6
Not Used	—	40289	1	—	Bit 7
Change Filters	—	40289	1	—	Bit 8
High Temperature	—	40289	1	—	Bit 9
Low Temperature	—	40289	1	—	Bit 10

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Table 3.39 Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (ADPT-Only) (continued)

Controller	L8T				
Liebert Products	Liebert Mini-Mate2 8 Ton				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
High Humidity	—	40290	1	—	Bit 0
Low Humidity	—	40290	1	—	Bit 1
Humidifier Problem	—	40290	1	—	Bit 2
Smoke Detected	—	40290	1	—	Bit 8
Loss of Water	—	40290	1	—	Bit 9
Standby Unit On	—	40290	1	—	Bit 10
Not Used	—	40291	1	—	Bit 0
Short Cycle	—	40291	1	—	Bit 1
Loss of Power	—	40291	1	—	Bit 2
Local Alarm 1	—	40291	1	—	Bit 6
Local Alarm 2	—	40291	1	—	Bit 7
EPO Shutdown	—	40291	1	—	Bit 8
High Water	—	40291	1	—	Bit 9
Local Alarm 3	—	40291	1	—	Bit 10
Run Times (View)					
Compressor 1 Run Hours	—	40019	1	—	—
Compressor 2 Run Hours	—	40020	1	—	—
Glycol Run Hours	—	—	1	—	—
Fan Motor Run Hours	—	40021	1	—	—
Humidifier Run Hours	—	40022	1	—	—
Reheat 1 Run Hours	—	—	1	—	—
Reheat 2 Run Hours	—	—	1	—	—
Reheat 3 Run Hours	—	—	1	—	—
Chilled H2O Valve Run Hours	—	—	1	—	—
Setpoints (View)					
Temperature Setpoint	—	40010	1	—	(R/W)
Temperature Tolerance	—	40011	1	—	(R/W)
Humidity Setpoint	—	40012	1	—	(R/W)

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Table 3.39 Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (ADPT-Only) (continued)

Controller	L8T				
Liebert Products	Liebert Mini-Mate2 8 Ton				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Humidity Tolerance	—	40013	1	—	(R/W)
High Temperature Alarm Setpoint	—	40014	1	—	(R/W)
Low Temp Alarm Setpoint	—	40015	1	—	(R/W)
High Humidity Alarm Setpoint	—	40016	1	—	(R/W)
Low Humidity Alarm Setpoint	—	40017	1	—	(R/W)
Winter Start Delay	—	40028	1	—	Minutes (R/W)
Auto Flush Rate	—	40029	1	—	% (R/W)
Chill Water Flush Rate	—	40030	1	—	Hours (R/W)
Auto Restart Delay	—	40031	1	—	0.1 minute (R/W)
Control Points (Set)					
Unit Status (On / Off)	—	40018	1	—	1=On / 0=Off (Read Only)
Unit On / Off	—	40349	1	—	Bit 0 On=unit Off; Bit 1 On=unit On (W)*
Temperature Setpoint	—	40350	1	—	(W)
Temperature Tolerance	—	40350	1	1000	Multiply desired value by 1000 (Modbus only) 0=No Change (W)
Humidity Setpoint	—	40351	1	-	(W)
Humidity Tolerance	—	40351	1	100	Multiply desired value by 100 (Modbus only) 0=No Change (W)
Reheat Lockout	—	40349	1	—	Bit 2 On=RH Off; Bit 3 On=RH On*
Humidifier Lockout	—	40349	1	—	Bit 4 On=HL Off; Bit 5 On=HL On*

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

** These bit pairs use an exclusive function of OR. Both bits in the pair cannot be set or unset. Multiple pairs may be set/unset in a single write, as long as the exclusive function of OR is appropriately recognized.*

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Table 3.40 Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (Liebert® iCOM™ CMS-Only)

Controller	L8T				
Liebert Products	Liebert Mini-Mate2 8 Ton				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Temperature	—	40001	1	—	—
Humidity	—	40002	1	—	—
Cooling	—	40003	1	—	1=On / 0=Off
Heating	—	40004	1	—	1=On / 0=Off
Humidification	—	40005	1	—	1=On / 0=Off
De-humidification	—	40006	1	—	1=On / 0=Off
Econ-O-Cycle	—	40007	1	—	1=On / 0=Off
Stages	—	40008	1	—	—
% Capacity	—	40009	1	—	—
Analog input 1	—	40023	1	—	A/D raw value w/ slope =1 and offset = 0
Analog input 2	—	40024	1	—	A/D raw value w/ slope =1 and offset = 0
Analog input 3	—	40025	1	—	A/D raw value w/ slope =1 and offset = 0
Analog input 4	—	40026	1	—	A/D raw value w/ slope =1 and offset = 0
Alarm Points					
Communications	—	40289	1	—	Bit 0
Local Off	—	40289	1	—	Bit 1
Remote Off	—	40289	1	—	Bit 2
High Head Pressure 1	—	40289	1	—	Bit 3
High Head Pressure 2	—	40289	1	—	Bit 4
Loss of Airflow	—	40289	1	—	Bit 5
Standby Glycol Unit On	—	40289	1	—	Bit 6
Not Used	—	40289	1	—	Bit 7
Change Filters	—	40289	1	—	Bit 8
High Temperature	—	40289	1	—	Bit 9
Low Temperature	—	40289	1	—	Bit 10

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Table 3.40 Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (Liebert® iCOM™ CMS-Only) (continued)

Controller	L8T				
Liebert Products	Liebert Mini-Mate2 8 Ton				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
High Humidity	—	40290	1	—	Bit 0
Low Humidity	—	40290	1	—	Bit 1
Humidifier Problem	—	40290	1	—	Bit 2
Smoke Detected	—	40290	1	—	Bit 8
Loss of Water	—	40290	1	—	Bit 9
Standby Unit On	—	40290	1	—	Bit 10
Not Used	—	40291	1	—	Bit 0
Short Cycle	—	40291	1	—	Bit 1
Loss of Power	—	40291	1	—	Bit 2
Local Alarm 1	—	40291	1	—	Bit 6
Local Alarm 2	—	40291	1	—	Bit 7
EPO Shutdown	—	40291	1	—	Bit 8
High Water	—	40291	1	—	Bit 9
Local Alarm 3	—	40291	1	—	Bit 10
Run Times (View)					
Compressor 1 Run Hours	—	40019	1	—	—
Compressor 2 Run Hours	—	40020	1	—	—
Glycol Run Hours	—	—	1	—	—
Fan Motor Run Hours	—	40021	1	—	—
Humidifier Run Hours	—	40022	1	—	—
Reheat 1 Run Hours	—	—	1	—	—
Reheat 2 Run Hours	—	—	1	—	—
Reheat 3 Run Hours	—	—	1	—	—
Chilled H2O Valve Run Hours	—	—	1	—	—
Setpoints (View)					
Temperature Setpoint	—	40010	1	—	(R/W)
Temperature Tolerance	—	40011	1	—	(R/W)
Humidity Setpoint	—	40012	1	—	(R/W)

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Table 3.40 Liebert® Mini-Mate2 8 Ton—Input and Holding—L8T (Liebert® iCOM™ CMS-Only) (continued)

Controller	L8T				
Liebert Products	Liebert Mini-Mate2 8 Ton				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Humidity Tolerance	—	40013	1	—	(R/W)
High Temperature Alarm Setpoint	—	40014	1	—	(R/W)
Low Temp Alarm Setpoint	—	40015	1	—	(R/W)
High Humidity Alarm Setpoint	—	40016	1	—	(R/W)
Low Humidity Alarm Setpoint	—	40017	1	—	(R/W)
Winter Start Delay	—	40028	1	—	Minutes (R/W)
Auto Flush Rate	—	40029	1	—	% (R/W)
Chill Water Flush Rate	—	40030	1	—	Hours (R/W)
Auto Restart Delay	—	40031	1	—	0.1 minute (R/W)
Control Points (Set)					
Unit Status (On / Off)	—	40018	1	—	1=On / 0=Off (Read Only)
Unit On / Off	—	40349	1	—	Bit 0 On=unit Off; Bit 1 On=unit On (W)*
Temperature Setpoint	—	40350	1	—	(W)
Temperature Tolerance	—	40350	1	1000	Multiply desired value by 1000 (Modbus only) 0=No Change (W)
Humidity Setpoint	—	40351	1	-	(W)
Humidity Tolerance	—	40351	1	100	Multiply desired value by 100 (Modbus only) 0=No Change (W)
Reheat Lockout	—	40349	1	—	Bit 2 On=RH Off; Bit 3 On=RH On*
Humidifier Lockout	—	40349	1	—	Bit 4 On=HL Off; Bit 5 On=HL On*

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

** These bit pairs use an exclusive function of OR. Both bits in the pair cannot be set or unset. Multiple pairs may be set/unset in a single write, as long as the exclusive function of OR is appropriately recognized.*

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Table 3.41 Liebert® DCP—Status and Coil

Controller	Liebert® iCOM™ v4			
Data Label	Status	Coil	Number of Bits	Notes
Pumps				
Pump 1 Loss of Flow	10001	—	1	Active on Alarm
Pump 2 Loss of Flow	10002	—	1	Active on Alarm
Pump Short Cycle	10020	—	1	Active on Alarm
System Events				
Fan Issue	10003	—	1	Active on Alarm
System Condensation Detected	10004	—	1	Active on Alarm
Customer Input 1	10005	—	1	Active on Alarm
Shutdown - Loss Of Power	10019	—	1	Active on Alarm
Water Under Floor	10021	—	1	Active on Alarm
Smoke Detected	10022	—	1	Active on Alarm
Service Required	10023	—	1	Active on Alarm
Unit Communication Lost	10262	—	1	Active on Alarm
RAM Battery Issue	10263	—	1	Active on Alarm
Master Unit Communication Lost	10264	—	1	Active on Alarm
Remote Shutdown	10265	—	1	Active on Alarm
Unit Code Missing	10266	—	1	Active on Alarm
Chilled Water				
Supply Chilled Water Over Temp	10006	—	1	Active on Alarm
Supply Chilled Water Temp Sensor Issue	10007	—	1	Active on Alarm
Chilled Water Control Valve Position	10018	—	1	Active on Alarm
Fluid				
Supply Fluid Under Temp	10009	—	1	Active on Alarm
Supply Fluid Temp Sensor Issue	10010	—	1	Active on Alarm
External Air				
Ext Air Sensor A Over Temperature	10011	—	1	Active on Alarm
Ext Air Sensor A Under Temperature	10012	—	1	Active on Alarm
Ext Air Sensor A Issue	10013	—	1	Active on Alarm
Ext Air Sensor B Over Temperature	10014	—	1	Active on Alarm
Ext Air Sensor B Under Temperature	10015	—	1	Active on Alarm
Ext Air Sensor B Issue	10016	—	1	Active on Alarm

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Table 3.41 Liebert® DCP—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Label	Status	Coil	Number of Bits	Notes
Ext Dew Point Over Temperature	10017	—	1	Active on Alarm
Pump Hours 1				
Pump Hours Exceeded	10030	—	1	Active on Alarm
Pump Hours 2				
Pump Hours Exceeded	10036	—	1	Active on Alarm
XD System 1				
Ext System Condensation Detected	10042	—	1	Active on Alarm
Ext Fan Issue	10043	—	1	Active on Alarm
Sensor Issue	10044	—	1	Active on Alarm
Ext Remote Shutdown	10045	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10046	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10047	—	1	Active on Alarm
XD System 2				
Ext System Condensation Detected	10053	—	1	Active on Alarm
Ext Fan Issue	10054	—	1	Active on Alarm
Sensor Issue	10055	—	1	Active on Alarm
Ext Remote Shutdown	10056	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10057	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10058	—	1	Active on Alarm
. . .				
XD System 20				
Ext System Condensation Detected	10251	—	1	Active on Alarm
Ext Fan Issue	10252	—	1	Active on Alarm
Sensor Issue	10253	—	1	Active on Alarm
Ext Remote Shutdown	10254	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10255	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10256	—	1	Active on Alarm
Messages				
Unit On	10272	—	1	Active on Alarm
Unit Off	10273	—	1	Active on Alarm
Unit Standby	10274	—	1	Active on Alarm

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Table 3.41 Liebert® DCP—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Label	Status	Coil	Number of Bits	Notes
Unit Partial Shutdown	10275	—	1	Active on Alarm
Unit Shutdown	10276	—	1	Active on Alarm
Maintenance Due	10277	—	1	Active on Alarm
Maintenance Completed	10278	—	1	Active on Alarm

Table 3.42 Liebert® DCP—Input and Holding

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Pumps					
Pump 1 State	30385	—	1	—	0 = off 1 = on
Pump 2 State	30386	—	1	—	0 = off 1 = on
Fluid					
Supply Fluid Temperature	30387	—	1	10	Units : deg C Int16
Supply Fluid Temperature	30388	—	1	10	Units : deg F Int16
Supply Fluid Over Temp Threshold	30411	40411	1	10	Units : deg C Int16
Supply Fluid Over Temp Threshold	30412	40412	1	10	Units : deg F Int16
Chilled Water					
Supply Chilled Water Temperature	30389	—	1	10	Units : deg F Int16
Supply Chilled Water Temperature	30390	—	1	10	Units : deg C Int16
Supply Chilled Water Over Temp Threshold	30413	40413	1	10	Units : deg F Int16
Supply Chilled Water Over Temp Threshold	30414	40414	1	10	Units : deg C Int16
System Information					
System Status	30391	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Unit Operating State	30392	—	1	—	0 = off 1 = on 2 = standby
Auto Restart Delay	30417	40417	1	—	Units : sec Int16
Unit Control Mode	30418	—	1	—	0 = Internal (Auto) 1 = External (Manual)
Maintenance Ramp	30419	—	1	—	Units : % Uint16
Calculated Next Maintenance Month	30420	—	1	—	Uint16
Calculated Next Maintenance Year	30421	—	1	—	Uint16
System On/Off Control	30422	40422	1	—	0 = off 1 = on
Unit Off Reason	31704	—	1	—	0 = None 1 = User 2 = Alarm 3 = Timer 4 = Monitoring 5 = Remote Off 6 = HCS12 Off
External Air					
Ext Air Sensor A Temperature	30393	—	1	10	Units : deg C Int16
Ext Air Sensor A Temperature	30394	—	1	10	Units : deg F Int16
Ext Air Sensor A Humidity	30395	—	1	10	Units : % RH Uint16
Ext Air Sensor A Dew Point Temp	30396	—	1	10	Units : deg C Int16
Ext Air Sensor A Dew Point Temp	30397	—	1	10	Units : deg F Int16
Ext Air Sensor B Temperature	30398	—	1	10	Units : deg C Int16
Ext Air Sensor B Temperature	30399	—	1	10	Units : deg F Int16
Ext Air Sensor B Humidity	30400	—	1	10	Units : % RH Uint16
Ext Air Sensor B Dew Point Temp	30401	—	1	10	Units : deg C Int16

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext Air Sensor B Dew Point Temp	30402	—	1	10	Units : deg F Int16
Minimum Room Temperature Set Point	30403	40403	1	10	Units : deg C Int16
Minimum Room Temperature Set Point	30404	40404	1	10	Units : deg F Int16
Ext Air Over Temp Threshold	30405	40405	1	10	Units : deg C Int16
Ext Air Over Temp Threshold	30406	40406	1	10	Units : deg F Int16
Ext Air Under Temp Threshold	30407	40407	1	10	Units : deg C Int16
Ext Air Under Temp Threshold	30408	40408	1	10	Units : deg F Int16
Ext Dew Point Over Temp Threshold	30409	40409	1	10	Units : deg C Int16
Ext Dew Point Over Temp Threshold	30410	40410	1	10	Units : deg F Int16
Dew Point Temperature	30415	—	1	10	Units : deg C Int16
Dew Point Temperature	30416	—	1	10	Units : deg F Int16
System Events					
System Event Acknowledge/Reset		40423	1	—	2 = Reset 4 = Acknowledge
Time					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch (UTC)
Pump hours 1					
Pump Hours	30430	40430	1	—	Units : hr Uint16
Pump Hours Threshold	30431	40431	1	—	Units : hr Uint16
Pump hours 2					
Pump Hours	30437	40437	1	—	Units : hr Uint16
Pump Hours Threshold	30438	40438	1	—	Units : hr Uint16
XD System 1					

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Communication Status	30444	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30445	40445	1	—	0 = off 1 = on
Master Fan Group State	30446	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30447	40447	1	—	0 = enabled 1 = disabled
Visual ID Control	30448	40448	1	—	0 = disabled 1 = enabled
Cooling Capacity	30449	—	1	—	Units : % Uint16
Cooling Capacity	30450	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30451	40451	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30452	40452	1	—	0 = Message 1 = Warning2 = Alarm
Ext Fan Issue - Event Control	30453	40453	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30454	40454	1	—	0 = Message 1 = Warning2 = Alarm
Sensor Issue - Event Control	30455	40455	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30456	40456	1	—	0 = Message 1 = Warning2 = Alarm
Ext Remote Shutdown - Event Control	30457	40457	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30458	40458	1	—	0 = Message 1 = Warning2 = Alarm
Hot Aisle Over Temp Threshold	30459	40459	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30460	40460	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30461	40461	1	—	Units : deg C Int16

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Hot Aisle Under Temp Threshold	30462	40462	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30463	40463	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30464	40464	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30465	40465	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30466	40466	1	—	Units : deg F Int16
XD System 2					
Communication Status	30472	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30473	40473	1	—	0 = off 1 = on
Master Fan Group State	30474	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30475	40475	1	—	0 = enabled 1 = disabled
Visual ID Control	30476	40476	1	—	0 = disabled 1 = enabled
Cooling Capacity	30477	—	1	—	Units : % Uint16
Cooling Capacity	30478	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30479	40479	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30480	40480	1	—	0 = Message 1 = Warning2 = Alarm
Ext Fan Issue - Event Control	30481	40481	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30482	40482	1	—	0 = Message 1 = Warning2 = Alarm
Sensor Issue - Event Control	30483	40483	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30484	40484	1	—	0 = Message 1 = Warning2 = Alarm

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext Remote Shutdown - Event Control	30485	40485	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30486	40486	1	—	0 = Message 1 = Warning2 = Alarm
Hot Aisle Over Temp Threshold	30487	40487	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30488	40488	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30489	40489	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30490	40490	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30491	40491	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30492	40492	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30493	40493	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30494	40494	1	—	Units : deg F Int16
. . .					
XD System 20					
Communication Status	30976	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30977	40977	1	—	0 = off 1 = on
Master Fan Group State	30978	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30979	40979	1	—	0 = enabled 1 = disabled
Visual ID Control	30980	40980	1	—	0 = disabled 1 = enabled
Cooling Capacity	30981	—	1	—	Units : % Uint16
Cooling Capacity	30982	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30983	40983	1	—	0 = disabled 1 = enabled

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext System Condensation Detected - Event Type	30984	40984	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Fan Issue - Event Control	30985	40985	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30986	40986	1	—	0 = Message 1 = Warning 2 = Alarm
Sensor Issue - Event Control	30987	40987	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30988	40988	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30989	40989	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30990	40990	1	—	0 = Message 1 = Warning 2 = Alarm
Hot Aisle Over Temp Threshold	30991	40991	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30992	40992	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30993	40993	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30994	40994	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30995	40995	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30996	40996	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30997	40997	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30998	40998	1	—	Units : deg F Int16
XD System 1 Temperature Sensor 1					
Remote Sensor Temperature	31004	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31005	—	1	10	Units : deg F Int16
XD System 1 Temperature Sensor 2					

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31011	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31012	—	1	10	Units : deg F Int16
. . .					
XD System 1 Temperature Sensor 4					
Remote Sensor Temperature	31025	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31026	—	1	10	Units : deg F Int16
XD System 1 Slave Fans					
Fan State	31032	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31033	41033	1	—	0 = disabled 1 = automatic 2 = manual
XD System 2 Temperature Sensor 1					
Remote Sensor Temperature	31039		1	10	Units : deg C Int16
Remote Sensor Temperature	31040	—	1	10	Units : deg F Int16
XD System 2 Temperature Sensor 2					
Remote Sensor Temperature	31046	—	1	10	Units : deg F Int16
Remote Sensor Temperature	31047	—	1	10	Units : deg C Int16
. . .					
XD System 2 Temperature Sensor 4					
Remote Sensor Temperature	31060	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31061	—	1	10	Units : deg F Int16
XD System 2 Slave Fans					
Fan State	31067	—	1	—	0 = off 1 = on 2 = economy

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Economy Mode	31068	41068	1	—	0 = disabled 1 = automatic 2 = manual
XD System 3 Temperature Sensor 1					
Remote Sensor Temperature	31074	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31075	—	1	10	Units : deg F Int16
XD System 3 Temperature Sensor 2					
Remote Sensor Temperature	31081	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31082	—	1	10	Units : deg F Int16
. . .					
XD System 3 Temperature Sensor 4					
Remote Sensor Temperature	31095	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31096	—	1	10	Units : deg F Int16
XD System 3 Slave Fans					
Fan State	31102	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31103	41103	1	—	0 = disabled 1 = automatic 2 = manual
XD System 4 Temperature Sensor 1					
Remote Sensor Temperature	31109	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31110	—	1	10	Units : deg F Int16
XD System 4 Temperature Sensor 2					
Remote Sensor Temperature	31116	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31117	—	1	10	Units : deg F Int16
. . .		—			
XD System 4 Temperature Sensor 4					

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31130	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31131	—	1	10	Units : deg F Int16
XD System 4 Slave Fans					
Fan State	31137	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31138	41138	1	—	0 = disabled 1 = automatic 2 = manual
XD System 5 Temperature Sensor 1					
Remote Sensor Temperature	31144	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31145	—	1	10	Units : deg F Int16
XD System 5 Temperature Sensor 2					
Remote Sensor Temperature	31151	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31152	—	1	10	Units : deg F Int16
. . .					
XD System 5 Temperature Sensor 4					
Remote Sensor Temperature	31165	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31166	—	1	10	Units : deg F Int16
XD System 5 Slave Fans					
Fan State	31172	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31173	41173	1	—	0 = disabled 1 = automatic 2 = manual
XD System 6 Temperature Sensor 1					
Remote Sensor Temperature	31179	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31180	—	1	10	Units : deg F Int16

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
XD System 6 Temperature Sensor 2					
Remote Sensor Temperature	31186	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31187	—	1	10	Units : deg F Int16
. . .					
XD System 6 Temperature Sensor 4					
Remote Sensor Temperature	31200	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31201	—	1	10	Units : deg F Int16
XD System 6 Slave Fans					
Fan State	31207	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31208	41208	1	—	0 = disabled 1 = automatic 2 = manual
XD System 7 Temperature Sensor 1					
Remote Sensor Temperature	31214	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31215	—	1	10	Units : deg F Int16
XD System 7 Temperature Sensor 2					
Remote Sensor Temperature	31221	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31222	—	1	10	Units : deg F Int16
. . .					
XD System 7 Temperature Sensor 4					
Remote Sensor Temperature	31235	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31236	—	1	10	Units : deg F Int16
XD System 7 Slave Fans					
Fan State	31242	—	1	—	0 = off 1 = on 2 = economy

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Economy Mode	31243	41243	1	—	0 = disabled 1 = automatic 2 = manual
XD System 8 Temperature Sensor 1					
Remote Sensor Temperature	31249	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31250	—	1	10	Units : deg F Int16
XD System 8 Temperature Sensor 2					
Remote Sensor Temperature	31256	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31257	—	1	10	Units : deg F Int16
. . .					
XD System 8 Temperature Sensor 4					
Remote Sensor Temperature	31270	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31271	—	1	10	Units : deg F Int16
XD System 8 Slave Fans					
Fan State	31277	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31278	41278	1	—	0 = disabled 1 = automatic 2 = manual
XD System 9 Temperature Sensor 1					
Remote Sensor Temperature	31284	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31285	—	1	10	Units : deg F Int16
XD System 9 Temperature Sensor 2					
Remote Sensor Temperature	31291	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31292	—	1	10	Units : deg F Int16
. . .					
XD System 9 Temperature Sensor 4					

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31305	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31306	—	1	10	Units : deg F Int16
XD System 9 Slave Fans					
Fan State	31312	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31313	41313	1	—	0 = disabled 1 = automatic 2 = manual
XD System 10 Temperature Sensor 1					
Remote Sensor Temperature	31319	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31320	—	1	10	Units : deg F Int16
XD System 10 Temperature Sensor 2					
Remote Sensor Temperature	31326	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31327	—	1	10	Units : deg F Int16
. . .					
XD System 10 Temperature Sensor 4					
Remote Sensor Temperature	31340	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31341	—	1	10	Units : deg F Int16
XD System 10 Slave Fans					
Fan State	31347	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31348	41348	1	—	0 = disabled 1 = automatic 2 = manual
XD System 11 Temperature Sensor 1					
Remote Sensor Temperature	31354	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31355	—	1	10	Units : deg F Int16

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
XD System 11 Temperature Sensor 2					
Remote Sensor Temperature	31361	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31362	—	1	10	Units : deg F Int16
. . .					
XD System 11 Temperature Sensor 4					
Remote Sensor Temperature	31375	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31376	—	1	10	Units : deg F Int16
XD System 11 Slave Fans					
Fan State	31382	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31383	41383	1	—	0 = disabled 1 = automatic 2 = manual
XD System 12 Temperature Sensor 1					
Remote Sensor Temperature	31389	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31390	—	1	10	Units : deg F Int16
XD System 12 Temperature Sensor 2					
Remote Sensor Temperature	31396	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31397	—	1	10	Units : deg F Int16
. . .					
XD System 12 Temperature Sensor 4					
Remote Sensor Temperature	31410	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31411	—	1	10	Units : deg F Int16
XD System 12 Slave Fans					
Fan State	31417	—	1	—	0 = off 1 = on 2 = economy

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Economy Mode	31418	41418	1	—	0 = disabled 1 = automatic 2 = manual
XD System 13 Temperature Sensor 1					
Remote Sensor Temperature	31424	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31425	—	1	10	Units : deg F Int16
XD System 13 Temperature Sensor 2					
Remote Sensor Temperature	31431	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31432	—	1	10	Units : deg F Int16
. . .					
XD System 13 Temperature Sensor 4					
Remote Sensor Temperature	31445	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31446	—	1	10	Units : deg F Int16
XD System 13 Slave Fans					
Fan State	31452	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31453	41453	1	—	0 = disabled 1 = automatic 2 = manual
XD System 14 Temperature Sensor 1					
Remote Sensor Temperature	31459	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31460	—	1	10	Units : deg F Int16
XD System 14 Temperature Sensor 2					
Remote Sensor Temperature	31466	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31467	—	1	10	Units : deg F Int16
. . .					
XD System 14 Temperature Sensor 4					

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31480	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31481	—	1	10	Units : deg F Int16
XD System 14 Slave Fans					
Fan State	31487	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31488	—	1	—	0 = disabled 1 = automatic 2 = manual
XD System 15 Temperature Sensor 1					
Remote Sensor Temperature	31494	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31495	—	1	10	Units : deg F Int16
XD System 15 Temperature Sensor 2					
Remote Sensor Temperature	31501	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31502	—	1	10	Units : deg F Int16
. . .					
XD System 15 Temperature Sensor 4					
Remote Sensor Temperature	31515	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31516	—	1	10	Units : deg F Int16
XD System 15 Slave Fans					
Fan State	31522	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31523	41523	1	—	0 = disabled 1 = automatic 2 = manual
XD System 16 Temperature Sensor 1					
Remote Sensor Temperature	31529		1	10	Units : deg C Int16
Remote Sensor Temperature	31530	—	1	10	Units : deg F Int16

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
XD System 16 Temperature Sensor 2					
Remote Sensor Temperature	31536	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31537	—	1	10	Units : deg F Int16
. . .					
XD System 16 Temperature Sensor 4					
Remote Sensor Temperature	31550	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31551	—	1	10	Units : deg F Int16
XD System 16 Slave Fans					
Fan State	31557	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31558	41558	1	—	0 = disabled 1 = automatic 2 = manual
XD System 17 Temperature Sensor 1					
Remote Sensor Temperature	31564	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31565	—	1	10	Units : deg F Int16
XD System 17 Temperature Sensor 2					
Remote Sensor Temperature	31571	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31572	—	1	10	Units : deg F Int16
. . .					
XD System 17 Temperature Sensor 4					
Remote Sensor Temperature	31585	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31586	—	1	10	Units : deg F Int16
XD System 17 Slave Fans					
Fan State	31592	—	1	—	0 = off 1 = on 2 = economy

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Economy Mode	31593	41593	1	—	0 = disabled 1 = automatic 2 = manual
XD System 18 Temperature Sensor 1					
Remote Sensor Temperature	31599	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31600	—	1	10	Units : deg F Int16
XD System 18 Temperature Sensor 2					
Remote Sensor Temperature	31606	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31607	—	1	10	Units : deg F Int16
. . .					
XD System 18 Temperature Sensor 4					
Remote Sensor Temperature	31620	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31621	—	1	10	Units : deg F Int16
XD System 18 Slave Fans					
Fan State	31627	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31628	41628	1	—	0 = disabled 1 = automatic 2 = manual
XD System 19 Temperature Sensor 1					
Remote Sensor Temperature	31634	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31635	—	1	10	Units : deg F Int16
XD System 19 Temperature Sensor 2					
Remote Sensor Temperature	31641	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31642	—	1	10	Units : deg F Int16
. . .					
XD System 19 Temperature Sensor 4					

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Table 3.42 Liebert® DCP—Input and Holding (continued)

Controller	Liebert® iCOM ™v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31655	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31656	—	1	10	Units : deg F Int16
XD System 19 Slave Fans					
Fan State	31662	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31663	41663	1	—	0 = disabled 1 = automatic 2 = manual
XD System 20 Temperature Sensor 1					
Remote Sensor Temperature	31669		1	10	Units : deg C Int16
Remote Sensor Temperature	31670	—	1	10	Units : deg F Int16
XD System 20 Temperature Sensor 2					
Remote Sensor Temperature	31676	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31677	—	1	10	Units : deg F Int16
. . .					
XD System 20 Temperature Sensor 4					
Remote Sensor Temperature	31690	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31691	—	1	10	Units : deg F Int16
XD System 20 Slave Fans					
Fan State	31697	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31698	41698	1	—	0 = disabled 1 = automatic 2 = manual

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Table 3.43 Liebert® DCP—Glossary

Data Label	Data Description
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Position	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Cold Aisle Over Temp Threshold	Upper threshold value used in the [Cold Aisle Temp Out of Range] event.
Cold Aisle Temp Out of Range	The air temperature in the cold aisle is either above [Cold Aisle Over Temp Threshold] or below [Cold Aisle Under Temp Threshold].
Cold Aisle Under Temp Threshold	Lower threshold value used in the [Cold Aisle Temp Out of Range] event.
Communication Status	Communication status of remote device.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Customer Input 1	Customer input 1.
Dew Point Temperature	Dew point temperature, using the highest reading from all sensors.
Ext Air Over Temp Threshold	Threshold value used in the ([Ext Air Sensor A Over Temperature], [Ext Air Sensor B Over Temperature]...) events.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Sensor B Dew Point Temp	Dew point temperature as measured by external air sensor B.
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
Ext Air Sensor B Over Temperature	[Ext Air Sensor B Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor B Under Temperature	[Ext Air Sensor B Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Under Temp Threshold	Threshold value used in the ([Ext Air Sensor A Under Temperature], [Ext Air Sensor B Under Temperature]...) events.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].

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Table 3.43 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Ext Fan Issue - Event Control	Enable/disable the activation of the [Ext Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Fan Issue - Event Type	The event type for the [Ext Fan Issue] event.
Ext Fan Issue	One or more fans are not operating within their operational parameters.
Ext Remote Shutdown - Event Control	Enable/disable the activation of the [Remote Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Remote Shutdown - Event Type	The event type for the [Remote Shutdown] event.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Ext System Condensation Detected - Event Control	Enable/disable the activation of the [Ext System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext System Condensation Detected - Event Type	The event type for the [Ext System Condensation Detected] event.
Ext System Condensation Detected	External system condensation detected.
Fan Button Control	Enable or disable the buttons from controlling the state of the fans.
Fan Economy Mode	Mode in which system slave fans are to be controlled.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan On/Off Control	Turn system fans on or off.
Fan State	Current operational state of a group of fans.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Hot Aisle Over Temp Threshold	Upper threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Aisle Temp Out of Range	The air temperature in the Hot aisle is either above [Hot Aisle Over Temp Threshold] or below [Hot Aisle Under Temp Threshold].
Hot Aisle Under Temp Threshold	Lower threshold value used in the [Hot Aisle Temp Out of Range] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Room Temperature Set Point	Minimum desired room air temperature. If the room air temperature falls below this set point, the unit will reduce the cooling.
Master Fan Group State	Current operational state of the master fan group.
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 1 State	Pump 1 operational state.

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Table 3.43 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Short Cycle	Pumps have short cycled. A short cycle is defined as turning on and off a number of times over a set time period.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Shutdown	Unit is shut down by a remote signal.
Sensor Issue - Event Control	Enable/disable the activation of the [Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Sensor Issue - Event Type	The event type for the [Sensor Issue] event.
Sensor Issue	One or more sensors are disconnected or the signals are out of range.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Chilled Water Over Temp	[Supply Fluid Temperature] has exceeded [High Supply Fluid Temperature Threshold].
Supply Chilled Water Temp Sensor Issue	The supply chilled water temperature sensor is disconnected or the signal is out of range.
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Fluid Temperature	Supply fluid temperature.
Supply Fluid Under Temp	[Supply Fluid Temperature] has dropped below a specified threshold.
System Condensation Detected	System condensation detected.
System Date and Time	The system date and time
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.

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Table 3.43 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Visual ID Control	Visual identification control to display an LED flashing sequence, allowing it to be visually located.
Water Under Floor	Water under the floor is detected.

Table 3.44 Vertiv™ Liebert® DME2 —Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air				
Loss of Airflow Sensor Failure	10263		1	Active on Alarm
High Return Humidity	10135		1	Active on Alarm
Low Return Humidity	10136		1	Active on Alarm
Return Air Under Temperature	10130		1	Active on Alarm
Loss of Airflow	10040		1	Active on Alarm
Return Air Over Temperature	10129		1	Active on Alarm
ReturnAirTempSensor				
Return Air Sensor Issue	10209		1	Active on Alarm
ReturnAirHumidtySensor				
Return Humidity Sensor Issue	10212		1	Active on Alarm
Airfilter				
Filter Maintenance Due	10082		1	Active on Alarm
CompressorInfo				
High Compressor Discharge Temperature Lockout	10166		1	Active on Alarm
High Compressor Discharge Temperature	10165		1	Active on Alarm
Low Compressor Pressure Lockout	10164		1	Active on Alarm
Low Compressor Pressure	10163		1	Active on Alarm
High Compressor Presssure Lockout	10162		1	Active on Alarm
High Compressor Pressure	10161		1	Active on Alarm

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Table 3.44 Vertiv™ Liebert® DME2 —Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Fan				
Fan Hours Exceeded	10081		1	Active on Alarm
Condenser				
Condensate Pressure Sensor Alarm	10291		1	Active on Alarm
Humidifier				
Humidifier State	10003		1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004		1	Active on Alarm
Reheater				
Electric Reheat State	10002		1	Active on Alarm
Electrical Heater Failure	10115		1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067		1	Active on Alarm
Input Overvoltage	10066		1	Active on Alarm
Input Frequency Deviation	10068		1	Active on Alarm
Surge Protection Device Alarm	10037		1	Active on Alarm
Power Opposite Phase	10070		1	Active on Alarm
Power Loss Of Phase	10069		1	Active on Alarm
SystemOperations				
Cooling State	10001		1	Active on Alarm
SystemEvents				
Repeated Teamwork Address	10064		1	Active on Alarm
Loss of Teamwork Slave	10063		1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062		1	Active on Alarm
Water Under Floor	10034		1	Active on Alarm
Humidifier Issue	10117		1	Active on Alarm
Humidifier Hours Exceeded	10084		1	Active on Alarm
Internal Communications Failure	19990		1	Active on Alarm
Ext Remote Shutdown	10033		1	Active on Alarm
Shutdown - Loss Of Power	10065		1	Active on Alarm
Data Label	Status	Coil	Number of Bits	Notes
Custom Alarm	10049		1	Active on Alarm

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Table 3.44 Vertiv™ Liebert® DME2 —Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
CustomAlarm 2				
Custom Alarm	10050		1	Active on Alarm
CustomAlarm 3				
Custom Alarm	10051		1	Active on Alarm

Table 3.45 Vertiv™ Liebert® DME2 —Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
ReturnAirTempSensor					
Return Air Sensor Temperature	30036		1	10	Units : deg C Int16
ReturnAirHumidtySensor					
Return Sensor Humidity	30039		1	10	Units : % RH Uint16
CompressorInfo					
Compressor Hours	30111	40111	1		Units : hr Uint16
FanInfo					
Fan Speed	30079		1		Units : % Uint16
Fan Hours	30110	40110	1		Units : hr Uint16
Condenser					
Condensate Fan Hours	30119	40119	1		Units : hr Uint16

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Table 3.45 Vertiv™ Liebert® DME2 —Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
HumidifierInfo					
Humidifier Hours	30114	40114	1		Units : hr Uint16
ReheaterInfo					
Electric Reheater Hours	30113	40113	1		Units : hr Uint16
PowerMeasurement					
System Input RMS A-N	30021		1	10	Units : VAC Int16
System Input RMS B-N	30022		1	10	Units : VAC Int16
System Input RMS C-N	30023		1	10	Units : VAC Int16
System Input Frequency	30024		1	10	Units : Hz Int16
SystemOperations					
Teamwork Status	30002		1		0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1		16 = on 31 = off
SystemInfo					
System Operating State	30001		1		0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout

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Table 3.46 Vertiv™ Liebert® DME2 - Glossary

Data Label	Data Description
Compressor Hours	Operating hours for compressor since last reset of this value.
Condensate Fan Hours	Condensate Fan Hours
Condensate Pressure Sensor Alarm	Condensate Pressure Sensor Alarm
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus

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Table 3.46 Vertiv™ Liebert® DME2 - Glossary (continued)

Data Label	Data Description
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.
Input Undervoltage	Binary_Value
Input Overvoltage	Binary_Value
Input Frequency Deviation	Binary_Value
Surge Protection Device Alarm	Binary_Value

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Table 3.46 Vertiv™ Liebert® DME2 - Glossary (continued)

Data Label	Data Description
Power Opposite Phase	Binary_Value
Power Loss Of Phase	Binary_Value
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Power Opposite Phase	The power input phases are incorrectly connected.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 3.47 Liebert® HPC (Chiller)—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Compressors				
Compressor Not Stopping	10001	—	1	Active on Alarm
Compressor Superheat Over Threshold	10002	—	1	Active on Alarm
Compressor 1				
Compressor Hours Exceeded	10012	—	1	Active on Alarm
Compressor High Head Pressure	10013	—	1	Active on Alarm
Compressor Low Suction Pressure	10014	—	1	Active on Alarm
Compressor Thermal Overload	10015	—	1	Active on Alarm

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Table 3.47 Liebert® HPC (Chiller)—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Compressor Low Oil Pressure	10016	—	1	Active on Alarm
Compressor Loss of Differential Pressure	10018	—	1	Active on Alarm
Compressor Capacity Reduced	10019	—	1	Active on Alarm
Compressor Capacity Normal	10020	—	1	Active on Alarm
Compressor Contactor Issue	10021	—	1	Active on Alarm
Compressor 2				
Compressor Hours Exceeded	10029	—	1	Active on Alarm
Compressor High Head Pressure	10030	—	1	Active on Alarm
Compressor Low Suction Pressure	10031	—	1	Active on Alarm
Compressor Thermal Overload	10032	—	1	Active on Alarm
Compressor Low Suction Pressure	10033	—	1	Active on Alarm
Compressor Loss of Differential Pressure	10035	—	1	Active on Alarm
Compressor Capacity Reduced	10036	—	1	Active on Alarm
Compressor Capacity Normal	10037	—	1	Active on Alarm
Compressor Contactor Issue	10038	—	1	Active on Alarm
Compressor 3				
Compressor Hours Exceeded	10210	—	1	Active on Alarm
Compressor High Head Pressure	10211	—	1	Active on Alarm
Compressor Low Suction Pressure	10212	—	1	Active on Alarm
Compressor Thermal Overload	10213	—	1	Active on Alarm
Compressor Low Suction Pressure	10214	—	1	Active on Alarm
Compressor Loss of Differential Pressure	10216	—	1	Active on Alarm
Compressor Capacity Reduced	10217	—	1	Active on Alarm
Compressor Capacity Normal	10218	—	1	Active on Alarm
Compressor Contactor Issue	10219	—	1	Active on Alarm
Compressor 4				
Compressor Hours Exceeded	10230	—	1	Active on Alarm
Compressor High Head Pressure	10231	—	1	Active on Alarm
Compressor Low Suction Pressure	10232	—	1	Active on Alarm
Compressor Thermal Overload	10233	—	1	Active on Alarm
Compressor Low Suction Pressure	10234	—	1	Active on Alarm
Compressor Loss of Differential Pressure	10236	—	1	Active on Alarm

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Table 3.47 Liebert® HPC (Chiller)—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Compressor Capacity Reduced	10237	—	1	Active on Alarm
Compressor Capacity Normal	10238	—	1	Active on Alarm
Compressor Contactor Issue	10239	—	1	Active on Alarm
Condensers 1				
Condenser Fan Issue	10046	—	1	Active on Alarm
Low Condenser Refrigerant Pressure	10047	—	1	Active on Alarm
Condenser Max Fan Speed Override	10048	—	1	Active on Alarm
Condensers 2				
Condenser Fan Issue	10058	—	1	Active on Alarm
Low Condenser Refrigerant Pressure	10059	—	1	Active on Alarm
Condenser Max Fan Speed Override	10060	—	1	Active on Alarm
Condensers 3				
Condenser Fan Issue	10062	—	1	Active on Alarm
Low Condenser Refrigerant Pressure	10063	—	1	Active on Alarm
Condenser Max Fan Speed Override	10064	—	1	Active on Alarm
Condensers 4				
Condenser Fan Issue	10066		1	Active on Alarm
Low Condenser Refrigerant Pressure	10067		1	Active on Alarm
Condenser Max Fan Speed Override	10068		1	Active on Alarm
Fluid				
Low Fluid Pressure	10070		1	Active on Alarm
Supply (Outlet) Fluid				
Supply Fluid Over Temp	10081		1	Active on Alarm
Supply Fluid Under Temp	10082		1	Active on Alarm
Supply Fluid Temp Sensor Issue	10083		1	Active on Alarm
Return (Inlet) Fluid				
Return Fluid Temp Sensor Issue	10096		1	Active on Alarm
Pumps				
All Pumps Loss of Flow	10107		1	Active on Alarm
Pump 1 Loss of Flow	10108		1	Active on Alarm
Pump 2 Loss of Flow	10109		1	Active on Alarm
Pump 1				

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Table 3.47 Liebert® HPC (Chiller)—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Pump Hours Exceeded	10120		1	Active on Alarm
Pump 2				
Pump Hours Exceeded	10131		1	Active on Alarm
Free Cooling				
Free Cooling Valve Hours Exceeded	10142		1	Active on Alarm
Ambient Air Temperature Sensor Issue	10143		1	Active on Alarm
Evaporators				
Evaporator Inlet Temp Sensor Issue	10154		1	Active on Alarm
Evaporator Return Fluid Over Temp	10155		1	Active on Alarm
Evaporator Return Fluid Under Temp	10156		1	Active on Alarm
Evaporator 1				
Evaporator Fluid Freeze - Auto Reset	10165		1	Active on Alarm
Evaporator Fluid Freeze - Manual Reset Required	10166		1	Active on Alarm
Supply Refrigerant Temp Sensor Issue	10167		1	Active on Alarm
Evaporator 2				
Evaporator Fluid Freeze - Auto Reset	10178		1	Active on Alarm
Evaporator Fluid Freeze - Manual Reset Required	10179		1	Active on Alarm
Supply Refrigerant Temp Sensor Issue	10180		1	Active on Alarm
System Events				
Customer Input 1	10191		1	Active on Alarm
Customer Input 2	10192		1	Active on Alarm
Customer Input 3	10251		1	Active on Alarm
Customer Input 4	10252		1	Active on Alarm
Unit On	10193		1	Active on Alarm
Unit Off	10194		1	Active on Alarm
Master Unit Communication Lost	10195		1	Active on Alarm
Subgroup Event Occurred During Communication Loss	10196		1	Active on Alarm
Humidifier Control Board Not Detected	10197		1	Active on Alarm
RAM Battery Issue	10198		1	Active on Alarm
Unit Code Missing	10199		1	Active on Alarm
Unspecified General Event	10200		1	Active on Alarm
Unit Shutdown Unspecified General Event	10250		1	Active on Alarm

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Table 3.47 Liebert® HPC (Chiller)—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
EEV 1				
EEV Unspecified General Event	10270		1	Active on Alarm
EEV 2				
EEV Unspecified General Event	10280		1	Active on Alarm
EEV 4				
EEV Unspecified General Event	10300		1	Active on Alarm
Power Measurement 1				
Modbus Power Meter Communication Lost	10311		1	Active on Alarm
Power Measurement 2				
Modbus Power Meter Communication Lost	10322		1	Active on Alarm

Table 3.48 Liebert® HPC (Chiller)—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressors					
Compressor Shut Down - Ambient Air Low Temp Limit	30389	40389	1	—	Units : deg C Int16
Compressor Shut Down - Ambient Air Low Temp Limit	30390	40390	1	—	Units : deg F Int16
Compressor 1					
Compressor State	30394	—	1	—	0 = off 1 = on
Compressor Capacity Control State	30395	—	1	—	0 = off 1 = on
Compressor Head Pressure	30396	—	1	10	Units : bar Uint16
Compressor Hours	30397	40397	1	—	Units : hr Uint16
Compressor Hours Threshold	30398	40398	1	—	Units : hr Uint16
Compressor 2					

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Table 3.48 Liebert® HPC (Chiller)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Compressor State	30402	—	1	—	0 = off 1 = on
Compressor Capacity Control State	30403	—	1	—	0 = off 1 = on
Compressor Head Pressure	30404	—	1	10	Units : bar Uint16
Compressor Hours	30405	40405	1	—	Units : hr Uint16
Compressor Hours Threshold	30406	40406	1	—	Units : hr Uint16
Compressor 3					
Compressor State	30530	—	1	—	0 = off 1 = on
Compressor Capacity Control State	30531	—	1	—	0 = off 1 = on
Compressor Head Pressure	30532	—	1	10	Units : bar Uint16
Compressor Hours	30533	40533	1	—	Units : hr Uint16
Compressor Hours Threshold	30534	40534	1	—	Units : hr Uint16
Compressor 4					
Compressor State	30550	—	1	—	0 = off 1 = on
Compressor Capacity Control State	30551	—	1	—	0 = off 1 = on
Compressor Head Pressure	30552	—	1	10	Units : bar Uint16
Compressor Hours	30553	40553	1	—	Units : hr Uint16
Compressor Hours Threshold	30554	40554	1	—	Units : hr Uint16
Condensers 1					
Condenser Fan Speed	30410	—	1	—	Units : % Uint16
Condensers 2					
Condenser Fan Speed	30414	—	1	—	Units : % Uint16
Condensers 3					

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Table 3.48 Liebert® HPC (Chiller)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Condenser Fan Speed	30416	—	1	—	Units : % Uint16
Condensers 4					
Condenser Fan Speed	30417	—	1	—	Units : % Uint16
Fluid					
Fluid Pressure	30418	—	1	10	Units : bar Uint16
Fluid Cooling Proportional Band	30419	40419	1	10	Units : deg C Int16
Fluid Cooling Proportional Band	30420	40420	1	10	Units : deg F Int16
Supply (Outlet) Fluid					
Supply Fluid Temp Set Point 1	30424	40424	1	10	Units : deg C Int16
Supply Fluid Temp Set Point 1	30425	40425	1	10	Units : deg F Int16
Supply Fluid Temp Set Point 2	30426	40426	1	—	Units : deg C Int16
Supply Fluid Temp Set Point 2	30427	40427	1	—	Units : deg F Int16
Supply Fluid Over Temp Alarm Threshold	30430	40430	1	—	Units : deg C Int16
Supply Fluid Over Temp Alarm Threshold	30431	40431	1	—	Units : deg F Int16
Supply Fluid Under Temp Alarm Threshold	30434	40434	1	—	Units : deg C Int16
Supply Fluid Under Temp Alarm Threshold	30435	40435	1	—	Units : deg F Int16
Pump 1					
Pump Hours	30450	40450	1	—	Units : hr Uint16
Pump Hours Threshold	30451	40451	1	—	Units : hr Uint16
Pump 2					
Pump Hours	30455	40455	1	—	Units : hr Uint16
Pump Hours Threshold	30456	40456	1	—	Units : hr Uint16

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Table 3.48 Liebert® HPC (Chiller)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Free Cooling					
Free Cooling External Temperature Delta	30460	40460	1	—	Units : deg C Int16
Free Cooling External Temperature Delta	30461	40461	1	—	Units : deg F Int16
Free Cooling Status	30462	—	1	—	0 = off 1 = on 3 = No Support
Free Cooling Valve Open Position	30463	—	1	—	Units : % Uint16
Free Cooling Valve Hours	30464	40464	1	—	Units : hr Uint16
Free Cooling Valve Hours Threshold	30465	40465	1	—	Units : hr Uint16
Evaporators					
Evaporator Return Fluid Temperature	30469	—	1	10	Units : deg C Int16
Evaporator Return Fluid Temperature	30470	—	1	10	Units : deg F Int16
Evaporator Return Fluid Over Temp Alarm Threshold	30615	40615	1	—	Units : deg C Int16
Evaporator Return Fluid Over Temp Alarm Threshold	30616	40616	1	—	Units : deg F Int16
Evaporator Return Fluid Over Temp Warning Threshold	30617	40617	1	—	Units : deg C Int16
Evaporator Return Fluid Over Temp Warning Threshold	30618	40618	1	—	Units : deg F Int16
Evaporator Return Fluid Under Temp Warning Threshold	30619	40619	1	—	Units : deg C Int16
Evaporator Return Fluid Under Temp Warning Threshold	30620	40620	1	—	Units : deg F Int16
Evaporator Return Fluid Under Temp Alarm Threshold	30621	40621	1	—	Units : deg C Int16
Brine					
Supply Brine Temp Set Point	30474	40474	1	—	Units : deg C Int16
Supply Brine Temp Set Point	30475	40475	1	—	Units : deg F Int16
Standby Units					
Standby Units	30479	40479	1	—	Uint16

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Table 3.48 Liebert® HPC (Chiller)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Info					
System Status	30483	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Operating State	30484	—	1	—	0 = off 1 = on 2 = standby
System Control Mode	30485	—	1	—	0 = Internal (Auto) 1 = External (Manual)
System Operating State Reason	30486	—	1	—	0 = Reason Unknown 1 = Network Display 2 = Alarm 3 = Schedule 4 = Remote System 5 = External Input 6 = Local Display
System On/Off Control	30487	40487	1	—	0 = off 1 = on
System Operations					
Return Fluid Temperature	30491	—	1	10	Units : deg C Int16
Return Fluid Temperature	30492	—	1	10	Units : deg F Int16
Supply Fluid Temperature	30493	—	1	10	Units : deg C Int16
Supply Fluid Temperature	30494	—	1	10	Units : deg F Int16
Actual Supply Fluid Temp Set Point	30495	—	1	10	Units : deg C Int16
Actual Supply Fluid Temp Set Point	30496	—	1	10	Units : deg F Int16
Condenser Inlet Water Temperature	30497	—	1	10	Units : deg C Int16
Condenser Inlet Water Temperature	30498	—	1	10	Units : deg F Int16
Condenser Outlet Water Temperature	30499	—	1	10	Units : deg C Int16
Condenser Outlet Water Temperature	30500	—	1	10	Units : deg F Int16

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Table 3.48 Liebert® HPC (Chiller)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Supply Heated Water Temp Set Point	30501	40501	1	—	Units : deg C Int16
Supply Heated Water Temp Set Point	30502	40502	1	—	Units : deg F Int16
Free Cooling Utilization	30503	—	1	—	Units : % Uint16
Reheat Utilization	30504	—	1	—	Units : % Uint16
Compressor Utilization	30505	—	1	—	Units : % Uint16
Ambient Air Temperature	30506	—	1	10	Units : deg C Int16
Ambient Air Temperature	30507	—	1	10	Units : deg F Int16
Compressor Economizer Utilization	30508	—	1	—	Units : % Uint16
Condenser Adiabatic Cooling Utilization	30509	—	1	—	Units : % Uint16
Pump 1 State	30510	—	1	—	0 = off 1 = on
Pump 2 State	30511	—	1	—	0 = off 1 = on
System Events					
System Event Acknowledge/Reset		40515	1	—	2 = Reset 4 = Acknowledge
Power Measurement 1					
System Input RMS A-B	30707	—	1	—	Units : VAC Int16
System Input RMS A-N	30708	—	1	—	Units : VAC Int16
System Input RMS Current Phase A	30709	—	1	—	Units : A AC Int16
System Input RMS B-C	30710	—	1	—	Units : VAC Int16
System Input RMS B-N	30711	—	1	—	Units : VAC Int16
System Input RMS Current Phase B	30712	—	1	—	Units : A AC Int16
System Input RMS C-A	30713	—	1	—	Units : VAC Int16

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Table 3.48 Liebert® HPC (Chiller)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input RMS C-N	30714	—	1	—	Units : VAC Int16
System Input RMS Current Phase C	30715	—	1	—	Units : A AC Int16
Energy Consumption	30716	—	2	—	Units : kWH Int32
Instantaneous Power	30718	—	2	—	Units : W Int32
Output Power Factor	30720	—	1	—	Int16
Power Measurement 2					
System Input RMS A-B	30731	—	1	—	Units : VAC Int16
System Input RMS A-N	30732	—	1	—	Units : VAC Int16
System Input RMS Current Phase A	30733	—	1	—	Units : A AC Int16
System Input RMS B-C	30734	—	1	—	Units : VAC Int16
System Input RMS B-N	30735	—	1	—	Units : VAC Int16
System Input RMS Current Phase B	30736	—	1	—	Units : A AC Int16
System Input RMS C-A	30737	—	1	—	Units : VAC Int16
System Input RMS C-N	30738	—	1	—	Units : VAC Int16
System Input RMS Current Phase C	30739	—	1	—	Units : A AC Int16
Energy Consumption	30740	—	2	—	Units : kWH Int32
Instantaneous Power	30742	—	2	—	Units : W Int32
Output Power Factor	30744	—	1	—	Int16
Time					
System Date and Time	39998	49998	2	—	Secs since Epoch (UTC)

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

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Table 3.49 Extra Notes Key to Liebert® HPC (Chiller)—Status and Coil on page 312

Number	Description
1	This point is supported on iCOM Controller Version 2.02.xxx.
2	This point is supported on iCOM Controller Version 2.03.xxx.

Table 3.50 Liebert® HPC (Chiller)—Glossary

Data Label	Data Description
Actual Supply Fluid Temp Set Point	The actual set point value being used for the desired fluid temperature at the outlet of the unit.
All Pumps Loss of Flow	System is shut down due to loss of flow in all available pumps.
Ambient Air Temperature Sensor Issue	The ambient air temperature sensor is disconnected or the signal is out of range.
Ambient Air Temperature	Ambient air temperature.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Normal	Compressor has returned to normal load capacity.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor Contactor Issue	Compressor contactor is not closing during compressor startup or is not opening during compressor shutdown.
Compressor Economizer Utilization	Present compressor economizer utilization expressed as a percentage of the maximum.
Compressor Head Pressure	Compressor head pressure.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Loss of Differential Pressure	Compressor is shut down due to low differential pressure.
Compressor Low Oil Pressure	Compressor low oil pressure.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Not Stopping	Compressor commanded to stop, but continues to run.
Compressor Shut Down - Ambient Air Low Temp Limit	When the temperature of ambient air falls below this lower threshold, the compressor will be shut off. Correct condensing pressure cannot be achieved when temperature is too low.
Compressor State	Compressor operational state.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Compressor Utilization	Present compressor utilization expressed as a percentage of the maximum rated capacity.
Condenser Adiabatic Cooling Utilization	Present adiabatic cooling utilization expressed as a percentage of the maximum.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.

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Table 3.50 Liebert® HPC (Chiller)—Glossary (continued)

Data Label	Data Description
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Inlet Water Temperature	For water cooled condensers, the temperature of the water entering the heat exchanger, before cooling the refrigerant.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Outlet Water Temperature	For water cooled condensers, the temperature of the water exiting the heat exchanger, after cooling the refrigerant.
Customer Input 1	Customer input 1.
Customer Input 2	Customer input 2.
Customer Input 3	Customer input 3.
Customer Input 4	Customer input 4.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Energy Consumption	Energy consumption since the last reset of this value.
Evaporator Fluid Freeze - Auto Reset	Evaporator outlet fluid temperature has dropped below the freeze threshold. Evaporator has been shut down, but will restart when the temperature rises above the threshold.
Evaporator Fluid Freeze - Manual Reset Required	Evaporator outlet fluid temperature has dropped below the freeze threshold. Evaporator has been shut down and requires a manual reset.
Evaporator Inlet Temp Sensor Issue	The evaporator inlet temperature sensor is disconnected or the signal is out of range.
Evaporator Return Fluid Over Temp Alarm Threshold	Alarm threshold value used in the [Evaporator Return Fluid Over Temp] event.
Evaporator Return Fluid Over Temp Warning Threshold	Warning threshold value used in the [Evaporator Return Fluid Over Temp] event.
Evaporator Return Fluid Over Temp	[Evaporator Return Fluid Temperature] has exceeded a threshold. The event is deactivated when the temperature drops below the threshold.
Evaporator Return Fluid Temperature	Fluid temperature measured at the inlet of the evaporator.
Evaporator Return Fluid Under Temp Alarm Threshold	Alarm threshold value used in the [Evaporator Return Fluid Under Temp] event.
Evaporator Return Fluid Under Temp Warning Threshold	Warning threshold value used in the [Evaporator Return Fluid Under Temp] event.
Evaporator Return Fluid Under Temp	[Evaporator Return Fluid Temperature] has dropped below a threshold. The event is deactivated when the temperature rises above the threshold.
Fluid Cooling Proportional Band	Temperature control band above [Actual Supply Fluid Temp Set Point]. If [Return Fluid Temperature] is within this band, fluid cooling operations are proportionally controlled.
Fluid Pressure	Fluid pressure. This is the pressure within a closed water/glycol circuit.
Free Cooling External Temperature Delta	Minimum temperature delta required between return fluid and external ambient air temperatures in order to enable free cooling.
Free Cooling Status	Free cooling status.

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Table 3.50 Liebert® HPC (Chiller)—Glossary (continued)

Data Label	Data Description
Free Cooling Utilization	Present free cooling utilization expressed as a percentage of the maximum.
Free Cooling Valve Hours Exceeded	[Free Cooling Valve Hours] has exceeded [Free Cooling Valve Hours Threshold].
Free Cooling Valve Hours Threshold	Threshold value used in the [Free Cooling Valve Hours Exceeded] event.
Free Cooling Valve Hours	Operating hours for free cooling valve since last reset of this value.
Free Cooling Valve Open Position	Free cooling valve open position.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Instantaneous Power	Total electrical power currently being consumed.
Low Condenser Refrigerant Pressure	Refrigerant pressure in condenser coil is too low.
Low Fluid Pressure	[Fluid Pressure] has dropped below a specified threshold.
Master Unit Communication Lost	Communication with master unit has been lost.
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Output Power Factor	Total power factor, real power/apparent power for all phases combined
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. This condition occurs when no flow is detected through the flow switch.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. This condition occurs when no flow is detected through the flow switch.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Server Class	The general classification for this system
Standby Units	The number of standby units.
Subgroup Event Occurred During Communication Loss	While subgroup unit communication was lost, an event occurred on the subgroup unit. Please check subgroup unit event log.
Supply Brine Temp Set Point	Desired brine fluid temperature at the outlet of the unit.
Supply Fluid Over Temp Alarm Threshold	Threshold value used to generate a [Supply Fluid Over Temp] alarm.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded a specified threshold.

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Table 3.50 Liebert® HPC (Chiller)—Glossary (continued)

Data Label	Data Description
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temp Set Point 1	Set point 1 of desired fluid temperature at the outlet of the unit.
Supply Fluid Temp Set Point 2	Set point 2 of desired fluid temperature at the outlet of the unit.
Supply Fluid Temperature	Fluid temperature measured at the outlet of the unit.
Supply Fluid Under Temp Alarm Threshold	Threshold value used to generate a [Supply Fluid Under Temp] alarm.
Supply Fluid Under Temp	[Supply Fluid Temperature] has dropped below a specified threshold.
Supply Heated Water Temp Set Point	Desired heated water temperature at the outlet of the unit.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
System Control Mode	System control mode.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Operating State Reason	The reason the system is in the current operating state.
System Operating State	Current operating state of the system.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Shutdown Unspecified General Event	One or more unspecified unit shutdown events active. See local unit display for further details.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.

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Table 3.51 Liebert® iCOM™ DCL—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Air Temperature				
Supply Air Over Temperature	10001	—	1	Active on Alarm
Supply Air Under Temperature	10002	—	1	Active on Alarm
Return Air Over Temperature	10003	—	1	Active on Alarm
Supply Air Sensor Issue	10004	—	1	Active on Alarm
Return Air Sensor Issue	10005	—	1	Active on Alarm
Unit Top Return Air Sensor Failure	10006	—	1	Active on Alarm
Unit Middle Return Air Sensor Failure	10007	—	1	Active on Alarm
Unit Bottom Return Air Sensor Failure	10008	—	1	Active on Alarm
Unit Top Supply Air Sensor Failure	10009	—	1	Active on Alarm
Unit Middle First Supply Air Sensor Failure	10010	—	1	Active on Alarm
Unit Middle Second Supply Air Sensor Failure	10011	—	1	Active on Alarm
Unit Bottom Supply Air Sensor Failure	10012	—	1	Active on Alarm
Pipe Temperature Sensor Failure	10013	—	1	Active on Alarm
Humidity				
High Return Humidity	10024	—	1	Active on Alarm
Low Return Humidity	10025	—	1	Active on Alarm
Dehumidifier Hours Exceeded	10026	—	1	Active on Alarm
Fans				
Loss of Air Flow	10037	—	1	Active on Alarm
Fan Hours Exceeded	10038	—	1	Active on Alarm
Top Fan Issue	10039	—	1	Active on Alarm
Bottom Fan Issue	10040	—	1	Active on Alarm
Remote Sensors 1				
Remote Sensor Issue	10051	—	1	Active on Alarm
Remote Sensors 2				
Remote Sensor Issue	10062	—	1	Active on Alarm
Remote Sensors 4				
Remote Sensor Issue	10084	—	1	Active on Alarm
Chilled Water				
Chilled Water Control Valve Failure	10095	—	1	Active on Alarm
Supply Chilled Water Loss of Flow	10096	—	1	Active on Alarm

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Table 3.51 Liebert® iCOM™ DCL—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Chilled Water Control Active	10097	—	1	Active on Alarm
Modbus 0-10V Module Communication Failure	10098	—	1	Active on Alarm
Chilled Water Circuit 1				
Chilled Water Flow Transducer Failure	10109	—	1	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	10110	—	1	Active on Alarm
Chilled Water High Inlet Temperature	10111	—	1	Active on Alarm
Chilled Water Circuit 2				
Chilled Water Flow Transducer Failure	10122	—	1	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	10123	—	1	Active on Alarm
Chilled Water High Inlet Temperature	10124	—	1	Active on Alarm
System Events				
Customer Input 1	10135	—	1	Active on Alarm
Customer Input 2	10136	—	1	Active on Alarm
Customer Input 3	10137	—	1	Active on Alarm
Customer Input 4	10138	—	1	Active on Alarm
Smoke Detected	10139	—	1	Active on Alarm
Water Under Floor	10140	—	1	Active on Alarm
Service Required	10141	—	1	Active on Alarm
Ext Over Temperature	10142	—	1	Active on Alarm
Ext Loss of Flow	10143	—	1	Active on Alarm
Ext Condenser Pump High Water	10144	—	1	Active on Alarm
Ext Standby Glycol Pump On	10145	—	1	Active on Alarm
External Fire Detected	10146	—	1	Active on Alarm
Unit On	10147	—	1	Active on Alarm
Unit Off	10148	—	1	Active on Alarm
Unit Partial Shutdown	10149	—	1	Active on Alarm
Unit Shutdown	10150	—	1	Active on Alarm
Water Leakage Detector Sensor Issue	10151	—	1	Active on Alarm
BMS Communications Timeout	10152	—	1	Active on Alarm
Maintenance Due	10153	—	1	Active on Alarm
Maintenance Completed	10154	—	1	Active on Alarm
RAM Battery Issue	10155	—	1	Active on Alarm

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Table 3.51 Liebert® iCOM™ DCL—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
High Power Shutdown	10156	—	1	Active on Alarm
Unspecified General Event	10157	—	1	Active on Alarm
Rack Doors Open	10158	—	1	Active on Alarm

Table 3.52 Liebert® iCOM™ DCL—Input and Status

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385	—	1		1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Air Temperature					
Supply Air Temperature	30396	—	1	10	Units : deg C Int16
Supply Air Temperature	30397	—	1	10	Units : deg F Int16
Return Air Temperature	30398	—	1	10	Units : deg C Int16
Return Air Temperature	30399	—	1	10	Units : deg F Int16
Return Dew Point	30400	—	1	10	Units : deg C Int16
Return Dew Point	30401	—	1	10	Units : deg F Int16
Remote Sensor Minimum Temperature	30402	—	1	10	Units : deg C Int16
Remote Sensor Minimum Temperature	30403	—	1	10	Units : deg F Int16
Remote Sensor Maximum Temperature	30404	—	1	10	Units : deg C Int16
Remote Sensor Maximum Temperature	30405	—	1	10	Units : deg F Int16
Remote Sensor Average Temperature	30406	—	1	10	Units : deg C Int16
Remote Sensor Average Temperature	30407	—	1	10	Units : deg F Int16
Air Temperature Set Point	30408	40408	1	10	Units : deg C Int16

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air Temperature Set Point	30409	40409	1	10	Units : deg F Int16
Cooling Proportional Band	30410	40410	1	10	Units : deg C Int16
Cooling Proportional Band	30411	40411	1	10	Units : deg F Int16
Air Temperature Dead Band	30412	40412	1	10	Units : deg C Int16
Air Temperature Dead Band	30413	40413	1	10	Units : deg F Int16
Air Temperature Control Sensor	30414	40414	1	—	0 = Supply 1 = Remote 2 = Return
Remote Sensor Temperature Calculation	30415	40415	1	—	0 = Average 1 = Maximum
High Supply Air Temperature Threshold	30416	40416	1	10	Units : deg C Int16
High Supply Air Temperature Threshold	30417	40417	1	10	Units : deg F Int16
Return Temperature/Humidity Sensor Control Type	30418	40418	1	—	0 = Average 1 = Maximum 2 = Top Sensor 3 = Middle Sensor 4 = Bottom Sensor
Supply Temperature Sensor Control Type	30419	40419	1	—	0 = Average 1 = Maximum 2 = Top Sensor 3 = Middle Sensor 1 4 = Middle Sensor 2 5 = Bottom Sensor
Unit Top Return Sensor Temperature	30420	—	1	10	Units : deg C Int16
Unit Top Return Sensor Temperature	30421	—	1	10	Units : deg F Int16
Unit Middle Return Sensor Temperature	30422	—	1	10	Units : deg C Int16
Unit Middle Return Sensor Temperature	30423	—	1	10	Units : deg F Int16
Unit Bottom Return Sensor Temperature	30424	—	1	10	Units : deg C Int16
Unit Bottom Return Sensor Temperature	30425	—	1	10	Units : deg F Int16

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Unit Top Supply Sensor Temperature	30426	—	1	10	Units : deg C Int16
Unit Top Supply Sensor Temperature	30427	—	1	10	Units : deg F Int16
Unit Middle First Supply Sensor Temperature	30428	—	1	10	Units : deg C Int16
Unit Middle First Supply Sensor Temperature	30429	—	1	10	Units : deg F Int16
Unit Middle Second Supply Sensor Temperature	30430	—	1	10	Units : deg C Int16
Unit Middle Second Supply Sensor Temperature	30431	—	1	10	Units : deg F Int16
Unit Bottom Supply Sensor Temperature	30432	—	1	10	Units : deg C Int16
Unit Bottom Supply Sensor Temperature	30433	—	1	10	Units : deg F Int16
Low Supply Air Temperature Threshold	30434	40434	1	10	Units : deg C Int16
Low Supply Air Temperature Threshold	30435	40435	1	10	Units : deg F Int16
High Return Air Temperature Threshold	30436	40436	1	10	Units : deg C Int16
High Return Air Temperature Threshold	30437	40437	1	10	Units : deg F Int16
Humidity					
Supply Humidity	30448	—	1	10	Units : % RH Uint16
Return Humidity	30449	—	1	10	Units : % RH Uint16
Humidity Set Point	30450	40450	1		Units : % RH Uint16
High Return Humidity Threshold	30451	40451	1	10	Units : % RH Uint16
Low Return Humidity Threshold	30452	40452	1	10	Units : % RH Uint16
Dehumidifier State	30453	40453	1	—	0 = off 1 = on
Unit Top Return Sensor Humidity	30454	—	1	10	Units : % RH Int16
Unit Middle Return Sensor Humidity	30455	—	1	10	Units : % RH Int16

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Unit Bottom Return Sensor Humidity	30456	—	1	10	Units : % RH Int16
Fans					
Fan Control Mode	30467	40467	1	—	0 = Internal (Auto) 1 = External (Manual)
Fan Speed Proportional Band	30468	40468	1	10	Units : deg C Uint16
Fan Speed Proportional Band	30469	40469	1	10	Units : deg F Uint16
Fan Speed Manual Set Point	30470	40470	1	—	Units : % Uint16
Fan Speed Maximum Set Point	30471	40471	1	—	Units : % Uint16
Fan Speed Minimum Set Point	30472	40472	1	—	Units : % Uint16
Fan Control Sensor	30473	40473	1	—	0 = Supply Sensor 1 = Remote Sensor 2 = Return Sensor 3= Delta Ret-Sup 4 = Delta Remote 5 = Pipe Sensor
Pipe Temperature Set Point	30474	40474	1	10	Units : deg C Int16
Pipe Temperature Set Point	30475	40475	1	10	Units : deg F Int16
Pipe Temperature Dead Band	30476	40476	1	10	Units : deg C Int16
Pipe Temperature Dead Band	30477	40477	1	10	Units : deg F Int16
Remote Sensors 1					
Fan Control Mode	30467	40467	1	—	0 = Internal (Auto) 1 = External (Manual)
Fan Speed Proportional Band	30468	40468	1	10	Units : deg C Uint16
Fan Speed Proportional Band	30469	40469	1	10	Units : deg F Uint16
Fan Speed Manual Set Point	30470	40470	1	—	Units : % Uint16
Fan Speed Maximum Set Point	30471	40471	1	—	Units : % Uint16

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Speed Minimum Set Point	30472	40472	1	—	Units : % Uint16
Fan Control Sensor	30473	40473	1	—	0 = Supply Sensor 1 = Remote Sensor 2 = Return Sensor 3 = Delta Ret-Sup 4 = Delta Remote 5 = Pipe Sensor
Pipe Temperature Set Point	30474	40474	1	10	Units : deg C Int16
Pipe Temperature Set Point	30475	40475	1	10	Units : deg F Int16
Pipe Temperature Dead Band	30476	40476	1	10	Units : deg C Int16
Pipe Temperature Dead Band	30477	40477	1	10	Units : deg F Int16
Remote Sensor Function	30488	40488	1	—	0 = Disable 1 = Reference 2 = Control
Remote Sensor Temperature	30489	—	1	10	Units : deg C Int16
Remote Sensor Temperature	30490	—	1	10	Units : deg F Int16
Remote Sensors 2					
Remote Sensor Function	30501	40501	1	—	0 = Disable 1 = Reference 2 = Control
Remote Sensor Temperature	30502	—	1	10	Units : deg C Int16
Remote Sensor Temperature	30503	—	1	10	Units : deg F Int16
Remote Sensors 4					
Remote Sensor Function	30527	40527	1	—	0 = Disable 1 = Reference 2 = Control
Remote Sensor Temperature	30528	—	1	10	Units : deg C Int16
Remote Sensor Temperature	30529	—	1	10	Units : deg F Int16
Chilled Water					

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
High Supply Fluid Temperature Threshold	30540	40540	1	10	Units : deg C Int16
High Supply Fluid Temperature Threshold	30541	40541	1	10	Units : deg F Int16
Chilled Water Valve Control	30542	40542	1	—	0 = Single 1 = 2 Parallel 2 = 2 Alternate 3 = 2 Cascade
Chilled Water Main Valve	30543	40543	1	—	0 = 1 1 = 2
Chilled Water Auto Valve Rotation	30544	40544	1	—	0 = disabled 1 = enabled
Chilled Water Valve Rotation Hour	30545	40545	1	—	Units : hr Int16
Chilled Water Inlet Temperature Control	30546	40546	1	—	0 = disabled 1 = enabled
Chilled Water Inlet High Temperature Threshold	30547	40547	1	10	Units : deg C Int16
Chilled Water Inlet High Temperature Threshold	30548	40548	1	10	Units : deg F Int16
Chilled Water Valve Open Position	30549	40549	1		Units : % Int16
Chilled Water Inlet Temperature Hysteresis	30550	40550	1	10	Units : deg C Int16
Chilled Water Inlet Temperature Hysteresis	30551	40551	1	10	Units : deg F Int16
Chilled Water Circuit 1					
Chilled Water Outlet Temperature	30562	—	1	10	Units : deg C Int16
Chilled Water Outlet Temperature	30563	—	1	10	Units : deg F Int16
Chilled Water Inlet Temperature	30564	—	1	10	Units : deg C Int16
Chilled Water Inlet Temperature	30565	—	1	10	Units : deg F Int16
Chilled Water Circuit 2					
Chilled Water Outlet Temperature	30576	—	1	10	Units : deg C Int16
Chilled Water Outlet Temperature	30577	—	1	10	Units : deg F Int16

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Chilled Water Inlet Temperature	30578	—	1	10	Units : deg C Int16
Chilled Water Inlet Temperature	30579	—	1	10	Units : deg F Int16
System Info					
System Status	30590	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Unit Operating State	30591	—	1	—	0 = off 1 = on 2 = standby
Unit Control Mode	30592	—	1	—	0 = Internal (Auto) 1 = External (Manual)
Unit Operating State Reason	30593	—	1	—	0 = Reason Unknown 1 = Network Display 2 = Alarm 3 = Schedule 5 = External Input 6 = Local Display
BMS Timeout Period	30594	40594	1	—	Units : min Uint16
Auto Restart Delay	30595	40595	1	—	Units : sec Uint16
System Operations					
Cooling Capacity	30606	—	1	—	Units : % Uint16
Fan Speed	30607	—	1	—	Units : % Uint16
Dehumidifier Utilization	30608	—	1	—	Units : % Uint16
Calculated Next Maintenance Month	30609	—	1	—	Uint16
Calculated Next Maintenance Year	30610	—	1	—	Uint16
Maintenance Ramp	30611	—	1	—	Units : % Uint16
System On/Off Control	30612	40612	1	—	0 = off 1 = on
Rack Door Open High Supply Air Temperature Threshold	30613	40613	1	10	Units : deg C Int16
Rack Door Open High Supply Air Temperature Threshold	30614	40614	1	10	Units : deg F Int16

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Rack Door Open Sensor Selection	30615	—	1	—	0 = Supply Sensor 1 = Rack Sensor 1 2 = Rack Sensor 2 3 = Rack Sensor 3 4 = Rack Sensor 4
Smoke Detected - Event Control	30626	40626	1	—	0 = disabled 1 = enabled
Smoke Detected - Event Type	30627	40627	1	—	0 = Message 1 = Warning 2 = Alarm
Water Under Floor - Event Control	30628	40628	1	—	0 = disabled 1 = enabled
Water Under Floor - Event Type	30629	40629	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 1 - Event Control	30630	40630	1	—	0 = disabled 1 = enabled
Customer Input 1 - Event Type	30631	40631	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 2 - Event Control	30632	40632	1	—	0 = disabled 1 = enabled
Customer Input 2 - Event Type	30633	40633	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 3 - Event Control	30634	40634	1	—	0 = disabled 1 = enabled
Customer Input 3 - Event Type	30635	40635	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 4 - Event Control	30636	40636	1	—	0 = disabled 1 = enabled
Customer Input 4 - Event Type	30637	40637	1	—	0 = Message 1 = Warning 2 = Alarm
Service Required - Event Control	30638	40638	1	—	0 = disabled 1 = enabled
Service Required - Event Type	30639	40639	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Flow - Event Control	30640	40640	1	—	0 = disabled 1 = enabled

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Table 3.52 Liebert® iCOM™ DCL—Input and Status (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext Loss of Flow - Event Type	30641	40641	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Over Temperature - Event Control	30642	40642	1	—	0 = disabled 1 = enabled
Ext Over Temperature - Event Type	30643	40643	1	—	0 = Message 1 = Warning 2 = Alarm
System Event Acknowledge/Reset	—	40644	1	—	2 = Reset 4 = Acknowledge
Power Measurement					
System Input RMS A-B	30655	—	1	—	Units : VAC Int16
System Input RMS A-N	30656	—	1	—	Units : VAC Int16
System Input RMS Current Phase A	30657	—	1	—	Units : A AC Int16
System Input RMS B-C	30658	—	1	—	Units : VAC Int16
System Input RMS B-N	30659	—	1	—	Units : VAC Int16
System Input RMS Current Phase B	30660	—	1	—	Units : A AC Int16
System Input RMS C-A	30661	—	1	—	Units : VAC Int16
System Input RMS C-N	30662	—	1	—	Units : VAC Int16
System Input RMS Current Phase C	30663	—	1	—	Units : A AC Int16
Energy Consumption	30664	—	2	—	Units : kWH Int32
Instantaneous Power	30666	—	2	—	Units : W Int32
Time					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

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Table 3.53 Liebert® iCOM™ DCL—Glossary

Data Label	Data Description
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Bottom Fan Issue	The bottom fan is not operating within its normal parameters.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Auto Valve Rotation	If enabled, the priority of the chilled water valves will change daily.
Chilled Water Control Active	Chilled water inlet temperature control function is enabled due to 'bad' water.
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Flow Transducer Failure	Chilled water flow transducer is disconnected or the signal is out of range.
Chilled Water High Inlet Temperature	Chilled water inlet temperature has exceeded an upper threshold.
Chilled Water Inlet High Temperature Threshold	Defines the threshold for considering the inlet water temperature too high.
Chilled Water Inlet Temperature Control	Enable/disable the function to switch off the fan and open the chilled water valve in case of 'bad' inlet water.
Chilled Water Inlet Temperature Hysteresis	Hysteresis used before returning to standard control mode when [Chilled Water Inlet Temperature Control] is enabled.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range. The sensor is mandatory for the chilled water flow function.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Main Valve	Specifies which of the two chilled water valves is the main valve.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve	Method for controlling the chilled water cooling capacity. The options available are: single, parallel, alternate and cascade.

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Table 3.53 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Control	
Chilled Water Valve Open Position	Chilled water valve open position.
Chilled Water Valve Rotation Hour	Hour of the day for switching the priority of the valves.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1.
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer input 2.
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer input 3.
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer input 4.
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Energy Consumption	Energy consumption since the last reset of this value.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.

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Table 3.53 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Mode	Fan control mode. Allowable modes are: (0) Auto - Fan speed is controlled via the selected fan control sensor, and, (1) Manual - Fan will operate at a fixed speed.
Fan Control Sensor	Sensor from which air temperature measurements will be used for fan speed control.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Speed Manual Set Point	Manual fan speed.
Fan Speed Maximum Set Point	Maximum fan speed.
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Proportional Band	Temperature control band above the temperature set point calculated for proportional fan speed control. If measured air temperature is within this band, fan speed operations are proportionally controlled.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Humidity Set Point	Desired relative humidity.
Instantaneous Power	Total electrical power currently being consumed.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.

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Table 3.53 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Modbus 0-10V Module Communication Failure	Modbus 0-10V module for managing the second Chilled Water circuit valve is disconnected or the signal is out of range.
Pipe Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Pipe Temperature Set Point]. If measured air temperature is within this range, the fan speed will not change.
Pipe Temperature Sensor Failure	Air temperature sensor located in the pipe is not sending a valid value.
Pipe Temperature Set Point	This value will be used as a comparison against pipe air temperature measurements in order to manage the speed of the fans.
Rack Door Open High Supply Air Temperature Threshold	If the rack supply air temperature exceeds this threshold, the rack doors are opened.
Rack Door Open Sensor Selection	Specifies the temperature sensor to be used by the control to manage the automatic rack door opening function.
Rack Doors Open	Rack doors opened due to supply air temperature exceeding the [Rack Door Open High Supply Air Temperature Threshold].
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Function	Function assigned to remote sensor. Available values are: (0) Control - sensor will be used in calculation of remote sensor temperature that may be used for heating and cooling control, (1) Reference - sensor will not be used in calculation of remote sensor temperature, but is enabled, (2) Disable - sensor is disabled
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Minimum Temperature	Minimum value of remote sensor temperature measurements.
Remote Sensor Temperature Calculation	Calculation method applied to temperature readings from the remote sensors to determine a single temperature measurement value for cooling and heating control.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Dew Point	Dew point temperature measured at the inlet of the unit.

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Table 3.53 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Temperature/Humidity Sensor Control Type	Specifies whether the average, maximum, or only one of the return sensor values is to be used for return humidity and temperature control.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Temperature Sensor Control Type	Specifies whether the average, maximum, or only one of the supply sensor values is to be used for supply temperature control.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS	The system input RMS current for Phase B

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Table 3.53 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Current Phase B	
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Top Fan Issue	The top fan is not operating within its normal parameters.
Unit Bottom Return Air Sensor Failure	Return air sensor at the bottom of the unit is disconnected or the signal is out of range.
Unit Bottom Return Sensor Humidity	Return humidity as measured by the sensor located at the bottom of the unit.
Unit Bottom Return Sensor Temperature	Return air temperature as measured by the sensor located at the bottom of the unit.
Unit Bottom Supply Air Sensor Failure	Supply air sensor at the bottom of the unit is disconnected or the signal is out of range.
Unit Bottom Supply Sensor Temperature	Supply air temperature as measured by the sensor located at the bottom of the unit.
Unit Control Mode	Unit control mode.
Unit Middle First Supply Air Sensor Failure	First supply air sensor in the middle of the unit is disconnected or the signal is out of range.
Unit Middle First Supply Sensor Temperature	Supply air temperature as measured by the first sensor located in the middle of the unit.
Unit Middle Return Air Sensor Failure	Return air sensor in the middle of the unit is disconnected or the signal is out of range.
Unit Middle Return Sensor Humidity	Return humidity as measured by the sensor located in the middle of the unit.
Unit Middle Return Sensor Temperature	Return air temperature as measured by the sensor located in the middle of the unit.
Unit Middle Second Supply Air Sensor Failure	Second supply air sensor in the middle of the unit is disconnected or the signal is out of range.
Unit Middle Second Supply Sensor Temperature	Supply air temperature as measured by the second sensor located in the middle of the unit.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State Reason	The reason the unit is in the current operating state.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.

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Table 3.53 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Unit Top Return Air Sensor Failure	Return air sensor at the top of the unit is disconnected or the signal is out of range.
Unit Top Return Sensor Humidity	Return humidity as measured by the sensor located at the top of the unit.
Unit Top Return Sensor Temperature	Return air temperature as measured by the sensor located at the top of the unit.
Unit Top Supply Air Sensor Failure	Supply air sensor at the top of the unit is disconnected or the signal is out of range.
Unit Top Supply Sensor Temperature	Supply air temperature as measured by the sensor located at the top of the unit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.

Table 3.54 Liebert® iCOM™ XDM - Status and Coil

Data Label	Status	Coil	# of Bits	Notes
Return Air Sensor Event Control	10019	19	1	0 = disabled 1 = enabled
Ext Air Sensor A Event Control	10020	20	1	0 = disabled 1 = enabled
Ext Compressor Lockout	10021	-	1	Active on Alarm
System On/Off Control	-	25	1	0 = off 1 = on
Fan State	10025	-	1	0 = off 1 = on
Cooling State	10026	-	1	0 = off 1 = on
Free Cooling State	10027	-	1	0 = off 1 = on
Hot Water / Hot Gas State	10028	-	1	0 = off 1 = on
Electric Reheat State	10029	-	1	0 = off

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
				1 = on
Humidifier State	10030	-	1	0 = off 1 = on
Dehumidifier State	10031	-	1	0 = off 1 = on
Loss of Air Flow	10035	-	1	Active on Alarm
Ext Loss of Flow	10036	-	1	Active on Alarm
Compressor High Head Pressure	10037	-	1	Active on Alarm
Compressor Low Suction Pressure	10038	-	1	Active on Alarm
Compressor Thermal Overload	10039	-	1	Active on Alarm
Compressor Pump Down Issue	10040	-	1	Active on Alarm
Compressor High Head Pressure 2	10041	-	1	Active on Alarm
Compressor Low Suction Pressure 2	10042	-	1	Active on Alarm
Compressor Thermal Overload 2	10043	-	1	Active on Alarm
Compressor Pump Down Issue 2	10044	-	1	Active on Alarm
Dig Scroll Comp Over Temp 1	10045	-	1	Active on Alarm
Dig Scroll Comp Over Temp 2	10046	-	1	Active on Alarm
Smoke Detected	10047	-	1	Active on Alarm
Water Under Floor	10048	-	1	Active on Alarm
Ext Standby Glycol Pump On	10050	-	1	Active on Alarm
Ext Standby Unit On	10051	-	1	Active on Alarm
Return Air Sensor Issue	10053	-	1	Active on Alarm
Ext Loss of Air Blower	10055	-	1	Active on Alarm
Ext Over Temperature	10060	-	1	Active on Alarm
Shutdown - Loss Of Power	10061	-	1	Active on Alarm
Supply Chilled Water Over Temp	10065	-	1	Active on Alarm
Return Air Over Temperature	10067	-	1	Active on Alarm
Return Air Under Temperature	10068	-	1	Active on Alarm
High Return Humidity	10069	-	1	Active on Alarm
Low Return Humidity	10070	-	1	Active on Alarm
Ext Air Sensor A Over Temperature	10071	-	1	Active on Alarm
Ext Air Sensor A Under Temperature	10072	-	1	Active on Alarm
Ext Air Sensor A High Humidity	10073	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Ext Air Sensor A Low Humidity	10074	-	1	Active on Alarm
Clogged Air Filter	10076	-	1	Active on Alarm
Ext Air Sensor A Issue	10079	-	1	Active on Alarm
Compressor Hours Exceeded 1	10081	-	1	Active on Alarm
Compressor Hours Exceeded 2	10082	-	1	Active on Alarm
Unit Communication Lost	10091	-	1	Active on Alarm
Master Unit Communication Lost	10092	-	1	Active on Alarm
Unit Code Missing	10094	-	1	Active on Alarm
Service Required	10098	-	1	Active on Alarm
Customer Input 1	10104	-	1	Active on Alarm
Customer Input 2	10105	-	1	Active on Alarm
Customer Input 3	10106	-	1	Active on Alarm
Customer Input 4	10107	-	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 1	10108	-	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 2	10109	-	1	Active on Alarm
Ambient Air Sensor Issue	10211	-	1	Active on Alarm
Compressor Short Cycle 1	10212	-	1	Active on Alarm
Compressor Short Cycle 2	10213	-	1	Active on Alarm
Condenser TVSS Issue	10219	-	1	Active on Alarm
BMS Communications Timeout	10223	-	1	Active on Alarm
Digital Output Board Not Detected 1	10224	-	1	Active on Alarm
Digital Output Board Not Detected 2	10225	-	1	Active on Alarm
Digital Output Board Not Detected 3	10226	-	1	Active on Alarm
RAM Battery Issue	10227	-	1	Active on Alarm
Water Leakage Detector Sensor Issue	10228	-	1	Active on Alarm
External Fire Detected	10229	-	1	Active on Alarm
Chilled Water Control Valve Failure 1	10230	-	1	Active on Alarm
Chilled Water Control Valve Failure 2	10231	-	1	Active on Alarm
Unit Off	10232	-	1	Active on Alarm
Unit On	10233	-	1	Active on Alarm
Unit Partial Shutdown	10234	-	1	Active on Alarm
Unit Shutdown	10235	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
High Power Shutdown	10236	-	1	Active on Alarm
Unit Standby	10237	-	1	Active on Alarm
Maintenance Due	10238	-	1	Active on Alarm
Maintenance Completed	10239	-	1	Active on Alarm
Compressor Low Pressure Transducer Issue 1	10240	-	1	Active on Alarm
Compressor Low Pressure Transducer Issue 2	10241	-	1	Active on Alarm
Compressor High Pressure Transducer Issue 1	10242	-	1	Active on Alarm
Compressor High Pressure Transducer Issue 2	10243	-	1	Active on Alarm
Compressor Capacity Reduced	10244	-	1	Active on Alarm
Dew Point Over Temperature	10345	-	1	Active on Alarm
Dew Point Under Temperature	10346	-	1	Active on Alarm
Ext Dew Point Over Temperature	10347	-	1	Active on Alarm
Ext Dew Point Under Temperature	10348	-	1	Active on Alarm
Compressor Superheat Over Threshold 1	10349	-	1	Active on Alarm
Compressor Superheat Over Threshold 2	10350	-	1	Active on Alarm
Unspecified General Event	10351	-	1	Active on Alarm
Remote Sensor Average Over Temperature	10352	-	1	Active on Alarm
Remote Sensor Average Under Temperature	10353	-	1	Active on Alarm
Remote Sensor System Average Over Temperature	10354	-	1	Active on Alarm
Remote Sensor System Average Under Temperature	10355	-	1	Active on Alarm
Remote Sensor Over Temperature 1	10356	-	1	Active on Alarm
Remote Sensor Over Temperature 2	10357	-	1	Active on Alarm
Remote Sensor Over Temperature 3	10358	-	1	Active on Alarm
Remote Sensor Over Temperature 4	10359	-	1	Active on Alarm
Remote Sensor Over Temperature 5	10360	-	1	Active on Alarm
Remote Sensor Over Temperature 6	10361	-	1	Active on Alarm
Remote Sensor Over Temperature 7	10362	-	1	Active on Alarm
Remote Sensor Over Temperature 8	10363	-	1	Active on Alarm
Remote Sensor Over Temperature 9	10364	-	1	Active on Alarm
Remote Sensor Over Temperature 10	10365	-	1	Active on Alarm
Remote Sensor Under Temperature 1	10366	-	1	Active on Alarm
Remote Sensor Under Temperature 2	10367	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Remote Sensor Under Temperature 3	10368	-	1	Active on Alarm
Remote Sensor Under Temperature 4	10369	-	1	Active on Alarm
Remote Sensor Under Temperature 5	10370	-	1	Active on Alarm
Remote Sensor Under Temperature 6	10371	-	1	Active on Alarm
Remote Sensor Under Temperature 7	10372	-	1	Active on Alarm
Remote Sensor Under Temperature 8	10373	-	1	Active on Alarm
Remote Sensor Under Temperature 9	10374	-	1	Active on Alarm
Remote Sensor Under Temperature 10	10375	-	1	Active on Alarm
Remote Sensor Issue 1	10376	-	1	Active on Alarm
Remote Sensor Issue 2	10377	-	1	Active on Alarm
Remote Sensor Issue 3	10378	-	1	Active on Alarm
Remote Sensor Issue 4	10379	-	1	Active on Alarm
Remote Sensor Issue 5	10380	-	1	Active on Alarm
Remote Sensor Issue 6	10381	-	1	Active on Alarm
Remote Sensor Issue 7	10382	-	1	Active on Alarm
Remote Sensor Issue 8	10383	-	1	Active on Alarm
Remote Sensor Issue 9	10384	-	1	Active on Alarm
Remote Sensor Issue 10	10385	-	1	Active on Alarm
Temperature Control Sensor Issue	10388	-	1	Active on Alarm
EEV Unspecified General Event	10488	-	1	Active on Alarm
Pump Unspecified General Event	10492	-	1	Active on Alarm
Condenser Unit Unspecified General Event	10493	-	1	Active on Alarm
Condenser Circuit Unspecified General Event	10494	-	1	Active on Alarm
Input Undervoltage	10500	-	1	Active on Alarm
Return Humidity Sensor Issue	10600	-	1	Active on Alarm
Compressor Low Differential Pressure Lockout 1	10601	-	1	Active on Alarm
Compressor Low Differential Pressure Lockout 2	10602	-	1	Active on Alarm
Airflow Sensor Issue	10603	-	1	Active on Alarm
Ext Air Damper Position Issue	10604	-	1	Active on Alarm
Ext Power Source A Failure	10605	-	1	Active on Alarm
Ext Power Source B Failure	10606	-	1	Active on Alarm
Mixed Mode Lockout	10620	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Aux Air Temp Device Communication Lost	10630	-	1	Active on Alarm
Modbus Power Meter Communication Lost	10640	-	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 1	10677	-	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 2	10678	-	1	Active on Alarm
Condenser Control Board Issue 1	10679	-	1	Active on Alarm
Condenser Control Board Issue 2	10680	-	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 1	10681	-	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 2	10682	-	1	Active on Alarm
Condenser Communication Lost 1	10683	-	1	Active on Alarm
Condenser Communication Lost 2	10684	-	1	Active on Alarm
Condenser Remote Shutdown 1	10685	-	1	Active on Alarm
Condenser Remote Shutdown 2	10686	-	1	Active on Alarm
Condenser TVSS Issue 1	10687	-	1	Active on Alarm
Condenser TVSS Issue 2	10688	-	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 1	10699	-	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 2	10700	-	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 1	10701	-	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 2	10702	-	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 1	10703	-	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 2	10704	-	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 1	10705	-	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 2	10706	-	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 1	10707	-	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 2	10708	-	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 1	10709	-	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 2	10710	-	1	Active on Alarm
Condenser Max Fan Speed Override 1	10711	-	1	Active on Alarm
Condenser Max Fan Speed Override 2	10712	-	1	Active on Alarm
Condenser Fan Issue 1	10723	-	1	Active on Alarm
Condenser Fan Issue 2	10724	-	1	Active on Alarm
Condenser Fan Issue 3	10725	-	1	Active on Alarm
Condenser Fan Issue 4	10726	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Condenser Fan Issue 5	10727	-	1	Active on Alarm
Condenser Fan Issue 6	10728	-	1	Active on Alarm
Condenser Fan Issue 7	10729	-	1	Active on Alarm
Condenser Fan Issue 8	10730	-	1	Active on Alarm
External Air Sensor B Issue	10791	-	1	Active on Alarm
External Air Sensor C Issue	10792	-	1	Active on Alarm
External Air Sensor D Issue	10793	-	1	Active on Alarm
External Air Sensor E Issue	10794	-	1	Active on Alarm
Compressor Hours Exceeded 3	10800	-	1	Active on Alarm
Compressor Hours Exceeded 4	10801	-	1	Active on Alarm
Compressor High Head Pressure 3	10802	-	1	Active on Alarm
Compressor High Head Pressure 4	10803	-	1	Active on Alarm
Compressor Low Suction Pressure 3	10804	-	1	Active on Alarm
Compressor Low Suction Pressure 4	10805	-	1	Active on Alarm
Compressor Short Cycle 3	10806	-	1	Active on Alarm
Compressor Short Cycle 4	10807	-	1	Active on Alarm
Compressor Pump Down Issue 3	10808	-	1	Active on Alarm
Compressor Pump Down Issue 4	10809	-	1	Active on Alarm
Compressor Thermal Overload 3	10810	-	1	Active on Alarm
Compressor Thermal Overload 4	10811	-	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 3	10812	-	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 4	10813	-	1	Active on Alarm
Dig Scroll Comp Over Temp 3	10814	-	1	Active on Alarm
Dig Scroll Comp Over Temp 4	10815	-	1	Active on Alarm
Compressor Low Pressure Transducer Issue 3	10816	-	1	Active on Alarm
Compressor Low Pressure Transducer Issue 4	10817	-	1	Active on Alarm
Compressor High Pressure Transducer Issue 3	10818	-	1	Active on Alarm
Compressor High Pressure Transducer Issue 4	10819	-	1	Active on Alarm
Compressor Superheat Over Threshold 3	10820	-	1	Active on Alarm
Compressor Superheat Over Threshold 4	10821	-	1	Active on Alarm
Compressor Low Differential Pressure Lockout 3	10822	-	1	Active on Alarm
Compressor Low Differential Pressure Lockout 4	10823	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Condenser TVSS Issue 3	10824	-	1	Active on Alarm
Condenser TVSS Issue 4	10825	-	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 3	10826	-	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 4	10827	-	1	Active on Alarm
Condenser Control Board Issue 3	10828	-	1	Active on Alarm
Condenser Control Board Issue 4	10829	-	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 3	10830	-	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 4	10831	-	1	Active on Alarm
Condenser Communication Lost 3	10832	-	1	Active on Alarm
Condenser Communication Lost 4	10833	-	1	Active on Alarm
Condenser Remote Shutdown 3	10834	-	1	Active on Alarm
Condenser Remote Shutdown 4	10835	-	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 3	10836	-	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 4	10837	-	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 3	10838	-	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 4	10839	-	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 3	10840	-	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 4	10841	-	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 3	10842	-	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 4	10843	-	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 3	10844	-	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 4	10845	-	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 3	10846	-	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 4	10847	-	1	Active on Alarm
Condenser Max Fan Speed Override 3	10848	-	1	Active on Alarm
Condenser Max Fan Speed Override 4	10849	-	1	Active on Alarm
Condenser Fan Issue 9	10850	-	1	Active on Alarm
Condenser Fan Issue 10	10851	-	1	Active on Alarm
Condenser Fan Issue 11	10852	-	1	Active on Alarm
Condenser Fan Issue 12	10853	-	1	Active on Alarm
Condenser Fan Issue 13	10854	-	1	Active on Alarm
Condenser Fan Issue 14	10855	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Condenser Fan Issue 15	10856	-	1	Active on Alarm
Condenser Fan Issue 16	10857	-	1	Active on Alarm
Auto Tune License Expiring	10863	-	1	Active on Alarm
Auto Tune License Expired	10864	-	1	Active on Alarm
Unit In Standby Due To Cooling Loss	10865	-	1	Active on Alarm
Control Units Remote Shutdown Mismatch	10866	-	1	Active on Alarm
Slave Control Unit Communication Lost	10867	-	1	Active on Alarm
Control Units Unit Code Mismatch	10868	-	1	Active on Alarm
Group Independent On	10870	-	1	Active on Alarm
Group Independent Off	10871	-	1	Active on Alarm
Compressor Freeze Protection 1	10872	-	1	Active on Alarm
Compressor Freeze Protection 2	10873	-	1	Active on Alarm
Compressor Freeze Protection 3	10874	-	1	Active on Alarm
Compressor Freeze Protection 4	10875	-	1	Active on Alarm
Audit Log Update	10882	-	1	Active on Alarm
Modbus Automatic Transfer Switch Communication Lost	10883	-	1	Active on Alarm
Supply Fluid Temp Sensor Issue	10884	-	1	Active on Alarm
Return Fluid Temp Sensor Issue	10885	-	1	Active on Alarm
Flow Sensor Failure	10886	-	1	Active on Alarm
Supply Fluid Over Temp	10888	-	1	Active on Alarm
Return Fluid Over Temp	10889	-	1	Active on Alarm
Pump Operating Without Flow	10890	-	1	Active on Alarm
Pump Inverter Failure	10891	-	1	Active on Alarm
Pump Flow Failure	10893	-	1	Active on Alarm
Door Open	10895	-	1	Active on Alarm
Supply Fluid Low Temp	10916	-	1	Active on Alarm
Return Fluid Low Temp	10917	-	1	Active on Alarm
Fluid High Differential Pressure	10918	-	1	Active on Alarm
Fluid Low Differential Pressure	10919	-	1	Active on Alarm
Fluid Flow Low Inlet Pressure	10920	-	1	Active on Alarm
Fluid Flow High Supply Pressure	10921	-	1	Active on Alarm
Fluid Low System Flow	10922	-	1	Active on Alarm

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Table 3.54 Liebert® iCOM™ XDM - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Fluid Flow Blocked	10923	-	1	Active on Alarm
Fluid Dewpoint Margin Control	10924	-	1	Active on Alarm
Fluid Supply Pressure Sensor Issue	10925	-	1	Active on Alarm
Fluid Return Pressure Sensor Issue	10926	-	1	Active on Alarm
Fluid Inlet Pressure Sensor Issue	10927	-	1	Active on Alarm
XD Pump Communication Lost	10928	-	1	Active on Alarm
Water Leakage	10930	-	1	Active on Alarm
PHE Sup Tem Snsr Fail	10931	-	1	Active on Alarm

Table 3.55 Liebert® iCOM XDM - Input and Holding

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Humidity Set Point	30027	40027	1	-	% RH Uint16
Humidity Proportional Band	30028	40028	1	-	% RH Uint16
Humidity Control Integration Time	30029	40029	1	10	min Uint16
Humidity Dead Band	30030	40030	1	10	% RH Uint16
Auto Restart Delay	30031	40031	1	-	sec Uint16
BMS Timeout Period	30045	40045	1	-	min Uint16
High Return Air Temperature Threshold	30050	40050	1	10	deg C Int16
High Return Air Temperature Threshold	30739	40739	1	10	deg F Int16
Low Return Air Temperature Threshold	30051	40051	1	10	deg C Int16
Low Return Air Temperature Threshold	30740	40740	1	10	deg F Int16
Ext Air Sensor A Over Temp Threshold	30052	40052	1	10	deg C Int16
Ext Air Sensor A Over Temp Threshold	30741	40741	1	10	deg F

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Ext Air Sensor A Under Temp Threshold	30053	40053	1	10	deg C Int16
Ext Air Sensor A Under Temp Threshold	30742	40742	1	10	deg F Int16
High Return Humidity Threshold	30054	40054	1	10	% RH Uint16
Low Return Humidity Threshold	30055	40055	1	10	% RH Uint16
Ext Air Sensor A High Humidity Threshold	30056	40056	1	10	% RH Uint16
Ext Air Sensor A Low Humidity Threshold	30057	40057	1	10	% RH Uint16
Compressor Hours Threshold 1	30071	40071	2	-	hr Int32
Compressor Hours Threshold 2	30072	40072	2	-	hr Int32
Unit Operating State	30100	-	1	-	0 = off 1 = on 2 = standby
System Status	30102	-	1	-	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Fan Speed	30103	-	1	-	% Uint16
Free Cooling Valve Open Position	30105	-	1	-	% Uint16
Reheat Utilization	30106	-	1	-	% Uint16
Humidifier Utilization	30107	-	1	-	% Uint16
Dehumidifier Utilization	30108	-	1	-	% Uint16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Return Air Temperature	30110	-	1	10	deg C Int16
Return Air Temperature	30743	-	1	10	deg F Int16
Supply Air Temperature	30112	-	1	10	deg C Int16
Supply Air Temperature	30744	-	1	10	deg F Int16
Ext Air Sensor A Temperature	30116	-	1	10	deg C Int16
Ext Air Sensor A Temperature	30747	-	1	10	deg F Int16
Ext Air Sensor B Temperature	30117	-	1	10	deg C Int16
Ext Air Sensor B Temperature	30748	-	1	10	deg F Int16
Ext Air Sensor C Temperature	30118	-	1	10	deg C Int16
Ext Air Sensor C Temperature	30749	-	1	10	deg F Int16
Dig Scroll Comp Discharge Temp 1	30119	-	1	-	deg C Uint16
Dig Scroll Comp Discharge Temp 1	30750	-	1	-	deg F Uint16
Dig Scroll Comp Discharge Temp 2	30120	-	1	-	deg C Uint16
Dig Scroll Comp Discharge Temp 2	30751	-	1	-	deg F Uint16
Return Humidity	30130	-	1	10	% RH Uint16
Ext Air Sensor A Humidity	30132	-	1	10	% RH Uint16
Ext Air Sensor B Humidity	30133	-	1	10	% RH Uint16
Ext Air Sensor C Humidity	30134	-	1	10	% RH

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Uint16
Today's High Air Temperature	30151	-	1	10	deg C Int16
Today's High Air Temperature	30752	-	1	10	deg F Int16
Today's Low Air Temperature	30153	-	1	10	deg C Int16
Today's Low Air Temperature	30753	-	1	10	deg F Int16
Today's High Humidity	30155	-	1	10	% RH Uint16
Today's Low Humidity	30157	-	1	10	% RH Uint16
Server Class	30257	-	1	-	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Today's High Air Temperature Time	30258	-	2	-	Seconds since Midnight
Today's Low Air Temperature Time	30260	-	2	-	Seconds since Midnight
Today's High Humidity Time	30265	-	2	-	Seconds since Midnight
Today's Low Humidity Time	30267	-	2	-	Seconds since Midnight
Compressor State 1	30269	-	1	-	0 = off 1 = on
Compressor State 2	30270	-	1	-	0 = off 1 = on
Compressor Capacity Control State 1	30271	-	1	-	0 = off 1 = on
Compressor Capacity Control State 2	30272	-	1	-	0 = off 1 = on
Analog Input Reading 3	30277	-	1	100	

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Analog Input Reading 4	30278	-	1	100	Int16
Unit Control Mode	30280	-	1	-	0 = Internal (Auto) 1 = External (Manual)
Unit Off Reason	30281	-	1	-	0 = None 1 = User 2 = Alarm 3 = Timer 4 = Monitoring 5 = Remote Off 6 = HCS12 Off
Maintenance Ramp	30282	-	1	-	% Uint16
Calculated Next Maintenance Month	30283	-	1	-	Uint16
Calculated Next Maintenance Year	30284	-	1	-	Uint16
Hot Water / Hot Gas Valve Open Position	30285	-	1	-	% Uint16
Maintenance Tracking State	30286	-	1	-	0 = off 1 = on
Customer Input 1 - Event Control	30287	40287	1	-	0 = disabled 1 = enabled
Customer Input 1 - Event Type	30288	40288	1	-	0 = Message 1 = Warning 2 = Alarm
Customer Input 2 - Event Control	30289	40289	1	-	0 = disabled 1 = enabled
Customer Input 2 - Event Type	30290	40290	1	-	0 = Message 1 = Warning 2 = Alarm
Customer Input 3 - Event Control	30291	40291	1	-	0 = disabled 1 = enabled
Customer Input 3 - Event Type	30292	40292	1	-	0 = Message

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = Warning 2 = Alarm
Customer Input 4 - Event Control	30293	40293	1	-	0 = disabled 1 = enabled
Customer Input 4 - Event Type	30294	40294	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Free Cooling Lockout - Event Control	30295	40295	1	-	0 = disabled 1 = enabled
Ext Free Cooling Lockout - Event Type	30296	40296	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Condenser Pump High Water - Event Control	30297	40297	1	-	0 = disabled 1 = enabled
Ext Condenser Pump High Water - Event Type	30298	40298	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Standby Glycol Pump On - Event Control	30299	40299	1	-	0 = disabled 1 = enabled
Ext Standby Glycol Pump On - Event Type	30300	40300	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Standby Unit On - Event Control	30301	40301	1	-	0 = disabled 1 = enabled
Ext Standby Unit On - Event Type	30302	40302	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Humidifier Lockout - Event Control	30303	40303	1	-	0 = disabled 1 = enabled
Ext Humidifier Lockout - Event Type	30304	40304	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Flow - Event Control	30305	40305	1	-	0 = disabled 1 = enabled
Ext Loss of Flow - Event Type	30306	40306	1	-	0 = Message

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = Warning 2 = Alarm
Ext Over Temperature - Event Control	30307	40307	1	-	0 = disabled 1 = enabled
Ext Over Temperature - Event Type	30308	40308	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Reheat Lockout - Event Control	30309	40309	1	-	0 = disabled 1 = enabled
Ext Reheat Lockout - Event Type	30310	40310	1	-	0 = Message 1 = Warning 2 = Alarm
High Power Shutdown - Event Control	30311	40311	1	-	0 = disabled 1 = enabled
High Power Shutdown - Event Type	30312	40312	1	-	0 = Message 1 = Warning 2 = Alarm
Humidifier Issue - Event Control	30313	40313	1	-	0 = disabled 1 = enabled
Humidifier Issue - Event Type	30314	40314	1	-	0 = Message 1 = Warning 2 = Alarm
Master Unit Communication Lost - Event Control	30315	40315	1	-	0 = disabled 1 = enabled
Master Unit Communication Lost - Event Type	30316	40316	1	-	0 = Message 1 = Warning 2 = Alarm
Service Required - Event Control	30317	40317	1	-	0 = disabled 1 = enabled
Service Required - Event Type	30318	40318	1	-	0 = Message 1 = Warning 2 = Alarm
Shutdown - Loss Of Power - Event Control	30319	40319	1	-	0 = disabled 1 = enabled
Shutdown - Loss Of Power - Event Type	30320	40320	1	-	0 = Message

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = Warning 2 = Alarm
Smoke Detected - Event Control	30321	40321	1	-	0 = disabled 1 = enabled
Smoke Detected - Event Type	30322	40322	1	-	0 = Message 1 = Warning 2 = Alarm
Water Under Floor - Event Control	30323	40323	1	-	0 = disabled 1 = enabled
Water Under Floor - Event Type	30324	40324	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Compressor Lockout - Event Control	30325	40325	1	-	0 = disabled 1 = enabled
Ext Compressor Lockout - Event Type	30326	40326	1	-	0 = Message 1 = Warning 2 = Alarm
Clogged Air Filter - Event Control	30327	40327	1	-	0 = disabled 1 = enabled
Clogged Air Filter - Event Type	30328	40328	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Air Blower - Event Control	30329	40329	1	-	0 = disabled 1 = enabled
Ext Loss of Air Blower - Event Type	30330	40330	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor High Head Pressure - Event Control 1	30331	40331	1	-	0 = disabled 1 = enabled
Compressor High Head Pressure - Event Control 2	30332	40332	1	-	0 = disabled 1 = enabled
Compressor High Head Pressure - Event Type 1	30333	40333	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor High Head Pressure - Event Type 2	30334	40334	1	-	0 = Message

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = Warning 2 = Alarm
Compressor Low Suction Pressure - Event Control 1	30335	40335	1	-	0 = disabled 1 = enabled
Compressor Low Suction Pressure - Event Control 2	30336	40336	1	-	0 = disabled 1 = enabled
Compressor Low Suction Pressure - Event Type 1	30337	40337	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Low Suction Pressure - Event Type 2	30338	40338	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Pump Down Issue - Event Control 1	30339	40339	1	-	0 = disabled 1 = enabled
Compressor Pump Down Issue - Event Control 2	30340	40340	1	-	0 = disabled 1 = enabled
Compressor Pump Down Issue - Event Type 1	30341	40341	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Pump Down Issue - Event Type 2	30342	40342	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Short Cycle - Event Control 1	30343	40343	1	-	0 = disabled 1 = enabled
Compressor Short Cycle - Event Control 2	30344	40344	1	-	0 = disabled 1 = enabled
Compressor Short Cycle - Event Type 1	30345	40345	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Short Cycle - Event Type 2	30346	40346	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Thermal Overload - Event Control 1	30347	40347	1	-	0 = disabled 1 = enabled
Compressor Thermal Overload - Event Control 2	30348	40348	1	-	0 = disabled

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = enabled
Compressor Thermal Overload - Event Type 1	30349	40349	1	-	0 = Message 1 = Warning 2 = Alarm
Compressor Thermal Overload - Event Type 2	30350	40350	1	-	0 = Message 1 = Warning 2 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Ctrl 1	30351	40351	1	-	0 = disabled 1 = enabled
Dig Scroll Comp Discharge Over Temp - Event Ctrl 2	30352	40352	1	-	0 = disabled 1 = enabled
Dig Scroll Comp Discharge Over Temp - Event Type 1	30353	40353	1	-	0 = Message 1 = Warning 2 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Type 2	30354	40354	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A High Humidity - Event Control	30355	40355	1	-	0 = disabled 1 = enabled
Ext Air Sensor A High Humidity - Event Type	30356	40356	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Low Humidity - Event Control	30357	40357	1	-	0 = disabled 1 = enabled
Ext Air Sensor A Low Humidity - Event Type	30358	40358	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Over Temp - Event Control	30359	40359	1	-	0 = disabled 1 = enabled
Ext Air Sensor A Over Temp - Event Type	30360	40360	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Under Temp - Event Control	30361	40361	1	-	0 = disabled 1 = enabled
Ext Air Sensor A Under Temp - Event Type	30362	40362	1	-	0 = Message

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = Warning 2 = Alarm
High Return Humidity - Event Control	30363	40363	1	-	0 = disabled 1 = enabled
High Return Humidity - Event Type	30364	40364	1	-	0 = Message 1 = Warning 2 = Alarm
Low Return Humidity - Event Control	30365	40365	1	-	0 = disabled 1 = enabled
Low Return Humidity - Event Type	30366	40366	1	-	0 = Message 1 = Warning 2 = Alarm
Return Air Over Temp - Event Control	30367	40367	1	-	0 = disabled 1 = enabled
Return Air Over Temp - Event Type	30368	40368	1	-	0 = Message 1 = Warning 2 = Alarm
Return Air Under Temp - Event Control	30369	40369	1	-	0 = disabled 1 = enabled
Return Air Under Temp - Event Type	30370	40370	1	-	0 = Message 1 = Warning 2 = Alarm
Fan Hours Exceeded - Event Control	30371	40371	1	-	0 = disabled 1 = enabled
Fan Hours Exceeded - Event Type	30372	40372	1	-	0 = Message 1 = Warning 2 = Alarm
Main Fan Overload - Event Control	30375	40375	1	-	0 = disabled 1 = enabled
Main Fan Overload - Event Type	30376	40376	1	-	0 = Message 1 = Warning 2 = Alarm
Condenser Issue - Event Control 1	30377	40377	1	-	0 = disabled 1 = enabled
Condenser Issue - Event Control 2	30378	40378	1	-	0 = disabled

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = enabled
Condenser Issue - Event Type 1	30379	40379	1	-	0 = Message 1 = Warning 2 = Alarm
Condenser Issue - Event Type 2	30380	40380	1	-	0 = Message 1 = Warning 2 = Alarm
System Event Acknowledge/Reset	-	40381	1	-	2 = Reset 4 = Acknowledge
Outside Air Temperature	30484	-	1	10	deg C Int16
Outside Air Temperature	30757	-	1	10	deg F Int16
Humidity Control Type	30485	40485	1	-	0 = Relative 1 = Compensated 2 = Predictive 3 = Dew Point
Ext Air Sensor A Dew Point Temp	30486	-	1	10	deg C Int16
Ext Air Sensor A Dew Point Temp	30758	-	1	10	deg F Int16
Ext Dew Point Over Temp Threshold	30487	40487	1	10	deg C Int16
Ext Dew Point Over Temp Threshold	30759	40759	1	10	deg F Int16
Ext Dew Point Under Temp Threshold	30488	40488	1	10	deg C Int16
Ext Dew Point Under Temp Threshold	30760	40760	1	10	deg F Int16
Compressor Lockout	30489	40489	1	-	0 = disabled 1 = enabled
Standby Units	30498	40498	1	-	Uint16
Adjusted Humidity	30499	-	1	10	% RH Uint16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Return Dew Point	30500	-	1	10	deg C Int16
Return Dew Point	30762	-	1	10	deg F Int16
Actual Air Temperature Set Point	30501	-	1	10	deg C Int16
Actual Air Temperature Set Point	30763	-	1	10	deg F Int16
Actual Humidity Set Point	30502	-	1	-	% RH Uint16
Dew Point Set Point	30503	40503	1	10	deg C Int16
Dew Point Set Point	30764	40764	1	10	deg F Int16
Supply Air Over/Under Temperature - Event Control	30504	40504	1	-	0 = disabled 1 = enabled
Remote Sensor Over Temp Threshold	30505	40505	1	10	deg C Int16
Remote Sensor Over Temp Threshold	30765	40765	1	10	deg F Int16
Remote Sensor Under Temp Threshold	30506	40506	1	10	deg C Int16
Remote Sensor Under Temp Threshold	30766	40766	1	10	deg F Int16
Remote Sensor Average Temperature	30507	-	1	10	deg C Int16
Remote Sensor Average Temperature	30767	-	1	10	deg F Int16
Remote Sensor Maximum Temperature	30508	-	1	10	deg C Int16
Remote Sensor Maximum Temperature	30768	-	1	10	deg F Int16
Remote Sensor System Average Temperature	30509	-	1	10	deg C Int16
Remote Sensor System Average Temperature	30769	-	1	10	deg F

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Remote Sensor System Maximum Temperature	30510	-	1	10	deg C Int16
Remote Sensor System Maximum Temperature	30770	-	1	10	deg F Int16
Remote Sensor Temperature 1	30551	-	1	10	deg C Int16
Remote Sensor Temperature 1	30771	-	1	10	deg F Int16
Remote Sensor Temperature 2	30552	-	1	10	deg C Int16
Remote Sensor Temperature 2	30772	-	1	10	deg F Int16
Remote Sensor Temperature 3	30553	-	1	10	deg C Int16
Remote Sensor Temperature 3	30773	-	1	10	deg F Int16
Remote Sensor Temperature 4	30554	-	1	10	deg C Int16
Remote Sensor Temperature 4	30774	-	1	10	deg F Int16
Remote Sensor Temperature 5	30555	-	1	10	deg C Int16
Remote Sensor Temperature 5	30775	-	1	10	deg F Int16
Remote Sensor Temperature 6	30556	-	1	10	deg C Int16
Remote Sensor Temperature 6	30776	-	1	10	deg F Int16
Remote Sensor Temperature 7	30557	-	1	10	deg C Int16
Remote Sensor Temperature 7	30777	-	1	10	deg F Int16
Remote Sensor Temperature 8	30558	-	1	10	deg C Int16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Remote Sensor Temperature 8	30778	-	1	10	deg F Int16
Remote Sensor Temperature 9	30559	-	1	10	deg C Int16
Remote Sensor Temperature 9	30779	-	1	10	deg F Int16
Remote Sensor Temperature 10	30560	-	1	10	deg C Int16
Remote Sensor Temperature 10	30780	-	1	10	deg F Int16
Cooling Capacity	30564	-	1	-	% Uint16
Cooling Control Temperature	30565	-	1	10	deg C Int16
Cooling Control Temperature	30781	-	1	10	deg F Int16
Fan Speed Control Temperature	30566	-	1	10	deg C Int16
Fan Speed Control Temperature	30782	-	1	10	deg F Int16
Humidity Control Sensor	30667	40667	1	-	0 = Supply 1 = Remote 2 = Return
Digital Scroll Compressor Loading 1	30668	-	1	-	% Uint16
Digital Scroll Compressor Loading 2	30669	-	1	-	% Uint16
Condenser Low Noise Mode State	30675	-	1	-	0 = Inactive 1 = Active (Interval) 2 = Active (Full Day)
Condenser Low Noise Mode Schedule Control	30676	40676	1	-	0 = disabled 1 = enabled
Condenser Low Noise Mode Max Fan Speed	30677	40677	1	-	% Uint16
Condenser Normal Mode Max Fan Speed	30678	40678	1	-	%

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Uint16
Condenser Low Noise Mode - Interval Days	30679	40679	1	-	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode - Full Days	30680	40680	1	-	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode Start Time	30681	40681	2	-	Seconds since Midnight
Condenser Low Noise Mode Stop Time	30683	40683	2	-	Seconds since Midnight
Pump Hours 1	30685	40685	2	-	hr Uint32
Pump Hours 2	30687	40687	2	-	hr Uint32
System Input RMS A-N	30800	-	1	10	VAC Int16
System Input RMS B-N	30810	-	1	10	VAC Int16
System Input RMS C-N	30820	-	1	10	VAC Int16
System Input RMS Current Phase A	30830	-	1	10	A AC Int16
System Input RMS Current Phase B	30840	-	1	10	A AC Int16
System Input RMS Current Phase C	30850	-	1	10	A AC Int16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Energy Consumption	30870	40870	2	-	kWH Int32
Unit Cooling Load	31001	-	2	10	kW Int32
Circuit Cooling Load 1	31003	-	2	10	kW Int32
Circuit Cooling Load 2	31005	-	2	10	kW Int32
Instantaneous Power	31010	-	2	-	W Int32
Raw Auxiliary Air Temperature	31050	41050	1	10	deg C Int16
Raw Auxiliary Air Temperature	31051	41051	1	10	deg F Int16
Actual Auxiliary Air Temperature	31052	-	1	10	deg C Int16
Actual Auxiliary Air Temperature	31053	-	1	10	deg F Int16
System Input RMS A-B	31060	-	1	10	VAC Int16
System Input RMS B-C	31070	-	1	10	VAC Int16
System Input RMS C-A	31080	-	1	10	VAC Int16
Pump State 1	31100	-	1	-	0 = off 1 = on
Pump State 2	31110	-	1	-	0 = off 1 = on
Expected Condenser Unit Count	31130	-	1	-	Int16
Condenser Refrigerant Type	31131	-	1	-	0 = R22 1 = R407C 2 = R410A
Condenser Fan Reversal Requested 1	31142	41142	1	-	0 = false 1 = true

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Condenser Fan Reversal Requested 2	31143	41143	1	-	0 = false 1 = true
Condenser Outside Air Temperature 1	31144	-	1	10	deg C Int16
Condenser Outside Air Temperature 1	31145	-	1	10	deg F Int16
Condenser Outside Air Temperature 2	31146	-	1	10	deg C Int16
Condenser Outside Air Temperature 2	31147	-	1	10	deg F Int16
Condenser Refrigerant Pressure 1	31158	-	1	10	bar Int16
Condenser Refrigerant Pressure 2	31159	-	1	10	bar Int16
Condenser Supply Refrigerant Temperature 1	31160	-	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 1	31161	-	1	10	deg F Int16
Condenser Supply Refrigerant Temperature 2	31162	-	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 2	31163	-	1	10	deg F Int16
Condenser Fan Speed 1	31174	-	1	-	% Int16
Condenser Fan Speed 2	31175	-	1	-	% Int16
Condenser Fan Speed 3	31176	-	1	-	% Int16
Condenser Fan Speed 4	31177	-	1	-	% Int16
Condenser Fan Speed 5	31178	-	1	-	% Int16
Condenser Fan Speed 6	31179	-	1	-	% Int16
Condenser Fan Speed 7	31180	-	1	-	%

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Condenser Fan Speed 8	31181	-	1	-	% Int16
Condenser Fan Power 1	31182	-	1	-	W Int16
Condenser Fan Power 2	31183	-	1	-	W Int16
Condenser Fan Power 3	31184	-	1	-	W Int16
Condenser Fan Power 4	31185	-	1	-	W Int16
Condenser Fan Power 5	31186	-	1	-	W Int16
Condenser Fan Power 6	31187	-	1	-	W Int16
Condenser Fan Power 7	31188	-	1	-	W Int16
Condenser Fan Power 8	31189	-	1	-	W Int16
Local Fan Override	31300	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Cooling Override	31301	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Electric Heat Override	31302	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Local Humidifier Override	31303	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Dehumidifier Override	31304	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Tandem 'B' Compressor State 1	31325	-	1	-	0 = off 1 = on
Tandem 'B' Compressor State 2	31326	-	1	-	0 = off 1 = on
Tandem 'B' Compressor Hours 1	31327	41327	2	-	hr Int32
Tandem 'B' Compressor Hours 2	31329	41329	2	-	hr Int32
Condenser Fan Current 1	31331	-	1	10	A AC Uint16
Condenser Fan Current 2	31332	-	1	10	A AC Uint16
Condenser Fan Current 3	31333	-	1	10	A AC Uint16
Condenser Fan Current 4	31334	-	1	10	A AC Uint16
Condenser Fan Current 5	31335	-	1	10	A AC Uint16
Condenser Fan Current 6	31336	-	1	10	A AC Uint16
Condenser Fan Current 7	31337	-	1	10	A AC Uint16
Condenser Fan Current 8	31338	-	1	10	A AC Uint16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Compressor Hours 1	31340	41340	2	-	hr Int32
Compressor Hours 2	31342	41342	2	-	hr Int32
Compressor Hours 1	30142	40142	2	-	hr Int32
Compressor Hours 2	30143	40143	2	-	hr Int32
Dew Point Proportional Band	31380	41380	1	10	deg C Int16
Dew Point Proportional Band	31382	41382	1	10	deg F Int16
Dew Point Dead Band	31384	41384	1	10	deg C Int16
Dew Point Dead Band	31386	41386	1	10	deg F Int16
Compressor Hours Threshold 1	31430	41430	2	-	hr Int32
Compressor Hours Threshold 2	31432	41432	2	-	hr Int32
Pump Speed 1	31452	-	1	-	% Uint16
Pump Speed 2	31453	-	1	-	% Uint16
Pump Inlet Refrigerant Temperature 1	31454	-	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 1	31461	-	1	10	deg F Int16
Pump Inlet Refrigerant Temperature 2	31455	-	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 2	31462	-	1	10	deg F Int16
Pump Outlet Refrigerant Temperature 1	31456	-	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 1	31463	-	1	10	deg F

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Pump Outlet Refrigerant Temperature 2	31457	-	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 2	31464	-	1	10	deg F Int16
Pump Hours Threshold	31458	41458	2	-	hr Int32
Unit Calculated Airflow	31466	-	2	-	m3/h Uint32
PRE Operational Mode 1	31468	-	1	-	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
PRE Operational Mode 2	31469	-	1	-	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
Compressor State 3	31470	-	1	-	0 = off 1 = on
Compressor State 4	31471	-	1	-	0 = off 1 = on
Compressor Capacity Control State 3	31472	-	1	-	0 = off 1 = on
Compressor Capacity Control State 4	31473	-	1	-	0 = off 1 = on
Dig Scroll Comp Discharge Temp 3	31474	-	1	-	deg C Uint16
Dig Scroll Comp Discharge Temp 3	31475	-	1	-	deg F Uint16
Dig Scroll Comp Discharge Temp 4	31476	-	1	-	deg C Uint16
Dig Scroll Comp Discharge Temp 4	31477	-	1	-	deg F Uint16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Digital Scroll Compressor Loading 3	31478	-	1	-	% Uint16
Digital Scroll Compressor Loading 4	31479	-	1	-	% Uint16
Compressor Hours 3	31480	41480	2	-	hr Int32
Compressor Hours 4	31482	41482	2	-	hr Int32
Tandem 'B' Compressor State 3	31484	-	1	-	0 = off 1 = on
Tandem 'B' Compressor State 4	31485	-	1	-	0 = off 1 = on
Tandem 'B' Compressor Hours 3	31486	41486	2	-	hr Int32
Tandem 'B' Compressor Hours 4	31488	41488	2	-	hr Int32
Compressor Hours Threshold 3	31490	41490	2	-	hr Int32
Compressor Hours Threshold 4	31492	41492	2	-	hr Int32
Pump Hours 3	31494	41494	2	-	hr Uint32
Pump Hours 4	31496	41496	2	-	hr Uint32
Pump State 3	31498	-	1	-	0 = off 1 = on
Pump State 4	31499	-	1	-	0 = off 1 = on
PRE Operational Mode 3	31500	-	1	-	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
PRE Operational Mode 4	31501	-	1	-	0 = Bootup 1 = Idle

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					2 = Manual 3 = Pump Automatic 4 = Test
Pump Speed 3	31502	-	1	-	% Uint16
Pump Speed 4	31503	-	1	-	% Uint16
Pump Inlet Refrigerant Temperature 3	31504	-	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 3	31505	-	1	10	deg F Int16
Pump Inlet Refrigerant Temperature 4	31506	-	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 4	31507	-	1	10	deg F Int16
Pump Outlet Refrigerant Temperature 3	31508	-	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 3	31509	-	1	10	deg F Int16
Pump Outlet Refrigerant Temperature 4	31510	-	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 4	31511	-	1	10	deg F Int16
Condenser Outside Air Temperature 3	31512	-	1	10	deg C Int16
Condenser Outside Air Temperature 3	31513	-	1	10	deg F Int16
Condenser Outside Air Temperature 4	31514	-	1	10	deg C Int16
Condenser Outside Air Temperature 4	31515	-	1	10	deg F Int16
Condenser Fan Reversal Requested 3	31516	41516	1	-	0 = false 1 = true
Condenser Fan Reversal Requested 4	31517	41517	1	-	0 = false 1 = true

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Condenser Refrigerant Pressure 3	31518	-	1	10	bar Int16
Condenser Refrigerant Pressure 4	31519	-	1	10	bar Int16
Condenser Supply Refrigerant Temperature 3	31520	-	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 3	31521	-	1	10	deg F Int16
Condenser Supply Refrigerant Temperature 4	31522	-	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 4	31523	-	1	10	deg F Int16
Condenser Fan Speed 9	31524	-	1	-	% Int16
Condenser Fan Speed 10	31525	-	1	-	% Int16
Condenser Fan Speed 11	31526	-	1	-	% Int16
Condenser Fan Speed 12	31527	-	1	-	% Int16
Condenser Fan Speed 13	31528	-	1	-	% Int16
Condenser Fan Speed 14	31529	-	1	-	% Int16
Condenser Fan Speed 15	31530	-	1	-	% Int16
Condenser Fan Speed 16	31531	-	1	-	% Int16
Condenser Fan Power 9	31532	-	1	-	W Int16
Condenser Fan Power 10	31533	-	1	-	W Int16
Condenser Fan Power 11	31534	-	1	-	W Int16
Condenser Fan Power 12	31535	-	1	-	W

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Condenser Fan Power 13	31536	-	1	-	W Int16
Condenser Fan Power 14	31537	-	1	-	W Int16
Condenser Fan Power 15	31538	-	1	-	W Int16
Condenser Fan Power 16	31539	-	1	-	W Int16
Condenser Fan Current 9	31540	-	1	10	A AC Uint16
Condenser Fan Current 10	31541	-	1	10	A AC Uint16
Condenser Fan Current 11	31542	-	1	10	A AC Uint16
Condenser Fan Current 12	31543	-	1	10	A AC Uint16
Condenser Fan Current 13	31544	-	1	10	A AC Uint16
Condenser Fan Current 14	31545	-	1	10	A AC Uint16
Condenser Fan Current 15	31546	-	1	10	A AC Uint16
Condenser Fan Current 16	31547	-	1	10	A AC Uint16
Dew Point Over Temp Threshold	31549	41549	1	10	deg C Int16
Dew Point Over Temp Threshold	31550	41550	1	10	deg F Int16
Dew Point Under Temp Threshold	31551	41551	1	10	deg C Int16
Dew Point Under Temp Threshold	31552	41552	1	10	deg F Int16
Compressor Suction Pressure 1	31554	-	1	10	bar Int16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Compressor Suction Pressure 2	31555	-	1	10	bar Int16
Compressor Suction Pressure 3	31556	-	1	10	bar Int16
Compressor Suction Pressure 4	31557	-	1	10	bar Int16
Group Independent Operation Enable	31562	41562	1	-	0 = disabled 1 = enabled
Group Independent Operation	31563	41563	1	-	0 = No override (default) 1 = Override, forced on 2 = Override, forced off
Return Sensor Events Initial Delay	31566	41566	1	-	sec Int16
Auto Restart Enable	31581	41581	1	-	0 = disabled 1 = enabled
Virtual Master Enable	31582	41582	1	-	0 = disabled 1 = enabled
Unit Cascade Type	31584	41584	1	-	0 = None 1 = Temp/Humidity 2 = Cool/Heat 3 = Cooling 4 = Fan PI 5 = Fan Speed
Unit Cascade On Delay	31585	41585	1	-	min Int16
Quick Start Unit Cascade On Delay	31586	41586	1	-	sec Int16
Unit Cascade Control Delay	31587	41587	1	-	min Int16
Teamwork Temperature Calculation Method	31588	41588	1	-	0 = Average 1 = Maximum
Teamwork Average Calculation Unit Count	31589	41589	1	-	Int16
Networked Unit Rotation Time	31590	41590	2	-	Seconds since Midnight

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Networked Unit Rotation Count	31592	41592	1	-	Uint16
Networked Unit Daily Rotation Frequency	31593	41593	1	-	0 = Every 24 hours 1 = Every 12 hours
Force Networked Unit Rotation	31594	41594	1	-	0 = no 1 = yes
Networked Unit Rotation Frequency	31595	41595	1	-	0 = None 1 = Daily 2 = Weekly Monday 3 = Weekly Tuesday 4 = Weekly Wednesday 5 = Weekly Thursday 6 = Weekly Friday 7 = Weekly Saturday 8 = Weekly Sunday 9 = Monthly Monday 10 = Monthly Tuesday 11 = Monthly Wednesday 12 = Monthly Thursday 13 = Monthly Friday 14 = Monthly Saturday 15 = Monthly Sunday
Start Standby Units on High Temperature	31596	41596	1	-	0 = false 1 = true
Automatic Transfer Switch - Active Power Supply	31597	-	1	-	0 = Power Supply 1 1 = Power Supply 2
Automatic Transfer Switch - Power Supply 1 Status	31598	-	1	-	0 = OK 1 = Not OK
Automatic Transfer Switch - Power Supply 2 Status	31599	-	1	-	0 = OK 1 = Not OK
EconoPhase Proportional Band Switchover	31600	41600	1	-	% Int16
Event Log Record Counter	31601	-	2	-	Int32
Audit Log Record Counter	31603	-	2	-	Int32

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
ATS Switch Mode	31608	-	1	-	0 = Off 1 = Manual 2 = Automatic 3 = Test
ATS Load Not Powered Timeout	31609	-	1	-	0 = false 1 = true
ATS Non Priority Load Breaker Timeout	31610	-	1	-	0 = false 1 = true
Power Source: L1-L2 voltage 1	31611	-	1	-	VAC Int16
Power Source: L1-L2 voltage 2	31612	-	1	-	VAC Int16
Power Source: L2-L3 voltage 1	31613	-	1	-	VAC Int16
Power Source: L2-L3 voltage 2	31614	-	1	-	VAC Int16
Power Source: L3-L1 voltage 1	31615	-	1	-	VAC Int16
Power Source: L3-L1 voltage 2	31616	-	1	-	VAC Int16
Power Source: Line Frequency 1	31617	-	1	10	Hz Int16
Power Source: Line Frequency 2	31618	-	1	10	Hz Int16
Power Source: Breaker Operation Count 1	31619	-	2	-	Int32
Power Source: Breaker Operation Count 2	31621	-	2	-	Int32
Power Source: All status are okay 1	31623	-	1	-	0 = false 1 = true
Power Source: All status are okay 2	31624	-	1	-	0 = false 1 = true
Power Source: Voltage Is Too Low 1	31625	-	1	-	0 = false 1 = true
Power Source: Voltage Is Too Low 2	31626	-	1	-	0 = false

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = true
Power Source: Voltage Is Too High 1	31627	-	1	-	0 = false 1 = true
Power Source: Voltage Is Too High 2	31628	-	1	-	0 = false 1 = true
Power Source: Voltages Are Asymmetric 1	31629	-	1	-	0 = false 1 = true
Power Source: Voltages Are Asymmetric 2	31630	-	1	-	0 = false 1 = true
Power Source: Voltage Phase Loss 1	31631	-	1	-	0 = false 1 = true
Power Source: Voltage Phase Loss 2	31632	-	1	-	0 = false 1 = true
Power Source: Phase Sequence Issue 1	31633	-	1	-	0 = false 1 = true
Power Source: Phase Sequence Issue 2	31634	-	1	-	0 = false 1 = true
Power Source: Frequency Is Too Low 1	31635	-	1	-	0 = false 1 = true
Power Source: Frequency Is Too Low 2	31636	-	1	-	0 = false 1 = true
Power Source: Frequency Is Too High 1	31637	-	1	-	0 = false 1 = true
Power Source: Frequency Is Too High 2	31638	-	1	-	0 = false 1 = true
Power Source: Breaker is closed 1	31639	-	1	-	0 = false 1 = true
Power Source: Breaker is closed 2	31640	-	1	-	0 = false 1 = true
Power Source: Breaker command status closed 1	31641	-	1	-	0 = false 1 = true
Power Source: Breaker command status closed 2	31642	-	1	-	0 = false 1 = true
Power Source: Breaker withdrawn issue 1	31643	-	1	-	0 = false 1 = true

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Power Source: Breaker withdrawn issue 2	31644	-	1	-	0 = false 1 = true
Power Source: Breaker Timeout Issue 1	31645	-	1	-	0 = false 1 = true
Power Source: Breaker Timeout Issue 2	31646	-	1	-	0 = false 1 = true
Power Source: Line Operating Hour Exceeded 1	31647	-	1	-	0 = false 1 = true
Power Source: Line Operating Hour Exceeded 2	31648	-	1	-	0 = false 1 = true
Power Source: Breaker Operating Hour Exceeded 1	31649	-	1	-	0 = false 1 = true
Power Source: Breaker Operating Hour Exceeded 2	31650	-	1	-	0 = false 1 = true
Supply Fluid Temperature	31651	-	1	10	deg C Int16
Supply Fluid Temperature	31674	-	1	10	deg F Int16
Return Fluid Temperature	31652	-	1	10	deg C Int16
Return Fluid Temperature	31675	-	1	10	deg F Int16
Flow Rate	31653	-	1	10	l/min Int16
Cooling Capacity	31654	-	1	10	kW Int16
Pump Speed	31655	-	1	-	% Int16
Supply Fluid Over Temp Threshold	31660	41660	1	10	deg C Int16
Supply Fluid Over Temp Threshold	31676	41676	1	10	deg F Int16
Return Fluid Over Temp Threshold	31661	41661	1	10	deg C Int16
Return Fluid Over Temp Threshold	31677	41677	1	10	deg F

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					Int16
Pump Operating State	31664	-	1	-	0 = off 1 = on
Pump Speed	31666	-	1	10	% Int16
Pump Run Time	31670	-	2	-	hr Int32
Unit Fluid Supply Temperature	31940	-	1	10	deg C Int16
Unit Fluid Supply Temperature	31941	-	1	10	deg F Int16
Unit Fluid Return Temperature	31942	-	1	10	deg C Int16
Unit Fluid Return Temperature	31943	-	1	10	deg F Int16
Unit Fluid Supply Pressure	31944	-	1	100	bar Uint16
Unit Fluid Return Pressure	31945	-	1	100	bar Uint16
Unit Fluid Pump Speed	31946	-	1	-	% Uint16
Unit Fluid Flow	31947	-	1	10	l/min Uint16
Unit Fluid Diff Pressure	31948	-	1	100	bar Int16
Unit Fluid Cooling Capacity	31949	-	1	10	kW Uint16
System Fluid Flow	31950	-	2	10	l/min Int32
System Fluid Diff Pressure	31952	-	1	100	bar Int16
System Fluid Cooling Capacity	31953	-	2	10	kW Int32
Fluid Temperature Set Point	31955	41955	1	10	deg C Int16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Fluid Temperature Set Point	31956	41956	1	10	deg F Int16
Fluid Temperature Control Type	31957	41957	1	-	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID 3 = Intelligent
Fluid Temperature Proportional Band	31958	41958	1	10	deg C Uint16
Fluid Temperature Proportional Band	31959	41959	1	10	deg F Uint16
Fluid Temperature Dead Band	31960	41960	1	10	deg C Uint16
Fluid Temperature Dead Band	31961	41961	1	10	deg F Uint16
Fluid Temperature Control Integration Time	31962	41962	1	10	min Uint16
Fluid Control Type	31963	41963	1	-	0 = Flow Rate 1 = Differential Pressure 2 = Flow Rate with DP Limit 3 = Diff Prs with Flo Limit 4 = Manual
Fluid Flow Set Point	31964	41964	1	-	l/min Uint16
Fluid Flow Proportional Band	31965	41965	1	-	l/min Uint16
Fluid Flow Dead Band	31966	41966	1	-	l/min Uint16
Fluid Flow Control Integration Time	31967	41967	1	-	sec Uint16
Fluid Diff Prs Set Point	31968	41968	1	100	bar Uint16
Fluid Diff Prs Prop Band	31969	41969	1	100	bar Uint16
Flow Diff Prs Dead Band	31970	41970	1	100	bar Uint16

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
Fluid Diff Prs Control Integration Time	31971	41971	1	-	sec Uint16
Flow Manual Pump Speed	31972	41972	1	-	% Uint16
Pump Operation Period	31973	41973	1	-	day Uint16
Pump Operation Duration	31974	41974	1	-	min Uint16
Pump Operation Speed	31975	41975	1	-	% Uint16
Pump Operation Type	31976	41976	1	-	0 = Unit On or Standby 1 = Unit On, Off, or Standby
Fluid Dew Pnt Margin	31977	41977	1	-	0 = disabled 1 = enabled
Dew Point Max Adjust	31978	41978	1	100	deg C Uint16
Dew Point Max Adjust	31979	41979	1	100	deg F Uint16
System Dew Point	31980	-	1	10	deg C Int16
System Dew Point	31981	-	1	10	deg F Int16
Unit Dew Point	31982	-	1	10	deg C Int16
Unit Dew Point	31983	-	1	10	deg F Int16
Pump Motor Power	31984	-	1	100	kW Int16
Pump Motor Amps	31986	-	1	100	A AC Int16
Inverter Temperature	31988	-	1	-	deg C Int16
Inverter Temperature	31989	-	1	-	deg F Int16
Pump Drive Overload	31992	-	1	-	0 = no

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Table 3.55 Liebert® iCOM XDM - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Unit/Notes
					1 = yes
Pump Drive Over Temperature	31994	-	1	-	0 = no 1 = yes
Pump Drive Warning	31996	-	1	-	0 = no 1 = yes
Pump Drive Low AC Alarm	31998	-	1	-	0 = no 1 = yes
Pump Drive Phase Loss Active	32000	-	1	-	0 = no 1 = yes
Pump Drive Product Identification	32002	-	1	-	0 = OK 1 = Not OK
Pump Drive Communications	32004	-	1	-	0 = OK 1 = Not OK
Analog Input Reading 11	32024	-	1	100	Int16
Analog Input Reading 12	32025	-	1	100	Int16
System Date and Time	39998	49998	2	-	Secs since Epoch(UTC)

Table 3.56 Liebert® iCOM XDM - Glossary

Data Label	Data Description
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
ATS Load Not Powered Timeout	Automatic Transfer Switch Load not powered timeout

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
ATS Non Priority Load Breaker Timeout	Automatic Transfer Switch Non-priority load breaker timeout
ATS Switch Mode	ATS Switch Mode
Audit Log Record Counter	Number of audit log records that have been sent to the client.
Audit Log Update	Audit log has been updated.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart Enable	Enable/disable automatic restart of unit after a power cycle.
Auto Tune License Expired	License for the AutoTune feature has expired.
Auto Tune License Expiring	License for the AutoTune feature has not been refreshed in 30 days and will be expiring soon.
Automatic Transfer Switch - Active Power Supply	Indicates which power supply is in use by the Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 1 Status	Status of power supply 1 in Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 2 Status	Status of power supply 2 in Automatic Transfer Switch.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor Freeze Protection	Compressor has entered the freeze protection phase.
Compressor High Head Pressure - Event Control	Enable/disable the activation of the [Compressor High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor High Head Pressure - Event Type	The event type for the [Compressor High Head Pressure] event.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor High Pressure Transducer Issue	Compressor high pressure transducer is disconnected or the signal is out of range.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Lockout	Enable/disable the use of the compressor.
Compressor Low Differential Pressure Lockout	Compressor exceeded maximum startup attempts due to low differential pressure. Compressor is shutdown and has been disabled.
Compressor Low Pressure Transducer Issue	Compressor low pressure transducer is disconnected or the signal is out of range.
Compressor Low Suction Pressure - Event Control	Enable/disable the activation of the [Compressor Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Low Suction Pressure - Event Type	The event type for the [Compressor Low Suction Pressure] event.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Pump Down Issue - Event Control	Enable/disable the activation of the [Compressor Pump Down Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Pump Down Issue - Event Type	The event type for the [Compressor Pump Down Issue] event.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Compressor Short Cycle - Event Control	Enable/disable the activation of the [Compressor Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Short Cycle - Event Type	The event type for the [Compressor Short Cycle] event.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor State	Compressor operational state.
Compressor Suction Pressure	Refrigerant pressure at the input of the compressor.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload - Event Control	Enable/disable the activation of the [Compressor Thermal Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Thermal Overload - Event Type	The event type for the [Compressor Thermal Overload] event.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Communication Lost	Communication with condenser unit has been lost.
Condenser Control Board Issue	The condenser control board is reporting an issue.
Condenser Fan Current	Condenser fan's measured input current.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Reversal Requested	Request the condenser fans to rotate in the reverse direction.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Issue - Event Control	Enable/disable the activation of the [Condenser Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser Issue - Event Type	The event type for the [Condenser Issue] event.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.
Condenser Outside Air Temp Out of Operating Range	[Condenser Outside Air Temperature] is either above an upper threshold or below a lower threshold.
Condenser Outside Air Temp Sensor Issue	Condenser outside air temperature sensor is disconnected or the signal is out of range.
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Pressure Over Threshold	Condenser refrigerant pressure has exceeded a threshold.
Condenser Refrigerant Pressure Sensor Issue	Condenser refrigerant pressure sensor is disconnected or the signal is out of range.
Condenser Refrigerant Pressure Under Threshold	Condenser refrigerant pressure has dropped below a threshold.
Condenser Refrigerant Pressure	Pressure of the refrigerant in a condenser circuit.
Condenser Refrigerant Type	Condenser refrigerant type.
Condenser Remote Shutdown	Condenser is shut down by a remote signal.
Condenser Supply Refrigerant Over Temp	Condenser supply refrigerant temperature has exceeded a threshold.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Condenser Supply Refrigerant Temp Sensor Issue	Condenser supply refrigerant temperature sensor is disconnected or the signal is out of range.
Condenser Supply Refrigerant Temperature	Temperature of the supply refrigerant in a condenser circuit.
Condenser Supply Refrigerant Under Temp	Condenser supply refrigerant temperature has dropped below a specified threshold.
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Control Units Remote Shutdown Mismatch	The remote shutdown status of the master control unit does not match the remote shutdown status of the slave control unit.
Control Units Unit Code Mismatch	Unit codes for the master and slave control units do not match.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Max Adjust	Dew Point Margin Maximum Set Point Adjust
Dew Point Over Temp Threshold	Threshold value used in the [Dew Point Over Temperature] event.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temp Threshold	Threshold value used in the [Dew Point Under Temperature] event.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Dig Scroll Comp Discharge Over Temp - Event Ctrl	Enable/disable the activation of the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Over Temp - Event Type	The event type for the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Temp Sensor Issue	Digital scroll compressor discharge temperature sensor is disconnected or the signal is out of range.
Dig Scroll Comp Discharge Temp	Digital scroll compressor discharge temperature.
Dig Scroll Comp Over Temp	Digital scroll compressor is shut down due to head temperature exceeding an upper threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Digital Scroll Compressor Loading	Present digital scroll compressor utilization expressed as a percentage of the maximum rated capacity.
Door Open	An open door was detected
EconoPhase Proportional Band Switchover	After entering EconoPhase mode, the threshold for continuing EconoPhase operation is gradually reduced to this percentage of [Air Temperature Proportional Band]. If the air temperature cannot be maintained within this reduced proportional band, the system will switch over to compressor control.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Electric Reheat State	Electric reheater operational state.
Energy Consumption	Energy consumption since the last reset of this value.
Event Log Record Counter	Number of event log records that have been sent to the client.
Expected Condenser Unit Count	Number of physical condenser units that are expected to be connected to the system.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Flow Diff Prs Dead Band	Flow Diff Pressure Dead Band
Flow Manual Pump Speed	Flow Manual Pump Speed
Flow Rate	Fluid measured flow volume rate
Flow Sensor Failure	Fluid flow sensor failure
Fluid Control Type	Fluid flow algorithm control type
Fluid Dew Pnt Margin	Fluid Dew Point Margin Control Operation
Fluid Dewpoint Margin Control	Fluid Loop Dewpoint Margin Control is active
Fluid Diff Prs Control Integration Time	Fluid Diff Pressure Control Integration Time
Fluid Diff Prs Prop Band	Flow Diff Pressure Proportional Band
Fluid Diff Prs Set Point	Fluid Diff Pressure Set Point
Fluid Flow Blocked	Fluid Loop Flow Blocked (Loss of Flow with High Supply Pressure)
Fluid Flow Control Integration Time	Fluid Flow Control Integration Time

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Fluid Flow Dead Band	Fluid Flow Dead Band; evenly split above/below set point
Fluid Flow High Supply Pressure	Fluid Loop Flow High Supply Pressure
Fluid Flow Low Inlet Pressure	Fluid Loop Flow Low Inlet Pressure
Fluid Flow Proportional Band	Fluid Flow Proportional Band; evenly split above/below set point
Fluid Flow Set Point	Fluid Flow Set Point
Fluid High Differential Pressure	Fluid Loop High Differential Pressure (Supply - Return)
Fluid Inlet Pressure Sensor Issue	Fluid Loop Inlet Pressure Sensor Issue
Fluid Low Differential Pressure	Fluid Loop Low Differential Pressure (Supply - Return)
Fluid Low System Flow	Fluid Loop Low System Flow (Low total flow for units in group)
Fluid Return Pressure Sensor Issue	Fluid Loop Return Pressure Sensor Issue
Fluid Supply Pressure Sensor Issue	Fluid Loop Supply Pressure Sensor Issue
Fluid Temperature Control Integration Time	Time value used when system is under integral fluid temperature control.
Fluid Temperature Control Type	Type of algorithm used to control the system's output fluid temperature.
Fluid Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fluid Temperature Set Point].
Fluid Temperature Proportional Band	Value that is divided evenly to form proportional temperature control.
Fluid Temperature Set Point	Desired chiller fluid temperature.
Force Networked Unit Rotation	If networked units are configured to rotate between standby and running, force the rotation to occur immediately.
Free Cooling State	Free cooling operational state.
Free Cooling Valve Open Position	Free cooling valve open position.
Group Independent Off	The group standby/cascade state for this unit has been overridden. The unit has been forced off.
Group Independent On	The group standby/cascade state for this unit has been overridden. The unit has been forced on.
Group Independent Operation Enable	Enable/disable group independent operation. If enabled, the user can override the unit's on/off state being controlled by its standby/cascade group.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Group Independent Operation	If this unit is part of a standby/cascade group, this value can be used to override the group control of the unit's on/off state.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier State	Humidifier operational state.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Inverter Temperature	Inverter Temperature
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Modbus Automatic Transfer Switch Communication Lost	Communications with Modbus Automatic Transfer Switch has been lost
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Networked Unit Daily Rotation Frequency	If [Networked Unit Rotation Frequency] is set to 'Daily', this sets the frequency of rotation within each day.
Networked Unit Rotation Count	If networked units are configured to rotate between standby and running, this is the number of units that will rotate at the selected rotation time.
Networked Unit Rotation Frequency	Configures the frequency with which networked units will rotate between a running state and a standby state.
Networked Unit Rotation Time	If networked units are configured to rotate between standby and running, this is the time the rotation will occur on the day specified by [Networked Unit Rotation Frequency].
Outside Air Temperature	Ambient outside air temperature.
PHE Sup Tem Snsr Fail	Plate Heat Exchanger Supply Temperature Sensor Fail
Power Source: All status are okay	Automatic Transfer Switch Power Source: All status are okay
Power Source: Breaker command status closed	Automatic Transfer Switch Power Source: Breaker command status closed
Power Source: Breaker is closed	Automatic Transfer Switch Power Source: Breaker is closed
Power Source: Breaker Operating Hour Exceeded	Automatic Transfer Switch Power Source: Breaker operating hour exceeded
Power Source: Breaker Operation Count	Automatic Transfer Switch Power Source: Breaker Operation Count
Power Source: Breaker Timeout Issue	Automatic Transfer Switch Power Source: Breaker timeout issue
Power Source: Breaker withdrawn issue	Automatic Transfer Switch Power Source: Breaker withdrawn issue
Power Source: Frequency Is Too High	Automatic Transfer Switch Power Source: Frequency is too high
Power Source: Frequency Is Too Low	Automatic Transfer Switch Power Source: Frequency is too low
Power Source: L1-L2 voltage	Automatic Transfer Switch Power Source: L1-L2 voltage
Power Source: L2-L3 voltage	Automatic Transfer Switch Power Source: L2-L3 voltage

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Power Source: L3-L1 voltage	Automatic Transfer Switch Power Source: L3-L1 voltage
Power Source: Line Frequency	Automatic Transfer Switch Power Source: Line Frequency
Power Source: Line Operating Hour Exceeded	Automatic Transfer Switch Power Source: Line operating hour exceeded
Power Source: Phase Sequence Issue	Automatic Transfer Switch Power Source: Phase sequence issue
Power Source: Voltage Is Too High	Automatic Transfer Switch Power Source: Voltage is too high
Power Source: Voltage Is Too Low	Automatic Transfer Switch Power Source: Voltage is too low
Power Source: Voltage Phase Loss	Automatic Transfer Switch Power Source: Voltage phase loss
Power Source: Voltages Are Asymmetric	Automatic Transfer Switch Power Source: Voltages are asymmetric
PRE Operational Mode	Pumped Refrigerant Economizer operational mode.
Pump Drive Communications	Pump Drive Communications Status
Pump Drive Low AC Alarm	Pump Drive Low AC Alarm
Pump Drive Over Temperature	Pump Drive Over Temperature
Pump Drive Overload	Pump Drive Overload
Pump Drive Phase Loss Active	Pump Drive Phase Loss Active
Pump Drive Product Identification	Pump Drive Product Identification
Pump Drive Warning	Pump Drive Warning
Pump Flow Failure	Fluid pump flow failure
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Inlet Refrigerant Temperature	Refrigerant temperature at the inlet of the pump.
Pump Inverter Failure	Fluid pump inverter failure
Pump Motor Amps	Pump Motor Amps

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Pump Motor Power	Pump Motor Power
Pump Operating State	Fluid pump operating state
Pump Operating Without Flow	Fluid pump operation with no flow
Pump Operation Duration	Pump periodic operation duration
Pump Operation Period	Pump shall periodically operate if off for too long
Pump Operation Speed	Pump periodic operation speed
Pump Operation Type	Pump periodic operation type
Pump Outlet Refrigerant Temperature	Refrigerant temperature at the outlet of the pump.
Pump Run Time	Fluid pump run time
Pump Speed	Fluid pump speed
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump State	Pump operational state.
Pump Unspecified General Event	One or more unspecified pump events active. See local unit display for further details.
Quick Start Unit Cascade On Delay	When a Teamwork unit restarts after a power cycle, this value is used instead of [Unit Cascade On Delay]. The system will return to the use of [Unit Cascade On Delay] after a period of time determined by a predefined algorithm.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Remote Sensor Average Over Temperature	[Remote Sensor Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Average Under Temperature	[Remote Sensor Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Remote Sensor Over Temp Threshold	Threshold value used in the remote air sensor over temperature events.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Over Temperature	[Remote Sensor System Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Temperature	Average value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor System Average Under Temperature	[Remote Sensor System Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor System Maximum Temperature	Maximum value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temp Threshold	Threshold value used in the remote air sensor under temperature events.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Dew Point	Dew point temperature measured at the inlet of the unit.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Return Fluid Low Temp	[Return Fluid Temperature] below Return Fluid Low Temp Threshold.
Return Fluid Over Temp Threshold	Threshold value used in the [Return Fluid Over Temp] event.
Return Fluid Over Temp	[Return Fluid Temperature] has exceeded a specified threshold.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any return sensor events are detected and annunciated.
Slave Control Unit Communication Lost	The master control unit has lost Ethernet communications with the slave control unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Standby Units	The number of standby units.
Start Standby Units on High Temperature	Force the system to start all standby units if any unit in operation reports a high air temperature warning.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Fluid Low Temp	[Supply Fluid Temperature] below Supply Fluid Low Temp Threshold.
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply fluid temperature.
System Date and Time	The system date and time
System Dew Point	System aggregated dew point
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Fluid Cooling Capacity	Chiller system-level cooling capacity in use, expressed in kilowatts.
System Fluid Diff Pressure	Chiller system-level fluid differential pressure
System Fluid Flow	Chiller system-level fluid measured flow volume rate
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Tandem 'B' Compressor Hours	Operating hours for the 'B' compressor in a tandem configuration since last reset of this value.
Tandem 'B' Compressor State	Operational state for the 'B' compressor in a tandem configuration.
Teamwork Average Calculation Unit Count	If [Teamwork Temperature Calculation Method] is set to Average, this value specifies the maximum number of units in the Teamwork group used to calculate the average.
Teamwork Temperature Calculation Method	Method used for calculating the single Teamwork Mode air temperature from the temperature sensor values provided by the units in the Teamwork group. Each unit provides a single air temperature sensor value.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Cascade Control Delay	When a Teamwork unit transitions from 'standby' to 'running' due to cascading, its local control operations are delayed for this amount of time. Control operations can include, but are not limited to, heating, cooling, humidification, and/or dehumidification.
Unit Cascade On Delay	If [Unit Cascade Type] is set to anything other than 'No', and the measured value has reached the transition threshold, a Teamwork unit in 'standby' will transition to 'running' after delaying this amount of time.
Unit Cascade Type	If a unit is a member of a Teamwork group, it can be configured to cascade, i.e. automatically transition between 'standby' and 'running'. The decision of when to perform the transition is determined by comparing the value of this parameter type against a given transition threshold.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit Dew Point	Unit aggregated dew point

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Table 3.56 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Unit Fluid Cooling Capacity	Chiller unit-level cooling capacity in use, expressed in kilowatts.
Unit Fluid Diff Pressure	Chiller unit-level fluid differential pressure
Unit Fluid Flow	Chiller unit-level fluid measured flow volume rate
Unit Fluid Pump Speed	Chiller unit-level fluid pump speed
Unit Fluid Return Pressure	Chiller unit-level fluid return pressure
Unit Fluid Return Temperature	Chiller unit-level entering return fluid temperature
Unit Fluid Supply Pressure	Chiller unit-level fluid supply pressure
Unit Fluid Supply Temperature	Chiller unit-level leaving supply fluid temperature
Unit In Standby Due To Cooling Loss	Unit forced into standby because it is unable to provide any cooling.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Virtual Master Enable	Enable/disable the virtual master feature.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Leakage	Water Leakage - Typically indicates unit internal water leakage
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Pump Communication Lost	Communications with XD Pump has been lost

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Table 3.57 Liebert® MiniMate2 1-Ton to 5-Ton and 8-Ton—Input and Holding

Data Description	Input	Holding	# of Reg.	Scale	Access	Notes/Units
Inlet Air Temperature	—	40001	1	—	Read Only	deg C (Units are in deg F if changed locally.)
Return Humidity	—	40002	1	—	Read Only	% RH
Cooling State	—	40003	1	—	Read Only	0=Off 1=On
Heating State	—	40004	1	—	Read Only	0=Off 1=On
Humidifier State	—	40005	1	—	Read Only	0=Off 1=On
Dehumidifier State	—	40006	1	—	Read Only	0=Off 1=On
Glyco Pump On	—	40007	1	—	Read Only	0=Off 1=On
Cool/Heat Stages	—	40008	1	—	Read Only	0=None 1=Stage 1 2=Stage 2
Temperature Control Capacity	—	40009	1	—	Read Only	%
Return Air Temperature Set Point	—	40010	1	—	R/W	deg C (Units are in deg F if changed locally.)
Air Temperature Proportional Band	—	40011	1	—	R/W	deg C (Units are in deg F if changed locally.)
Humidity Set Point	—	40012	1	—	R/W	% RH
Humidity Proportional Band	—	40013	1	10	R/W	% RH
High Return Air Temperature Threshold	—	40014	1	—	R/W	deg C (Units are in deg F if changed locally.)
Low Return Air Temperature Threshold	—	40015	1	—	R/W	deg C (Units are in deg F if changed locally.)
High Return Humidity Threshold	—	40016	1	—	R/W	% RH
Low Return Humidity Threshold	—	40017	1	—	R/W	% RH
System On/Off Control	—	40018	1	—	R/W	0=Off 1=On
Compressor 1 Run Hours	—	40019	1	—	R/W	hr
Compressor 2 Run Hours *(Not in 1-5 Ton unit)*	—	40020	1	—	R/W	hr

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Table 3.57 Liebert® MiniMate2 1-Ton to 5-Ton and 8-Ton—Input and Holding (continued)

Data Description	Input	Holding	# of Reg.	Scale	Access	Notes/Units
Fan Hours	—	40021	1	—	R/W	hr
Humidifier Hours	—	40022	1	—	R/W	hr
Glycol Run Hours	—	40023	1	—	R/W	hr
Reheats 1 Run Hours	—	40024	1	—	R/W	hr
Reheats 2 Run Hours *(Not in 1-5 Ton unit)*	—	40025	1	—	R/W	hr
Reheats 3 Run Hours *(Not in 1-5 Ton unit)*	—	40026	1	—	R/W	hr
Managed Device Operation State	—	40027	1	—	Read Only	0=UnitOn 1=Reboot 2=Unit Power Off 3=RsdOff 4=CommsOff
Winter Start Delay	—	40028	1	—	R/W	min
CW Flush Cycle	—	40030	1	—	R/W	hr
Auto Restart Delay	—	40031	1	10	R/W	min
Temperature Unit	—	40032	1	—	Read Only	1=deg C / 0=deg F
CW Valve Travel Time in seconds	—	40033	1	—	R/W	sec
Fan Speed *(Not in 8 Ton unit)*	—	40034	1	—	R/W	1=Low Speed 0=Normal Speed
Reheater Lockout	—	40035	1	—	R/W	1=enabled 0=disabled
Humidifier Lockout	—	40036	1	—	R/W	1=enabled 0=disabled
Communications Failure	—	40289	1	—	Read Only	Bit 0
Local Off	—	40289	1	—	Read Only	Bit 1
Remote Off	—	40289	1	—	Read Only	Bit 2
High Head Pressure 1	—	40289	1	—	Read Only	Bit 3 This event is not latching
High Head Pressure 2 *(Not in 1-5 Ton unit)*	—	40289	1	—	Read Only	Bit 4 This event is not latching
Loss of Air Flow	—	40289	1	—	Read Only	Bit 5
Standby Glycol Unit On *(Not in 1-5 Ton unit)*	—	40289	1	—	Read Only	Bit 6
Clogged Air Filter	—	40289	1	—	Read Only	Bit 8

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Table 3.57 Liebert® MiniMate2 1-Ton to 5-Ton and 8-Ton—Input and Holding (continued)

Data Description	Input	Holding	# of Reg.	Scale	Access	Notes/Units
High Temperature	—	40289	1	—	Read Only	Bit 9
Low Temperature	—	40289	1	—	Read Only	Bit 10
High Humidity	—	40290	1	—	Read Only	Bit 0
Low Humidity	—	40290	1	—	Read Only	Bit 1
Humidifier Problem	—	40290	1	—	Read Only	Bit 2
Compressor 1 Thermal Overload	—	40290	1	—	Read Only	Bit 4
Compressor 2 Thermal Overload *(Not in 1-5 Ton unit)*	—	40290	1	—	Read Only	Bit 5
Main Fan Overload	—	40290	1	—	Read Only	Bit 6
Smoke Detected	—	40290	1	—	Read Only	Bit 8
Loss of Water	—	40290	1	—	Read Only	Bit 9
Standby Unit On *(Not in 1-5 Ton unit)*	—	40290	1	—	Read Only	Bit 10
Low Suction Pressure	—	40291	1	—	Read Only	Bit 0
Short Cycle	—	40291	1	—	Read Only	Bit 1
Loss of Power	—	40291	1	—	Read Only	Bit 2
Local Alarm 1	—	40291	1	—	Read Only	Bit 6
Local Alarm 2	—	40291	1	—	Read Only	Bit 7
EPO Shutdown	—	40291	1	—	Read Only	Bit 8
High Water	—	40291	1	—	Read Only	Bit 9
Local Alarm 3 *(Not in 1-5 Ton unit)*	—	40291	1	—	Read Only	Bit 10
Unit On/Off	—	40349	1	—	R/W	Bit 0 On=unit Off Bit 1 On= Unit ON (W)*
Reheat Lockout	—	40349	1	—	R/W	Bit 2 On=RH Off Bit 3 On=RH On*
Humidifier Lockout	—	40349	1	—	R/W	Bit 4 On= HL Off Bit 5 On=HL On*
Temperature and Tolerance	—	40350	1	—	R/W	Multiply desired value by 1000 (Modbus only), 0= No change (W)
Humidity and Tolerance	—	40351	1	—	R/W	Multiply desired value by 100 (Modbus only), 0= No change (W)

** These bit pairs use an exclusive function of OR. Both bits in the pair cannot be set or unset. Multiple pairs may be set/unset in a single write, as long as the exclusive function of OR is appropriately recognized.*

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil

Data Label	Status	Coil	# of Bits	Notes
Ext Reheat Lockout	10009	—	1	Active on Alarm
Ext Humidifier Lockout	10010	—	1	Active on Alarm
Minimum Chilled Water Temp Set Point Enable	10013	13	1	0 = disabled 1 = enabled
Return Air Sensor Event Control	10019	19	1	0 = disabled 1 = enabled
Ext Air Sensor A Event Control	10020	20	1	0 = disabled 1 = enabled
Ext Compressor Lockout	10021	—	1	Active on Alarm
System On/Off Control	—	25	1	0 = off 1 = on
Fan State	10025	—	1	0 = off 1 = on
Cooling State	10026	—	1	0 = off 1 = on
Free Cooling State	10027	—	1	0 = off 1 = on
Hot Water / Hot Gas State	10028	—	1	0 = off 1 = on
Electric Reheat State	10029	—	1	0 = off 1 = on
Humidifier State	10030	—	1	0 = off 1 = on
Dehumidifier State	10031	—	1	0 = off 1 = on
Main Fan Overload	10034	—	1	Active on Alarm
Loss of Air Flow	10035	—	1	Active on Alarm
Ext Loss of Flow	10036	—	1	Active on Alarm
Compressor High Head Pressure	10037	—	1	Active on Alarm
Compressor Low Suction Pressure	10038	—	1	Active on Alarm
Compressor Thermal Overload	10039	—	1	Active on Alarm
Compressor Pump Down Issue	10040	—	1	Active on Alarm
Compressor High Head Pressure 2	10041	—	1	Active on Alarm
Compressor Low Suction Pressure 2	10042	—	1	Active on Alarm
Compressor Thermal Overload 2	10043	—	1	Active on Alarm
Compressor Pump Down Issue 2	10044	—	1	Active on Alarm
Dig Scroll Comp Over Temp 1	10045	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Dig Scroll Comp Over Temp 2	10046	—	1	Active on Alarm
Smoke Detected	10047	—	1	Active on Alarm
Water Under Floor	10048	—	1	Active on Alarm
Humidifier Issue	10049	—	1	Active on Alarm
Ext Standby Glycol Pump On	10050	—	1	Active on Alarm
Ext Standby Unit On	10051	—	1	Active on Alarm
Ext Condenser Pump High Water	10052	—	1	Active on Alarm
Return Air Sensor Issue	10053	—	1	Active on Alarm
Ext Loss of Air Blower	10055	—	1	Active on Alarm
Humidifier Low Water	10058	—	1	Active on Alarm
Humidifier Over Current	10059	—	1	Active on Alarm
Ext Over Temperature	10060	—	1	Active on Alarm
Shutdown - Loss Of Power	10061	—	1	Active on Alarm
Supply Chilled Water Over Temp	10065	—	1	Active on Alarm
Return Air Over Temperature	10067	—	1	Active on Alarm
Return Air Under Temperature	10068	—	1	Active on Alarm
High Return Humidity	10069	—	1	Active on Alarm
Low Return Humidity	10070	—	1	Active on Alarm
Ext Air Sensor A Over Temperature	10071	—	1	Active on Alarm
Ext Air Sensor A Under Temperature	10072	—	1	Active on Alarm
Ext Air Sensor A High Humidity	10073	—	1	Active on Alarm
Ext Air Sensor A Low Humidity	10074	—	1	Active on Alarm
Supply Chilled Water Loss of Flow	10075	—	1	Active on Alarm
Clogged Air Filter	10076	—	1	Active on Alarm
Supply Air Sensor Issue	10077	—	1	Active on Alarm
Free Cooling Temp Sensor Issue	10078	—	1	Active on Alarm
Ext Air Sensor A Issue	10079	—	1	Active on Alarm
Fan Hours Exceeded	10080	—	1	Active on Alarm
Compressor Hours Exceeded 1	10081	—	1	Active on Alarm
Compressor Hours Exceeded 2	10082	—	1	Active on Alarm
Free Cooling Valve Hours Exceeded	10083	—	1	Active on Alarm
Electric Reheater Hours Exceeded 1	10084	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Electric Reheater Hours Exceeded 2	10085	—	1	Active on Alarm
Electric Reheater Hours Exceeded 3	10086	—	1	Active on Alarm
Hot Water / Hot Gas Valve Hours Exceeded	10087	—	1	Active on Alarm
Humidifier Hours Exceeded	10088	—	1	Active on Alarm
Dehumidifier Hours Exceeded	10089	—	1	Active on Alarm
Unit Communication Lost	10091	—	1	Active on Alarm
Master Unit Communication Lost	10092	—	1	Active on Alarm
Unit Code Missing	10094	—	1	Active on Alarm
Service Required	10098	—	1	Active on Alarm
Humidifier Control Board Not Detected	10099	—	1	Active on Alarm
Customer Input 1	10104	—	1	Active on Alarm
Customer Input 2	10105	—	1	Active on Alarm
Customer Input 3	10106	—	1	Active on Alarm
Customer Input 4	10107	—	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 1	10108	—	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 2	10109	—	1	Active on Alarm
Supply Air Over Temperature	10209	—	1	Active on Alarm
Supply Air Under Temperature	10210	—	1	Active on Alarm
Ambient Air Sensor Issue	10211	—	1	Active on Alarm
Compressor Short Cycle 1	10212	—	1	Active on Alarm
Compressor Short Cycle 2	10213	—	1	Active on Alarm
Ext Free Cooling Lockout	10214	—	1	Active on Alarm
Reheater Over Temperature	10215	—	1	Active on Alarm
Humidifier Cylinder Worn	10216	—	1	Active on Alarm
Humidifier Under Current	10217	—	1	Active on Alarm
Fan Issue	10218	—	1	Active on Alarm
Condenser TVSS Issue	10219	—	1	Active on Alarm
Condenser Issue 1	10221	—	1	Active on Alarm
Condenser Issue 2	10222	—	1	Active on Alarm
BMS Communications Timeout	10223	—	1	Active on Alarm
Digital Output Board Not Detected 1	10224	—	1	Active on Alarm
Digital Output Board Not Detected 2	10225	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Digital Output Board Not Detected 3	10226	—	1	Active on Alarm
RAM Battery Issue	10227	—	1	Active on Alarm
Water Leakage Detector Sensor Issue	10228	—	1	Active on Alarm
External Fire Detected	10229	—	1	Active on Alarm
Chilled Water Control Valve Failure 1	10230	—	1	Active on Alarm
Chilled Water Control Valve Failure 2	10231	—	1	Active on Alarm
Unit Off	10232	—	1	Active on Alarm
Unit On	10233	—	1	Active on Alarm
Unit Partial Shutdown	10234	—	1	Active on Alarm
Unit Shutdown	10235	—	1	Active on Alarm
High Power Shutdown	10236	—	1	Active on Alarm
Unit Standby	10237	—	1	Active on Alarm
Maintenance Due	10238	—	1	Active on Alarm
Maintenance Completed	10239	—	1	Active on Alarm
Compressor Low Pressure Transducer Issue 1	10240	—	1	Active on Alarm
Compressor Low Pressure Transducer Issue 2	10241	—	1	Active on Alarm
Compressor High Pressure Transducer Issue 1	10242	—	1	Active on Alarm
Compressor High Pressure Transducer Issue 2	10243	—	1	Active on Alarm
Compressor Capacity Reduced	10244	—	1	Active on Alarm
Dew Point Over Temperature	10345	—	1	Active on Alarm
Dew Point Under Temperature	10346	—	1	Active on Alarm
Ext Dew Point Over Temperature	10347	—	1	Active on Alarm
Ext Dew Point Under Temperature	10348	—	1	Active on Alarm
Compressor Superheat Over Threshold 1	10349	—	1	Active on Alarm
Compressor Superheat Over Threshold 2	10350	—	1	Active on Alarm
Unspecified General Event	10351	—	1	Active on Alarm
Remote Sensor Average Over Temperature	10352	—	1	Active on Alarm
Remote Sensor Average Under Temperature	10353	—	1	Active on Alarm
Remote Sensor System Average Over Temperature	10354	—	1	Active on Alarm
Remote Sensor System Average Under Temperature	10355	—	1	Active on Alarm
Remote Sensor Over Temperature 1	10356	—	1	Active on Alarm
Remote Sensor Over Temperature 2	10357	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Remote Sensor Over Temperature 3	10358	—	1	Active on Alarm
Remote Sensor Over Temperature 4	10359	—	1	Active on Alarm
Remote Sensor Over Temperature 5	10360	—	1	Active on Alarm
Remote Sensor Over Temperature 6	10361	—	1	Active on Alarm
Remote Sensor Over Temperature 7	10362	—	1	Active on Alarm
Remote Sensor Over Temperature 8	10363	—	1	Active on Alarm
Remote Sensor Over Temperature 9	10364	—	1	Active on Alarm
Remote Sensor Over Temperature 10	10365	—	1	Active on Alarm
Remote Sensor Under Temperature 1	10366	—	1	Active on Alarm
Remote Sensor Under Temperature 2	10367	—	1	Active on Alarm
Remote Sensor Under Temperature 3	10368	—	1	Active on Alarm
Remote Sensor Under Temperature 4	10369	—	1	Active on Alarm
Remote Sensor Under Temperature 5	10370	—	1	Active on Alarm
Remote Sensor Under Temperature 6	10371	—	1	Active on Alarm
Remote Sensor Under Temperature 7	10372	—	1	Active on Alarm
Remote Sensor Under Temperature 8	10373	—	1	Active on Alarm
Remote Sensor Under Temperature 9	10374	—	1	Active on Alarm
Remote Sensor Under Temperature 10	10375	—	1	Active on Alarm
Remote Sensor Issue 1	10376	—	1	Active on Alarm
Remote Sensor Issue 2	10377	—	1	Active on Alarm
Remote Sensor Issue 3	10378	—	1	Active on Alarm
Remote Sensor Issue 4	10379	—	1	Active on Alarm
Remote Sensor Issue 5	10380	—	1	Active on Alarm
Remote Sensor Issue 6	10381	—	1	Active on Alarm
Remote Sensor Issue 7	10382	—	1	Active on Alarm
Remote Sensor Issue 8	10383	—	1	Active on Alarm
Remote Sensor Issue 9	10384	—	1	Active on Alarm
Remote Sensor Issue 10	10385	—	1	Active on Alarm
Air Economizer Emergency Override	10386	—	1	Active on Alarm
Air Economizer Reduced Airflow	10387	—	1	Active on Alarm
Temperature Control Sensor Issue	10388	—	1	Active on Alarm
EEV Unspecified General Event	10488	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Static Pressure Sensor Issue	10489	—	1	Active on Alarm
High Static Pressure	10490	—	1	Active on Alarm
Low Static Pressure	10491	—	1	Active on Alarm
Pump Unspecified General Event	10492	—	1	Active on Alarm
Condenser Unit Unspecified General Event	10493	—	1	Active on Alarm
Condenser Circuit Unspecified General Event	10494	—	1	Active on Alarm
Input Undervoltage 1	10500	—	1	Active on Alarm
Input Undervoltage 2	10501	—	1	Active on Alarm
Input Undervoltage 3	10502	—	1	Active on Alarm
Input Undervoltage 4	10503	—	1	Active on Alarm
Input Undervoltage 5	10504	—	1	Active on Alarm
Input Undervoltage 6	10505	—	1	Active on Alarm
Return Humidity Sensor Issue	10600	—	1	Active on Alarm
Compressor Low Differential Pressure Lockout 1	10601	—	1	Active on Alarm
Compressor Low Differential Pressure Lockout 2	10602	—	1	Active on Alarm
Airflow Sensor Issue	10603	—	1	Active on Alarm
Ext Air Damper Position Issue	10604	—	1	Active on Alarm
Ext Power Source A Failure	10605	—	1	Active on Alarm
Ext Power Source B Failure	10606	—	1	Active on Alarm
Static Pressure Sensor Out of Range	10607	—	1	Active on Alarm
Fluid Temperature Sensor Issue 1	10608	—	1	Active on Alarm
Fluid Temperature Sensor Issue 2	10609	—	1	Active on Alarm
Fluid Flow Sensor Issue 1	10610	—	1	Active on Alarm
Fluid Flow Sensor Issue 2	10611	—	1	Active on Alarm
Mixed Mode Lockout	10620	—	1	Active on Alarm
Aux Air Temp Device Communication Lost	10630	—	1	Active on Alarm
Modbus Power Meter Communication Lost 1	10640	—	1	Active on Alarm
Modbus Power Meter Communication Lost 2	10641	—	1	Active on Alarm
Modbus Power Meter Communication Lost 3	10642	—	1	Active on Alarm
Modbus Power Meter Communication Lost 4	10643	—	1	Active on Alarm
Modbus Power Meter Communication Lost 5	10644	—	1	Active on Alarm
Modbus Power Meter Communication Lost 6	10645	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
External Condenser TVSS Issue	10655	—	1	Active on Alarm
External Condenser VFD Issue	10656	—	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 1	10677	—	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 2	10678	—	1	Active on Alarm
Condenser Control Board Issue 1	10679	—	1	Active on Alarm
Condenser Control Board Issue 2	10680	—	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 1	10681	—	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 2	10682	—	1	Active on Alarm
Condenser Communication Lost 1	10683	—	1	Active on Alarm
Condenser Communication Lost 2	10684	—	1	Active on Alarm
Condenser Remote Shutdown 1	10685	—	1	Active on Alarm
Condenser Remote Shutdown 2	10686	—	1	Active on Alarm
Condenser TVSS Issue 1	10687	—	1	Active on Alarm
Condenser TVSS Issue 2	10688	—	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 1	10699	—	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 2	10700	—	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 1	10701	—	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 2	10702	—	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 1	10703	—	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 2	10704	—	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 1	10705	—	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 2	10706	—	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 1	10707	—	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 2	10708	—	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 1	10709	—	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 2	10710	—	1	Active on Alarm
Condenser Max Fan Speed Override 1	10711	—	1	Active on Alarm
Condenser Max Fan Speed Override 2	10712	—	1	Active on Alarm
Condenser Fan Issue 1	10723	—	1	Active on Alarm
Condenser Fan Issue 2	10724	—	1	Active on Alarm
Condenser Fan Issue 3	10725	—	1	Active on Alarm
Condenser Fan Issue 4	10726	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Condenser Fan Issue 5	10727	—	1	Active on Alarm
Condenser Fan Issue 6	10728	—	1	Active on Alarm
Condenser Fan Issue 7	10729	—	1	Active on Alarm
Condenser Fan Issue 8	10730	—	1	Active on Alarm
Supply NTC Air Sensor Issue	10790	—	1	Active on Alarm
External Air Sensor B Issue	10791	—	1	Active on Alarm
External Air Sensor C Issue	10792	—	1	Active on Alarm
External Air Sensor D Issue	10793	—	1	Active on Alarm
External Air Sensor E Issue	10794	—	1	Active on Alarm
Compressor Hours Exceeded 3	10800	—	1	Active on Alarm
Compressor Hours Exceeded 4	10801	—	1	Active on Alarm
Compressor High Head Pressure 3	10802	—	1	Active on Alarm
Compressor High Head Pressure 4	10803	—	1	Active on Alarm
Compressor Low Suction Pressure 3	10804	—	1	Active on Alarm
Compressor Low Suction Pressure 4	10805	—	1	Active on Alarm
Compressor Short Cycle 3	10806	—	1	Active on Alarm
Compressor Short Cycle 4	10807	—	1	Active on Alarm
Compressor Pump Down Issue 3	10808	—	1	Active on Alarm
Compressor Pump Down Issue 4	10809	—	1	Active on Alarm
Compressor Thermal Overload 3	10810	—	1	Active on Alarm
Compressor Thermal Overload 4	10811	—	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 3	10812	—	1	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue 4	10813	—	1	Active on Alarm
Dig Scroll Comp Over Temp 3	10814	—	1	Active on Alarm
Dig Scroll Comp Over Temp 4	10815	—	1	Active on Alarm
Compressor Low Pressure Transducer Issue 3	10816	—	1	Active on Alarm
Compressor Low Pressure Transducer Issue 4	10817	—	1	Active on Alarm
Compressor High Pressure Transducer Issue 3	10818	—	1	Active on Alarm
Compressor High Pressure Transducer Issue 4	10819	—	1	Active on Alarm
Compressor Superheat Over Threshold 3	10820	—	1	Active on Alarm
Compressor Superheat Over Threshold 4	10821	—	1	Active on Alarm
Compressor Low Differential Pressure Lockout 3	10822	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Compressor Low Differential Pressure Lockout 4	10823	—	1	Active on Alarm
Condenser TVSS Issue 3	10824	—	1	Active on Alarm
Condenser TVSS Issue 4	10825	—	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 3	10826	—	1	Active on Alarm
Condenser Outside Air Temp Out of Operating Range 4	10827	—	1	Active on Alarm
Condenser Control Board Issue 3	10828	—	1	Active on Alarm
Condenser Control Board Issue 4	10829	—	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 3	10830	—	1	Active on Alarm
Condenser Outside Air Temp Sensor Issue 4	10831	—	1	Active on Alarm
Condenser Communication Lost 3	10832	—	1	Active on Alarm
Condenser Communication Lost 4	10833	—	1	Active on Alarm
Condenser Remote Shutdown 3	10834	—	1	Active on Alarm
Condenser Remote Shutdown 4	10835	—	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 3	10836	—	1	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue 4	10837	—	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 3	10838	—	1	Active on Alarm
Condenser Refrigerant Pressure Under Threshold 4	10839	—	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 3	10840	—	1	Active on Alarm
Condenser Refrigerant Pressure Over Threshold 4	10841	—	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 3	10842	—	1	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue 4	10843	—	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 3	10844	—	1	Active on Alarm
Condenser Supply Refrigerant Under Temp 4	10845	—	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 3	10846	—	1	Active on Alarm
Condenser Supply Refrigerant Over Temp 4	10847	—	1	Active on Alarm
Condenser Max Fan Speed Override 3	10848	—	1	Active on Alarm
Condenser Max Fan Speed Override 4	10849	—	1	Active on Alarm
Condenser Fan Issue 9	10850	—	1	Active on Alarm
Condenser Fan Issue 10	10851	—	1	Active on Alarm
Condenser Fan Issue 11	10852	—	1	Active on Alarm
Condenser Fan Issue 12	10853	—	1	Active on Alarm
Condenser Fan Issue 13	10854	—	1	Active on Alarm

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Table 3.58 Liebert® Mini-Mate3 - Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Condenser Fan Issue 14	10855	—	1	Active on Alarm
Condenser Fan Issue 15	10856	—	1	Active on Alarm
Condenser Fan Issue 16	10857	—	1	Active on Alarm

Table 3.59 Liebert® Mini-Mate3 - Input and Holding

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Free Cooling Internal Control Mode	30017	40017	1	—	0 = Disabled 1 = Contact 2 = Temperature 3 = Set Point
Fan Speed Maximum Set Point	30019	40019	1	—	% Uint16
Free Cooling Internal Temperature Delta	30021	40021	1	10	deg C Uint16
Free Cooling Internal Temperature Delta	30734	40734	1	10	deg F Uint16
Minimum Chilled Water Temp Set Point	30022	40022	1	10	deg C Int16
Minimum Chilled Water Temp Set Point	30735	40735	1	10	deg F Int16
Air Temperature Set Point	30023	40023	1	10	deg C Int16
Air Temperature Set Point	30736	40736	1	10	deg F Int16
Air Temperature Proportional Band	30024	40024	1	10	deg C Uint16
Air Temperature Proportional Band	30737	40737	1	10	deg F Uint16
Air Temperature Dead Band	30025	40025	1	10	deg C Uint16
Air Temperature Dead Band	30738	40738	1	10	deg F Uint16
Air Temperature Control Integration Time	30026	40026	1	10	min Uint16
Humidity Set Point	30027	40027	1	—	% RH Uint16
Humidity Proportional Band	30028	40028	1	—	% RH Uint16
Humidity Control Integration Time	30029	40029	1	10	min Uint16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Humidity Dead Band	30030	40030	1	10	% RH Uint16
Auto Restart Delay	30031	40031	1	—	sec Uint16
Air Temperature Control Type	30033	40033	1	—	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID 3 = Intelligent
BMS Timeout Period	30045	40045	1	—	min Uint16
High Return Air Temperature Threshold	30050	40050	1	10	deg C Int16
High Return Air Temperature Threshold	30739	40739	1	10	deg F Int16
Low Return Air Temperature Threshold	30051	40051	1	10	deg C Int16
Low Return Air Temperature Threshold	30740	40740	1	10	deg F Int16
Ext Air Sensor A Over Temp Threshold	30052	40052	1	10	deg C Int16
Ext Air Sensor A Over Temp Threshold	30741	40741	1	10	deg F Int16
Ext Air Sensor A Under Temp Threshold	30053	40053	1	10	deg C Int16
Ext Air Sensor A Under Temp Threshold	30742	40742	1	10	deg F Int16
High Return Humidity Threshold	30054	40054	1	10	% RH Uint16
Low Return Humidity Threshold	30055	40055	1	10	% RH Uint16
Ext Air Sensor A High Humidity Threshold	30056	40056	1	10	% RH Uint16
Ext Air Sensor A Low Humidity Threshold	30057	40057	1	10	% RH Uint16
Fan Hours Threshold	30070	40070	2	—	hr Int32
Compressor Hours Threshold 1	30071	40071	2	—	hr Int32
Compressor Hours Threshold 2	30072	40072	2	—	hr Int32

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Humidifier Hours Threshold	30073	40073	2	—	hr Int32
Dehumidifier Hours Threshold	30074	40074	2	—	hr Int32
Free Cooling Valve Hours Threshold	30075	40075	2	—	hr Int32
Electric Reheater Hours Threshold 1	30076	40076	2	—	hr Int32
Electric Reheater Hours Threshold 2	30077	40077	2	—	hr Int32
Electric Reheater Hours Threshold 3	30078	40078	2	—	hr Int32
Hot Water / Hot Gas Valve Hours Threshold	30079	40079	2	—	hr Int32
Unit Operating State	30100	—	1	—	0 = off 1 = on 2 = standby
System Status	30102	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Fan Speed	30103	—	1	—	% Uint16
Free Cooling Valve Open Position	30105	—	1	—	% Uint16
Reheat Utilization	30106	—	1	—	% Uint16
Humidifier Utilization	30107	—	1	—	% Uint16
Dehumidifier Utilization	30108	—	1	—	% Uint16
(Deprecated) Free Cooling Status	30109	—	1	—	0 = off 2 = on 3 = No Support
Return Air Temperature	30110	—	1	10	deg C Int16
Return Air Temperature	30743	—	1	10	deg F Int16
Supply Air Temperature	30112	—	1	10	deg C Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Supply Air Temperature	30744	—	1	10	deg F Int16
Free Cooling Fluid Temperature	30115	—	1	10	deg C Int16
Free Cooling Fluid Temperature	30746	—	1	10	deg F Int16
Ext Air Sensor A Temperature	30116	—	1	10	deg C Int16
Ext Air Sensor A Temperature	30747	—	1	10	deg F Int16
Ext Air Sensor B Temperature	30117	—	1	10	deg C Int16
Ext Air Sensor B Temperature	30748	—	1	10	deg F Int16
Ext Air Sensor C Temperature	30118	—	1	10	deg C Int16
Ext Air Sensor C Temperature	30749	—	1	10	deg F Int16
Dig Scroll Comp Discharge Temp 1	30119	—	1	—	deg C Uint16
Dig Scroll Comp Discharge Temp 1	30750	—	1	—	deg F Uint16
Dig Scroll Comp Discharge Temp 2	30120	—	1	—	deg C Uint16
Dig Scroll Comp Discharge Temp 2	30751	—	1	—	deg F Uint16
Return Humidity	30130	—	1	10	% RH Uint16
Ext Air Sensor A Humidity	30132	—	1	10	% RH Uint16
Ext Air Sensor B Humidity	30133	—	1	10	% RH Uint16
Ext Air Sensor C Humidity	30134	—	1	10	% RH Uint16
Today's High Air Temperature	30151	—	1	10	deg C Int16
Today's High Air Temperature	30752	—	1	10	deg F Int16
Today's Low Air Temperature	30153	—	1	10	deg C Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Today's Low Air Temperature	30753	—	1	10	deg F Int16
Today's High Humidity	30155	—	1	10	% RH Uint16
Today's Low Humidity	30157	—	1	10	% RH Uint16
Server Class	30257	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Today's High Air Temperature Time	30258	—	2	—	Seconds since Midnight
Today's Low Air Temperature Time	30260	—	2	—	Seconds since Midnight
Today's High Humidity Time	30265	—	2	—	Seconds since Midnight
Today's Low Humidity Time	30267	—	2	—	Seconds since Midnight
Compressor State 1	30269	—	1	—	0 = off 1 = on
Compressor State 2	30270	—	1	—	0 = off 1 = on
Compressor Capacity Control State 1	30271	—	1	—	0 = off 1 = on
Compressor Capacity Control State 2	30272	—	1	—	0 = off 1 = on
Infrared Humidifier Flush Rate	30273	40273	1	—	% Uint16
Analog Input Reading 1	30275	—	1	100	Int16
Analog Input Reading 2	30276	—	1	100	Int16
Analog Input Reading 3	30277	—	1	100	Int16
Analog Input Reading 4	30278	—	1	100	Int16
Unit Control Mode	30280	—	1	-	0 = Internal (Auto) 1 = External (Manual)
Unit Operating State Reason	30281	—	1	—	0 = Reason Unknown 1 = Network Display 2 = Alarm 3 = Schedule 4 = Remote System 5 = External Input 6 = Local Display
Maintenance Ramp	30282	—	1	—	% Uint16
Calculated Next Maintenance Month	30283	—	1	—	Uint16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Calculated Next Maintenance Year	30284	—	1	—	Uint16
Hot Water / Hot Gas Valve Open Position	30285	—	1	—	% Uint16
Maintenance Tracking State	30286	—	1	—	0 = off 1 = on
Customer Input 1 - Event Control	30287	40287	1	—	0 = disabled 1 = enabled
Customer Input 1 - Event Type	30288	40288	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 2 - Event Control	30289	40289	1	—	0 = disabled 1 = enabled
Customer Input 2 - Event Type	30290	40290	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 3 - Event Control	30291	40291	1	—	0 = disabled 1 = enabled
Customer Input 3 - Event Type	30292	40292	1	—	0 = Message 1 = Warning 2 = Alarm
Customer Input 4 - Event Control	30293	40293	1	—	0 = disabled 1 = enabled
Customer Input 4 - Event Type	30294	40294	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Free Cooling Lockout - Event Control	30295	40295	1	—	0 = disabled 1 = enabled
Ext Free Cooling Lockout - Event Type	30296	40296	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Condenser Pump High Water - Event Control	30297	40297	1	—	0 = disabled 1 = enabled
Ext Condenser Pump High Water - Event Type	30298	40298	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Standby Glycol Pump On - Event Control	30299	40299	1	—	0 = disabled 1 = enabled
Ext Standby Glycol Pump On - Event Type	30300	40300	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Standby Unit On - Event Control	30301	40301	1	—	0 = disabled 1 = enabled

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Ext Standby Unit On - Event Type	30302	40302	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Humidifier Lockout - Event Control	30303	40303	1	—	0 = disabled 1 = enabled
Ext Humidifier Lockout - Event Type	30304	40304	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Flow - Event Control	30305	40305	1	—	0 = disabled 1 = enabled
Ext Loss of Flow - Event Type	30306	40306	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Over Temperature - Event Control	30307	40307	1	—	0 = disabled 1 = enabled
Ext Over Temperature - Event Type	30308	40308	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Reheat Lockout - Event Control	30309	40309	1	—	0 = disabled 1 = enabled
Ext Reheat Lockout - Event Type	30310	40310	1	—	0 = Message 1 = Warning 2 = Alarm
High Power Shutdown - Event Control	30311	40311	1	—	0 = disabled 1 = enabled
High Power Shutdown - Event Type	30312	40312	1	—	0 = Message 1 = Warning 2 = Alarm
Humidifier Issue - Event Control	30313	40313	1	—	0 = disabled 1 = enabled
Humidifier Issue - Event Type	30314	40314	1	—	0 = Message 1 = Warning 2 = Alarm
Master Unit Communication Lost - Event Control	30315	40315	1	—	0 = disabled 1 = enabled
Master Unit Communication Lost - Event Type	30316	40316	1	—	0 = Message 1 = Warning 2 = Alarm
Service Required - Event Control	30317	40317	1	—	0 = disabled 1 = enabled
Service Required - Event Type	30318	40318	1	—	0 = Message 1 = Warning 2 = Alarm

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Shutdown - Loss Of Power - Event Control	30319	40319	1	—	0 = disabled 1 = enabled
Shutdown - Loss Of Power - Event Type	30320	40320	1	—	0 = Message 1 = Warning 2 = Alarm
Smoke Detected - Event Control	30321	40321	1	—	0 = disabled 1 = enabled
Smoke Detected - Event Type	30322	40322	1	—	0 = Message 1 = Warning 2 = Alarm
Water Under Floor - Event Control	30323	40323	1	—	0 = disabled 1 = enabled
Water Under Floor - Event Type	30324	40324	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Compressor Lockout - Event Control	30325	40325	1	—	0 = disabled 1 = enabled
Ext Compressor Lockout - Event Type	30326	40326	1	—	0 = Message 1 = Warning 2 = Alarm
Clogged Air Filter - Event Control	30327	40327	1	—	0 = disabled 1 = enabled
Clogged Air Filter - Event Type	30328	40328	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Air Blower - Event Control	30329	40329	1	—	0 = disabled 1 = enabled
Ext Loss of Air Blower - Event Type	30330	40330	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor High Head Pressure - Event Control 1	30331	40331	1	—	0 = disabled 1 = enabled
Compressor High Head Pressure - Event Control 2	30332	40332	1	—	0 = disabled 1 = enabled
Compressor High Head Pressure - Event Type 1	30333	40333	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor High Head Pressure - Event Type 2	30334	40334	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Low Suction Pressure - Event Control 1	30335	40335	1	—	0 = disabled 1 = enabled

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Compressor Low Suction Pressure - Event Control 2	30336	40336	1	—	0 = disabled 1 = enabled
Compressor Low Suction Pressure - Event Type 1	30337	40337	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Low Suction Pressure - Event Type 2	30338	40338	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Pump Down Issue - Event Control 1	30339	40339	1	—	0 = disabled 1 = enabled
Compressor Pump Down Issue - Event Control 2	30340	40340	1	—	0 = disabled 1 = enabled
Compressor Pump Down Issue - Event Type 1	30341	40341	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Pump Down Issue - Event Type 2	30342	40342	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Short Cycle - Event Control 1	30343	40343	1	—	0 = disabled 1 = enabled
Compressor Short Cycle - Event Control 2	30344	40344	1	—	0 = disabled 1 = enabled
Compressor Short Cycle - Event Type 1	30345	40345	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Short Cycle - Event Type 2	30346	40346	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Thermal Overload - Event Control 1	30347	40347	1	—	0 = disabled 1 = enabled
Compressor Thermal Overload - Event Control 2	30348	40348	1	—	0 = disabled 1 = enabled
Compressor Thermal Overload - Event Type 1	30349	40349	1	—	0 = Message 1 = Warning 2 = Alarm
Compressor Thermal Overload - Event Type 2	30350	40350	1	—	0 = Message 1 = Warning 2 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Ctrl 1	30351	40351	1	—	0 = disabled 1 = enabled
Dig Scroll Comp Discharge Over Temp - Event Ctrl 2	30352	40352	1	—	0 = disabled 1 = enabled

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Dig Scroll Comp Discharge Over Temp - Event Type 1	30353	40353	1	—	0 = Message 1 = Warning 2 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Type 2	30354	40354	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A High Humidity - Event Control	30355	40355	1	—	0 = disabled 1 = enabled
Ext Air Sensor A High Humidity - Event Type	30356	40356	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Low Humidity - Event Control	30357	40357	1	—	0 = disabled 1 = enabled
Ext Air Sensor A Low Humidity - Event Type	30358	40358	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Over Temp - Event Control	30359	40359	1	—	0 = disabled 1 = enabled
Ext Air Sensor A Over Temp - Event Type	30360	40360	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Under Temp - Event Control	30361	40361	1	—	0 = disabled 1 = enabled
Ext Air Sensor A Under Temp - Event Type	30362	40362	1	—	0 = Message 1 = Warning 2 = Alarm
High Return Humidity - Event Control	30363	40363	1	—	0 = disabled 1 = enabled
High Return Humidity - Event Type	30364	40364	1	—	0 = Message 1 = Warning 2 = Alarm
Low Return Humidity - Event Control	30365	40365	1	—	0 = disabled 1 = enabled
Low Return Humidity - Event Type	30366	40366	1	—	0 = Message 1 = Warning 2 = Alarm
Return Air Over Temp - Event Control	30367	40367	1	—	0 = disabled 1 = enabled
Return Air Over Temp - Event Type	30368	40368	1	—	0 = Message 1 = Warning 2 = Alarm
Return Air Under Temp - Event Control	30369	40369	1	—	0 = disabled 1 = enabled

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Return Air Under Temp - Event Type	30370	40370	1	—	0 = Message 1 = Warning 2 = Alarm
Fan Hours Exceeded - Event Control	30371	40371	1	—	0 = disabled 1 = enabled
Fan Hours Exceeded - Event Type	30372	40372	1	—	0 = Message 1 = Warning 2 = Alarm
Main Fan Overload - Event Control	30375	40375	1	—	0 = disabled 1 = enabled
Main Fan Overload - Event Type	30376	40376	1	—	0 = Message 1 = Warning 2 = Alarm
Condenser Issue - Event Control 1	30377	40377	1	—	0 = disabled 1 = enabled
Condenser Issue - Event Control 2	30378	40378	1	—	0 = disabled 1 = enabled
Condenser Issue - Event Type 1	30379	40379	1	—	0 = Message 1 = Warning 2 = Alarm
Condenser Issue - Event Type 2	30380	40380	1	—	0 = Message 1 = Warning 2 = Alarm
System Event Acknowledge/Reset	-	40381	1	—	2 = Reset 4 = Acknowledge
Air Temperature Control Sensor	30481	40481	1	—	0 = Supply 1 = Remote 2 = Return
High Supply Air Temperature Threshold	30482	40482	1	10	deg C Int16
High Supply Air Temperature Threshold	30755	40755	1	10	deg F Int16
Low Supply Air Temperature Threshold	30483	40483	1	10	deg C Int16
Low Supply Air Temperature Threshold	30756	40756	1	10	deg F Int16
Outside Air Temperature	30484	—	1	10	deg C Int16
Outside Air Temperature	30757	—	1	10	deg F Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Humidity Control Type	30485	40485	1	—	0 = Relative 1 = Compensated 2 = Predictive 3 = Dew Point
Ext Air Sensor A Dew Point Temp	30486	—	1	10	deg C Int16
Ext Air Sensor A Dew Point Temp	30758	—	1	10	deg F Int16
Ext Dew Point Over Temp Threshold	30487	40487	1	10	deg C Int16
Ext Dew Point Over Temp Threshold	30759	40759	1	10	deg F Int16
Ext Dew Point Under Temp Threshold	30488	40488	1	10	deg C Int16
Ext Dew Point Under Temp Threshold	30760	40760	1	10	deg F Int16
Compressor Lockout	30489	40489	1	—	0 = disabled 1 = enabled
Main Chilled Water Valve	30491	40491	1	—	0 = Valve 1 1 = Valve 2
Reheater Lockout	30492	40492	1	—	0 = disabled 1 = enabled
Humidifier Lockout	30493	40493	1	—	0 = disabled 1 = enabled
Fan Control Sensor	30494	40494	1	—	0 = Supply 1 = Remote 2 = Return 3 = Manual
Fan Speed Minimum Set Point	30495	40495	1	—	% Uint16
Fan Speed Temperature Set Point	30497	40497	1	10	deg C Int16
Fan Speed Temperature Set Point	30761	40761	1	10	deg F Int16
Standby Units	30498	40498	1	—	Uint16
Adjusted Humidity	30499	—	1	10	% RH Uint16
Return Dew Point	30500	—	1	10	deg C Int16
Return Dew Point	30762	—	1	10	deg F Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Actual Air Temperature Set Point	30501	—	1	10	deg C Int16
Actual Air Temperature Set Point	30763	—	1	10	deg F Int16
Actual Humidity Set Point	30502	—	1	—	% RH Uint16
Dew Point Set Point	30503	40503	1	10	deg C Int16
Dew Point Set Point	30764	40764	1	10	deg F Int16
Supply Air Over/Under Temperature - Event Control	30504	40504	1	—	0 = disabled 1 = enabled
Remote Sensor Over Temp Threshold	30505	40505	1	10	deg C Int16
Remote Sensor Over Temp Threshold	30765	40765	1	10	deg F Int16
Remote Sensor Under Temp Threshold	30506	40506	1	10	deg C Int16
Remote Sensor Under Temp Threshold	30766	40766	1	10	deg F Int16
Remote Sensor Average Temperature	30507	—	1	10	deg C Int16
Remote Sensor Average Temperature	30767	—	1	10	deg F Int16
Remote Sensor Maximum Temperature	30508	—	1	10	deg C Int16
Remote Sensor Maximum Temperature	30768	—	1	10	deg F Int16
Remote Sensor System Average Temperature	30509	—	1	10	deg C Int16
Remote Sensor System Average Temperature	30769	—	1	10	deg F Int16
Remote Sensor System Maximum Temperature	30510	—	1	10	deg C Int16
Remote Sensor System Maximum Temperature	30770	—	1	10	deg F Int16
Remote Sensor Temperature 1	30551	—	1	10	deg C Int16
Remote Sensor Temperature 1	30771	—	1	10	deg F Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Remote Sensor Temperature 2	30552	—	1	10	deg C Int16
Remote Sensor Temperature 2	30772	—	1	10	deg F Int16
Remote Sensor Temperature 3	30553	—	1	10	deg C Int16
Remote Sensor Temperature 3	30773	—	1	10	deg F Int16
Remote Sensor Temperature 4	30554	—	1	10	deg C Int16
Remote Sensor Temperature 4	30774	—	1	10	deg F Int16
Remote Sensor Temperature 5	30555	—	1	10	deg C Int16
Remote Sensor Temperature 5	30775	—	1	10	deg F Int16
Remote Sensor Temperature 6	30556	—	1	10	deg C Int16
Remote Sensor Temperature 6	30776	—	1	10	deg F Int16
Remote Sensor Temperature 7	30557	—	1	10	deg C Int16
Remote Sensor Temperature 7	30777	—	1	10	deg F Int16
Remote Sensor Temperature 8	30558	—	1	10	deg C Int16
Remote Sensor Temperature 8	30778	—	1	10	deg F Int16
Remote Sensor Temperature 9	30559	—	1	10	deg C Int16
Remote Sensor Temperature 9	30779	—	1	10	deg F Int16
Remote Sensor Temperature 10	30560	—	1	10	deg C Int16
Remote Sensor Temperature 10	30780	—	1	10	deg F Int16
Air Economizer Availability	30561	—	1	—	0 = Not Available 1 = Available
Air Economizer Control Source	30562	40562	1	—	0 = disabled 1 = internal 2 = external

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Cooling Capacity	30564	—	1	—	% Uint16
Cooling Control Temperature	30565	—	1	10	deg C Int16
Cooling Control Temperature	30781	—	1	10	deg F Int16
Fan Speed Control Temperature	30566	—	1	10	deg C Int16
Fan Speed Control Temperature	30782	—	1	10	deg F Int16
Free Cooling Internal Control Mode	30567	40567	1	—	0 = Disabled 1 = Contact 2 = Temperature 3 = Set Point
Humidity Control Sensor	30667	40667	1	—	1 = Remote 2 = Return
Digital Scroll Compressor Loading 1	30668	—	1	—	% Uint16
Digital Scroll Compressor Loading 2	30669	—	1	—	% Uint16
Static Pressure Set Point	30672	40672	1	10	Pa Int16
Unit Static Pressure	30673	—	1	10	Pa Int16
System Static Pressure	30674	—	1	10	Pa Int16
Condenser Low Noise Mode State	30675	—	1	—	0 = Inactive 1 = Active (Interval) 2 = Active (Full Day)
Condenser Low Noise Mode Schedule Control	30676	40676	1	—	0 = disabled 1 = enabled
Condenser Low Noise Mode Max Fan Speed	30677	40677	1	—	% Uint16
Condenser Normal Mode Max Fan Speed	30678	40678	1	—	% Uint16
Condenser Low Noise Mode - Interval Days	30679	40679	1	—	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Condenser Low Noise Mode - Full Days	30680	40680	1	—	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode Start Time	30681	40681	2	—	Seconds since Midnight
Condenser Low Noise Mode Stop Time	30683	40683	2	—	Seconds since Midnight
Pump Hours 1	30685	40685	2	—	hr Uint32
Pump Hours 2	30687	40687	2	—	hr Uint32
System Input RMS A-N 1	30800	—	1	10	VAC Int16
System Input RMS A-N 2	30801	—	1	10	VAC Int16
System Input RMS A-N 3	30802	—	1	10	VAC Int16
System Input RMS A-N 4	30803	—	1	10	VAC Int16
System Input RMS A-N 5	30804	—	1	10	VAC Int16
System Input RMS A-N 6	30805	—	1	10	VAC Int16
System Input RMS B-N 1	30810	—	1	10	VAC Int16
System Input RMS B-N 2	30811	—	1	10	VAC Int16
System Input RMS B-N 3	30812	—	1	10	VAC Int16
System Input RMS B-N 4	30813	—	1	10	VAC Int16
System Input RMS B-N 5	30814	—	1	10	VAC Int16
System Input RMS B-N 6	30815	—	1	10	VAC Int16
System Input RMS C-N 1	30820	—	1	10	VAC Int16
System Input RMS C-N 2	30821	—	1	10	VAC Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
System Input RMS C-N 3	30822	—	1	10	VAC Int16
System Input RMS C-N 4	30823	—	1	10	VAC Int16
System Input RMS C-N 5	30824	—	1	10	VAC Int16
System Input RMS C-N 6	30825	—	1	10	VAC Int16
System Input RMS Current Phase A 1	30830	—	1	10	A AC Int16
System Input RMS Current Phase A 2	30831	—	1	10	A AC Int16
System Input RMS Current Phase A 3	30832	—	1	10	A AC Int16
System Input RMS Current Phase A 4	30833	—	1	10	A AC Int16
System Input RMS Current Phase A 5	30834	—	1	10	A AC Int16
System Input RMS Current Phase A 6	30835	—	1	10	A AC Int16
System Input RMS Current Phase B 1	30840	—	1	10	A AC Int16
System Input RMS Current Phase B 2	30841	—	1	10	A AC Int16
System Input RMS Current Phase B 3	30842	—	1	10	A AC Int16
System Input RMS Current Phase B 4	30843	—	1	10	A AC Int16
System Input RMS Current Phase B 5	30844	—	1	10	A AC Int16
System Input RMS Current Phase B 6	30845	—	1	10	A AC Int16
System Input RMS Current Phase C 1	30850	—	1	10	A AC Int16
System Input RMS Current Phase C 2	30851	—	1	10	A AC Int16
System Input RMS Current Phase C 3	30852	—	1	10	A AC Int16
System Input RMS Current Phase C 4	30853	—	1	10	A AC Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
System Input RMS Current Phase C 5	30854	—	1	10	A AC Int16
System Input RMS Current Phase C 6	30855	—	1	10	A AC Int16
Energy Consumption 1	30870	40870	2	—	kWH Int32
Energy Consumption 2	30872	40872	2	—	kWH Int32
Energy Consumption 3	30874	40874	2	—	kWH Int32
Energy Consumption 4	30876	40876	2	—	kWH Int32
Energy Consumption 5	30878	40878	2	—	kWH Int32
Energy Consumption 6	30880	40880	2	—	kWH Int32
Fluid Input Temperature 1	30900	—	1	10	deg C Int16
Fluid Input Temperature 2	30901	—	1	10	deg C Int16
Fluid Input Temperature 1	30902	—	1	10	deg F Int16
Fluid Input Temperature 2	30903	—	1	10	deg F Int16
Fluid Output Temperature 1	30904	—	1	10	deg C Int16
Fluid Output Temperature 2	30905	—	1	10	deg C Int16
Fluid Output Temperature 1	30906	—	1	10	deg F Int16
Fluid Output Temperature 2	30907	—	1	10	deg F Int16
Fluid Flow Rate 1	30908	—	2	10	l/min Int32
Fluid Flow Rate 2	30910	—	2	10	l/min Int32
Unit Cooling Load	31001	—	2	10	kW Int32
Circuit Cooling Load 1	31003	—	2	10	kW Int32

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Circuit Cooling Load 2	31005	—	2	10	kW Int32
Instantaneous Power 1	31010	—	2	—	W Int32
Instantaneous Power 2	31012	—	2	—	W Int32
Instantaneous Power 3	31014	—	2	—	W Int32
Instantaneous Power 4	31016	—	2	—	W Int32
Instantaneous Power 5	31018	—	2	—	W Int32
Instantaneous Power 6	31020	—	2	—	W Int32
Raw Auxiliary Air Temperature	31050	41050	1	10	deg C Int16
Raw Auxiliary Air Temperature	31051	41051	1	10	deg F Int16
Actual Auxiliary Air Temperature	31052	—	1	10	deg C Int16
Actual Auxiliary Air Temperature	31053	—	1	10	deg F Int16
System Input RMS A-B 1	31060	—	1	10	VAC Int16
System Input RMS A-B 2	31061	—	1	10	VAC Int16
System Input RMS A-B 3	31062	—	1	10	VAC Int16
System Input RMS A-B 4	31063	—	1	10	VAC Int16
System Input RMS A-B 5	31064	—	1	10	VAC Int16
System Input RMS A-B 6	31065	—	1	10	VAC Int16
System Input RMS B-C 1	31070	—	1	10	VAC Int16
System Input RMS B-C 2	31071	—	1	10	VAC Int16
System Input RMS B-C 3	31072	—	1	10	VAC Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
System Input RMS B-C 4	31073	—	1	10	VAC Int16
System Input RMS B-C 5	31074	—	1	10	VAC Int16
System Input RMS B-C 6	31075	—	1	10	VAC Int16
System Input RMS C-A 1	31080	—	1	10	VAC Int16
System Input RMS C-A 2	31081	—	1	10	VAC Int16
System Input RMS C-A 3	31082	—	1	10	VAC Int16
System Input RMS C-A 4	31083	—	1	10	VAC Int16
System Input RMS C-A 5	31084	—	1	10	VAC Int16
System Input RMS C-A 6	31085	—	1	10	VAC Int16
Pump State 1	31100	—	1	—	0 = off 1 = on
Pump State 2	31110	—	1	—	0 = off 1 = on
Expected Condenser Unit Count	31130	—	1	—	Int16
Condenser Refrigerant Type	31131	—	1	—	0 = R22 1 = R407C 2 = R410A
Condenser Fan Reversal Requested 1	31142	—	1	—	0 = false 1 = true
Condenser Fan Reversal Requested 2	31143	—	1	—	0 = false 1 = true
Condenser Outside Air Temperature 1	31144	—	1	10	deg C Int16
Condenser Outside Air Temperature 1	31145	—	1	10	deg F Int16
Condenser Outside Air Temperature 2	31146	—	1	10	deg C Int16
Condenser Outside Air Temperature 2	31147	—	1	10	deg F Int16
Condenser Refrigerant Pressure 1	31158	—	1	10	bar Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Condenser Refrigerant Pressure 2	31159	—	1	10	bar Int16
Condenser Supply Refrigerant Temperature 1	31160	—	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 1	31161	—	1	10	deg F Int16
Condenser Supply Refrigerant Temperature 2	31162	—	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 2	31163	—	1	10	deg F Int16
Condenser Fan Speed 1	31174	—	1	—	% Int16
Condenser Fan Speed 2	31175	—	1	—	% Int16
Condenser Fan Speed 3	31176	—	1	—	% Int16
Condenser Fan Speed 4	31177	—	1	—	% Int16
Condenser Fan Speed 5	31178	—	1	—	% Int16
Condenser Fan Speed 6	31179	—	1	—	% Int16
Condenser Fan Speed 7	31180	—	1	—	% Int16
Condenser Fan Speed 8	31181	—	1	—	% Int16
Condenser Fan Power 1	31182	—	1	—	W Int16
Condenser Fan Power 2	31183	—	1	—	W Int16
Condenser Fan Power 3	31184	—	1	—	W Int16
Condenser Fan Power 4	31185	—	1	—	W Int16
Condenser Fan Power 5	31186	—	1	—	W Int16
Condenser Fan Power 6	31187	—	1	—	W Int16
Condenser Fan Power 7	31188	—	1	—	W Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Condenser Fan Power 8	31189	—	1	—	W Int16
Local Fan Override	31300	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Cooling Override	31301	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Electric Heat Override	31302	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Humidifier Override	31303	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Dehumidifier Override	31304	—	1	—	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Super Saver Call For Cooling	31320	—	1	—	% Int16
Tandem 'B' Compressor State 1	31325	—	1	—	0 = off 1 = on
Tandem 'B' Compressor State 2	31326	—	1	—	0 = off 1 = on
Tandem 'B' Compressor Hours 1	31327	41327	2	—	hr Int32
Tandem 'B' Compressor Hours 2	31329	41329	2	—	hr Int32
Condenser Fan Current 1	31331	—	1	10	A AC Uint16
Condenser Fan Current 2	31332	—	1	10	A AC Uint16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Condenser Fan Current 3	31333	—	1	10	A AC Uint16
Condenser Fan Current 4	31334	—	1	10	A AC Uint16
Condenser Fan Current 5	31335	—	1	10	A AC Uint16
Condenser Fan Current 6	31336	—	1	10	A AC Uint16
Condenser Fan Current 7	31337	—	1	10	A AC Uint16
Condenser Fan Current 8	31338	—	1	10	A AC Uint16
Compressor Hours 1	31340	41340	2	—	hr Int32
Compressor Hours 2	31342	41342	2	—	hr Int32
Chilled Water Valve Hours	31344	41344	2	—	hr Int32
Free Cooling Valve Hours	31346	41346	2	—	hr Int32
Hot Water / Hot Gas Valve Hours	31348	41348	2	—	hr Int32
Electric Reheater Hours 1	31350	41350	2	—	hr Int32
Electric Reheater Hours 2	31352	41352	2	—	hr Int32
Electric Reheater Hours 3	31354	41354	2	—	hr Int32
Humidifier Hours	31356	41356	2	—	hr Int32
Dehumidifier Hours	31358	41358	2	—	hr Int32
Fan Hours	31360	41360	2	—	hr Int32
Chilled Water Valve Hours	30563	40563	2	—	hr Int32
Fan Hours	30141	40141	2	—	hr Int32
Compressor Hours 1	30142	40142	2	—	hr Int32

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Compressor Hours 2	30143	40143	2	—	hr Int32
Humidifier Hours	30144	40144	2	—	hr Int32
Dehumidifier Hours	30145	40145	2	—	hr Int32
Free Cooling Valve Hours	30146	40146	2	—	hr Int32
Electric Reheater Hours 1	30147	40147	2	—	hr Int32
Electric Reheater Hours 2	30148	40148	2	—	hr Int32
Electric Reheater Hours 3	30149	40149	2	—	hr Int32
Hot Water / Hot Gas Valve Hours	30150	40150	2	—	hr Int32
Static Pressure Set Point	31370	41370	1	1000	inWC Int16
Unit Static Pressure	31371	—	1	1000	inWC Int16
System Static Pressure	31372	—	1	1000	inWC Int16
Dew Point Proportional Band	31380	41380	1	10	deg C Int16
Dew Point Proportional Band	31382	41382	1	10	deg F Int16
Dew Point Dead Band	31384	41384	1	10	deg C Int16
Dew Point Dead Band	31386	41386	1	10	deg F Int16
Free Cooling Status	30109	—	1	—	0 = off 1 = start 2 = on
Thermal Control Override	31390	41390	1	—	0 = disabled 1 = enabled
Thermal Control Override - Temperature Control Type	31391	41391	1	—	0 = Cooling 1 = Heating
Thermal Control Override - Temperature Call	31392	41392	1	—	% Int16
Thermal Control Override - Humidity Control Type	31393	41393	1	—	0 = Dehumidification 1 = Humidification

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Thermal Control Override - Humidity Call	31394	41394	1	—	% Int16
Compressor Hours Threshold 1	31430	41430	2	—	hr Int32
Compressor Hours Threshold 2	31432	41432	2	—	hr Int32
Free Cooling Valve Hours Threshold	31434	41434	2	—	hr Int32
Hot Water / Hot Gas Valve Hours Threshold	31436	41436	2	—	hr Int32
Electric Reheater Hours Threshold 1	31438	41438	2	—	hr Int32
Electric Reheater Hours Threshold 2	31440	41440	2	—	hr Int32
Electric Reheater Hours Threshold 3	31442	41442	2	—	hr Int32
Humidifier Hours Threshold	31444	41444	2	—	hr Int32
Dehumidifier Hours Threshold	31446	41446	2	—	hr Int32
Fan Hours Threshold	31448	41448	2	—	hr Int32
Chilled Water Valve Operating Hours Threshold	31450	41450	2	—	hr Int32
Pump Speed 1	31452	—	1	—	% Uint16
Pump Speed 2	31453	—	1	—	% Uint16
Pump Inlet Refrigerant Temperature 1	31454	—	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 1	31461	—	1	10	deg F Int16
Pump Inlet Refrigerant Temperature 2	31455	—	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 2	31462	—	1	10	deg F Int16
Pump Outlet Refrigerant Temperature 1	31456	—	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 1	31463	—	1	10	deg F Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Pump Outlet Refrigerant Temperature 2	31457	—	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 2	31464	—	1	10	deg F Int16
Pump Hours Threshold	31458	41458	2	—	hr Int32
Unit Calculated Airflow	31466	—	2	—	m3/h Uint32
PRE Operational Mode 1	31468	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
PRE Operational Mode 2	31469	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
Compressor State 3	31470	—	1	—	0 = off 1 = on
Compressor State 4	31471	—	1	—	0 = off 1 = on
Compressor Capacity Control State 3	31472	—	1	—	0 = off 1 = on
Compressor Capacity Control State 4	31473	—	1	—	0 = off 1 = on
Dig Scroll Comp Discharge Temp 3	31474	—	1	—	deg C Uint16
Dig Scroll Comp Discharge Temp 3	31475	—	1	—	deg F Uint16
Dig Scroll Comp Discharge Temp 4	31476	—	1	—	deg C Uint16
Dig Scroll Comp Discharge Temp 4	31477	—	1	—	deg F Uint16
Digital Scroll Compressor Loading 3	31478	—	1	—	% Uint16
Digital Scroll Compressor Loading 4	31479	—	1	—	% Uint16
Compressor Hours 3	31480	41480	2	—	hr Int32
Compressor Hours 4	31482	41482	2	—	hr Int32

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Tandem 'B' Compressor State 3	31484	—	1	—	0 = off 1 = on
Tandem 'B' Compressor State 4	31485	—	1	—	0 = off 1 = on
Tandem 'B' Compressor Hours 3	31486	41486	2	—	hr Int32
Tandem 'B' Compressor Hours 4	31488	41488	2	—	hr Int32
Compressor Hours Threshold 3	31490	41490	2	—	hr Int32
Compressor Hours Threshold 4	31492	41492	2	—	hr Int32
Pump Hours 3	31494	41494	2	—	hr Uint32
Pump Hours 4	31496	41496	2	—	hr Uint32
Pump State 3	31498	—	1	—	0 = off 1 = on
Pump State 4	31499	—	1	—	0 = off 1 = on
PRE Operational Mode 3	31500	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
PRE Operational Mode 4	31501	—	1	—	0 = Bootup 1 = Idle 2 = Manual 3 = Pump Automatic 4 = Test
Pump Speed 3	31502	—	1	—	% Uint16
Pump Speed 4	31503	—	1	—	% Uint16
Pump Inlet Refrigerant Temperature 3	31504	—	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 3	31505	—	1	10	deg F Int16
Pump Inlet Refrigerant Temperature 4	31506	—	1	10	deg C Int16
Pump Inlet Refrigerant Temperature 4	31507	—	1	10	deg F Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Pump Outlet Refrigerant Temperature 3	31508	—	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 3	31509	—	1	10	deg F Int16
Pump Outlet Refrigerant Temperature 4	31510	—	1	10	deg C Int16
Pump Outlet Refrigerant Temperature 4	31511	—	1	10	deg F Int16
Condenser Outside Air Temperature 3	31512	—	1	10	deg C Int16
Condenser Outside Air Temperature 3	31513	—	1	10	deg F Int16
Condenser Outside Air Temperature 4	31514	—	1	10	deg C Int16
Condenser Outside Air Temperature 4	31515	—	1	10	deg F Int16
Condenser Fan Reversal Requested 3	31516	—	1	—	0 = false 1 = true
Condenser Fan Reversal Requested 4	31517	—	1	—	0 = false 1 = true
Condenser Refrigerant Pressure 3	31518	—	1	10	bar Int16
Condenser Refrigerant Pressure 4	31519	—	1	10	bar Int16
Condenser Supply Refrigerant Temperature 3	31520	—	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 3	31521	—	1	10	deg F Int16
Condenser Supply Refrigerant Temperature 4	31522	—	1	10	deg C Int16
Condenser Supply Refrigerant Temperature 4	31523	—	1	10	deg F Int16
Condenser Fan Speed 9	31524	—	1	—	% Int16
Condenser Fan Speed 10	31525	—	1	—	% Int16
Condenser Fan Speed 11	31526	—	1	—	% Int16
Condenser Fan Speed 12	31527	—	1	—	% Int16

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Table 3.59 Liebert® Mini-Mate3 - Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Condenser Fan Speed 13	31528	—	1	—	% Int16
Condenser Fan Speed 14	31529	—	1	—	% Int16
Condenser Fan Speed 15	31530	—	1	—	% Int16
Condenser Fan Speed 16	31531	—	1	—	% Int16
Condenser Fan Power 9	31532	—	1	—	W Int16
Condenser Fan Power 10	31533	—	1	—	W Int16
Condenser Fan Power 11	31534	—	1	—	W Int16
Condenser Fan Power 12	31535	—	1	—	W Int16
Condenser Fan Power 13	31536	—	1	—	W Int16
Condenser Fan Power 14	31537	—	1	—	W Int16
Condenser Fan Power 15	31538	—	1	—	W Int16
Condenser Fan Power 16	31539	—	1	—	W Int16
Condenser Fan Current 9	31540	—	1	10	A AC Uint16
Condenser Fan Current 10	31541	—	1	10	A AC Uint16
Condenser Fan Current 11	31542	—	1	10	A AC Uint16
Condenser Fan Current 12	31543	—	1	10	A AC Uint16
Condenser Fan Current 13	31544	—	1	10	A AC Uint16
Condenser Fan Current 14	31545	—	1	10	A AC Uint16
Condenser Fan Current 15	31546	—	1	10	A AC Uint16
Condenser Fan Current 16	31547	—	1	10	A AC Uint16
System Date and Time	39998	49998	2	—	Secs since Epoch (UTC)

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Table 3.60 Liebert® Mini-Mate3 – Glossary

Data Label	Data Description
(Deprecated) Free Cooling Status	(Deprecated) Free cooling status.
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Air Economizer Availability	Indicates if the outside air conditions are appropriate for cooling with the air economizer or glycol freecooling.
Air Economizer Control Source	Source of control of the air economizer.
Air Economizer Emergency Override	Indoor room temperature has exceeded its upper threshold and the outdoor air damper has been opened for emergency cooling.
Air Economizer Reduced Airflow	Air economizer filter is dirty and needs to be cleaned or replaced.
Air Temperature Control Integration Time	Time value used when system is under integral air temperature control.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Control Type	Type of algorithm used to control the system's output air temperature.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Operating Hours Threshold	Operating hours threshold for the chilled water valve. When the number of operating hours reaches this threshold, an event is generated.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor High Head Pressure - Event Control	Enable/disable the activation of the [Compressor High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor High Head Pressure - Event Type	The event type for the [Compressor High Head Pressure] event.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor High Pressure Transducer Issue	Compressor high pressure transducer is disconnected or the signal is out of range.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Lockout	Enable/disable the use of the compressor.
Compressor Low Differential Pressure Lockout	Compressor exceeded maximum startup attempts due to low differential pressure. Compressor is shutdown and has been disabled.
Compressor Low Pressure Transducer Issue	Compressor low pressure transducer is disconnected or the signal is out of range.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Compressor Low Suction Pressure - Event Control	Enable/disable the activation of the [Compressor Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Low Suction Pressure - Event Type	The event type for the [Compressor Low Suction Pressure] event.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Pump Down Issue - Event Control	Enable/disable the activation of the [Compressor Pump Down Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Pump Down Issue - Event Type	The event type for the [Compressor Pump Down Issue] event.
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Compressor Short Cycle - Event Control	Enable/disable the activation of the [Compressor Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Short Cycle - Event Type	The event type for the [Compressor Short Cycle] event.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor State	Compressor operational state.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload - Event Control	Enable/disable the activation of the [Compressor Thermal Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Thermal Overload - Event Type	The event type for the [Compressor Thermal Overload] event.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Communication Lost	Communication with condenser unit has been lost.
Condenser Control Board Issue	The condenser control board is reporting an issue.
Condenser Fan Current	Condenser fan's measured input current.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Reversal Requested	Request the condenser fans to rotate in the reverse direction.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Condenser Issue - Event Control	Enable/disable the activation of the [Condenser Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser Issue - Event Type	The event type for the [Condenser Issue] event.
Condenser Issue	Condenser is not operating within its operational parameters.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.
Condenser Outside Air Temp Out of Operating Range	[Condenser Outside Air Temperature] is either above an upper threshold or below a lower threshold.
Condenser Outside Air Temp Sensor Issue	Condenser outside air temperature sensor is disconnected or the signal is out of range.
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Pressure Over Threshold	Condenser refrigerant pressure has exceeded a threshold.
Condenser Refrigerant Pressure Sensor Issue	Condenser refrigerant pressure sensor is disconnected or the signal is out of range.
Condenser Refrigerant Pressure Under Threshold	Condenser refrigerant pressure has dropped below a threshold.
Condenser Refrigerant Pressure	Pressure of the refrigerant in a condenser circuit.
Condenser Refrigerant Type	Condenser refrigerant type.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Condenser Remote Shutdown	Condenser is shut down by a remote signal.
Condenser Supply Refrigerant Over Temp	Condenser supply refrigerant temperature has exceeded a threshold.
Condenser Supply Refrigerant Temp Sensor Issue	Condenser supply refrigerant temperature sensor is disconnected or the signal is out of range.
Condenser Supply Refrigerant Temperature	Temperature of the supply refrigerant in a condenser circuit.
Condenser Supply Refrigerant Under Temp	Condenser supply refrigerant temperature has dropped below a specified threshold.
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier Hours Threshold	Threshold value used in the [Dehumidifier Hours Exceeded] event.
Dehumidifier Hours	Operating hours for dehumidifier since last reset of this value.
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Dig Scroll Comp Discharge Over Temp - Event Ctrl	Enable/disable the activation of the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Over Temp - Event Type	The event type for the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Temp Sensor Issue	Digital scroll compressor discharge temperature sensor is disconnected or the signal is out of range.
Dig Scroll Comp Discharge Temp	Digital scroll compressor discharge temperature.
Dig Scroll Comp Over Temp	Digital scroll compressor is shut down due to head temperature exceeding an upper threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Digital Scroll Compressor Loading	Present digital scroll compressor utilization expressed as a percentage of the maximum rated capacity.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours Exceeded	[Electric Reheater Hours] has exceeded [Electric Reheaters Hours Threshold].
Electric Reheater Hours Threshold	Threshold value used in the [Electric Reheater Hours Exceeded] event.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Energy Consumption	Energy consumption since the last reset of this value.
Expected Condenser Unit Count	Number of physical condenser units that are expected to be connected to the system.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Free Cooling Lockout	Free cooling is disabled by an external input signal.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Ext Humidifier Lockout	The humidifier is shut down and disabled by an external input signal.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Reheat Lockout	The reheater is shut down and disabled by an external input signal.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed, as indicated by an external input signal.
External Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Sensor	Sensor to be used for fan speed control.
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours Threshold	Threshold value used in the [Fan Hours Exceeded] event.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed Maximum Set Point	Maximum fan speed. This value may only be modified if iCOM is enabled to allow fan speed changes by the BMS.
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Temperature Set Point	If fan is in decoupled mode and not under manual control, the fan speed will vary depending on the delta between the selected fan control sensor temperature and this set point.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Flow Sensor Issue	The fluid flow sensor is disconnected or the signal is out of range.
Fluid Input Temperature	Temperature of the fluid entering the cooling coil.
Fluid Output Temperature	Temperature of the fluid exiting the cooling coil.
Fluid Temperature Sensor Issue	The fluid temperature sensor is disconnected or the signal is out of range.
Free Cooling Fluid Temperature	Free cooling fluid temperature.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Free Cooling Internal Control Mode	Free cooling internal control mode
Free Cooling Internal Temperature Delta	Minimum temperature delta required between supply fluid and internal ambient air temperatures in order to enable free cooling.
Free Cooling State	Free cooling operational state.
Free Cooling Status	Free cooling status.
Free Cooling Temp Sensor Issue	The free cooling fluid temperature sensor is disconnected or the signal is out of range.
Free Cooling Valve Hours Exceeded	[Free Cooling Valve Hours] has exceeded [Free Cooling Valve Hours Threshold].
Free Cooling Valve Hours Threshold	Threshold value used in the [Free Cooling Valve Hours Exceeded] event.
Free Cooling Valve Hours	Operating hours for free cooling valve since last reset of this value.
Free Cooling Valve Open Position	Free cooling valve open position.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Static Pressure	High static pressure event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Hours Exceeded	[Hot Water / Hot Gas Valve Hours] has exceeded [Hot Water / Hot Gas Valve Hours Threshold].
Hot Water / Hot Gas Valve Hours Threshold	Threshold value used in the [Hot Water / Hot Gas Valve Hours Exceeded] event.
Hot Water / Hot Gas Valve Hours	Operating hours for hot water / hot gas valve since last reset of this value.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Humidifier Cylinder Worn	Humidifier cylinder is not operating properly and needs to be replaced.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours Threshold	Threshold value used in the [Humidifier Hours Exceeded] event.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier Lockout	Enable/disable the use of the humidifier.
Humidifier Low Water	The water level in the humidifier has dropped below its threshold.
Humidifier Over Current	The electrical current to the humidifier has exceeded its upper threshold.
Humidifier State	Humidifier operational state.
Humidifier Under Current	The electrical current to the humidifier has dropped below its lower threshold.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Infrared Humidifier Flush Rate	A multiple of an internal time constant that determines the flush duration of the infrared humidifier water pan.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Static Pressure	Low static pressure event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Main Chilled Water Valve	The master valve in a dual valve chilled water system.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Main Fan Overload	Main fan is shut down due to thermal overload.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Chilled Water Temp Set Point Enable	Enable/disable the activation of [Minimum Chilled Water Temp Set Point].

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Minimum Chilled Water Temp Set Point	Minimum desired chilled water temperature.
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Outside Air Temperature	Ambient outside air temperature.
PRE Operational Mode	Pumped Refrigerant Economizer operational mode.
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Inlet Refrigerant Temperature	Refrigerant temperature at the inlet of the pump.
Pump Outlet Refrigerant Temperature	Refrigerant temperature at the outlet of the pump.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump State	Pump operational state.
Pump Unspecified General Event	One or more unspecified pump events active. See local unit display for further details.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reheater Lockout	Enable/disable the use of the reheater.
Reheater Over Temperature	The temperature of the reheater has exceeded its threshold.
Remote Sensor Average Over Temperature	[Remote Sensor Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Average Under Temperature	[Remote Sensor Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Over Temp Threshold	Threshold value used in the remote air sensor over temperature events.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Remote Sensor System Average Over Temperature	[Remote Sensor System Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Temperature	Average value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor System Average Under Temperature	[Remote Sensor System Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor System Maximum Temperature	Maximum value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temp Threshold	Threshold value used in the remote air sensor under temperature events.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Standby Units	The number of standby units.
Static Pressure Sensor Issue	The static pressure sensor is disconnected or the signal is out of range.
Static Pressure Sensor Out of Range	Static pressure sensor signal is out of its configured range.
Static Pressure Set Point	Desired static pressure.
Super Saver Call For Cooling	Call for cooling value used for Super Saver functionality. A higher call for cooling value indicates a need for a lower coolant temperature.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply NTC Air Sensor Issue	The supply NTC air sensor is disconnected or the signal is out of range.
System Date and Time	The system date and time

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Static Pressure	Static pressure measurement among a group of interconnected units in a single system.
System Status	The operating status for the system
Tandem 'B' Compressor Hours	Operating hours for the 'B' compressor in a tandem configuration since last reset of this value.
Tandem 'B' Compressor State	Operational state for the 'B' compressor in a tandem configuration.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Thermal Control Override - Humidity Call	If [Thermal Control Override] is enabled, this value sets the percent call for humidification or dehumidification.
Thermal Control Override - Humidity Control Type	If [Thermal Control Override] is enabled, this value selects if the humidity override is applied to humidification or dehumidification.
Thermal Control Override - Temperature Call	If [Thermal Control Override] is enabled, this value sets the percent call for cooling or heating.
Thermal Control Override - Temperature Control Type	If [Thermal Control Override] is enabled, this value selects if the temperature override is applied to cooling or heating.
Thermal Control Override	Override internal programmatic control of thermal conditions. This includes, but may not be limited to, temperature and humidity. The ability to enable this override may require additional system configuration.
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.

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Table 3.60 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State Reason	The reason the unit is in the current operating state.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unit Static Pressure	Static pressure measurement for a single unit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.

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Table 3.61 Liebert® PEX4—Status and Coil

Data Label	Status	Coil	# of Bits	Notes
Air				
Remote Sensor Under Temperature	10134	—	1	Active on Alarm
Supply Air Over Temperature	10131	—	1	Active on Alarm
Loss of Airflow Sensor Failure	10263	—	1	Active on Alarm
High Return Humidity	10135	—	1	Active on Alarm
Remote Sensor Over Temperature	10133	—	1	Active on Alarm
Low Return Humidity	10136	—	1	Active on Alarm
Return Air Under Temperature	10130	—	1	Active on Alarm
Loss of Airflow	10040	—	1	Active on Alarm
Low Remote Air Humidity	10140	—	1	Active on Alarm
High Remote Air Humidity	10139	—	1	Active on Alarm
Supply Air Under Temperature	10132	—	1	Active on Alarm
Return Air Over Temperature	10129	—	1	Active on Alarm
SupplyAirTempSensor 1				
Supply Air Sensor Issue	10215	—	1	Active on Alarm
SupplyAirTempSensor 2				
Supply Air Sensor Issue	10216	—	1	Active on Alarm
. . .		—		
SupplyAirTempSensor 4				
Supply Air Sensor Issue	10378	—	1	Active on Alarm
ReturnAirTempSensor 1				
Return Air Sensor Issue	10209	—	1	Active on Alarm
ReturnAirTempSensor 2				
Return Air Sensor Issue	10210	—	1	Active on Alarm
. . .				
ReturnAirTempSensor 3				
Return Air Sensor Issue	10211	—	1	Active on Alarm
RemoteTempSensor 1				
External Air Sensor Issue	10225	—	1	Active on Alarm
RemoteTempSensor 2				
External Air Sensor Issue	10226	—	1	Active on Alarm
. . .				

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Table 3.61 Liebert® PEX4—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
RemoteTempSensor 10				
External Air Sensor Issue	10234	—	1	Active on Alarm
SupplyAirHumidtySensor 1				
Supply Humidity Sensor Issue	10218	—	1	Active on Alarm
SupplyAirHumidtySensor 2				
Supply Humidity Sensor Issue	10219	—	1	Active on Alarm
. . .		—		
SupplyAirHumidtySensor 3				
Supply Humidity Sensor Issue	10220	—	1	Active on Alarm
ReturnAirHumidtySensor 1				
Return Humidity Sensor Issue	10212	—	1	Active on Alarm
ReturnAirHumidtySensor 2		—		
Return Humidity Sensor Issue	10213	—	1	Active on Alarm
. . .				
ReturnAirHumidtySensor 3				
Return Humidity Sensor Issue	10214	—	1	Active on Alarm
RemoteHumidSensor 1				
External Humidity Sensor Issue	10241	—	1	Active on Alarm
RemoteHumidSensor 2				
External Humidity Sensor Issue	10242	—	1	Active on Alarm
. . .				
RemoteHumidSensor 10				
External Humidity Sensor Issue	10250	—	1	Active on Alarm
Airfilter				
Clogged Air Filter	10039	—	1	Active on Alarm
Filter Maintenance Due	10082	—	1	Active on Alarm
CompressorInfo 1				
Compressor Pressure Difference Lockout	10174	—	1	Active on Alarm
Compressor Pressure Difference	10173	—	1	Active on Alarm
Low Compressor Pressure Abnormal	10172	—	1	Active on Alarm
High Compressor Pressure Abnormal	10171	—	1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10170	—	1	Active on Alarm

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Table 3.61 Liebert® PEX4—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Low Compressor Discharge Superheat	10169	—	1	Active on Alarm
High Compressor Discharge Temperature Lockout	10166	—	1	Active on Alarm
High Compressor Discharge Temperature	10165	—	1	Active on Alarm
Low Compressor Pressure Lockout	10164	—	1	Active on Alarm
Low Compressor Pressure	10163	—	1	Active on Alarm
High Compressor Presssure Lockout	10162	—	1	Active on Alarm
High Compressor Pressure	10161	—	1	Active on Alarm
Compressor Driver Failure	10185	—	1	Active on Alarm
Compressor Driver Failure Lockout	10187	—	1	Active on Alarm
Compressor Driver Communication Failure	10181	—	1	Active on Alarm
Compressor Driver Communication Failure Lockout	10183	—	1	Active on Alarm
High Compressor Pressure Sensor Failure	10193	—	1	Active on Alarm
Low Compressor Pressure Sensor Failure	10195	—	1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10199	—	1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10201	—	1	Active on Alarm
CompressorInfo 2				
Compressor Pressure Difference Lockout	10374	—	1	Active on Alarm
Compressor Pressure Difference	10373	—	1	Active on Alarm
Low Compressor Pressure Abnormal	10372	—	1	Active on Alarm
High Compressor Pressure Abnormal	10371	—	1	Active on Alarm
Low Compressor Discharge Superheat Lockout	10370	—	1	Active on Alarm
Low Compressor Discharge Superheat	10369	—	1	Active on Alarm
High Compressor Discharge Temperature Lockout	10366	—	1	Active on Alarm
High Compressor Discharge Temperature	10365	—	1	Active on Alarm
Low Compressor Pressure Lockout	10364	—	1	Active on Alarm
Low Compressor Pressure	10363	—	1	Active on Alarm
High Compressor Presssure Lockout	10362	—	1	Active on Alarm
High Compressor Pressure	10361	—	1	Active on Alarm
Compressor Driver Failure	10186	—	1	Active on Alarm
Compressor Driver Failure Lockout	10188	—	1	Active on Alarm
Compressor Driver Communication Failure	10182	—	1	Active on Alarm
Compressor Driver Communication Failure Lockout	10184	—	1	Active on Alarm

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Table 3.61 Liebert® PEX4—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
High Compressor Pressure Sensor Failure	10194	—	1	Active on Alarm
Low Compressor Pressure Sensor Failure	10196	—	1	Active on Alarm
Compressor Discharge Temperature Sensor Failure	10200	—	1	Active on Alarm
Compressor Suction Temperature Sensor Failure	10202	—	1	Active on Alarm
FanIssue 1				
Fan Issue	10097	—	1	Active on Alarm
FanIssue 2				
Fan Issue	10098	—	1	Active on Alarm
StaticPressure 1				
Fan Static Pressure Sensor Failure	10257	—	1	Active on Alarm
StaticPressure 2				
Fan Static Pressure Sensor Failure	10258	—	1	Active on Alarm
Humidifier				
Humidifier State	10003	—	1	Active on Alarm
Dehumidifier				
Dehumidifier State	10004	—	1	Active on Alarm
Reheater				
Electric Reheat State	10002	—	1	Active on Alarm
Electrical Heater Failure	10115	—	1	Active on Alarm
PowerMeasurement				
Input Undervoltage	10067	—	1	Active on Alarm
Input Overvoltage	10066	—	1	Active on Alarm
Input Frequency Deviation	10068	—	1	Active on Alarm
Power Opposite Phase	10070	—	1	Active on Alarm
Power Loss Of Phase	10069	—	1	Active on Alarm
SystemOperations				
Cooling State	10001	—	1	Active on Alarm
SystemEvents				
Repeated Teamwork Address	10064	—	1	Active on Alarm
Loss of Teamwork Slave	10063	—	1	Active on Alarm
Teamwork Master is offline or not connected to the network	10062	—	1	Active on Alarm
Smoke Detected	10035	—	1	Active on Alarm

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Table 3.61 Liebert® PEX4—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Water Under Floor	10034	—	1	Active on Alarm
External Fire Detected	10036	—	1	Active on Alarm
Humidifier Issue	10117	—	1	Active on Alarm
Internal Communications Failure	19990	—	1	Active on Alarm
Ext Condenser Pump High Water	10038	—	1	Active on Alarm
Ext Remote Shutdown	10033	—	1	Active on Alarm
Shutdown - Loss Of Power	10065	—	1	Active on Alarm
Emergency Cooling	10080	—	1	Active on Alarm
CustomAlarm 1		—		
Custom Alarm	10049	—	1	Active on Alarm
CustomAlarm 2				
Custom Alarm	10050	—	1	Active on Alarm
. . .				
CustomAlarm 4				
Custom Alarm	10052	—	1	Active on Alarm
EEVDrive 1				
EEV Driver Communication Failure	10177	—	1	Active on Alarm
EEV Driver Failure	10179	—	1	Active on Alarm
EEVDrive 2				
EEV Driver Communication Failure	10178	—	1	Active on Alarm
EEV Driver Failure	10180	—	1	Active on Alarm

Table 3.62 Liebert® PEX4—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Air					
Supply Air Temperature	30097	—	1	10	Units : deg C Int16
Return Air Temperature	30096	—	1	10	Units : deg C Int16
Remote Sensor Average Temperature	30098	—	1	10	Units : deg C Int16
Supply Humidity	30107	—	1	10	Units : % RH Uint16
Supply Air Theoretical Humidity	30109	—	1	10	Units : % RH Uint16

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Table 3.62 Liebert® PEX4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Return Humidity	30106	—	1	10	Units : % RH Uint16
Average Relative Humidity	30108	—	1	10	Uint16
Supply Air Temperature Set Point	30090	40090	1	10	Units : deg C Int16
Return Air Temperature Set Point	30089	40089	1	10	Units : deg C Int16
Remote Sensor Air Temperature Set Point	30091	40091	1	10	Units : deg C Int16
Humidity Set Point	30093	40093	1	10	Units : % RH Uint16
Cooling Proportional Band	30094	40094	1	10	Units : deg C Uint16
Humidification Proportional Band	30095	40095	1	10	Units : % RH Uint16
SupplyAirTempSensor 1					
Supply Air Sensor Temperature	30042	—	1	10	Units : deg C Int16
SupplyAirTempSensor 2					
Supply Air Sensor Temperature	30043	—	1	10	Units : deg C Int16
. . .					
SupplyAirTempSensor 4					
Supply Air Sensor Temperature	30226	—	1	10	Units : deg C Int16
ReturnAirTempSensor 1					
Return Air Sensor Temperature	30036	—	1	10	Units : deg C Int16
ReturnAirTempSensor 2					
Return Air Sensor Temperature	30037	—	1	10	Units : deg C Int16
. . .					
ReturnAirTempSensor 3					
Return Air Sensor Temperature	30038	—	1	10	Units : deg C Int16
RemoteTempSensor 1					
Remote Sensor Temperature	30048	—	1	10	Units : deg C Int16

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Table 3.62 Liebert® PEX4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
RemoteTempSensor 2					
Remote Sensor Temperature	30049	—	1	10	Units : deg C Int16
. . .					
RemoteTempSensor 10					
Remote Sensor Temperature	30057	—	1	10	Units : deg C Int16
SupplyAirHumidtySensor 1					
Supply Sensor Humidity	30045	—	1	10	Units : % RH Uint16
SupplyAirHumidtySensor 2					
Supply Sensor Humidity	30046	—	1	10	Units : % RH Uint16
. . .		—			
SupplyAirHumidtySensor 3					
Supply Sensor Humidity	30047	—	1	10	Units : % RH Uint16
ReturnAirHumidtySensor 1					
Return Sensor Humidity	30039	—	1	10	Units : % RH Uint16
ReturnAirHumidtySensor 2					
Return Sensor Humidity	30040	—	1	10	Units : % RH Uint16
. . .					
ReturnAirHumidtySensor 3					
Return Sensor Humidity	30041	—	1	10	Units : % RH Uint16
RemoteHumidSensor 1					
Relative Humidity	30058	—	1	10	Units : % RH Uint16
RemoteHumidSensor 2					
Relative Humidity	30059	—	1	10	Units : % RH Uint16
. . .		—			
RemoteHumidSensor 10					
Relative Humidity	30067	—	1	10	Units : % RH Uint16

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Table 3.62 Liebert® PEX4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
AirfilterInfo					
Air Filter Hours	30116	40116	1	—	Units : hr Uint16
Compressor					
Compressor Control Mode	30004	40004	—	1	0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp
CompressorInfo 1					
Compressor Suction Superheat	30105	—	1	10	Units : deg C Int16
Compressor Discharge Superheat	30104	—	1	10	Units : deg C Int16
Compressor Suction Temperature	30103	—	1	10	Units : deg C Int16
Compressor Discharge Temperature	30102	—	1	10	Units : deg C Int16
Compressor Low Pressure	30101	—	1	10	Units : bar Uint16
Compressor High Pressure	30100	—	1	10	Units : bar Uint16
Cooling Capacity (Master)	30080	—	1	—	Units : % Uint16
Compressor Hours	30111	40111	1	—	Units : hr Uint16
CompressorInfo 2					
Compressor Suction Superheat	30205	—	1	10	Units : deg C Int16
Compressor Discharge Superheat	30204	—	1	10	Units : deg C Int16
Compressor Suction Temperature	30203	—	1	10	Units : deg C Int16
Compressor Discharge Temperature	30202	—	1	10	Units : deg C Int16
Compressor Low Pressure	30201	—	1	10	Units : bar Uint16
Compressor High Pressure	30200	—	1	10	Units : bar

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Table 3.62 Liebert® PEX4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Cooling Capacity (Master)	30180	—	1	—	Units : % Uint16
Compressor Hours	30121	40121	1	—	Units : hr Uint16
Fan					
Fan Control Mode	30003	40003	1	—	0 = ReturnAirAverageTemp 1 = ReturnAirMaxTemp 2 = ReturnAirMinTemp 3 = SupplyAirAverageTemp 4 = SupplyAirMaxTemp 5 = SupplyAirMinTemp 6 = RemoteAverageTemp 7 = RemoteMaxTemp 8 = RemoteMinTemp 9 = TemperatureDiff 10 = StaticPressure
StaticPressure 1					
Fan Static Pressure	30073	—	1	—	Units : Pa Uint16
StaticPressure 2					
Fan Static Pressure	30074	—	1	—	Units : Pa Uint16
FanInfo 1					
Fan Speed	30079	—	1	—	Units : % Uint16
Fan Hours	30110	40110	1	—	Units : hr Uint16
FanInfo 2					
Fan Speed	30179	—	1	—	Units : % Uint16
Fan Hours	30120	40120	1	—	Units : hr Uint16
HumidifierInfo					
Humidifier Hours	30114	40114	1	—	Units : hr Uint16
ReheaterInfo 1					
Electric Reheater Hours	30113	40113	1	—	Units : hr Uint16
ReheaterInfo 2					
Electric Reheater Hours	30123	40123	1	—	Units : hr Uint16

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Table 3.62 Liebert® PEX4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
PowerMeasurement					
System Input RMS A-N	30021	—	1	10	Units : VAC Int16
System Input RMS B-N	30022	—	1	10	Units : VAC Int16
System Input RMS C-N	30023	—	1	10	Units : VAC Int16
System Input Frequency	30024	—	1	10	Units : Hz Int16
SystemOperations					
Teamwork Status	30002	—	1	—	0 = Single 1 = TeamworkMode0 2 = TeamworkMode1 3 = TeamworkMode2 4 = TeamworkMode3
Monitoring ON/OFF	30006	40006	1	—	16 = on 31 = off
SystemInfo					
System Operating State	30001		1	—	0 = Run 1 = Standby 2 = Display Off 3 = Remote Off 4 = Monitoring Off 5 = Lockout
System Status	38900	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

Table 3.63 Liebert® PEX4—Glossary

Data Label	Data Description
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Average Relative Humidity	Average value of humidity sensor measurements.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.

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Table 3.63 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Pressure Difference Lockout	Compressor lockout occurred due to multiple compressor pressure differences.
Compressor Pressure Difference	Compressor pressure difference is out of range.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Emergency Cooling	Emergency Cooling
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode

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Table 3.63 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Pressure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Abnormal	Compressor pressure has dropped below a normal threshold.

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Table 3.63 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.

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Table 3.63 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
Status Points (View)								
Unit Status	1	10101	101	—	—	1	—	0 = Off 1 = On
Device Address	1			30101	—	1	—	1
State	1	—	—	30102	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	1			30103	—	1	10	—
Unit Status	2	10201	201		—	1	—	0 = Off 1 = On

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Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS (continued)

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
Device Address	2	—		30201	—	1	—	2
State	2	—		30202	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	2			30203	—	1	10	—
Unit Status	3	10301	301		—	1	—	0 = Off 1 = On
Device Address	3	—		30301	—	1	—	3
State	3	—		30302	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	3			30303	—	1	10	—
Unit Status	4	10401	401		—	1	—	0 = Off 1 = On
Device Address	4	—		30401	—	1	—	4
State	4	—		30402	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	4	—		30403	—	1	10	—
Unit Status	5	10501	501		—	1	—	0 = Off 1 = On
Device Address	5	—		30501	—	1	—	5
State	5	—		30502	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	5	—		30503	—	1	10	—
Unit Status	6	10601	601		—	1	—	0 = Off 1 = On
Device Address	6	—		30601	—	1	—	6
State	6	—		30602	—	1	—	Enabled=1 StandbyOffline=2 Absent=3

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Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS (continued)

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
								UnavailableOffline=4
Temperature	6	—		30603	—	1	10	—
Unit Status	7	10701	701		—	1	—	0 = Off 1 = On
Device Address	7	—	—	30701	—	1	—	7
State	7	—	—	30702	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	7	—	—	30703	—	1	10	—
Unit Status	8	10801	801		—	1	—	0 = Off 1 = On
Device Address	8	—	—	30801	—	1	—	8
State	8	—	—	30802	—	1	—	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	8	—	—	30803	—	1	10	—
Alarm Points		—	—		—		—	—
Communications	1	—	—	10102	—	1	—	Active=1 Inactive=0
High Temperature	1	—	—	10103	—	1	—	Active=1 Inactive=0
Low Temperature	1	—	—	10104	—	1	—	Active=1 Inactive=0
Error	1	—	—	10105	—	1	—	Active=1 Inactive=0
Communications	2	—	—	10202	—	1	—	Active=1 Inactive=0
High Temperature	2	—	—	10203	—	1	—	Active=1 Inactive=0
Low Temperature	2	—	—	10204	—	1	—	Active=1 Inactive=0
Error	2	—	—	10205	—	1	—	Active=1 Inactive=0

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Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS (continued)

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
Communications	3	—	—	10302	—	1	—	Active=1 Inactive=0
High Temperature	3	—	—	10303	—	1	—	Active=1 Inactive=0
Low Temperature	3	—	—	10304	—	1	—	Active=1 Inactive=0
Error	3	—	—	10305	—	1	—	Active=1 Inactive=0
Communications	4	—	—	10402	—	1	—	Active=1 Inactive=0
High Temperature	4	—	—	10403	—	1	—	Active=1 Inactive=0
Low Temperature	4	—	—	10404	—	1	—	Active=1 Inactive=0
Error	4	—	—	10405	—	1	—	Active=1 Inactive=0
Communications	5	—	—	10502	—	1	—	Active=1 Inactive=0
High Temperature	5	—	—	10503	—	1	—	Active=1 Inactive=0
Low Temperature	5	—	—	10504	—	1	—	Active=1 Inactive=0
Error	5	—	—	10505	—	1	—	Active=1 Inactive=0
Communications	6	—	—	10602	—	1	—	Active=1 Inactive=0
High Temperature	6	—	—	10603	—	1	—	Active=1 Inactive=0
Low Temperature	6	—	—	10604	—	1	—	Active=1 Inactive=0
Error	6	—	—	10605	—	1	—	Active=1 Inactive=0
Communications	7	—	—	10702	—	1	—	Active=1 Inactive=0
High Temperature	7	—	—	10703	—	1	—	Active=1 Inactive=0

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Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS (continued)

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
Low Temperature	7	—	—	10704	—	1	—	Active=1 Inactive=0
Error	7	—	—	10705	—	1	—	Active=1 Inactive=0
Communications	8	—	—	10802	—	1	—	Active=1 Inactive=0
High Temperature	8	—	—	10803	—	1	—	Active=1 Inactive=0
Low Temperature	8	—	—	10804	—	1	—	Active=1 Inactive=0
Error	8	—	—	10805	—	1	—	Active=1 Inactive=0
Control Points		—	—		—	—	—	—
Temperature Setpoint	1	—	—	30104	40104	1	10	—
Fan Speed	1	—	—	30105	40105	1	—	Low=1 Middle=2 High=3 Auto=4 (r/o)
Operation Mode	1	—	—	30106	40106	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	2	—	—	30204	40204	1	10	—
Fan Speed	2	—	—	30205	40205	1	—	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	2	—	—	30206	40206	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	3	—	—	30304	40304	1	10	—
Fan Speed	3	—	—	30305	40305	1	—	Low=1 Medium=2 High=3

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Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS (continued)

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
								Auto=4 (r/o)
Operation Mode	3	—	—	30306	40306	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	4	—	—	30404	40404	1	10	—
Fan Speed	4	—	—	30405	40405	1	—	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	4	—	—	30406	40406	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	5	—	—	30504	40504	1	10	—
Fan Speed	5	—	—	30505	40505	1	—	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	5	—	—	30506	40506	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	6	—	—	30604	40604	1	10	—
Fan Speed	6	—	—	30605	40605	1	—	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	6	—	—	30606	40606	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	7	—	—	30704	40704	1	10	—
Fan Speed	7	—	—	30705	40705	1	—	Low=1 Medium=2 High=3

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Table 3.64 Liebert® SRC—Status, Coil, Input and Holding—Liebert® iCOM™ CMS (continued)

Controller	Liebert SRC							
Liebert Products	Liebert SRC Mini-Split System							
Available Points								
Data Description	Device ID	Status Register	Coil Register	Input Register	Holding Register	# of Reg.	Scale	Notes
								Auto=4 (r/o)
Operation Mode	7	—	—	30706	40706	1	—	Cooling=1 Fan=2 AI=3 Heating=4
Temperature Setpoint	8	—	—	30804	40804	1	10	—
Fan Speed	8	—	—	30805	40805	1	—	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	8	—	—	30806	40806	1	—	Cooling=1 Fan=2 AI=3 Heating=4

Table 3.65 Liebert® XDC—Status and Coil

Controller	Liebert® iCOM™ v4			
Data Description	Status	Coil	Number of Bits	Notes / Units
Pumps				
Pump 1 Loss of Flow	10001	—	1	Active on Alarm
Pump 2 Loss of Flow	10002	—	1	Active on Alarm
Pump Short Cycle	10016	—	1	Active on Alarm
System Events				
Fan Issue	10003	—	1	Active on Alarm
System Condensation Detected	10004	—	1	Active on Alarm
Customer Input 1	10005	—	1	Active on Alarm
Shutdown - Loss Of Power	10027	—	1	Active on Alarm
Smoke Detected	10028	—	1	Active on Alarm
Water Under Floor	10029	—	1	Active on Alarm
Service Required	10030	—	1	Active on Alarm
Unit Communication Lost	10272	—	1	Active on Alarm

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Table 3.65 Liebert® XDC—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Description	**Status**	**Coil**	**Number of Bits**	**Notes / Units**
RAM Battery Issue	10273	—	1	Active on Alarm
Master Unit Communication Lost	10274	—	1	Active on Alarm
Remote Shutdown	10275	—	1	Active on Alarm
Unit Code Missing	10276	—	1	Active on Alarm
Refrigerant				
Supply Refrigerant Over Temp	10006	—	1	Active on Alarm
Supply Refrigerant Under Temp	10007	—	1	Active on Alarm
Supply Refrigerant Temp Sensor Issue	10008	—	1	Active on Alarm
External Air				
Ext Air Sensor A Over Temperature	10009	—	1	Active on Alarm
Ext Air Sensor A Under Temperature	10010	—	1	Active on Alarm
Ext Air Sensor A Issue	10011	—	1	Active on Alarm
Ext Air Sensor B Over Temperature	10012	—	1	Active on Alarm
Ext Air Sensor B Under Temperature	10013	—	1	Active on Alarm
Ext Air Sensor B Issue	10014	—	1	Active on Alarm
Ext Dew Point Over Temperature	10015	—	1	Active on Alarm
Compressors				
Compressor 1A High Head Pressure	10017	—	1	Active on Alarm
Compressor 1B High Head Pressure	10018	—	1	Active on Alarm
Compressor 2A High Head Pressure	10019	—	1	Active on Alarm
Compressor 2B High Head Pressure	10020	—	1	Active on Alarm
Compressor 1A Short Cycle	10021	—	1	Active on Alarm
Compressor 1B Short Cycle	10022	—	1	Active on Alarm
Compressor 2A Short Cycle	10023	—	1	Active on Alarm
Compressor 2B Short Cycle	10024	—	1	Active on Alarm
Circuit 1 Low Suction Pressure	10025	—	1	Active on Alarm
Circuit 2 Low Suction Pressure	10026	—	1	Active on Alarm
Ext Compressor Lockout	10294	—	1	Active on Alarm
Pump Hours 1				
Pump Hours Exceeded	10040	—	1	Active on Alarm

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Table 3.65 Liebert® XDC—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Description	Status	Coil	Number of Bits	Notes / Units
Pump Hours 2				
Pump Hours Exceeded	10046	—	1	Active on Alarm
XD System 1		—		
Ext System Condensation Detected	10052	—	1	Active on Alarm
Ext Fan Issue	10053	—	1	Active on Alarm
Sensor Issue	10054	—	1	Active on Alarm
Ext Remote Shutdown	10055	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10056	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10057	—	1	Active on Alarm
XD System 2				
Ext System Condensation Detected	10063	—	1	Active on Alarm
Ext Fan Issue	10064	—	1	Active on Alarm
Sensor Issue	10065	—	1	Active on Alarm
Ext Remote Shutdown	10066	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10067	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10068	—	1	Active on Alarm
. . .				
XD System 20				
Ext System Condensation Detected	10261	—	1	Active on Alarm
Ext Fan Issue	10262	—	1	Active on Alarm
Sensor Issue	10263	—	1	Active on Alarm
Ext Remote Shutdown	10264	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10265	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10266	—	1	Active on Alarm
Messages				
Unit On	10282	—	1	Active on Alarm
Unit Off	10283	—	1	Active on Alarm
Unit Standby	10284	—	1	Active on Alarm
Unit Partial Shutdown	10285	—	1	Active on Alarm
Unit Shutdown	10286	—	1	Active on Alarm

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Table 3.65 Liebert® XDC—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Description	**Status**	**Coil**	**Number of Bits**	**Notes / Units**
Maintenance Due	10287	—	1	Active on Alarm
Maintenance Completed	10288	—	1	Active on Alarm
Compressor Hours 1				
Compressor Hours Exceeded	10300	—	1	Active on Alarm
Compressor Hours 2				
Compressor Hours Exceeded	10306	—	1	Active on Alarm
. . .				
Compressor Hours 4				
Compressor Hours Exceeded	10318	—	1	Active on Alarm
Tandem Pump Down 1				
Compressor Pump Down Issue	10324	—	1	Active on Alarm
Tandem Pump Down 2				
Compressor Pump Down Issue	10330	—	1	Active on Alarm
Pump 1				
Pump Thermal Overload	10340	—	1	Active on Alarm
Pump 2				
Pump Thermal Overload	10341	—	1	Active on Alarm
XDModule 1				
XD Module Communication Lost	10342	—	1	Active on Alarm
XDModule 2				
XD Module Communication Lost	10343	—	1	Active on Alarm
. . .				
XDModule 20				
XD Module Communication Lost	10361	—	1	Active on Alarm

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Table 3.66 Liebert® XDC—Input and Holding

Controller	Liebert® iCOM™ v4				
Data Description	**Input**	**Holding**	**# of Reg.**	**Scale**	**Notes / Units**
Pumps					
Pump 1 State	30385	—	1	—	0 = off 1 = on
Pump 2 State	30386	—	1	—	0 = off 1 = on
Refrigerant					
Supply Refrigerant Temperature	30387	—	1	10	Units : deg C Int16
Supply Refrigerant Temperature	30388	—	1	10	Units : deg F Int16
Supply Refrig Over Temp Threshold	30410	40410	1	10	Units : deg C Int16
Supply Refrig Over Temp Threshold	30411	40411	1	10	Units : deg F Int16
System Information					
Unit Operating State	30389	—	1	—	0 = off 1 = on 2 = standby
Calculated Next Maintenance Month	30420	—	1	—	Uint16
Calculated Next Maintenance Year	30421	—	1	—	Uint16
System Status	30422	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Unit Control Mode	30423	—	1	—	0 = Internal (Auto) 1 = External (Manual)
Maintenance Ramp	30424	—	1	—	Units : % Uint16
Auto Restart Delay	30425	40425	1	—	Units : sec Int16
System On/Off Control	30426	40426	1	—	0 = off 1 = on
Unit Off Reason	31704	—	1	—	0 = None 1 = User 2 = Alarm 3 = Timer 4 = Monitoring 5 = Remote Off 6 = HCS12 Off

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
External Air					
Ext Air Sensor A Temperature	30390	—	1	10	Units : deg C Int16
Ext Air Sensor A Temperature	30391	—	1	10	Units : deg F Int16
Ext Air Sensor A Humidity	30392	—	1	10	Units : % RH Uint16
Ext Air Sensor A Dew Point Temp	30393	—	1	10	Units : deg C Int16
Ext Air Sensor A Dew Point Temp	30394	—	1	10	Units : deg F Int16
Ext Air Sensor B Temperature	30395	—	1	10	Units : deg C Int16
Ext Air Sensor B Temperature	30396	—	1	10	Units : deg F Int16
Ext Air Sensor B Humidity	30397	—	1	10	Units : % RH Uint16
Ext Air Sensor B Dew Point Temp	30398	—	1	10	Units : deg C Int16
Ext Air Sensor B Dew Point Temp	30399	—	1	10	Units : deg F Int16
Dew Point Temperature	30400	—	1	10	Units : deg C Int16
Dew Point Temperature	30401	—	1	10	Units : deg F Int16
Minimum Room Temperature Set Point	30402	40402	1	10	Units : deg C Int16
Minimum Room Temperature Set Point	30403	40403	1	10	Units : deg F Int16
Ext Air Over Temp Threshold	30404	40404	1	10	Units : deg C Int16
Ext Air Over Temp Threshold	30405	40405	1	10	Units : deg F Int16
Ext Air Under Temp Threshold	30406	40406	1	10	Units : deg C Int16
Ext Air Under Temp Threshold	30407	40407	1	10	Units : deg F Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Ext Dew Point Over Temp Threshold	30408	40408	1	10	Units : deg C Int16
Ext Dew Point Over Temp Threshold	30409	40409	1	10	Units : deg F Int16
Hot Gas					
Hot Gas Valve 1 Open Position	30412	—	1	10	Units : % Uint16
Hot Gas Valve 2 Open Position	30413	—	1	10	Units : % Uint16
Hot Gas Solenoid Valve 1 Position	30414	—	1	—	0 = closed 1 = open
Hot Gas Solenoid Valve 2 Position	30415	—	1	—	0 = closed 1 = open
Compressors					
Compressor 1A State	30416	—	1	—	0 = off 1 = on
Compressor 1B State	30417	—	1	—	0 = off 1 = on
Compressor 2A State	30418	—	1	—	0 = off 1 = on
Compressor 2B State	30419	—	1	—	0 = off 1 = on
System Events					
System Event Acknowledge/Reset	—	40427	1	—	2 = Reset 4 = Acknowledge
Pump Hours 1					
Pump Hours	30430	40430	1	—	Units : hr Uint16
Pump Hours Threshold	30431	40431	1	—	Units : hr Uint16
Pump Hours 2					
Pump Hours	30437	40437	1	—	Units : hr Uint16
Pump Hours Threshold	30438	40438	1	—	Units : hr Uint16
XD System 1					

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	**Input**	**Holding**	**# of Reg.**	**Scale**	**Notes / Units**
Communication Status	30444	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30445	40445	1	—	0 = off 1 = on
Master Fan Group State	30446	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30447	40447	1	—	0 = enabled 1 = disabled
Visual ID Control	30448	40448	1	—	0 = disabled 1 = enabled
Cooling Capacity	30449	—	1	—	Units : % Uint16
Cooling Capacity	30450	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30451	40451	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30452	40452	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Fan Issue - Event Control	30453	40453	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30454	40454	1	—	0 = Message 1 = Warning 2 = Alarm
Sensor Issue - Event Control	30455	40455	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30456	40456	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30457	40457	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30458	40458	1	—	0 = Message 1 = Warning 2 = Alarm
Hot Aisle Over Temp Threshold	30459	40459	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30460	40460	1	—	Units : deg F Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Hot Aisle Under Temp Threshold	30461	40461	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30462	40462	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30463	40463	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30464	40464	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30465	40465	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30466	40466	1	—	Units : deg F Int16
XD System 2					
Communication Status	30472	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30473	40473	1	—	0 = off 1 = on
Master Fan Group State	30474	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30475	40475	1	—	0 = enabled 1 = disabled
Visual ID Control	30476	40476	1	—	0 = disabled 1 = enabled
Cooling Capacity	30477	—	1	—	Units : % Uint16
Cooling Capacity	30478	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30479	40479	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30480	40480	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Fan Issue - Event Control	30481	40481	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30482	40482	1	—	0 = Message 1 = Warning 2 = Alarm

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	**Input**	**Holding**	**# of Reg.**	**Scale**	**Notes / Units**
Sensor Issue - Event Control	30483	40483	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30484	40484	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30485	40485	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30486	40486	1	—	0 = Message 1 = Warning 2 = Alarm
Hot Aisle Over Temp Threshold	30487	40487	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30488	40488	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30489	40489	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30490	40490	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30491	40491	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30492	40492	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30493	40493	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30494	40494	1	—	Units : deg F Int16
. . .					
XD System 20					
Communication Status	30976	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30977	40977	1	—	0 = off 1 = on
Master Fan Group State	30978	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30979	40979	1	—	0 = enabled 1 = disabled
Visual ID Control	30980	40980	1	—	0 = disabled 1 = enabled

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Cooling Capacity	30981	—	1	—	Units : % Uint16
Cooling Capacity	30982	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30983	40983	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30984	40984	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Fan Issue - Event Control	30985	40985	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30986	40986	1	—	0 = Message 1 = Warning 2 = Alarm
Sensor Issue - Event Control	30987	40987	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30988	40988	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30989	40989	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30990	40990	1	—	0 = Message 1 = Warning 2 = Alarm
Hot Aisle Over Temp Threshold	30991	40991	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30992	40992	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30993	40993	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30994	40994	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30995	40995	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30996	40996	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30997	40997	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30998	40998	1	—	Units : deg F Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
XD System 1 Temperature Sensor 1					
Remote Sensor Temperature	31004	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31005	—	1	10	Units : deg F Int16
XD System 1 Temperature Sensor 2					
Remote Sensor Temperature	31011	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31012	—	1	10	Units : deg F Int16
. . .					
XD System 1 Temperature Sensor 4					
Remote Sensor Temperature	31025	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31026	—	1	10	Units : deg F Int16
XD System 2 Temperature Sensor 1					
Remote Sensor Temperature	31032	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31033	—	1	10	Units : deg F Int16
XD System 2 Temperature Sensor 2					
Remote Sensor Temperature	31039	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31040	—	1	10	Units : deg F Int16
. . .		—			
XD System 2 Temperature Sensor 4					
Remote Sensor Temperature	31053	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31054	—	1	10	Units : deg F Int16
XD System 3 Temperature Sensor 1					
Remote Sensor Temperature	31060	—	1	10	Units : deg C Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Remote Sensor Temperature	31061	—	1	10	Units : deg F Int16
XD System 3 Temperature Sensor 2					
Remote Sensor Temperature	31067	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31068	—	1	10	Units : deg F Int16
. . .					
XD System 3 Temperature Sensor 4					
Remote Sensor Temperature	31081	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31082	—	1	10	Units : deg F Int16
XD System 4 Temperature Sensor 1					
Remote Sensor Temperature	31088	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31089	—	1	10	Units : deg F Int16
XD System 4 Temperature Sensor 2					
Remote Sensor Temperature	31095	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31096	—	1	10	Units : deg F Int16
. . .		—			
XD System 4 Temperature Sensor 4					
Remote Sensor Temperature	31109	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31110	—	1	10	Units : deg F Int16
XD System 5 Temperature Sensor 1					
Remote Sensor Temperature	31116	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31117	—	1	10	Units : deg F Int16
XD System 5 Temperature Sensor 2		—			

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Remote Sensor Temperature	31123	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31124	—	1	10	Units : deg F Int16
. . .					
XD System 5 Temperature Sensor 4					
Remote Sensor Temperature	31137	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31138	—	1	10	Units : deg F Int16
XD System 6 Temperature Sensor 1					
Remote Sensor Temperature	31144	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31145	—	1	10	Units : deg F Int16
XD System 6 Temperature Sensor 2					
Remote Sensor Temperature	31151	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31152	—	1	10	Units : deg F Int16
. . .		—			
XD System 6 Temperature Sensor 4					
Remote Sensor Temperature	31165	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31166	—	1	10	Units : deg F Int16
XD System 7 Temperature Sensor 1					
Remote Sensor Temperature	31172	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31173	—	1	10	Units : deg F Int16
XD System 7 Temperature Sensor 2					
Remote Sensor Temperature	31179	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31180	—	1	10	Units : deg F Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
. . .		—			
XD System 7 Temperature Sensor 4					
Remote Sensor Temperature	31193	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31194	—	1	10	Units : deg F Int16
XD System 8 Temperature Sensor 1					
Remote Sensor Temperature	31200	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31201	—	1	10	Units : deg F Int16
XD System 8 Temperature Sensor 2					
Remote Sensor Temperature	31207	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31208	—	1	10	Units : deg F Int16
. . .		—			
XD System 8 Temperature Sensor 4					
Remote Sensor Temperature	31221	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31222	—	1	10	Units : deg F Int16
XD System 9 Temperature Sensor 1					
Remote Sensor Temperature	31228	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31229	—	1	10	Units : deg F Int16
XD System 9 Temperature Sensor 2					
Remote Sensor Temperature	31235	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31236	—	1	10	Units : deg F Int16
. . .		—			
XD System 9 Temperature Sensor 4					
Remote Sensor Temperature	31249	—	1	10	Units : deg C Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Remote Sensor Temperature	31250	—	1	10	Units : deg F Int16
XD System 10 Temperature Sensor 1					
Remote Sensor Temperature	31256	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31257	—	1	10	Units : deg F Int16
XD System 10 Temperature Sensor 2					
Remote Sensor Temperature	31263	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31264	—	1	10	Units : deg F Int16
. . .					
XD System 10 Temperature Sensor 4					
Remote Sensor Temperature	31277	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31278	—	1	10	Units : deg F Int16
XD System 11 Temperature Sensor 1					
Remote Sensor Temperature	31284	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31285	—	1	10	Units : deg F Int16
XD System 11 Temperature Sensor 2					
Remote Sensor Temperature	31291	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31292	—	1	10	Units : deg F Int16
. . .					
XD System 11 Temperature Sensor 4					
Remote Sensor Temperature	31305	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31306	—	1	10	Units : deg F Int16
XD System 12 Temperature Sensor 1					

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Remote Sensor Temperature	31312	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31313	—	1	10	Units : deg F Int16
XD System 12 Temperature Sensor 2					
Remote Sensor Temperature	31319	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31320	—	1	10	Units : deg F Int16
. . .					
XD System 12 Temperature Sensor 4					
Remote Sensor Temperature	31333	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31334	—	1	10	Units : deg F Int16
XD System 13 Temperature Sensor 1					
Remote Sensor Temperature	31340	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31341	—	1	10	Units : deg F Int16
XD System 13 Temperature Sensor 2					
Remote Sensor Temperature	31347	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31348	—	1	10	Units : deg F Int16
. . .		—			
XD System 13 Temperature Sensor 4					
Remote Sensor Temperature	31361	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31362	—	1	10	Units : deg F Int16
XD System 14 Temperature Sensor 1					
Remote Sensor Temperature	31368	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31369	—	1	10	Units : deg F Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
XD System 14 Temperature Sensor 2					
Remote Sensor Temperature	31375	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31376	—	1	10	Units : deg F Int16
. . .		—			
XD System 14 Temperature Sensor 4					
Remote Sensor Temperature	31389	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31390	—	1	10	Units : deg F Int16
XD System 15 Temperature Sensor 1					
Remote Sensor Temperature	31396	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31397	—	1	10	Units : deg F Int16
XD System 15 Temperature Sensor 2					
Remote Sensor Temperature	31403	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31404	—	1	10	Units : deg F Int16
. . .		—			
XD System 15 Temperature Sensor 4					
Remote Sensor Temperature	31417	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31418	—	1	10	Units : deg F Int16
XD System 16 Temperature Sensor 1					
Remote Sensor Temperature	31424	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31425	—	1	10	Units : deg F Int16
XD System 16 Temperature Sensor 2					
Remote Sensor Temperature	31431	—	1	10	Units : deg C Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Remote Sensor Temperature	31432	—	1	10	Units : deg F Int16
. . .		—			
XD System 16 Temperature Sensor 4					
Remote Sensor Temperature	31445	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31446	—	1	10	Units : deg F Int16
XD System 17 Temperature Sensor 1					
Remote Sensor Temperature	31452	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31453	—	1	10	Units : deg F Int16
XD System 17 Temperature Sensor 2					
Remote Sensor Temperature	31459	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31460	—	1	10	Units : deg F Int16
. . .		—			
XD System 17 Temperature Sensor 4					
Remote Sensor Temperature	31473	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31474	—	1	10	Units : deg F Int16
XD System 18 Temperature Sensor 1					
Remote Sensor Temperature	31480	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31481	—	1	10	Units : deg F Int16
XD System 18 Temperature Sensor 2					
Remote Sensor Temperature	31487	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31488	—	1	10	Units : deg F Int16
. . .		—			
XD System 18 Temperature Sensor 4					

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Remote Sensor Temperature	31501	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31502	—	1	10	Units : deg F Int16
XD System 19 Temperature Sensor 1					
Remote Sensor Temperature	31508	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31509	—	1	10	Units : deg F Int16
XD System 19 Temperature Sensor 2					
Remote Sensor Temperature	31515	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31516	—	1	10	Units : deg F Int16
. . .					
XD System 19 Temperature Sensor 4					
Remote Sensor Temperature	31529	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31530	—	1	10	Units : deg F Int16
XD System 20 Temperature Sensor 1					
Remote Sensor Temperature	31536	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31537	—	1	10	Units : deg F Int16
XD System 20 Temperature Sensor 2					
Remote Sensor Temperature	31543	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31544	—	1	10	Units : deg F Int16
. . .					
XD System 20 Temperature Sensor 4					
Remote Sensor Temperature	31557	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31558	—	1	10	Units : deg F Int16

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Table 3.66 Liebert® XDC—Input and Holding (continued)

Controller	Liebert® iCOM™ v4				
Data Description	Input	Holding	# of Reg.	Scale	Notes / Units
Slave Fans 1					
Fan State	31564	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31565	41565	1	—	0 = disabled 1 = automatic 2 = manual
Slave Fans 2					
Fan State	31571		1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31572	41572	1	—	0 = disabled 1 = automatic 2 = manual
. . .					
Slave Fans 20					
Fan State	31697	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31698	41698	1	—	0 = disabled 1 = automatic 2 = manual
Time					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

Table 3.67 Liebert® XDC—Glossary

Data Label	Data Description
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Circuit 1 Low Suction Pressure	Compressor circuit 1 low suction pressure.
Circuit 2 Low Suction Pressure	Compressor circuit 2 low suction pressure.
Cold Aisle Over Temp Threshold	Upper threshold value used in the [Cold Aisle Temp Out of Range] event.

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Table 3.67 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Cold Aisle Temp Out of Range	The air temperature in the cold aisle is either above [Cold Aisle Over Temp Threshold] or below [Cold Aisle Under Temp Threshold].
Cold Aisle Under Temp Threshold	Lower threshold value used in the [Cold Aisle Temp Out of Range] event.
Communication Status	Communication status of remote device.
Compressor 1A High Head Pressure	Compressor 1A high head pressure.
Compressor 1A Short Cycle	Compressor 1A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1A State	Compressor 1A operational state.
Compressor 1B High Head Pressure	Compressor 1B high head pressure.
Compressor 1B Short Cycle	Compressor 1B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1B State	Compressor 1B operational state.
Compressor 2A High Head Pressure	Compressor 2A high head pressure.
Compressor 2A Short Cycle	Compressor 2A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2A State	Compressor 2A operational state.
Compressor 2B High Head Pressure	Compressor 2B high head pressure.
Compressor 2B Short Cycle	Compressor 2B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2B State	Compressor 2B operational state.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Customer Input 1	Customer input 1.
Dew Point Temperature	Dew point temperature, using the highest reading from all sensors.
Ext Air Over Temp Threshold	Threshold value used in the ([Ext Air Sensor A Over Temperature], [Ext Air Sensor B Over Temperature]…) events.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.

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Table 3.67 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Sensor B Dew Point Temp	Dew point temperature as measured by external air sensor B.
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
Ext Air Sensor B Over Temperature	[Ext Air Sensor B Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor B Under Temperature	[Ext Air Sensor B Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Under Temp Threshold	Threshold value used in the ([Ext Air Sensor A Under Temperature], [Ext Air Sensor B Under Temperature]...) events.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Fan Issue - Event Control	Enable/disable the activation of the [Ext Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Fan Issue - Event Type	The event type for the [Ext Fan Issue] event.
Ext Fan Issue	One or more fans are not operating within their operational parameters.
Ext Remote Shutdown - Event Control	Enable/disable the activation of the [Remote Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Remote Shutdown - Event Type	The event type for the [Remote Shutdown] event.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Ext System Condensation Detected - Event Control	Enable/disable the activation of the [Ext System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext System Condensation Detected - Event Type	The event type for the [Ext System Condensation Detected] event.
Ext System Condensation Detected	External system condensation detected.
Fan Button Control	Enable or disable the buttons from controlling the state of the fans.

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Table 3.67 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Fan Economy Mode	Mode in which system slave fans are to be controlled.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan On/Off Control	Turn system fans on or off.
Fan State	Current operational state of a group of fans.
Hot Aisle Over Temp Threshold	Upper threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Aisle Temp Out of Range	The air temperature in the Hot aisle is either above [Hot Aisle Over Temp Threshold] or below [Hot Aisle Under Temp Threshold].
Hot Aisle Under Temp Threshold	Lower threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Gas Solenoid Valve 1 Position	Hot gas solenoid valve 1 position.
Hot Gas Solenoid Valve 2 Position	Hot gas solenoid valve 2 position
Hot Gas Valve 1 Open Position	Hot gas valve 1 open position.
Hot Gas Valve 2 Open Position	Hot gas valve 2 open position.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Room Temperature Set Point	Minimum desired room air temperature. If the room air temperature falls below this set point, the unit will reduce the cooling.
Master Fan Group State	Current operational state of the master fan group.
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Short Cycle	Pumps have short cycled. A short cycle is defined as turning on and off a number of times over a set time period.
Pump Thermal Overload	Pump is shut down due to thermal overload.

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Table 3.67 Liebert® XDC—Glossary (continued)

Data Label	Data Description
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Shutdown	Unit is shut down by a remote signal.
Sensor Issue - Event Control	Enable/disable the activation of the [Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Sensor Issue - Event Type	The event type for the [Sensor Issue] event.
Sensor Issue	One or more sensors are disconnected or the signals are out of range.
Sensor Temperature	Temperature as measured by sensor.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Refrig Over Temp Threshold	Threshold value used in the [Supply Refrigerant Over Temp] event.
Supply Refrigerant Over Temp	Event that is activated when [Supply Refrigerant Temperature] exceeds [Supply Refrig Over Temp Threshold]. The event is deactivated when the temperature drops below the threshold.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
Supply Refrigerant Temperature	Supply refrigerant temperature.
Supply Refrigerant Under Temp	[Supply Refrigerant Temperature] has dropped below a specified threshold.
System Condensation Detected	System condensation detected.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.

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Table 3.67 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Unit Standby	Unit was placed in standby mode.
Visual ID Control	Visual identification control to display an LED flashing sequence, allowing it to be visually located.
Water Under Floor	Water under the floor is detected.
XD Module Communication Lost	Communication with XD Module has been lost.

Table 3.68 Liebert® XDF—Status and Coil

Controller	Liebert® iCOM™ v3				
Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Temperature Indication[1]	10011	11	1	—	—
Unit Control	—	25	1	—	—
Reset Alarm	—	26	1	—	—
Acknowledge Alarm	—	27	1	—	—
Cabinet Sensor Alarm Enable	10023	23	1	—	—
Fan On	10025	—	1	—	—
Cool On	10026	—	1	—	—
Compressor 1 High Pressure	10037	—	1	—	—
Compressor 1 Low Pressure	10038	—	1	—	—
Cond Pump-High Water	10052	—	1	—	—
Loss Compressor Power	10054	—	1	—	—
Emergency Damper Fail	10056	—	1	—	—
High Internal Temperature	10057	—	1	—	—
Loss of Power	10061	—	1	—	—
Remote Shutdown	10062	—	1	—	—
Unspecified Event(s)[1]	10064	—	1	—	—
Unit Hrs Exceeded	10080	—	1	—	—
Comp 1 Hrs Exceeded	10081	—	1	—	—
Network Failure	10091	—	1	—	—
No Connection W/Unit[1]	10092	—	1	—	—
Unit(s) Disconnected	10093	—	1	—	—
Unit Code Missing	10094	—	—	—	—
Unit Code Mismatch	10095	—	—	—	—
Low Memory[1]	10097	—	—	—	—

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Table 3.68 Liebert® XDF—Status and Coil (continued)

Controller	Liebert® iCOM™ v3				
Data Description	**Status**	**Coil**	**Number of Bits**	**Scale**	**Notes / Units**
Ram / Battery Failure	10098	—	—	—	—
(Parallel Flash) MEMORY 1 FAIL	10100	—	—	—	—
(Serial Flash) MEMORY 2 FAIL	10101	—	—	—	—
Front Door Open	10102	—	—	—	—
Rear Door Open	10103	—	—	—	—
Digital Scroll Compressor 1 Sensor Fail	10108	—	—	—	—
Low Int Temperature	10110	—	—	—	—
High Ext Dewpoint	10111	—	—	—	—
Cabinet Temp Sensor Fail	10112	—	—	—	—
Cabinet Humidity Sensor Fail	10113	—	—	—	—
Ambient Temp Sensor Fail	10114	—	—	—	—
Comp 1 Short Cycle	10132	—	—	—	—
Reheat Lockout	10140	—	—	—	—
Humidifier Lockout	10141	—	—	—	—
Compressor(s) Lockout	10142	—	—	—	—
Backup Ventilation	10143	—	—	—	—
Door Open	10144	—	—	—	—
Device Load	10146	—	—	—	—
Alarm Status	10147	—	—	—	—

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

Reference Document: ST100I&C PA Parameters and Events, Version 18.0.

1. Any non-recognized alarm code by current firmware received from the Liebert® XDF control will trigger this event.

Table 3.69 Liebert® XDF—Input and Holding

Controller	Liebert® iCOM™ v3				
Data Description	**Input Register**	**Holding Register**	**# of Reg.**	**Scale**	**Note/Units**
Vendor ID	30001	40001	1	—	—
Device ID	30002	40002	1	—	—
Version number	30003	40003	1	—	—
UPS/Env/Pwr	30004	40004	1	—	—
Temperature Setpoint	30023	40023	1	10	deg C

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Table 3.69 Liebert® XDF—Input and Holding (continued)

Controller	Liebert® iCOM™ v3				
Data Description	Input Register	Holding Register	# of Reg.	Scale	Note/Units
Delay after safe Temp has been reached	30034	40034	—	—	Minutes
Allowable deviation between internal temp sensors	30035	40035	—	—	deg C
High Cabinet Temperature Setpoint	30058	40058	—	10	deg C
Low Cabinet Temperature Setpoint	30059	40059	—	10	deg C
Fan Run Hour Threshold	30070	40070	—	—	Hours
Compressor 1 Run Hour Threshold	30071	40071	—	—	Hours
Service Ramp	30099	—	—	—	%
Operating State[6]	30100	—	—	—	—
Number of Active Events/Alarm	30101	—	—	—	—
Summary Alarm Status[7]	30102	—	—	—	—
Fan Ramp	30103	—	—	—	%
Cooling Ramp	30104	—	—	—	%
Digital Scroll Compressor[1] High Temperature	30119	—	—	10	deg C
Sensor 1 Temp	30121	—	—	10	deg C
Sensor 2 Temp	30122	—	—	10	deg C
Sensor 3 Temp	30123	—	—	10	deg C
Sensor 4 Temp	30124	—	—	10	deg C
Ambient Temp	30125	—	—	10	deg C
Ambient Humidity	30126	—	—	—	%
Dew Point Temp	30127	—	—	—	deg C
Adjusted Setpoint Temp	30128	—	—	10	deg C
Cabinet Temperature	30129	—	—	10	deg C
Service Due Year	30135	—	—	—	—
Service Due Month	30136	—	—	—	—
Device kW Load	30137	—	—	—	kW

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Table 3.69 Liebert® XDF—Input and Holding (continued)

Controller	Liebert® iCOM™ v3				
Data Description	Input Register	Holding Register	# of Reg.	Scale	Note/Units
Fan Run Hour	30141	—	—	—	Hours
Compressor 1 Run Hour	30142	—	—	—	Hours

NOTES

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

Reference Document: ST100I&C PA Parameters and Events, Version 18.0

1. Timer mode: 0 = no, 1 = yes

2. Type of DT Room-Glycol: 0 = no, 1 = contact, 2 = value

3. Predictive Hum Control: 0 = relative, 1 = compensated, 2 = predictive

4. Temp Control Algorithm: 0 = proportional, 1 = PD, 2 = PDI; 3 = intelligent

5. When VFD is set to manual mode (coil 22), the host can control the VFD by the value of register 40019. The Manual VSD Timer will start to count down. Once it reaches 0, the VFD control mode will switch to auto. The host will need to periodically reset this timer in order to maintain the manual mode. Consult factory for BMS timer information.

6. Operating state:

Bit 0-1: 00 unit off, 01 unit on, 10 unit standby

Bit 2-3: 00 auto, 01 manual

Bit 4-7: 0000 none

0001 local user

0010 alarm

0011 schedule

0100 remote user

0101 external device

0110 local display

7. Alarm state bit map:

Bit 0 = Reset state

Bit 1 = Active state

Bit 2 = Acknowledge state

Bit 3-7 = Alarm Type

00000: Message

00001: Warning

00010: Alarm

8. Free-cool state: 0 = Off, 1 = Start, 2 = On

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Table 3.70 Liebert® XDP—Status and Coil

Controller	Liebert® iCOM™ v4			
Data Label	**Status**	**Coil**	**Number of Bits**	**Notes**
Pumps				
Pump 1 Loss of Flow	10001	—	1	Active on Alarm
Pump 2 Loss of Flow	10002	—	1	Active on Alarm
Pump Short Cycle	10020	—	1	Active on Alarm
System Events				
Fan Issue	10003	—	1	Active on Alarm
System Condensation Detected	10004	—	1	Active on Alarm
Customer Input 1	10005	—	1	Active on Alarm
Shutdown - Loss Of Power	10019	—	1	Active on Alarm
Water Under Floor	10021	—	1	Active on Alarm
Smoke Detected	10022	—	1	Active on Alarm
Service Required	10023	—	1	Active on Alarm
Unit Communication Lost	10262	—	1	Active on Alarm
RAM Battery Issue	10263	—	1	Active on Alarm
Master Unit Communication Lost	10264	—	1	Active on Alarm
Remote Shutdown	10265	—	1	Active on Alarm
Unit Code Missing	10266	—	1	Active on Alarm
Chilled Water				
Supply Chilled Water Over Temp	10006	—	1	Active on Alarm
Supply Chilled Water Temp Sensor Issue	10007	—	1	Active on Alarm
Chilled Water Control Valve Position	10018	—	1	Active on Alarm
Refrigerant				
Supply Refrigerant Over Temp	10008	—	1	Active on Alarm
Supply Refrigerant Under Temp	10009	—	1	Active on Alarm
Supply Refrigerant Temp Sensor Issue	10010	—	1	Active on Alarm
External Air				
Ext Air Sensor A Over Temperature	10011	—	1	Active on Alarm
Ext Air Sensor A Under Temperature	10012	—	1	Active on Alarm
Ext Air Sensor A Issue	10013	—	1	Active on Alarm
Ext Air Sensor B Over Temperature	10014	—	1	Active on Alarm
Ext Air Sensor B Under Temperature	10015	—	1	Active on Alarm

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Table 3.70 Liebert® XDP—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Label	**Status**	**Coil**	**Number of Bits**	**Notes**
Ext Air Sensor B Issue	10016	—	1	Active on Alarm
Ext Dew Point Over Temperature	10017	—	1	Active on Alarm
Pump Hours 1				
Pump Hours Exceeded	10030	—	1	Active on Alarm
Pump Hours 2				
Pump Hours Exceeded	10036	—	1	Active on Alarm
XD System 1				
Ext System Condensation Detected	10042	—	1	Active on Alarm
Ext Fan Issue	10043	—	1	Active on Alarm
Sensor Issue	10044	—	1	Active on Alarm
Ext Remote Shutdown	10045	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10046	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10047	—	1	Active on Alarm
XD System 2				
Ext System Condensation Detected	10053	—	1	Active on Alarm
Ext Fan Issue	10054	—	1	Active on Alarm
Sensor Issue	10055	—	1	Active on Alarm
Ext Remote Shutdown	10056	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10057	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10058	—	1	Active on Alarm
. . .				
XD System 20				
Ext System Condensation Detected	10251	—	1	Active on Alarm
Ext Fan Issue	10252	—	1	Active on Alarm
Sensor Issue	10253	—	1	Active on Alarm
Ext Remote Shutdown	10254	—	1	Active on Alarm
Hot Aisle Temp Out of Range	10255	—	1	Active on Alarm
Cold Aisle Temp Out of Range	10256	—	1	Active on Alarm
Messages				
Unit On	10272	—	1	Active on Alarm
Unit Off	10273	—	1	Active on Alarm

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Table 3.70 Liebert® XDP—Status and Coil (continued)

Controller	Liebert® iCOM™ v4			
Data Label	**Status**	**Coil**	**Number of Bits**	**Notes**
Unit Standby	10274	—	1	Active on Alarm
Unit Partial Shutdown	10275	—	1	Active on Alarm
Unit Shutdown	10276	—	1	Active on Alarm
Maintenance Due	10277	—	1	Active on Alarm
Maintenance Completed	10278	—	1	Active on Alarm
Pump 1				
Pump Thermal Overload	10340	—	1	Active on Alarm
Pump 2				
Pump Thermal Overload	10341	—	1	Active on Alarm
XD Module 1				
XD Module Communication Lost	10342	—	1	Active on Alarm
XD Module 2				
XD Module Communication Lost	10343	—	1	Active on Alarm
. . .				
XD Module 20				
XD Module Communication Lost	10361	—	1	Active on Alarm

Table 3.71 Liebert® XDP—Input and Holding

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Pumps					
Pump 1 State	30385	—	1	—	0 = off 1 = on
Pump 2 State	30386	—	1	—	0 = off 1 = on
Refrigerant					
Supply Refrigerant Temperature	30387	—	1	10	Units : deg C Int16
Supply Refrigerant Temperature	30388	—	1	10	Units : deg F Int16
Supply Refrig Over Temp Threshold	30411	40411	1	10	Units : deg C Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Supply Refrig Over Temp Threshold	30412	40412	1	10	Units : deg F Int16
Chilled Water					
Supply Chilled Water Temperature	30389	—	1	10	Units : deg C Int16
Supply Chilled Water Temperature	30390	—	1	10	Units : deg F Int16
Supply Chilled Water Over Temp Threshold	30413	40413	1	10	Units : deg C Int16
Supply Chilled Water Over Temp Threshold	30414	40414	1	10	Units : deg F Int16
Chilled Water Valve Open Position	31710	—	1	—	Uint16
System Information					
System Status	30391	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Unit Operating State	30392	—	1	—	0 = off 1 = on 2 = standby
Auto Restart Delay	30417	40417	1	—	Units : sec Int16
Unit Control Mode	30418	—	1	—	0 = Internal (Auto) 1 = External (Manual)
Maintenance Ramp	30419	—	1	—	Units : % Uint16
Calculated Next Maintenance Month	30420	—	1	—	Uint16
Calculated Next Maintenance Year	30421	—	1	—	Uint16
System On/Off Control	30422	40422	1	—	0 = off 1 = on
Unit Off Reason	31704	—	1	—	0 = None 1 = User 2 = Alarm 3 = Timer 4 = Monitoring 5 = Remote Off 6 = HCS12 Off
External Air					

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext Air Sensor A Temperature	30393	—	1	10	Units : deg C Int16
Ext Air Sensor A Temperature	30394	—	1	10	Units : deg F Int16
Ext Air Sensor A Humidity	30395	—	1	10	Units : % RH Uint16
Ext Air Sensor A Dew Point Temp	30396	—	1	10	Units : deg C Int16
Ext Air Sensor A Dew Point Temp	30397	—	1	10	Units : deg F Int16
Ext Air Sensor B Temperature	30398	—	1	10	Units : deg C Int16
Ext Air Sensor B Temperature	30399	—	1	10	Units : deg F Int16
Ext Air Sensor B Humidity	30400	—	1	10	Units : % RH Uint16
Ext Air Sensor B Dew Point Temp	30401	—	1	10	Units : deg C Int16
Ext Air Sensor B Dew Point Temp	30402	—	1	10	Units : deg F Int16
Minimum Room Temperature Set Point	30403	40403	1	10	Units : deg C Int16
Minimum Room Temperature Set Point	30404	40404	1	10	Units : deg F Int16
Ext Air Over Temp Threshold	30405	40405	1	10	Units : deg C Int16
Ext Air Over Temp Threshold	30406	40406	1	10	Units : deg F Int16
Ext Air Under Temp Threshold	30407	40407	1	10	Units : deg C Int16
Ext Air Under Temp Threshold	30408	40408	1	10	Units : deg F Int16
Ext Dew Point Over Temp Threshold	30409	40409	1	10	Units : deg C Int16
Ext Dew Point Over Temp Threshold	30410	40410	1	10	Units : deg F Int16
Dew Point Temperature	30415	—	1	10	Units : deg C Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Dew Point Temperature	30416	—	1	10	Units : deg F Int16
System Events					
System Event Acknowledge/Reset	—	40423	1	—	2 = Reset 4 = Acknowledge
Time					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)
Pump Hours 1					
Pump Hours	30430	40430	1	—	Units : hr Uint16
Pump Hours Threshold	30431	40431	1	—	Units : hr Uint16
Pump Hours 2					
Pump Hours	30437	40437	1	—	Units : hr Uint16
Pump Hours Threshold	30438	40438	1	—	Units : hr Uint16
XD System 1					
Communication Status	30444	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30445	40445	1	—	0 = off 1 = on
Master Fan Group State	30446	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30447	40447	1	—	0 = enabled 1 = disabled
Visual ID Control	30448	40448	1	—	0 = disabled 1 = enabled
Cooling Capacity	30449	—	1	—	Units : % Uint16
Cooling Capacity	30450	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30451	40451	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30452	40452	1	—	0 = Message 1 = Warning 2 = Alarm

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Ext Fan Issue - Event Control	30453	40453	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30454	40454	1	—	0 = Message 1 = Warning 2 = Alarm
Sensor Issue - Event Control	30455	40455	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30456	40456	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30457	40457	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30458	40458	1	—	0 = Message 1 = Warning 2 = Alarm
Hot Aisle Over Temp Threshold	30459	40459	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30460	40460	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30461	40461	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30462	40462	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30463	40463	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30464	40464	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30465	40465	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30466	40466	1	—	Units : deg F Int16
XD System 2					
Communication Status	30472		1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30473	40473	1	—	0 = off 1 = on
Master Fan Group State	30474	—	1	—	0 = off 1 = on2 = economy
Fan Button Control	30475	40475	1	—	0 = enabled 1 = disabled

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Visual ID Control	30476	40476	1	—	0 = disabled 1 = enabled
Cooling Capacity	30477	—	1	—	Units : % Uint16
Cooling Capacity	30478	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30479	40479	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30480	40480	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Fan Issue - Event Control	30481	40481	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30482	40482	1	—	0 = Message 1 = Warning 2 = Alarm
Sensor Issue - Event Control	30483	40483	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30484	40484	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30485	40485	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30486	40486	1	—	0 = Message 1 = Warning 2 = Alarm
Hot Aisle Over Temp Threshold	30487	40487	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30488	40488	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30489	40489	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30490	40490	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30491	40491	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30492	40492	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30493	40493	1	—	Units : deg C Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Cold Aisle Under Temp Threshold	30494	40494	1	—	Units : deg F Int16
. . .					
XD System 20					
Communication Status	30976	—	1	—	0 = Connected 1 = Not Connected
Fan On/Off Control	30977	40977	1	—	0 = off 1 = on
Master Fan Group State	30978	—	1	—	0 = off 1 = on 2 = economy
Fan Button Control	30979	40979	1	—	0 = enabled 1 = disabled
Visual ID Control	30980	40980	1	—	0 = disabled 1 = enabled
Cooling Capacity	30981	—	1	—	Units : % Uint16
Cooling Capacity	30982	—	1	—	Units : kW Uint16
Ext System Condensation Detected - Event Control	30983	40983	1	—	0 = disabled 1 = enabled
Ext System Condensation Detected - Event Type	30984	40984	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Fan Issue - Event Control	30985	40985	1	—	0 = disabled 1 = enabled
Ext Fan Issue - Event Type	30986	40986	1	—	0 = Message 1 = Warning 2 = Alarm
Sensor Issue - Event Control	30987	40987	1	—	0 = disabled 1 = enabled
Sensor Issue - Event Type	30988	40988	1	—	0 = Message 1 = Warning 2 = Alarm
Ext Remote Shutdown - Event Control	30989	40989	1	—	0 = disabled 1 = enabled
Ext Remote Shutdown - Event Type	30990	40990	1	—	0 = Message 1 = Warning 2 = Alarm

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Hot Aisle Over Temp Threshold	30991	40991	1	—	Units : deg C Int16
Hot Aisle Over Temp Threshold	30992	40992	1	—	Units : deg F Int16
Hot Aisle Under Temp Threshold	30993	40993	1	—	Units : deg C Int16
Hot Aisle Under Temp Threshold	30994	40994	1	—	Units : deg F Int16
Cold Aisle Over Temp Threshold	30995	40995	1	—	Units : deg C Int16
Cold Aisle Over Temp Threshold	30996	40996	1	—	Units : deg F Int16
Cold Aisle Under Temp Threshold	30997	40997	1	—	Units : deg C Int16
Cold Aisle Under Temp Threshold	30998	40998	1	—	Units : deg F Int16
XD System 1 Temperature Sensor 1					
Remote Sensor Temperature	31004	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31005	—	1	10	Units : deg F Int16
XD System 1 Temperature Sensor 2					
Remote Sensor Temperature	31011	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31012	—	1	10	Units : deg F Int16
. . .		—			
XD System 1 Temperature Sensor 4					
Remote Sensor Temperature	31025	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31026	—	1	10	Units : deg F Int16
XD System 1 Slave Fans					
Fan State	31032	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31033	41033	1	—	0 = disabled 1 = automatic 2 = manual

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
XD System 2 Temperature Sensor 1					
Remote Sensor Temperature	31039	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31040	—	1	10	Units : deg F Int16
XD System 2 Temperature Sensor 2					
Remote Sensor Temperature	31046	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31047	—	1	10	Units : deg F Int16
. . .		—			
XD System 2 Temperature Sensor 4					
Remote Sensor Temperature	31060	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31061	—	1	10	Units : deg F Int16
XD System 2 Slave Fans					
Fan State	31067	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31068	41068	1	—	0 = disabled 1 = automatic 2 = manual
XD System 3 Temperature Sensor 1					
Remote Sensor Temperature	31074	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31075	—	1	10	Units : deg F Int16
XD System 3 Temperature Sensor 2					
Remote Sensor Temperature	31081	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31082	—	1	10	Units : deg F Int16
. . .		—			
XD System 3 Temperature Sensor 4					
Remote Sensor Temperature	31095	—	1	10	Units : deg C Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31096	—	1	10	Units : deg F Int16
XD System 3 Slave Fans					
Fan State	31102	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31103	41103	1	—	0 = disabled 1 = automatic 2 = manual
XD System 4 Temperature Sensor 1					
Remote Sensor Temperature	31109	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31110	—	1	10	Units : deg F Int16
XD System 4 Temperature Sensor 2					
Remote Sensor Temperature	31116	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31117	—	1	10	Units : deg F Int16
. . .					
XD System 4 Temperature Sensor 4					
Remote Sensor Temperature	31130	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31131	—	1	10	Units : deg F Int16
XD System 4 Slave Fans					
Fan State	31137	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31138	41138	1	—	0 = disabled 1 = automatic 2 = manual
XD System 5 Temperature Sensor 1					
Remote Sensor Temperature	31144	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31145	—	1	10	Units : deg F Int16
XD System 5 Temperature Sensor 2					

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Remote Sensor Temperature	31151	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31152	—	1	10	Units : deg F Int16
. . .					
XD System 5 Temperature Sensor 4					
Remote Sensor Temperature	31165	—	1	10	0 = off 1 = on 2 = economy
Remote Sensor Temperature	31166	—	1	10	0 = disabled 1 = automatic 2 = manual
XD System 5 Slave Fans					
Fan State	31172	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31173	41173	1	—	0 = disabled 1 = automatic 2 = manual
XD System 6 Temperature Sensor 1					
Remote Sensor Temperature	31179	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31180	—	1	10	Units : deg F Int16
XD System 6 Temperature Sensor 2					
Remote Sensor Temperature	31186	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31187	—	1	10	Units : deg F Int16
. . .					
XD System 6 Temperature Sensor 4					
Remote Sensor Temperature	31200	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31201	—	1	10	Units : deg F Int16
XD System 6 Slave Fans					
Fan State	31207	—	1	—	0 = off 1 = on 2 = economy

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Economy Mode	31208	41208	1	—	0 = disabled 1 = automatic 2 = manual
XD System 7 Temperature Sensor 1					
Remote Sensor Temperature	31214	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31215	—	1	10	Units : deg F Int16
XD System 7 Temperature Sensor 2					
Remote Sensor Temperature	31221	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31222	—	1	10	Units : deg F Int16
. . .		—			
XD System 7 Temperature Sensor 4					
Remote Sensor Temperature	31235	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31236	—	1	10	Units : deg F Int16
XD System 7 Slave Fans					
Fan State	31242	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31243	41243	1	—	0 = disabled 1 = automatic 2 = manual
XD System 8 Temperature Sensor 1					
Remote Sensor Temperature	31249	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31250	—	1	10	Units : deg F Int16
XD System 8 Temperature Sensor 2					
Remote Sensor Temperature	31256	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31257	—	1	10	Units : deg F Int16
. . .		—			
XD System 8 Temperature Sensor 4					

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31270	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31271	—	1	10	Units : deg F Int16
XD System 8 Slave Fans					
Fan State	31277	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31278	41278	1	—	0 = disabled 1 = automatic 2 = manual
XD System 9 Temperature Sensor 1					
Remote Sensor Temperature	31284	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31285	—	1	10	Units : deg F Int16
XD System 9 Temperature Sensor 2					
Remote Sensor Temperature	31291	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31292	—	1	10	Units : deg F Int16
. . .					
XD System 9 Temperature Sensor 4					
Remote Sensor Temperature	31305	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31306	—	1	10	Units : deg F Int16
XD System 9 Slave Fans					
Fan State	31312	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31313	41313	1	—	0 = disabled 1 = automatic 2 = manual
XD System 10 Temperature Sensor 1					
Remote Sensor Temperature	31319	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31320	—	1	10	Units : deg F Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
XD System 10 Temperature Sensor 2					
Remote Sensor Temperature	31326	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31327	—	1	10	Units : deg F Int16
. . .					
XD System 10 Temperature Sensor 4					
Remote Sensor Temperature	31340	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31341	—	1	10	Units : deg F Int16
XD System 10 Slave Fans					
Fan State	31347	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31348	41348	1	—	0 = disabled 1 = automatic 2 = manual
XD System 11 Temperature Sensor 1					
Remote Sensor Temperature	31354	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31355	—	1	10	Units : deg F Int16
XD System 11 Temperature Sensor 2					
Remote Sensor Temperature	31361	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31362	—	1	10	Units : deg F Int16
. . .					
XD System 11 Temperature Sensor 4					
Remote Sensor Temperature	31375	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31376	—	1	10	Units : deg F Int16
XD System 11 Slave Fans					
Fan State	31382	—	1	—	0 = off 1 = on 2 = economy

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Fan Economy Mode	31383	41383	1	—	0 = disabled 1 = automatic 2 = manual
XD System 12 Temperature Sensor 1					
Remote Sensor Temperature	31389	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31390	—	1	10	Units : deg F Int16
XD System 12 Temperature Sensor 2					
Remote Sensor Temperature	31396	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31397	—	1	10	Units : deg F Int16
. . .		—			
XD System 12 Temperature Sensor 4					
Remote Sensor Temperature	31410	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31411	—	1	10	Units : deg F Int16
XD System 12 Slave Fans					
Fan State	31417	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31418	41418	1	—	0 = disabled 1 = automatic 2 = manual
XD System 13 Temperature Sensor 1					
Remote Sensor Temperature	31424	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31425	—	1	10	Units : deg F Int16
XD System 13 Temperature Sensor 2					
Remote Sensor Temperature	31431	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31432	—	1	10	Units : deg F Int16
. . .					
XD System 13 Temperature Sensor 4					

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Remote Sensor Temperature	31445	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31446	—	1	10	Units : deg F Int16
XD System 13 Slave Fans					
Fan State	31452	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31453	41453	1	—	0 = disabled 1 = automatic 2 = manual
XD System 14 Temperature Sensor 1					
Remote Sensor Temperature	31459	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31460	—	1	10	Units : deg F Int16
XD System 14 Temperature Sensor 2					
Remote Sensor Temperature	31466	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31467	—	1	10	Units : deg F Int16
. . .		—			
XD System 14 Temperature Sensor 4					
Remote Sensor Temperature	31480	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31481	—	1	10	Units : deg F Int16
XD System 14 Slave Fans					
Fan State	31487	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31488	41488	1	—	0 = disabled 1 = automatic 2 = manual
XD System 15 Temperature Sensor 1					
Remote Sensor Temperature	31494	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31495	—	1	10	Units : deg F Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
XD System 15 Temperature Sensor 2					
Remote Sensor Temperature	31501	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31502	—	1	10	Units : deg F Int16
. . .					
XD System 15 Temperature Sensor 4					
Remote Sensor Temperature	31515	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31516	—	1	10	Units : deg F Int16
XD System 15 Slave Fans					
Fan State	31522	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31523	41523	1	—	0 = disabled 1 = automatic 2 = manual
XD System 16 Temperature Sensor 1					
Remote Sensor Temperature	31529	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31530	—	1	10	Units : deg F Int16
XD System 16 Temperature Sensor 2					
Remote Sensor Temperature	31536	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31537	—	1	10	Units : deg F Int16
. . .		—			
XD System 16 Temperature Sensor 4					
Remote Sensor Temperature	31550	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31551	—	1	10	Units : deg F Int16
XD System 16 Slave Fans					
Fan State	31557	—	1	—	0 = off 1 = on 2 = economy

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	**Input**	**Holding**	**# of Reg**	**Scale**	**Notes/Units**
Fan Economy Mode	31558	41558	1	—	0 = disabled 1 = automatic 2 = manual
XD System 17 Temperature Sensor 1					
Remote Sensor Temperature	31564	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31565	—	1	10	Units : deg F Int16
XD System 17 Temperature Sensor 2					
Remote Sensor Temperature	31571	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31572	—	1	10	Units : deg F Int16
. . .					
XD System 17 Temperature Sensor 4					
Remote Sensor Temperature	31585	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31586	—	1	10	Units : deg F Int16
XD System 17 Slave Fans					
Fan State	31592	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31593	41593	1	—	0 = disabled 1 = automatic 2 = manual
XD System 18 Temperature Sensor 1					
Remote Sensor Temperature	31600	—	1	10	Units : deg F Int16
XD System 18 Temperature Sensor 2					
Remote Sensor Temperature	31606	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31607	—	1	10	Units : deg F Int16
. . .					
XD System 18 Temperature Sensor 4					
Remote Sensor Temperature	31620	—	1	10	Units : deg C Int16

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31621	—	1	10	Units : deg F Int16
XD System 18 Slave Fans					
Fan State	31627	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31628	41628	1	—	0 = disabled 1 = automatic 2 = manual
XD System 19 Temperature Sensor 1					
Remote Sensor Temperature	31634	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31635	—	1	10	Units : deg F Int16
XD System 19 Temperature Sensor 2					
Remote Sensor Temperature	31641	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31642	—	1	10	Units : deg F Int16
. . .		—			
XD System 19 Temperature Sensor 4					
Remote Sensor Temperature	31655	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31656	—	1	10	Units : deg F Int16
XD System 19 Slave Fans					
Fan State	31662	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31663	41663	1	—	0 = disabled 1 = automatic 2 = manual
XD System 20 Temperature Sensor 1					
Remote Sensor Temperature	31669	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31670	—	1	10	Units : deg F Int16
XD System 20 Temperature Sensor 2					

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Table 3.71 Liebert® XDP—Input and Holding (continued)

Controller	Liebert iCOM v4				
Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Remote Sensor Temperature	31676	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31677	—	1	10	Units : deg F Int16
. . .					
XD System 20 Temperature Sensor 4					
Remote Sensor Temperature	31690	—	1	10	Units : deg C Int16
Remote Sensor Temperature	31691	—	1	10	Units : deg F Int16
XD System 20 Slave Fans					
Fan State	31697	—	1	—	0 = off 1 = on 2 = economy
Fan Economy Mode	31698	41698	1	—	0 = disabled 1 = automatic 2 = manual

Table 3.72 Liebert® XDP—Glossary

Data Label	Data Description
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Valve Open Position	Chilled water valve open position.
Cold Aisle Over Temp Threshold	Upper threshold value used in the [Cold Aisle Temp Out of Range] event.
Cold Aisle Temp Out of Range	The air temperature in the cold aisle is either above [Cold Aisle Over Temp Threshold] or below [Cold Aisle Under Temp Threshold].
Cold Aisle Under Temp Threshold	Lower threshold value used in the [Cold Aisle Temp Out of Range] event.
Communication Status	Communication status of remote device.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Customer Input 1	Customer input 1.

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Table 3.72 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Dew Point Temperature	Dew point temperature, using the highest reading from all sensors.
Ext Air Over Temp Threshold	Threshold value used in the ([Ext Air Sensor A Over Temperature], [Ext Air Sensor B Over Temperature]...) events.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Sensor B Dew Point Temp	Dew point temperature as measured by external air sensor B.
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
Ext Air Sensor B Over Temperature	[Ext Air Sensor B Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor B Under Temperature	[Ext Air Sensor B Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Under Temp Threshold	Threshold value used in the ([Ext Air Sensor A Under Temperature], [Ext Air Sensor B Under Temperature]...) events.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Fan Issue - Event Control	Enable/disable the activation of the [Ext Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Fan Issue - Event Type	The event type for the [Ext Fan Issue] event.
Ext Fan Issue	One or more fans are not operating within their operational parameters.
Ext Remote Shutdown - Event Control	Enable/disable the activation of the [Remote Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Remote Shutdown - Event Type	The event type for the [Remote Shutdown] event.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Ext System Condensation Detected - Event Control	Enable/disable the activation of the [Ext System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext System Condensation Detected - Event Type	The event type for the [Ext System Condensation Detected] event.
Ext System Condensation Detected	External system condensation detected.

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Table 3.72 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Fan Button Control	Enable or disable the buttons from controlling the state of the fans.
Fan Economy Mode	Mode in which system slave fans are to be controlled.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan On/Off Control	Turn system fans on or off.
Fan State	Current operational state of a group of fans.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Hot Aisle Over Temp Threshold	Upper threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Aisle Temp Out of Range	The air temperature in the Hot aisle is either above [Hot Aisle Over Temp Threshold] or below [Hot Aisle Under Temp Threshold].
Hot Aisle Under Temp Threshold	Lower threshold value used in the [Hot Aisle Temp Out of Range] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Room Temperature Set Point	Minimum desired room air temperature. If the room air temperature falls below this set point, the unit will reduce the cooling.
Master Fan Group State	Current operational state of the master fan group.
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Short Cycle	Pumps have short cycled. A short cycle is defined as turning on and off a number of times over a set time period.
Pump Thermal Overload	Pump is shut down due to thermal overload.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Shutdown	Unit is shut down by a remote signal.
Sensor Issue - Event Control	Enable/disable the activation of the [Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Sensor Issue - Event Type	The event type for the [Sensor Issue] event.

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Table 3.72 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Sensor Issue	One or more sensors are disconnected or the signals are out of range.
Sensor Temperature	Temperature as measured by sensor.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Chilled Water Temp Sensor Issue	The supply chilled water temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Refrig Over Temp Threshold	Threshold value used in the [Supply Refrigerant Over Temp] event.
Supply Refrigerant Over Temp	Event that is activated when [Supply Refrigerant Temperature] exceeds [Supply Refrig Over Temp Threshold]. The event is deactivated when the temperature drops below the threshold.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
Supply Refrigerant Temperature	Supply refrigerant temperature.
Supply Refrigerant Under Temp	[Supply Refrigerant Temperature] has dropped below a specified threshold.
System Condensation Detected	System condensation detected.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Visual ID Control	Visual identification control to display an LED flashing sequence, allowing it to be visually located.
Water Under Floor	Water under the floor is detected.
XD Module Communication Lost	Communication with XD Module has been lost.

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Table 3.73 Vertiv™ Liebert® XDU —Status and Coil

Data Label	Status	Coil	# of Bits	Notes
Return Air Sensor Event Control	10019	19	1	0 = disabled 1 = enabled
Ext Air Sensor A Event Control	10020	20	1	0 = disabled 1 = enabled
System On/Off Control	-	25	1	0 = off 1 = on
Fan State	10025	-	1	0 = off 1 = on
Cooling State	10026	-	1	0 = off 1 = on
Free Cooling State	10027	-	1	0 = off 1 = on
Hot Water / Hot Gas State	10028	-	1	0 = off 1 = on
Electric Reheat State	10029	-	1	0 = off 1 = on
Humidifier State	10030	-	1	0 = off 1 = on
Dehumidifier State	10031	-	1	0 = off 1 = on
Main Fan Overload	10034	-	1	Active on Alarm
Loss of Air Flow	10035	-	1	Active on Alarm
Ext Loss of Flow	10036	-	1	Active on Alarm
Smoke Detected	10047	-	1	Active on Alarm
Water Under Floor	10048	-	1	Active on Alarm
Ext Standby Glycol Pump On	10050	-	1	Active on Alarm
Ext Standby Unit On	10051	-	1	Active on Alarm
Ext Condenser Pump High Water	10052	-	1	Active on Alarm
Return Air Sensor Issue	10053	-	1	Active on Alarm
Ext Loss of Air Blower	10055	-	1	Active on Alarm
Ext Over Temperature	10060	-	1	Active on Alarm
Shutdown - Loss Of Power	10061	-	1	Active on Alarm
Supply Chilled Water Over Temp	10065	-	1	Active on Alarm
Return Air Over Temperature	10067	-	1	Active on Alarm

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Table 3.73 Vertiv™ Liebert® XDU —Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Return Air Under Temperature	10068	-	1	Active on Alarm
High Return Humidity	10069	-	1	Active on Alarm
Low Return Humidity	10070	-	1	Active on Alarm
Ext Air Sensor A Over Temperature	10071	-	1	Active on Alarm
Ext Air Sensor A Under Temperature	10072	-	1	Active on Alarm
Ext Air Sensor A High Humidity	10073	-	1	Active on Alarm
Ext Air Sensor A Low Humidity	10074	-	1	Active on Alarm
Clogged Air Filter	10076	-	1	Active on Alarm
Supply Air Sensor Issue	10077	-	1	Active on Alarm
Ext Air Sensor A Issue	10079	-	1	Active on Alarm
Fan Hours Exceeded	10080	-	1	Active on Alarm
Unit Communication Lost	10091	-	1	Active on Alarm
Master Unit Communication Lost	10092	-	1	Active on Alarm
Unit Code Missing	10094	-	1	Active on Alarm
Service Required	10098	-	1	Active on Alarm
Customer Input 1	10104	-	1	Active on Alarm
Customer Input 2	10105	-	1	Active on Alarm
Customer Input 3	10106	-	1	Active on Alarm
Customer Input 4	10107	-	1	Active on Alarm
Supply Air Over Temperature	10209	-	1	Active on Alarm
Supply Air Under Temperature	10210	-	1	Active on Alarm
Ambient Air Sensor Issue	10211	-	1	Active on Alarm
Fan Issue	10218	-	1	Active on Alarm
Condenser Issue 1	10221	-	1	Active on Alarm
Condenser Issue 2	10222	-	1	Active on Alarm
BMS Communications Timeout	10223	-	1	Active on Alarm
Digital Output Board Not Detected 1	10224	-	1	Active on Alarm
Digital Output Board Not Detected 2	10225	-	1	Active on Alarm
Digital Output Board Not Detected 3	10226	-	1	Active on Alarm
RAM Battery Issue	10227	-	1	Active on Alarm
Water Leakage Detector Sensor Issue	10228	-	1	Active on Alarm
External Fire Detected	10229	-	1	Active on Alarm

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Table 3.73 Vertiv™ Liebert® XDU —Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Chilled Water Control Valve Failure 1	10230	-	1	Active on Alarm
Chilled Water Control Valve Failure 2	10231	-	1	Active on Alarm
Unit Off	10232	-	1	Active on Alarm
Unit On	10233	-	1	Active on Alarm
Unit Partial Shutdown	10234	-	1	Active on Alarm
Unit Shutdown	10235	-	1	Active on Alarm
High Power Shutdown	10236	-	1	Active on Alarm
Unit Standby	10237	-	1	Active on Alarm
Maintenance Due	10238	-	1	Active on Alarm
Maintenance Completed	10239	-	1	Active on Alarm
Dew Point Over Temperature	10345	-	1	Active on Alarm
Dew Point Under Temperature	10346	-	1	Active on Alarm
Ext Dew Point Over Temperature	10347	-	1	Active on Alarm
Ext Dew Point Under Temperature	10348	-	1	Active on Alarm
Unspecified General Event	10351	-	1	Active on Alarm
Temperature Control Sensor Issue	10388	-	1	Active on Alarm
Return Humidity Sensor Issue	10600	-	1	Active on Alarm
Airflow Sensor Issue	10603	-	1	Active on Alarm
Ext Air Damper Position Issue	10604	-	1	Active on Alarm
Ext Power Source A Failure	10605	-	1	Active on Alarm
Ext Power Source B Failure	10606	-	1	Active on Alarm
Mixed Mode Lockout	10620	-	1	Active on Alarm
Aux Air Temp Device Communication Lost	10630	-	1	Active on Alarm
External Condenser TVSS Issue	10655	-	1	Active on Alarm
External Condenser VFD Issue	10656	-	1	Active on Alarm
Supply NTC Air Sensor Issue	10790	-	1	Active on Alarm
External Air Sensor B Issue	10791	-	1	Active on Alarm
External Air Sensor C Issue	10792	-	1	Active on Alarm
External Air Sensor D Issue	10793	-	1	Active on Alarm
External Air Sensor E Issue	10794	-	1	Active on Alarm
TSA Control Input Issue	10860	-	1	Active on Alarm
FSA Control Input Issue	10862	-	1	Active on Alarm

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Table 3.73 Vertiv™ Liebert® XDU —Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes
Auto Tune License Expiring	10863	-	1	Active on Alarm
Auto Tune License Expired	10864	-	1	Active on Alarm
Unit In Standby Due To Cooling Loss	10865	-	1	Active on Alarm
Control Units Remote Shutdown Mismatch	10866	-	1	Active on Alarm
Slave Control Unit Communication Lost	10867	-	1	Active on Alarm
Control Units Unit Code Mismatch	10868	-	1	Active on Alarm
Group Independent On	10870	-	1	Active on Alarm
Group Independent Off	10871	-	1	Active on Alarm
Audit Log Update	10882	-	1	Active on Alarm
Supply Fluid Temp Sensor Issue	10884	-	1	Active on Alarm
Return Fluid Temp Sensor Issue	10885	-	1	Active on Alarm
Flow Sensor Failure	10886	-	1	Active on Alarm
Check Water System	10887	-	1	Active on Alarm
Supply Fluid Over Temp	10888	-	1	Active on Alarm
Return Fluid Over Temp	10889	-	1	Active on Alarm
Pump Operating Without Flow	10890	-	1	Active on Alarm
Pump Inverter Failure 1	10891	-	1	Active on Alarm
Pump Inverter Failure 2	10892	-	1	Active on Alarm
Pump Flow Failure 1	10893	-	1	Active on Alarm
Pump Flow Failure 2	10894	-	1	Active on Alarm
Door Open	10895	-	1	Active on Alarm
XD Pump Communication Lost 1	10928	-	1	Active on Alarm
XD Pump Communication Lost 2	10929	-	1	Active on Alarm
Water Leakage	10930	-	1	Active on Alarm
PHE Sup Tem Snsr Fail	10931	-	1	Active on Alarm

Table 3.74 Vertiv™ Liebert® XDU —Input and Holding

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Fan Speed Maximum Set Point	30019	40019	1	-	% Uint16
Air Temperature Set Point	30023	40023	1	10	deg C Int16
Air Temperature Set Point	30736	40736	1	10	deg F Int16

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Air Temperature Proportional Band	30024	40024	1	10	deg C Uint16
Air Temperature Proportional Band	30737	40737	1	10	deg F Uint16
Air Temperature Dead Band	30025	40025	1	10	deg C Uint16
Air Temperature Dead Band	30738	40738	1	10	deg F Uint16
Air Temperature Control Integration Time	30026	40026	1	10	min Uint16
Humidity Set Point	30027	40027	1	-	% RH Uint16
Humidity Proportional Band	30028	40028	1	-	% RH Uint16
Humidity Control Integration Time	30029	40029	1	10	min Uint16
Humidity Dead Band	30030	40030	1	10	% RH Uint16
Auto Restart Delay	30031	40031	1	-	sec Uint16
Air Temperature Control Type	30033	40033	1	-	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID 3 = Intelligent
BMS Timeout Period	30045	40045	1	-	min Uint16
High Return Air Temperature Threshold	30050	40050	1	10	deg C Int16
High Return Air Temperature Threshold	30739	40739	1	10	deg F Int16
Low Return Air Temperature Threshold	30051	40051	1	10	deg C Int16
Low Return Air Temperature Threshold	30740	40740	1	10	deg F Int16
Ext Air Sensor A Over Temp Threshold	30052	40052	1	10	deg C

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					Int16
Ext Air Sensor A Over Temp Threshold	30741	40741	1	10	deg F Int16
Ext Air Sensor A Under Temp Threshold	30053	40053	1	10	deg C Int16
Ext Air Sensor A Under Temp Threshold	30742	40742	1	10	deg F Int16
High Return Humidity Threshold	30054	40054	1	10	% RH Uint16
Low Return Humidity Threshold	30055	40055	1	10	% RH Uint16
Ext Air Sensor A High Humidity Threshold	30056	40056	1	10	% RH Uint16
Ext Air Sensor A Low Humidity Threshold	30057	40057	1	10	% RH Uint16
Fan Hours Threshold	30070	40070	2	-	hr Int32
Unit Operating State	30100	-	1	-	0 = off 1 = on 2 = standby
System Status	30102	-	1	-	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Fan Speed	30103	-	1	-	% Uint16
Free Cooling Valve Open Position	30105	-	1	-	% Uint16
Reheat Utilization	30106	-	1	-	% Uint16
Humidifier Utilization	30107	-	1	-	% Uint16
Dehumidifier Utilization	30108	-	1	-	% Uint16

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Return Air Temperature	30110	-	1	10	deg C Int16
Return Air Temperature	30743	-	1	10	deg F Int16
Supply Air Temperature	30112	-	1	10	deg C Int16
Supply Air Temperature	30744	-	1	10	deg F Int16
Ext Air Sensor A Temperature	30116	-	1	10	deg C Int16
Ext Air Sensor A Temperature	30747	-	1	10	deg F Int16
Ext Air Sensor B Temperature	30117	-	1	10	deg C Int16
Ext Air Sensor B Temperature	30748	-	1	10	deg F Int16
Ext Air Sensor C Temperature	30118	-	1	10	deg C Int16
Ext Air Sensor C Temperature	30749	-	1	10	deg F Int16
Return Humidity	30130	-	1	10	% RH Uint16
Ext Air Sensor A Humidity	30132	-	1	10	% RH Uint16
Ext Air Sensor B Humidity	30133	-	1	10	% RH Uint16
Ext Air Sensor C Humidity	30134	-	1	10	% RH Uint16
Today's High Air Temperature	30151	-	1	10	deg C Int16
Today's High Air Temperature	30752	-	1	10	deg F Int16
Today's Low Air Temperature	30153	-	1	10	deg C Int16
Today's Low Air Temperature	30753	-	1	10	deg F

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					Int16
Today's High Humidity	30155	-	1	10	% RH Uint16
Today's Low Humidity	30157	-	1	10	% RH Uint16
Server Class	30257	-	1	-	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Today's High Air Temperature Time	30258	-	2	-	Seconds since Midnight
Today's Low Air Temperature Time	30260	-	2	-	Seconds since Midnight
Today's High Humidity Time	30265	-	2	-	Seconds since Midnight
Today's Low Humidity Time	30267	-	2	-	Seconds since Midnight
Analog Input Reading 1	30275	-	1	100	Int16
Analog Input Reading 2	30276	-	1	100	Int16
Analog Input Reading 3	30277	-	1	100	Int16
Unit Control Mode	30280	-	1	-	0 = Internal (Auto) 1 = External (Manual)
Unit Off Reason	30281	-	1	-	0 = None 1 = User 2 = Alarm 3 = Timer 4 = Monitoring 5 = Remote Off 6 = HCS12 Off
Maintenance Ramp	30282	-	1	-	% Uint16

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Calculated Next Maintenance Month	30283	-	1	-	Uint16
Calculated Next Maintenance Year	30284	-	1	-	Uint16
Hot Water / Hot Gas Valve Open Position	30285	-	1	-	% Uint16
Maintenance Tracking State	30286	-	1	-	0 = off 1 = on
Customer Input 1 - Event Control	30287	40287	1	-	0 = disabled 1 = enabled
Customer Input 1 - Event Type	30288	40288	1	-	0 = Message 1 = Warning 2 = Alarm
Customer Input 2 - Event Control	30289	40289	1	-	0 = disabled 1 = enabled
Customer Input 2 - Event Type	30290	40290	1	-	0 = Message 1 = Warning 2 = Alarm
Customer Input 3 - Event Control	30291	40291	1	-	0 = disabled 1 = enabled
Customer Input 3 - Event Type	30292	40292	1	-	0 = Message 1 = Warning 2 = Alarm
Customer Input 4 - Event Control	30293	40293	1	-	0 = disabled 1 = enabled
Customer Input 4 - Event Type	30294	40294	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Free Cooling Lockout - Event Control	30295	40295	1	-	0 = disabled 1 = enabled
Ext Free Cooling Lockout - Event Type	30296	40296	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Condenser Pump High Water - Event Control	30297	40297	1	-	0 = disabled 1 = enabled

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Ext Condenser Pump High Water - Event Type	30298	40298	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Standby Glycol Pump On - Event Control	30299	40299	1	-	0 = disabled 1 = enabled
Ext Standby Glycol Pump On - Event Type	30300	40300	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Standby Unit On - Event Control	30301	40301	1	-	0 = disabled 1 = enabled
Ext Standby Unit On - Event Type	30302	40302	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Humidifier Lockout - Event Control	30303	40303	1	-	0 = disabled 1 = enabled
Ext Humidifier Lockout - Event Type	30304	40304	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Flow - Event Control	30305	40305	1	-	0 = disabled 1 = enabled
Ext Loss of Flow - Event Type	30306	40306	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Over Temperature - Event Control	30307	40307	1	-	0 = disabled 1 = enabled
Ext Over Temperature - Event Type	30308	40308	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Reheat Lockout - Event Control	30309	40309	1	-	0 = disabled 1 = enabled
Ext Reheat Lockout - Event Type	30310	40310	1	-	0 = Message 1 = Warning 2 = Alarm
High Power Shutdown - Event Control	30311	40311	1	-	0 = disabled 1 = enabled

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
High Power Shutdown - Event Type	30312	40312	1	-	0 = Message 1 = Warning 2 = Alarm
Humidifier Issue - Event Control	30313	40313	1	-	0 = disabled 1 = enabled
Humidifier Issue - Event Type	30314	40314	1	-	0 = Message 1 = Warning 2 = Alarm
Master Unit Communication Lost - Event Control	30315	40315	1	-	0 = disabled 1 = enabled
Master Unit Communication Lost - Event Type	30316	40316	1	-	0 = Message 1 = Warning 2 = Alarm
Service Required - Event Control	30317	40317	1	-	0 = disabled 1 = enabled
Service Required - Event Type	30318	40318	1	-	0 = Message 1 = Warning 2 = Alarm
Shutdown - Loss Of Power - Event Control	30319	40319	1	-	0 = disabled 1 = enabled
Shutdown - Loss Of Power - Event Type	30320	40320	1	-	0 = Message 1 = Warning 2 = Alarm
Smoke Detected - Event Control	30321	40321	1	-	0 = disabled 1 = enabled
Smoke Detected - Event Type	30322	40322	1	-	0 = Message 1 = Warning 2 = Alarm
Water Under Floor - Event Control	30323	40323	1	-	0 = disabled 1 = enabled
Water Under Floor - Event Type	30324	40324	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Compressor Lockout - Event Control	30325	40325	1	-	0 = disabled 1 = enabled

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Ext Compressor Lockout - Event Type	30326	40326	1	-	0 = Message 1 = Warning 2 = Alarm
Clogged Air Filter - Event Control	30327	40327	1	-	0 = disabled 1 = enabled
Clogged Air Filter - Event Type	30328	40328	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Loss of Air Blower - Event Control	30329	40329	1	-	0 = disabled 1 = enabled
Ext Loss of Air Blower - Event Type	30330	40330	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A High Humidity - Event Control	30355	40355	1	-	0 = disabled 1 = enabled
Ext Air Sensor A High Humidity - Event Type	30356	40356	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Low Humidity - Event Control	30357	40357	1	-	0 = disabled 1 = enabled
Ext Air Sensor A Low Humidity - Event Type	30358	40358	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Over Temp - Event Control	30359	40359	1	-	0 = disabled 1 = enabled
Ext Air Sensor A Over Temp - Event Type	30360	40360	1	-	0 = Message 1 = Warning 2 = Alarm
Ext Air Sensor A Under Temp - Event Control	30361	40361	1	-	0 = disabled 1 = enabled
Ext Air Sensor A Under Temp - Event Type	30362	40362	1	-	0 = Message 1 = Warning 2 = Alarm
High Return Humidity - Event Control	30363	40363	1	-	0 = disabled 1 = enabled

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
High Return Humidity - Event Type	30364	40364	1	-	0 = Message 1 = Warning 2 = Alarm
Low Return Humidity - Event Control	30365	40365	1	-	0 = disabled 1 = enabled
Low Return Humidity - Event Type	30366	40366	1	-	0 = Message 1 = Warning 2 = Alarm
Return Air Over Temp - Event Control	30367	40367	1	-	0 = disabled 1 = enabled
Return Air Over Temp - Event Type	30368	40368	1	-	0 = Message 1 = Warning 2 = Alarm
Return Air Under Temp - Event Control	30369	40369	1	-	0 = disabled 1 = enabled
Return Air Under Temp - Event Type	30370	40370	1	-	0 = Message 1 = Warning 2 = Alarm
Fan Hours Exceeded - Event Control	30371	40371	1	-	0 = disabled 1 = enabled
Fan Hours Exceeded - Event Type	30372	40372	1	-	0 = Message 1 = Warning 2 = Alarm
Main Fan Overload - Event Control	30375	40375	1	-	0 = disabled 1 = enabled
Main Fan Overload - Event Type	30376	40376	1	-	0 = Message 1 = Warning 2 = Alarm
System Event Acknowledge/Reset	-	40381	1	-	2 = Reset 4 = Acknowledge
Air Temperature Control Sensor	30481	40481	1	-	0 = Supply 1 = Remote 2 = Return
High Supply Air Temperature Threshold	30482	40482	1	10	deg C Int16

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
High Supply Air Temperature Threshold	30755	40755	1	10	deg F Int16
Low Supply Air Temperature Threshold	30483	40483	1	10	deg C Int16
Low Supply Air Temperature Threshold	30756	40756	1	10	deg F Int16
Outside Air Temperature	30484	-	1	10	deg C Int16
Outside Air Temperature	30757	-	1	10	deg F Int16
Humidity Control Type	30485	40485	1	-	0 = Relative 1 = Compensated 2 = Predictive 3 = Dew Point
Ext Air Sensor A Dew Point Temp	30486	-	1	10	deg C Int16
Ext Air Sensor A Dew Point Temp	30758	-	1	10	deg F Int16
Ext Dew Point Over Temp Threshold	30487	40487	1	10	deg C Int16
Ext Dew Point Over Temp Threshold	30759	40759	1	10	deg F Int16
Ext Dew Point Under Temp Threshold	30488	40488	1	10	deg C Int16
Ext Dew Point Under Temp Threshold	30760	40760	1	10	deg F Int16
Fan Control Sensor	30494	40494	1	-	0 = Supply 1 = Remote 2 = Return 3 = Manual
Fan Speed Minimum Set Point	30495	40495	1	-	% Uint16
Fan Speed Temperature Set Point	30497	40497	1	10	deg C Int16
Fan Speed Temperature Set Point	30761	40761	1	10	deg F

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					Int16
Standby Units	30498	40498	1	-	Uint16
Adjusted Humidity	30499	-	1	10	% RH Uint16
Return Dew Point	30500	-	1	10	deg C Int16
Return Dew Point	30762	-	1	10	deg F Int16
Actual Air Temperature Set Point	30501	-	1	10	deg C Int16
Actual Air Temperature Set Point	30763	-	1	10	deg F Int16
Actual Humidity Set Point	30502	-	1	-	% RH Uint16
Dew Point Set Point	30503	40503	1	10	deg C Int16
Dew Point Set Point	30764	40764	1	10	deg F Int16
Supply Air Over/Under Temperature - Event Control	30504	40504	1	-	0 = disabled 1 = enabled
Cooling Capacity	30564	-	1	-	% Uint16
Cooling Control Temperature	30565	-	1	10	deg C Int16
Cooling Control Temperature	30781	-	1	10	deg F Int16
Fan Speed Control Temperature	30566	-	1	10	deg C Int16
Fan Speed Control Temperature	30782	-	1	10	deg F Int16
Humidity Control Sensor	30667	40667	1	-	0 = Supply 1 = Remote 2 = Return
Unit Cooling Load	31001	-	2	10	kW

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					Int32
Circuit Cooling Load 1	31003	-	2	10	kW Int32
Circuit Cooling Load 2	31005	-	2	10	kW Int32
Raw Auxiliary Air Temperature	31050	41050	1	10	deg C Int16
Raw Auxiliary Air Temperature	31051	41051	1	10	deg F Int16
Actual Auxiliary Air Temperature	31052	-	1	10	deg C Int16
Actual Auxiliary Air Temperature	31053	-	1	10	deg F Int16
Local Fan Override	31300	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Cooling Override	31301	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Electric Heat Override	31302	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Local Humidifier Override	31303	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Local Dehumidifier Override	31304	-	1	-	0 = Normal operation 1 = Increased for internal protection 2 = Decreased for internal protection 3 = Disabled for internal protection 4 = Limited or disabled for low limit protection
Fan Hours	31360	41360	2	-	hr Int32
Fan Hours	30141	40141	2	-	hr Int32
Dew Point Proportional Band	31380	41380	1	10	deg C Int16
Dew Point Proportional Band	31382	41382	1	10	deg F Int16
Dew Point Dead Band	31384	41384	1	10	deg C Int16
Dew Point Dead Band	31386	41386	1	10	deg F Int16
Fan Hours Threshold	31448	41448	2	-	hr Int32
Unit Calculated Airflow	31466	-	2	-	m3/h Uint32
Dew Point Over Temp Threshold	31549	41549	1	10	deg C Int16
Dew Point Over Temp Threshold	31550	41550	1	10	deg F Int16
Dew Point Under Temp Threshold	31551	41551	1	10	deg C Int16
Dew Point Under Temp Threshold	31552	41552	1	10	deg F Int16
Group Independent Operation Enable	31562	41562	1	-	0 = disabled 1 = enabled
Group Independent Operation	31563	41563	1	-	0 = No override (default) 1 = Override, forced on 2 = Override, forced off
Fan Back Draft Operation	31564	41564	1	-	0 = Disabled

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					1 = Standby 2 = Outdoor Temp
Supply Sensor Events Initial Delay	31565	41565	1	-	sec Int16
Return Sensor Events Initial Delay	31566	41566	1	-	sec Int16
Fan Back Draft Control Enable	31575	41575	1	-	0 = disabled 1 = enabled
Fan Back Draft Speed Set Point	31576	41576	1	10	VDC Int16
Fan Speed Temp Control Type	31577	41577	1	-	0 = Proportional 1 = Prop+Integral 2 = Adaptive PID
Fan Speed Temp Control Proportional Band	31578	41578	1	10	deg C Int16
Fan Speed Temp Control Integration Time	31579	41579	1	10	min Int16
Fan Speed Temperature Dead Band	31580	41580	1	10	deg C Int16
Auto Restart Enable	31581	41581	1	-	0 = disabled 1 = enabled
Virtual Master Enable	31582	41582	1	-	0 = disabled 1 = enabled
Teamwork Mode	31583	41583	1	-	0 = No Teamwork Mode 1 = Mode 1 (parallel) 2 = Mode 2 (independent) 3 = Mode 3 (optimized aisle)
Unit Cascade Type	31584	41584	1	-	0 = None 1 = Temp/Humidity 2 = Cool/Heat 3 = Cooling 4 = Fan PI 5 = Fan Speed
Unit Cascade On Delay	31585	41585	1	-	min Int16

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Quick Start Unit Cascade On Delay	31586	41586	1	-	sec Int16
Unit Cascade Control Delay	31587	41587	1	-	min Int16
Teamwork Temperature Calculation Method	31588	41588	1	-	0 = Average 1 = Maximum
Teamwork Average Calculation Unit Count	31589	41589	1	-	Int16
Networked Unit Rotation Time	31590	41590	2	-	Seconds since Midnight
Networked Unit Rotation Count	31592	41592	1	-	Uint16
Networked Unit Daily Rotation Frequency	31593	41593	1	-	0 = Every 24 hours 1 = Every 12 hours
Force Networked Unit Rotation	31594	41594	1	-	0 = no 1 = yes
Networked Unit Rotation Frequency	31595	41595	1	-	0 = None 1 = Daily 2 = Weekly Monday 3 = Weekly Tuesday 4 = Weekly Wednesday 5 = Weekly Thursday 6 = Weekly Friday 7 = Weekly Saturday 8 = Weekly Sunday 9 = Monthly Monday 10 = Monthly Tuesday 11 = Monthly Wednesday 12 = Monthly Thursday 13 = Monthly Friday 14 = Monthly Saturday 15 = Monthly Sunday
Start Standby Units on High Temperature	31596	41596	1	-	0 = false 1 = true
Automatic Transfer Switch - Active Power Supply	31597	-	1	-	0 = Power Supply 1 1 = Power Supply 2

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Automatic Transfer Switch - Power Supply 1 Status	31598	-	1	-	0 = OK 1 = Not OK
Automatic Transfer Switch - Power Supply 2 Status	31599	-	1	-	0 = OK 1 = Not OK
Event Log Record Counter	31601	-	2	-	Int32
Audit Log Record Counter	31603	-	2	-	Int32
Supply Fluid Temperature	31651	-	1	10	deg C Int16
Supply Fluid Temperature	31674	-	1	10	deg F Int16
Return Fluid Temperature	31652	-	1	10	deg C Int16
Return Fluid Temperature	31675	-	1	10	deg F Int16
Flow Rate	31653	-	1	10	l/min Int16
Cooling Capacity	31654	-	1	10	kW Int16
Pump Speed	31655	-	1	-	% Int16
Flow Set Point	31656	41656	1	10	l/min Int16
Flow Proportional Band	31657	41657	1	10	l/min Int16
Flow Dead Band	31658	41658	1	10	l/min Int16
Flow Integration Time	31659	41659	1	-	sec Int16
Supply Fluid Over Temp Threshold	31660	41660	1	10	deg C Int16
Supply Fluid Over Temp Threshold	31676	41676	1	10	deg F Int16
Return Fluid Over Temp Threshold	31661	41661	1	10	deg C

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					Int16
Return Fluid Over Temp Threshold	31677	41677	1	10	deg F Int16
Force Pump Rotate	-	41662	1	-	1 = Rotate
Reset Pump Speed Calibration	-	41663	1	-	1 = Reset
Pump Operating State 1	31664	-	1	-	0 = off 1 = on
Pump Operating State 2	31665	-	1	-	0 = off 1 = on
Pump Speed 1	31666	-	1	10	% Int16
Pump Speed 2	31667	-	1	10	% Int16
Pump Expected Speed 1	31668	-	1	10	% Int16
Pump Expected Speed 2	31669	-	1	10	% Int16
Pump Run Time 1	31670	-	2	-	hr Int32
Pump Run Time 2	31672	-	2	-	hr Int32
Communicate At Fan Power Off	31678	41678	1	-	0 = disabled 1 = enabled
Supply Fan Emergency Op	31679	41679	1	-	0 = disabled 1 = enabled
Pump Motor Power 1	31984	-	1	100	kW Int16
Pump Motor Power 2	31985	-	1	100	kW Int16
Pump Motor Amps 1	31986	-	1	100	A AC Int16
Pump Motor Amps 2	31987	-	1	100	A AC Int16
Inverter Temperature 1	31988	-	1	10	deg C Int16

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
Inverter Temperature 1	31989	-	1	10	deg F Int16
Inverter Temperature 2	31990	-	1	10	deg C Int16
Inverter Temperature 2	31991	-	1	10	deg F Int16
Pump Drive Overload 1	31992	-	1	-	0 = no 1 = yes
Pump Drive Overload 2	31993	-	1	-	0 = no 1 = yes
Pump Drive Over Temperature 1	31994	-	1	-	0 = no 1 = yes
Pump Drive Over Temperature 2	31995	-	1	-	0 = no 1 = yes
Pump Drive Warning 1	31996	-	1	-	0 = no 1 = yes
Pump Drive Warning 2	31997	-	1	-	0 = no 1 = yes
Pump Drive Low AC Alarm 1	31998	-	1	-	0 = no 1 = yes
Pump Drive Low AC Alarm 2	31999	-	1	-	0 = no 1 = yes
Pump Drive Phase Loss Active 1	32000	-	1	-	0 = no 1 = yes
Pump Drive Phase Loss Active 2	32001	-	1	-	0 = no 1 = yes
Pump Drive Product Identification 1	32002	-	1	-	0 = OK 1 = Not OK
Pump Drive Product Identification 2	32003	-	1	-	0 = OK 1 = Not OK
Pump Drive Communications 1	32004	-	1	-	0 = OK 1 = Not OK
Pump Drive Communications 2	32005	-	1	-	0 = OK 1 = Not OK
Analog Input Reading 9	32022	-	1	100	

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Table 3.74 Vertiv™ Liebert® XDU —Input and Holding (continued)

Data Label	Input	Holding	# of Regs	Scale	Units/Notes
					Int16
Analog Input Reading 10	32023	-	1	100	Int16
Analog Input Reading 11	32024	-	1	100	Int16
Analog Input Reading 12	32025	-	1	100	Int16
Fan Speed Min Dehum	32028	42028	1	-	% Int16
System Date and Time	39998	49998	2	-	Secs since Epoch(UTC)

Table 3.75 Vertiv™Liebert® XDU - Glossary

Data Label	Data Description
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Air Temperature Control Integration Time	Time value used when system is under integral air temperature control.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Control Type	Type of algorithm used to control the system's output air temperature.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
Audit Log Record Counter	Number of audit log records that have been sent to the client.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Audit Log Update	Audit log has been updated.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart Enable	Enable/disable automatic restart of unit after a power cycle.
Auto Tune License Expired	License for the AutoTune feature has expired.
Auto Tune License Expiring	License for the AutoTune feature has not been refreshed in 30 days and will be expiring soon.
Automatic Transfer Switch - Active Power Supply	Indicates which power supply is in use by the Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 1 Status	Status of power supply 1 in Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 2 Status	Status of power supply 2 in Automatic Transfer Switch.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Check Water System	Fluid check water system
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Communicate At Fan Power Off	Communicate with fans at power off
Condenser Issue	Condenser is not operating within its operational parameters.
Control Units Remote Shutdown Mismatch	The remote shutdown status of the master control unit does not match the remote shutdown status of the slave control unit.
Control Units Unit Code Mismatch	Unit codes for the master and slave control units do not match.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Over Temp Threshold	Threshold value used in the [Dew Point Over Temperature] event.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temp Threshold	Threshold value used in the [Dew Point Under Temperature] event.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Door Open	An open door was detected
Electric Reheat State	Electric reheater operational state.
Event Log Record Counter	Number of event log records that have been sent to the client.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed, as indicated by an external input signal.
External Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Back Draft Control Enable	Enable/disable fan back draft control.
Fan Back Draft Operation	Operational mode of the fan back draft control.
Fan Back Draft Speed Set Point	If [Fan Back Draft Control Enable] is enabled and unit is in standby, its evaporator fan will run at a fixed speed corresponding to this value.
Fan Control Sensor	Sensor to be used for fan speed control.
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours Threshold	Threshold value used in the [Fan Hours Exceeded] event.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed Maximum Set Point	Maximum fan speed. This value may only be modified if iCOM is enabled to allow fan speed changes by the BMS.
Fan Speed Min Dehum	Minimum fan speed for dehumidification operation
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Temp Control Integration Time	Integration time value used when [Fan Speed Temperature Control Type] contains an integral term.
Fan Speed Temp Control Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Fan Speed Temperature Set Point].
Fan Speed Temp Control Type	Type of algorithm used to control the fan speed when in decoupled mode. The algorithm is applied to the difference between the selected fan control sensor temperature and [Fan Speed Temperature Set Point].
Fan Speed Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fan Speed Temperature Set Point]. If the fan control air temperature sensor is within this range, no changes to the fan speed will occur (unless overridden for internal safeguards).
Fan Speed Temperature Set Point	If fan is in decoupled mode and not under manual control, the fan speed will vary depending on the delta between the selected fan control sensor temperature and this set point.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Flow Dead Band	Fluid flow dead band
Flow Integration Time	Fluid flow integration time
Flow Proportional Band	Fluid flow proportional band
Flow Rate	Fluid measured flow volume rate
Flow Sensor Failure	Fluid flow sensor failure
Flow Set Point	Fluid flow rate set point
Force Networked Unit Rotation	If networked units are configured to rotate between standby and running, force the rotation to occur immediately.
Force Pump Rotate	Fluid force pump rotation (swap pump lead/lag operation)
Free Cooling State	Free cooling operational state.
Free Cooling Valve Open Position	Free cooling valve open position.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
FSA Control Input Issue	The analog input used to set the air temperature set point for fan speed control is disconnected or the signal is out of range.
Group Independent Off	The group standby/cascade state for this unit has been overridden. The unit has been forced off.
Group Independent On	The group standby/cascade state for this unit has been overridden. The unit has been forced on.
Group Independent Operation Enable	Enable/disable group independent operation. If enabled, the user can override the unit's on/off state being controlled by its standby/cascade group.
Group Independent Operation	If this unit is part of a standby/cascade group, this value can be used to override the group control of the unit's on/off state.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier State	Humidifier operational state.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Inverter Temperature	Inverter Temperature
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Main Fan Overload	Main fan is shut down due to thermal overload.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Networked Unit Daily Rotation Frequency	If [Networked Unit Rotation Frequency] is set to 'Daily', this sets the frequency of rotation within each day.
Networked Unit Rotation Count	If networked units are configured to rotate between standby and running, this is the number of units that will rotate at the selected rotation time.
Networked Unit Rotation Frequency	Configures the frequency with which networked units will rotate between a running state and a standby state.
Networked Unit Rotation Time	If networked units are configured to rotate between standby and running, this is the time the rotation will occur on the day specified by [Networked Unit Rotation Frequency].
Outside Air Temperature	Ambient outside air temperature.
PHE Sup Tem Snsr Fail	Plate Heat Exchanger Supply Temperature Sensor Fail
Pump Drive Communications	Pump Drive Communications Status
Pump Drive Low AC Alarm	Pump Drive Low AC Alarm
Pump Drive Over Temperature	Pump Drive Over Temperature
Pump Drive Overload	Pump Drive Overload
Pump Drive Phase Loss Active	Pump Drive Phase Loss Active
Pump Drive Product Identification	Pump Drive Product Identification
Pump Drive Warning	Pump Drive Warning
Pump Expected Speed	Fluid pump expected speed for flow set point
Pump Flow Failure	Fluid pump flow failure
Pump Inverter Failure	Fluid pump inverter failure
Pump Motor Amps	Pump Motor Amps
Pump Motor Power	Pump Motor Power
Pump Operating State	Fluid pump operating state
Pump Operating Without Flow	Fluid pump operation with no flow
Pump Run Time	Fluid pump run time
Pump Speed	Fluid pump speed
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Quick Start Unit Cascade On Delay	When a Teamwork unit restarts after a power cycle, this value is used instead of [Unit Cascade On Delay]. The system will return to the use of [Unit Cascade On Delay] after a period of time determined by a predefined algorithm.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reset Pump Speed Calibration	Fluid reset pump speed calibration

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Fluid Over Temp Threshold	Threshold value used in the [Return Fluid Over Temp] event.
Return Fluid Over Temp	[Return Fluid Temperature] has exceeded a specified threshold.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any return sensor events are detected and annunciated.
Slave Control Unit Communication Lost	The master control unit has lost Ethernet communications with the slave control unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Standby Units	The number of standby units.
Start Standby Units on High Temperature	Force the system to start all standby units if any unit in operation reports a high air temperature warning.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Fan Emergency Op	Supply Fan Emergency Fan operate at communications disconnect
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply fluid temperature.
Supply NTC Air Sensor Issue	The supply NTC air sensor is disconnected or the signal is out of range.
Supply Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any supply sensor events are detected and annunciated.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Teamwork Average Calculation Unit Count	If [Teamwork Temperature Calculation Method] is set to Average, this value specifies the maximum number of units in the Teamwork group used to calculate the average.
Teamwork Mode	Teamwork mode. Provides the ability to group multiple networked units for the purpose of operating based on shared system parameters.
Teamwork Temperature Calculation Method	Method used for calculating the single Teamwork Mode air temperature from the temperature sensor values provided by the units in the Teamwork group. Each unit provides a single air temperature sensor value.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Today's High Air Temperature	The highest external air temperature measured since midnight.
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
TSA Control Input Issue	The analog input used to set the air temperature set point for cooling control is disconnected or the signal is out of range.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Cascade Control Delay	When a Teamwork unit transitions from 'standby' to 'running' due to cascading, its local control operations are delayed for this amount of time. Control operations can include, but are not limited to, heating, cooling, humidification, and/or dehumidification.
Unit Cascade On Delay	If [Unit Cascade Type] is set to anything other than 'No', and the measured value has reached the transition threshold, a Teamwork unit in 'standby' will transition to 'running' after delaying this amount of time.
Unit Cascade Type	If a unit is a member of a Teamwork group, it can be configured to cascade, i.e. automatically transition between 'standby' and 'running'. The decision of when to perform the transition is determined by comparing the value of this parameter type against a given transition threshold.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit In Standby Due To Cooling Loss	Unit forced into standby because it is unable to provide any cooling.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Virtual Master Enable	Enable/disable the virtual master feature.

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Table 3.75 Vertiv™Liebert® XDU - Glossary (continued)

Data Label	Data Description
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Leakage	Water Leakage - Typically indicates unit internal water leakage
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Pump Communication Lost	Communications with XD Pump has been lost

3.2 Power Distribution and Power Conditioning Products—Modbus Protocols

Table 3.76 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil

Controller	Liebert LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Panel 1 – Panelboard Main 1 (if panelboards are installed)					
Panel Summary Alarm	10065	—	1	—	Active on Alarm
Panel Overvoltage	10066	—	1	—	Active on Alarm
Panel Undervoltage	10067	—	1	—	Active on Alarm
Panel Phase Overcurrent	10068	—	1	—	Active on Alarm
Panel Phase Overcurrent	10069	—	1	—	Active on Warning
Panel Neutral Overcurrent	10070	—	1	—	Active on Alarm
Panel Ground Overcurrent	10071	—	1	—	Active on Alarm
Panel 2 – Panelboard Main 2 (if panelboards are installed)					
Panel Summary Alarm	10082	—	1	—	Active on Alarm
Panel Overvoltage	10083	—	1	—	Active on Alarm
Panel Undervoltage	10084	—	1	—	Active on Alarm
Panel Phase Overcurrent	10085	—	1	—	Active on Alarm
Panel Phase Overcurrent	10086	—	1	—	Active on Warning
Panel Neutral Overcurrent	10087	—	1	—	Active on Alarm

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Table 3.76 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil (continued)

Controller	Liebert LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Panel Ground Overcurrent	10088	—	1	—	Active on Alarm
Panel 4 – Panelboard Main 4 (if panelboards are installed)					
Panel Summary Alarm	10116	—	1	—	Active on Alarm
Panel Overvoltage	10117	—	1	—	Active on Alarm
Panel Undervoltage	10118	—	1	—	Active on Alarm
Panel Phase Overcurrent	10119	—	1	—	Active on Alarm
Panel Phase Overcurrent	10120	—	1	—	Active on Warning
Panel Neutral Overcurrent	10121	—	1	—	Active on Alarm
Panel Ground Overcurrent	10122	—	1	—	Active on Alarm
Panel 1 Position 1					
Branch Overcurrent	10133	—	1	—	Active on Alarm
Branch Overcurrent	10134	—	1	—	Active on Warning
Branch Undercurrent Warning	10135	—	1	—	Active on Alarm
Panel 1 Position 2					
Branch Overcurrent	10146	—	1	—	Active on Alarm
Branch Overcurrent	10147	—	1	—	Active on Warning
Branch Undercurrent Warning	10148	—	1	—	Active on Alarm
Panel 1 Position 84					
Branch Overcurrent	11212	—	1	—	Active on Alarm
Branch Overcurrent	11213	—	1	—	Active on Warning
Branch Undercurrent Warning	11214	—	1	—	Active on Alarm
Panel 2 Position 1					
Branch Overcurrent	11225	—	1	—	Active on Alarm
Branch Overcurrent	11226	—	1	—	Active on Warning
Branch Undercurrent Warning	11227	—	1	—	Active on Alarm
Panel 2 Position 2					
Branch Overcurrent	11238	—	1	—	Active on Alarm

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Table 3.76 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil (continued)

Controller	Liebert LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Branch Overcurrent	11239	—	1	—	Active on Warning
Branch Undercurrent Warning	11240	—	1	—	Active on Alarm
Panel 2 Position 84					
Branch Overcurrent	12304	—	1	—	Active on Alarm
Branch Overcurrent	12305	—	1	—	Active on Warning
Branch Undercurrent Warning	12306	—	1	—	Active on Alarm
Panel 3 Position 1					
Branch Overcurrent	12317	—	1	—	Active on Alarm
Branch Overcurrent	12318	—	1	—	Active on Warning
Branch Undercurrent Warning	12319	—	1	—	Active on Alarm
Panel 3 Position 2					
Branch Overcurrent	12330	—	1	—	Active on Alarm
Branch Overcurrent	12331	—	1	—	Active on Warning
Branch Undercurrent Warning	12332	—	1	—	Active on Alarm
Panel 3 Position 84					
Branch Overcurrent	13396	—	1	—	Active on Alarm
Branch Overcurrent	13397	—	1	—	Active on Warning
Branch Undercurrent Warning	13398	—	1	—	Active on Alarm
Panel 4 Position 1					
Branch Overcurrent	13409	—	1	—	Active on Alarm
Branch Overcurrent	13410	—	1	—	Active on Warning
Branch Undercurrent Warning	13411	—	1	—	Active on Alarm
Panel 4 Position 2					
Branch Overcurrent	13422	—	1	—	Active on Alarm
Branch Overcurrent	13423	—	1	—	Active on Warning
Branch Undercurrent Warning	13424	—	1	—	Active on Alarm
Panel 4 Position 84					

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Table 3.76 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Status and Coil (continued)

Controller	Liebert LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Branch Overcurrent	14488	—	1	—	Active on Alarm
Branch Overcurrent	14489	—	1	—	Active on Warning
Branch Undercurrent Warning	14490	—	1	—	Active on Alarm
Subfeed 1					
Subfeed Phase Overcurrent	14501	—	1	—	Active on Alarm
Subfeed Phase Overcurrent	14502	—	1	—	Active on Warning
Subfeed Neutral Overcurrent	14503	—	1	—	Active on Alarm
Subfeed Ground Overcurrent	14504	—	1	—	Active on Alarm
Subfeed 2					
Subfeed Phase Overcurrent	14515	—	1	—	Active on Alarm
Subfeed Phase Overcurrent	14516	—	1	—	Active on Warning
Subfeed Neutral Overcurrent	14517	—	1	—	Active on Alarm
Subfeed Ground Overcurrent	14518	—	1	—	Active on Alarm
Subfeed 64					
Subfeed Phase Overcurrent	15383	—	1	—	Active on Alarm
Subfeed Phase Overcurrent	15384	—	1	—	Active on Warning
Subfeed Neutral Overcurrent	15385	—	1	—	Active on Alarm
Subfeed Ground Overcurrent	15386	—	1	—	Active on Alarm
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel 1					
Columns of Breakers	30463	—	1	—	—
Number of Breakers	30464	—	1	—	—
Panel Main Voltage X-Y	30465	—	1	—	VAC
Panel Main Voltage Y-Z	30466	—	1	—	VAC
Panel Main Voltage Z-X	30467	—	1	—	VAC
Panel Main Voltage X-N	30468	—	1	—	VAC
Panel Main Voltage Y-N	30469	—	1	—	VAC
Panel Main Voltage Z-N	30470	—	1	—	VAC
Panel Main Current Ix	30471	—	1	—	A AC
Panel Main Current Iy	30472	—	1	—	A AC
Panel Main Current Iz	30473	—	1	—	A AC
Panel Main Neutral Current	30474	—	1	—	A AC
Panel Main Ground Current	30475	—	1	10	A AC
Panel Main Output Power (kVA)	30476	—	1	—	kVA
Panel Main Output Power (kW)	30477	—	1	—	kW
Panel Main Output kW-Hrs	30478	40478	2	10	kWH
Panel Main Output Power Factor	30480	—	1	100	—
Panel Main Output Percent Load	30481	—	1	—	%
Panel Main Voltage Vx THD	30482	—	1	10	% THD
Panel Main Voltage Vy THD	30483	—	1	10	% THD
Panel Main Voltage Vz THD	30484	—	1	10	% THD
Panel Main Current Ix THD	30485	—	1	10	% THD
Panel Main Current Iy THD	30486	—	1	10	% THD
Panel Main Current Iz THD	30487	—	1	10	% THD
Panel Main Current Ix Crest Factor	30488	—	1	10	—
Panel Main Current Iy Crest Factor	30489	—	1	10	—

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Current Iz Crest Factor	30490	—	1	10	—
Panel 2					
Columns of Breakers	30494	—	1	—	—
Number of Breakers	30495	—	1	—	—
Panel Main Voltage X-Y	30496	—	1	—	VAC
Panel Main Voltage Y-Z	30497	—	1	—	VAC
Panel Main Voltage Z-X	30498	—	1	—	VAC
Panel Main Voltage X-N	30499	—	1	—	VAC
Panel Main Voltage Y-N	30500	—	1	—	VAC
Panel Main Voltage Z-N	30501	—	1	—	VAC
Panel Main Current Ix	30502	—	1	—	A AC
Panel Main Current Iy	30503	—	1	—	A AC
Panel Main Current Iz	30504	—	1	—	A AC
Panel Main Neutral Current	30505	—	1	—	A AC
Panel Main Ground Current	30506	—	1	10	A AC
Panel Main Output Power (kVA)	30507	—	1	—	kVA
Panel Main Output Power (kW)	30508	—	1	—	kW
Panel Main Output kW-Hrs	30509	40509	2	10	kWH
Panel Main Output Power Factor	30511	—	1	100	—
Panel Main Output Percent Load	30512	—	1	—	%
Panel Main Voltage Vx THD	30513	—	1	10	% THD
Panel Main Voltage Vy THD	30514	—	1	10	% THD
Panel Main Voltage Vz THD	30515	—	1	10	% THD
Panel Main Current Ix THD	30516	—	1	10	% THD
Panel Main Current Iy THD	30517	—	1	10	% THD
Panel Main Current Iz THD	30518	—	1	10	% THD
Panel Main Current Ix Crest Factor	30519	—	1	10	—

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Current Iy Crest Factor	30520	—	1	10	—
Panel Main Current Iz Crest Factor	30521	—	1	10	—
Panel 4					
Columns of Breakers	30556	—	1	—	—
Number of Breakers	30557	—	1	—	—
Panel Main Voltage X-Y	30558	—	1	—	VAC
Panel Main Voltage Y-Z	30559	—	1	—	VAC
Panel Main Voltage Z-X	30560	—	1	—	VAC
Panel Main Voltage X-N	30561	—	1	—	VAC
Panel Main Voltage Y-N	30562	—	1	—	VAC
Panel Main Voltage Z-N	30563	—	1	—	VAC
Panel Main Current Ix	30564	—	1	—	A AC
Panel Main Current Iy	30565	—	1	—	A AC
Panel Main Current Iz	30566	—	1	—	A AC
Panel Main Neutral Current	30567	—	1	—	A AC
Panel Main Ground Current	30568	—	1	10	A AC
Panel Main Output Power (kVA)	30569	—	1	—	kVA
Panel Main Output Power (kW)	30570	—	1	—	kW
Panel Main Output kW-Hrs	30571	40571	2	10	kWH
Panel Main Output Power Factor	30573	—	1	100	—
Panel Main Output Percent Load	30574	—	1	-	%
Panel Main Voltage Vx THD	30575	—	1	10	% THD
Panel Main Voltage Vy THD	30576	—	1	10	% THD
Panel Main Voltage Vz THD	30577	—	1	10	% THD
Panel Main Current Ix THD	30578	—	1	10	% THD
Panel Main Current Iy THD	30579	—	1	10	% THD
Panel Main Current Iz THD	30580	—	1	10	% THD

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Current Ix Crest Factor	30581	—	1	10	—
Panel Main Current Iy Crest Factor	30582	—	1	10	—
Panel Main Current Iz Crest Factor	30583	—	1	10	—
Panel 1 Position 1					
Breaker position	30587	—	1	—	—
Branch Current Phase 1	30588	—	1	10	A AC
Branch Current Phase 2	30589	—	1	10	A AC
Branch Current Phase 3	30590	—	1	10	A AC
Branch Output Power (kW)	30591	—	1	1000	kW
Output kW-Hrs	30592	—	2	1000	kWH
Branch Output Power Factor	30594	—	1	100	—
Branch Output Percent Load	30595	—	1	—	%
Panel 1 Position 2					
Breaker position	30599	—	1	—	—
Branch Current Phase 1	30600	—	1	10	A AC
Branch Current Phase 2	30601	—	1	10	A AC
Branch Current Phase 3	30602	—	1	10	A AC
Branch Output Power (kW)	30603	—	1	1000	kW
Output kW-Hrs	30604	—	2	1000	kWH
Branch Output Power Factor	30606	—	1	100	—
Branch Output Percent Load	30607	—	1	—	%
Panel 1 Position 84					
Breaker position	31583	—	1	—	—
Branch Current Phase 1	31584	—	1	10	A AC
Branch Current Phase 2	31585	—	1	10	A AC
Branch Current Phase 3	31586	—	1	10	A AC
Branch Output Power (kW)	31587	—	1	1000	kW

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output kW-Hrs	31588	—	2	1000	kWH
Branch Output Power Factor	31590	—	1	100	—
Branch Output Percent Load	31591	—	1	—	%
Panel 2 Position 1					
Breaker position	31595	—	1	—	—
Branch Current Phase 1	31596	—	1	10	A AC
Branch Current Phase 2	31597	—	1	10	A AC
Branch Current Phase 3	31598	—	1	10	A AC
Branch Output Power (kW)	31599	—	1	1000	kW
Output kW-Hrs	31600	—	2	1000	kWH
Branch Output Power Factor	31602	—	1	100	—
Branch Output Percent Load	31603	—	1	—	%
Panel 2 Position 2					
Breaker position	31607	—	1	—	—
Branch Current Phase 1	31608	—	1	10	A AC
Branch Current Phase 2	31609	—	1	10	A AC
Branch Current Phase 3	31610	—	1	10	A AC
Branch Output Power (kW)	31611	—	1	1000	kW
Output kW-Hrs	31612	—	2	1000	kWH
Branch Output Power Factor	31614	—	1	100	—
Branch Output Percent Load	31615	—	1	—	%
Panel 2 Position 84					
Breaker position	32591	—	1	—	—
Branch Current Phase 1	32592	—	1	10	A AC
Branch Current Phase 2	32593	—	1	10	A AC
Branch Current Phase 3	32594	—	1	10	A AC
Branch Output Power (kW)	32595	—	1	1000	kW

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output kW-Hrs	32596	—	2	1000	kWH
Branch Output Power Factor	32598	—	1	100	—
Branch Output Percent Load	32599	—	1	—	%
Panel 3 Position 1					
Breaker position	32603	—	1	—	—
Branch Current Phase 1	32604	—	1	10	A AC
Branch Current Phase 2	32605	—	1	10	A AC
Branch Current Phase 3	32606	—	1	10	A AC
Branch Output Power (kW)	32607	—	1	1000	kW
Output kW-Hrs	32608	—	2	1000	kWH
Branch Output Power Factor	32610	—	1	100	—
Branch Output Percent Load	32611	—	1	—	%
Panel 3 Position 2					
Breaker position	32615	—	1	—	—
Branch Current Phase 1	32616	—	1	10	A AC
Branch Current Phase 2	32617	—	1	10	A AC
Branch Current Phase 3	32618	—	1	10	A AC
Branch Output Power (kW)	32619	—	1	1000	kW
Output kW-Hrs	32620	—	2	1000	kWH
Branch Output Power Factor	32622	—	1	100	—
Branch Output Percent Load	32623	—	1	—	%
Panel 3 Position 84					
Breaker position	33599	—	1	—	—
Branch Current Phase 1	33600	—	1	10	A AC
Branch Current Phase 2	33601	—	1	10	A AC
Branch Current Phase 3	33602	—	1	10	A AC
Branch Output Power (kW)	33603	—	1	1000	kW

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output kW-Hrs	33604	—	2	1000	kWH
Branch Output Power Factor	33606	—	1	100	—
Branch Output Percent Load	33607	—	1	—	%
Panel 4 Position 1					
Breaker position	33611	—	1	—	—
Branch Current Phase 1	33612	—	1	10	A AC
Branch Current Phase 2	33613	—	1	10	A AC
Branch Current Phase 3	33614	—	1	10	A AC
Branch Output Power (kW)	33615	—	1	1000	kW
Output kW-Hrs	33616	—	2	1000	kWH
Branch Output Power Factor	33618	—	1	100	—
Branch Output Percent Load	33619	—	1	—	%
Panel 4 Position 2					
Breaker position	33623	—	1	—	—
Branch Current Phase 1	33624	—	1	10	A AC
Branch Current Phase 2	33625	—	1	10	A AC
Branch Current Phase 3	33626	—	1	10	A AC
Branch Output Power (kW)	33627	—	1	1000	kW
Output kW-Hrs	33628	—	2	1000	kWH
Branch Output Power Factor	33630	—	1	100	—
Branch Output Percent Load	33631	—	1	—	%
Panel 4 Position 84					
Breaker position	34607	—	1	—	—
Branch Current Phase 1	34608	—	1	10	A AC
Branch Current Phase 2	34609	—	1	10	A AC
Branch Current Phase 3	34610	—	1	10	A AC
Branch Output Power (kW)	34611	—	1	1000	kW

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output kW-Hrs	34612	—	2	1000	kWH
Branch Output Power Factor	34614	—	1	100	—
Branch Output Percent Load	34615	—	1	—	%
Subfeed 1					
Subfeed Current Ix	34619	—	1	—	A AC
Subfeed Current Iy	34620	—	1	—	A AC
Subfeed Current Iz	34621	—	1	—	A AC
Subfeed Neutral Current	34622	—	1	—	A AC
Subfeed Ground Current	34623	—	1	10	A AC
Subfeed Output Power (kVA)	34624	—	1	—	kVA
Subfeed Output Power (kW)	34625	—	1	—	kW
Subfeed Output kW-Hrs	34626	44626	2	10	kWH
Subfeed Power Factor	34628	—	1	100	—
Subfeed Output Percent Load	34629	—	1	—	%
Subfeed Current Ix THD	34630	—	1	10	%
Subfeed Current Iy THD	34631	—	1	10	%
Subfeed Current Iz THD	34632	—	1	10	%
Subfeed Current Ix Crest Factor	34633	—	1	10	—
Subfeed Current Iy Crest Factor	34634	—	1	10	—
Subfeed Current Iz Crest Factor	34635	—	1	10	—
Subfeed 2					
Subfeed Current Ix	34639	—	1	—	A AC
Subfeed Current Iy	34640	—	1	—	A AC
Subfeed Current Iz	34641	—	1	—	A AC
Subfeed Neutral Current	34642	—	1	—	A AC
Subfeed Ground Current	34643	—	1	10	A AC
Subfeed Output Power (kVA)	34644	—	1	—	kVA

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Subfeed Output Power (kW)	34645	—	1	—	kW
Subfeed Output kW-Hrs	34646	44646	2	10	kWH
Subfeed Power Factor	34648	—	1	100	—
Subfeed Output Percent Load	34649	—	1	—	%
Subfeed Current Ix THD	34650	—	1	10	%
Subfeed Current Iy THD	34651	—	1	10	%
Subfeed Current Iz THD	34652	—	1	10	%
Subfeed Current Ix Crest Factor	34653	—	1	10	—
Subfeed Current Iy Crest Factor	34654	—	1	10	—
Subfeed Current Iz Crest Factor	34655	—	1	10	—
Subfeed 64					
Subfeed Current Ix	35879	—	1	—	A AC
Subfeed Current Iy	35880	—	1	—	A AC
Subfeed Current Iz	35881	—	1	—	A AC
Subfeed Neutral Current	35882	—	1	—	A AC
Subfeed Ground Current	35883	—	1	10	A AC
Subfeed Output Power (kVA)	35884	—	1	—	kVA
Subfeed Output Power (kW)	35885	—	1	—	kW
Subfeed Output kW-Hrs	35886	45886	2	10	kWH
Subfeed Power Factor	35888	—	1	100	—
Subfeed Output Percent Load	35889	—	1	—	%
Subfeed Current Ix THD	35890	—	1	10	%
Subfeed Current Iy THD	35891	—	1	10	%
Subfeed Current Iz THD	35892	—	1	10	%
Subfeed Current Ix Crest Factor	35893	—	1	10	—
Subfeed Current Iy Crest Factor	35894	—	1	10	—
Subfeed Current Iz Crest Factor	35895	—	1	10	—

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Table 3.77 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Input and Holding (continued)

Controller	Liebert® LDMF				
Liebert Products	Liebert EXC, Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC, Liebert RX, Liebert STS2/PDU				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System					
System Status	35899	—	1	—	1 = Normal Operation 2 = Startup 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Event Acknowledge/Reset	—	45900	1	—	2 = Reset 4 = Acknowledge
System Date and Time	39998	49998	2	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.78 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Status and Coil

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Panel 1 – Panelboard Main 1 (if panelboards are installed)					
Panel Summary Alarm	10065	—	1	—	Active on Alarm
Panel Overvoltage	10066	—	1	—	Active on Alarm
Panel Undervoltage	10067	—	1	—	Active on Alarm
Panel Phase Overcurrent	10068	—	1	—	Active on Alarm
Panel Phase Overcurrent	10069	—	1	—	Active on Warning
Panel Neutral Overcurrent	10070	—	1	—	Active on Alarm
Panel Ground Overcurrent	10071	—	1	—	Active on Alarm
Panel 2 – Panelboard Main 2 (if panelboards are installed)					
Panel Summary Alarm	10082	—	1	—	Active on Alarm

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Table 3.78 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Status and Coil (continued)

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Panel Overvoltage	10083	—	1	—	Active on Alarm
Panel Undervoltage	10084	—	1	—	Active on Alarm
Panel Phase Overcurrent	10085	—	1	—	Active on Alarm
Panel Phase Overcurrent	10086	—	1	—	Active on Warning
Panel Neutral Overcurrent	10087	—	1	—	Active on Alarm
Panel Ground Overcurrent	10088	—	1	—	Active on Alarm
Panel 4 – Panelboard Main 4 (if panelboards are installed)					
Panel Summary Alarm	10116	—	1	—	Active on Alarm
Panel Overvoltage	10117	—	1	—	Active on Alarm
Panel Undervoltage	10118	—	1	—	Active on Alarm
Panel Phase Overcurrent	10119	—	1	—	Active on Alarm
Panel Phase Overcurrent	10120	—	1	—	Active on Warning
Panel Neutral Overcurrent	10121	—	1	—	Active on Alarm
Panel Ground Overcurrent	10122	—	1	—	Active on Alarm
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.79 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Input and Holding

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel 1					
Columns of Breakers	30463	—	1	—	—
Number of Breakers	30464	—	1	—	—
Panel Main Voltage X-Y	30465	—	1	—	VAC
Panel Main Voltage Y-Z	30466	—	1	—	VAC
Panel Main Voltage Z-X	30467	—	1	—	VAC

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Table 3.79 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Input and Holding (continued)

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Voltage X-N	30468	—	1	—	VAC
Panel Main Voltage Y-N	30469	—	1	—	VAC
Panel Main Voltage Z-N	30470	—	1	—	VAC
Panel Main Current Ix	30471	—	1	—	A AC
Panel Main Current Iy	30472	—	1	—	A AC
Panel Main Current Iz	30473	—	1	—	A AC
Panel Main Neutral Current	30474	—	1	—	A AC
Panel Main Ground Current	30475	—	1	10	A AC
Panel Main Output Power (kVA)	30476	—	1	—	kVA
Panel Main Output Power (kW)	30477	—	1	—	kW
Panel Main Output kW-Hrs	30478	40478	2	10	kWH
Panel Main Output Power Factor	30480	—	1	100	—
Panel Main Output Percent Load	30481	—	1	—	%
Panel Main Voltage Vx THD	30482	—	1	10	% THD
Panel Main Voltage Vy THD	30483	—	1	10	% THD
Panel Main Voltage Vz THD	30484	—	1	10	% THD
Panel Main Current Ix THD	30485	—	1	10	% THD
Panel Main Current Iy THD	30486	—	1	10	% THD
Panel Main Current Iz THD	30487	—	1	10	% THD
Panel Main Current Ix Crest Factor	30488	—	1	10	—
Panel Main Current Iy Crest Factor	30489	—	1	10	—
Panel Main Current Iz Crest Factor	30490	—	1	10	—
Panel 2					
Columns of Breakers	30494	—	1	—	—
Number of Breakers	30495	—	1	—	—
Panel Main Voltage X-Y	30496	—	1	—	VAC
Panel Main Voltage Y-Z	30497	—	1	—	VAC
Panel Main Voltage Z-X	30498	—	1	—	VAC

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Table 3.79 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Input and Holding (continued)

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Voltage X-N	30499	—	1	—	VAC
Panel Main Voltage Y-N	30500	—	1	—	VAC
Panel Main Voltage Z-N	30501	—	1	—	VAC
Panel Main Current Ix	30502	—	1	—	A AC
Panel Main Current Iy	30503	—	1	—	A AC
Panel Main Current Iz	30504	—	1	—	A AC
Panel Main Neutral Current	30505	—	1	—	A AC
Panel Main Ground Current	30506	—	1	10	A AC
Panel Main Output Power (kVA)	30507	—	1	—	kVA
Panel Main Output Power (kW)	30508	—	1	—	kW
Panel Main Output kW-Hrs	30509	40509	2	10	kWH
Panel Main Output Power Factor	30511	—	1	100	—
Panel Main Output Percent Load	30512	—	1	—	%
Panel Main Voltage Vx THD	30513	—	1	10	% THD
Panel Main Voltage Vy THD	30514	—	1	10	% THD
Panel Main Voltage Vz THD	30515	—	1	10	% THD
Panel Main Current Ix THD	30516	—	1	10	% THD
Panel Main Current Iy THD	30517	—	1	10	% THD
Panel Main Current Iz THD	30518	—	1	10	% THD
Panel Main Current Ix Crest Factor	30519	—	1	10	—
Panel Main Current Iy Crest Factor	30520	—	1	10	—
Panel Main Current Iz Crest Factor	30521	—	1	10	—
Panel 4					
Columns of Breakers	30556	—	1	—	—
Number of Breakers	30557	—	1	—	—
Panel Main Voltage X-Y	30558	—	1	—	VAC
Panel Main Voltage Y-Z	30559	—	1	—	VAC
Panel Main Voltage Z-X	30560	—	1	—	VAC

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Table 3.79 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Input and Holding (continued)

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Voltage X-N	30561	—	1	—	VAC
Panel Main Voltage Y-N	30562	—	1	—	VAC
Panel Main Voltage Z-N	30563	—	1	—	VAC
Panel Main Current Ix	30564	—	1	—	A AC
Panel Main Current Iy	30565	—	1	—	A AC
Panel Main Current Iz	30566	—	1	—	A AC
Panel Main Neutral Current	30567	—	1	—	A AC
Panel Main Ground Current	30568	—	1	10	A AC
Panel Main Output Power (kVA)	30569	—	1	—	kVA
Panel Main Output Power (kW)	30570	—	1	—	kW
Panel Main Output kW-Hrs	30571	40571	2	10	kWH
Panel Main Output Power Factor	30573	—	1	100	—
Panel Main Output Percent Load	30574	—	1	—	%
Panel Main Voltage Vx THD	30575	—	1	10	% THD
Panel Main Voltage Vy THD	30576	—	1	10	% THD
Panel Main Voltage Vz THD	30577	—	1	10	% THD
Panel Main Current Ix THD	30578	—	1	10	% THD
Panel Main Current Iy THD	30579	—	1	10	% THD
Panel Main Current Iz THD	30580	—	1	10	% THD
Panel Main Current Ix Crest Factor	30581	—	1	10	—
Panel Main Current Iy Crest Factor	30582	—	1	10	—
Panel Main Current Iz Crest Factor	30583	—	1	10	—
System					

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Table 3.79 Liebert® FDC, Liebert® FPC, Liebert® PPC Liebert® RDC—Input and Holding (continued)

Controller	Liebert® CPM				
Liebert Products	Liebert FDC, Liebert FPC, Liebert PPC, Liebert RDC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System Status	35899	—	1	—	1 = Normal Operation 2 = Startup 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Event Acknowledge/Reset	—	45900	1	—	2 = Reset 4 = Acknowledge
System Date and Time	39998	49998	2	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.80 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Glossary

Data Label	Data Description
Branch Current Phase 1	Branch breaker Phase 1 RMS current
Branch Current Phase 2	Branch Breaker Phase 2 RMS current
Branch Current Phase 3	Branch breaker Phase 3 RMS current
Branch Output Percent Load	Branch breaker percent load of rated current
Branch Output Power (W)	Branch breaker W
Branch Output Power Factor	Branch breaker Power Factor (real power/apparent power)
Branch Overcurrent	Branch breaker current has exceeded the limit.
Branch Undercurrent Warning	Branch breaker current is less than the limit.
Breaker position	Panelboard pole position of the branch breaker. First position if 2 or 3 pole breaker
Columns of Breakers	The breakers in this panel are physically arranged in this many columns.
Equipment Temperature Sensor Fail	Transformer temperature sensor has failed
Event State	Alarm present
Frequency Deviation	The output frequency is outside a specified range.
Ground Current	Unit Ground RMS current.
Ground Overcurrent	Unit ground current has exceeded the limit.
Input Voltage A-B	Unit Input RMS Voltage between Phase A and Phase B
Input Voltage B-C	Unit Input RMS Voltage between Phase B and Phase C
Input Voltage C-A	Unit Input RMS Voltage between Phase C and Phase A
Neutral Overcurrent	Unit neutral current has exceeded the limit.

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Table 3.80 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Glossary (continued)

Data Label	Data Description
Number of Breakers	Number of Breakers in this panelboard.
Output Current Ix Crest Factor	Unit phase X Current Crest Factor (peak/RMS).
Output Current Ix K-Factor	Unit output Current Harmonic K-Factor for phase X.
Output Current Ix THD	Unit Current Total Harmonic Distortion for phase X.
Output Current Ix	Unit Phase X output RMS current.
Output Current Iy Crest Factor	Unit phase Y Current Crest Factor (peak/RMS).
Output Current Iy K-Factor	Unit output Current Harmonic K-Factor for phase Y.
Output Current Iy THD	Unit Current Total Harmonic Distortion for phase Y.
Output Current Iy	Unit Phase Y output RMS current.
Output Current Iz Crest Factor	Unit phase Z Current Crest Factor (peak/RMS).
Output Current Iz K-Factor	Unit output Current Harmonic K-Factor for phase Z.
Output Current Iz THD	Unit Current Total Harmonic Distortion for phase Z.
Output Current Iz	Unit Phase Z output RMS current.
Output Frequency	The system output frequency.
Output kW-Hrs	Branch Breaker accumulated KW-Hours since last KW-Hours reset.
Output kW-Hrs	Unit accumulated KW-Hours since last KW-Hours reset.
Output Neutral Current	Unit output Neutral RMS current.
Output Overcurrent	Unit phase current has exceeded the limit.
Output Overvoltage	Unit voltage has exceeded the limit.
Output Percent Load	Unit percent load of rated current
Output Power (kVA)	Unit output kVA
Output Power (kW)	Unit output KW
Output Power Factor	Unit output Power Factor (real power/apparent power)
Output Undervoltage	Unit voltage is less than the limit.
Output Voltage THD	Unit output Voltage Total Harmonic Distortion has exceeded the limit.
Output Voltage Vx THD	Unit Voltage Total Harmonic Distortion for phase X.
Output Voltage Vx	Unit output RMS voltage between phase X and Neutral
Output Voltage Vy THD	Unit Voltage Total Harmonic Distortion for phase Y.
Output Voltage Vy	Unit output RMS voltage between phase Y and Neutral
Output Voltage Vz THD	Unit Voltage Total Harmonic Distortion for phase Z.
Output Voltage Vz	Unit output RMS voltage between phase Z and Neutral

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Table 3.80 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Glossary (continued)

Data Label	Data Description
Output Voltage X-Y	Unit output RMS voltage between phases X and Y
Output Voltage Y-Z	Unit output RMS voltage between phases Y and Z.
Output Voltage Z-X	Unit output RMS voltage between phases Z and X.
Panel Ground Overcurrent	Panelboard Ground current has exceeded the limit.
Panel Main Current Ix Crest Factor	Panelboard phase X Current Crest Factor (peak/RMS).
Panel Main Current Ix THD	Current Total Harmonic Distortion for Panelboard phase X.
Panel Main Current Ix	Panelboard RMS current for phase X.
Panel Main Current Iy Crest Factor	Panelboard phase Y Current Crest Factor (peak/RMS).
Panel Main Current Iy THD	Current Total Harmonic Distortion for Panelboard phase Y.
Panel Main Current Iy	Panelboard RMS current for phase Y.
Panel Main Current Iz Crest Factor	Panelboard phase Z Current Crest Factor (peak/RMS).
Panel Main Current Iz THD	Current Total Harmonic Distortion for Panelboard phase Z.
Panel Main Current Iz	Panelboard RMS current for phase Z.
Panel Main Ground Current	Panelboard Ground RMS current.
Panel Main Neutral Current	Panelboard Neutral RMS current.
Panel Main Output kW-Hrs	Panelboard accumulated KW-Hours since last KW-Hours reset.
Panel Main Output Percent Load	Panelboard percent load of rated current
Panel Main Output Power (kVA)	Panelboard output kVA.
Panel Main Output Power (kW)	Panelboard output KW
Panel Main Output Power Factor	Panelboard Output Power Factor (real power/apparent power)
Panel Main Voltage Vx THD	Voltage Total Harmonic Distortion for Panelboard phase X.
Panel Main Voltage Vy THD	Voltage Total Harmonic Distortion for Panelboard phase Y.
Panel Main Voltage Vz THD	Voltage Total Harmonic Distortion for Panelboard phase Z.
Panel Main Voltage X-N	Panelboard RMS voltage between Phase X and Neutral.
Panel Main Voltage X-Y	Panelboard RMS voltage between phases X and Y.
Panel Main Voltage Y-N	Panelboard RMS voltage between Phase Y and Neutral.
Panel Main Voltage Y-Z	Panelboard RMS voltage between phases Y and Z.
Panel Main Voltage Z-N	Panelboard RMS voltage between Phase Z and Neutral.
Panel Main Voltage Z-X	Panelboard RMS voltage between phases Z and X.
Panel Neutral Overcurrent	Panelboard Neutral current has exceeded the limit.
Panel Overvoltage	Panelboard voltage has exceeded the limit.

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Table 3.80 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Glossary (continued)

Data Label	Data Description
Panel Phase Overcurrent	Panelboard phase current has exceeded the limit.
Panel Summary Alarm	Panelboard Summary Alarm. Annunciates upon occurrence of any branch or panelboard main breaker alarm.
Panel Undervoltage	Panelboard voltage is less than the limit.
Phase Loss	Voltage and/or Frequency on one or more of the phases is outside the limit.
Phase Rotation Error	Unit input phase sequence is not A, B, C. The phase sequence should be verified and corrected.
Subfeed Current Ix Crest Factor	Subfeed breaker phase X Current Crest Factor (peak/RMS).
Subfeed Current Ix THD	Current Total Harmonic Distortion for Subfeed breaker phase X.
Subfeed Current Ix	Subfeed breaker RMS current for phase X.
Subfeed Current Iy Crest Factor	Subfeed breaker phase Y Current Crest Factor (peak/RMS).
Subfeed Current Iy THD	Current Total Harmonic Distortion for Subfeed breaker phase Y.
Subfeed Current Iy	Subfeed breaker RMS current for phase Y.
Subfeed Current Iz Crest Factor	Subfeed breaker phase Z Current Crest Factor (peak/RMS).
Subfeed Current Iz THD	Current Total Harmonic Distortion for Subfeed breaker phase Z.
Subfeed Current Iz	Subfeed breaker RMS current for phase Z.
Subfeed Ground Current	Subfeed breaker Ground RMS current.
Subfeed Ground Overcurrent	Subfeed breaker Ground current has exceeded the limit.
Subfeed Neutral Current	Subfeed breaker Neutral RMS current.
Subfeed Neutral Overcurrent	Subfeed breaker Neutral current has exceeded the limit.
Subfeed Output kW-Hrs	Subfeed breaker accumulated KW-Hours since last KW-Hours reset.
Subfeed Output Percent Load	Subfeed breaker percent load of rated current
Subfeed Output Power (kVA)	Subfeed breaker output kVA.
Subfeed Output Power (kW)	Subfeed breaker output KW
Subfeed Phase Overcurrent	Subfeed breaker phase current has exceeded the limit.
Subfeed Power Factor	Subfeed breaker Power Factor (real power/apparent power)
System Date and Time	Unit date and time
System Event Acknowledge/Reset	Alarm Present/Reset
System Shutdown - EPO	Unit shutdown by Emergency Power Off (EPO) switch
System Shutdown - REPO	Unit shutdown by Remote Emergency Power Off (REPO) switch
System Status	The operating status for the system
Transformer Overtemperature Power Off	Output power shutdown due to high transformer temperature
Transformer Overtemperature Shutdown	Unit shutdown due to transformer over temperature

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Table 3.80 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC, Liebert® RX, Liebert® STS2/PDU—Glossary (continued)

Data Label	Data Description
Transformer Overtemperature	Transformer temperature has exceeded the limit
Transformer Overtemperature	Transformer temperature has exceeded the limit
Transformer Temperature Sensor Fail	Transformer temperature sensor has failed

Table 3.81 Liebert® FPC, Liebert® PPC—Input and Holding—PMP2

Controller	Power Monitoring Panel - PMP2				
Liebert Products	Liebert® FPC Liebert® PPC				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Voltage In X-Y	—	40001	1	—	V
Voltage In Y-Z	—	40002	1	—	V
Voltage In Z-X	—	40003	1	—	V
Voltage Out A-B	—	40004	1	—	V
Voltage Out B-C	—	40005	1	—	V
Voltage Out C-A	—	40006	1	—	V
Voltage Out A-N	—	40007	1	—	V
Voltage Out B-N	—	40008	1	—	V
Voltage Out C-N	—	40009	1	—	V
Current Out A	—	40010	1	—	A
Current Out B	—	40011	1	—	A
Current Out C	—	40012	1	—	A
Ground Current	—	40013	1	10	A
Neutral Current	—	40014	1	—	A
kVA	—	40015	1	—	kVA
kW	—	40016	1	—	kW
Frequency	—	40017	1	10	Hz
% Capacity A	—	40018	1	—	%
% Capacity B	—	40019	1	—	%
% Capacity C	—	40020	1	—	%
Power Factor	—	40021	1	100	—

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Table 3.81 Liebert® FPC, Liebert® PPC—Input and Holding—PMP2 (continued)

Controller	Power Monitoring Panel - PMP2				
Liebert Products	Liebert® FPC Liebert® PPC				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Kilowatt Hours	—	—	1	—	—
THD Voltage X	—	—	1	—	—
THD Voltage Y	—	—	1	—	—
THD Voltage Z	—	—	1	—	—
THD Current X	—	—	1	—	—
THD Current Y	—	—	1	—	—
THD Current Z	—	—	1	—	—
K Factor Current X	—	—	1	—	—
K Factor Current Y	—	—	1	—	—
K Factor Current Z	—	—	1	—	—
CREST Factor Current X	—	—	1	—	—
CREST Factor Current Y	—	—	1	—	—
CREST Factor Current Z	—	—	1	—	—
Alarm Points					Discrete alarm objects available; use auto-discover for this unit
Communications	—	40289	1	—	Bit 0
Output Undervoltage	—	40289	1	—	Bit 1
Output Overvoltage	—	40289	1	—	Bit 2
Output Overcurrent	—	40289	1	—	Bit 3
Frequency Deviation	—	40289	1	—	Bit 4
Ground Overcurrent	—	40289	1	—	Bit 5
Transformer Overtemp	—	40289	1	—	Bit 6
Ground Fault	—	40289	1	—	Bit 7
Ground Failure	—	40289	1	—	Bit 8
Liquid Detected	—	40289	1	—	Bit 9
Security Alarm	—	40289	1	—	Bit 10
Phase Rotation/Loss	—	40290	1	—	Bit 0
Datawave Overtemperature	—	40290	1	—	Bit 1

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Table 3.81 Liebert® FPC, Liebert® PPC—Input and Holding—PMP2 (continued)

Controller	Power Monitoring Panel - PMP2				
Liebert Products	Liebert® FPC Liebert® PPC				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Emergency Shutdown	—	40290	1	—	Bit 2
Load On Bypass	—	40290	1	—	Bit 3
Local Alarm #1	—	40290	1	—	Bit 4
Local Alarm #2	—	40290	1	—	Bit 5
Output Voltage THD	—	40290	1	—	Bit 6
Custom Alarm #1	—	40290	1	—	Bit 7
Custom Alarm #2	—	40290	1	—	Bit 8
Setpoints (View)					
None	—	—	1	—	—
Control Points (Set)					
None	—	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value					

Table 3.82 Liebert® Datawave, Liebert® FPC, Liebert® PPC—Input and Holding—PMP Option for Liebert® FPC and Liebert® PPC

Controller	Power Monitoring Panel - PMP Option forLiebert® FPC and Liebert® PPC				
Liebert Products	Liebert® Datawave Liebert® FPC Liebert® PPC				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Voltage In X-Y	—	40001	1	—	V
Voltage In Y-Z	—	40002	1	—	V
Voltage In Z-X	—	40003	1	—	V
Voltage Out A-B	—	40004	1	—	V
Voltage Out B-C	—	40005	1	—	V

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Table 3.82 Liebert® Datawave, Liebert® FPC, Liebert® PPC—Input and Holding—PMP Option for Liebert® FPC and Liebert® PPC (continued)

Controller	Power Monitoring Panel - PMP Option forLiebert® FPC and Liebert® PPC				
Liebert Products	Liebert® Datawave Liebert® FPC Liebert® PPC				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Voltage Out C-A	—	40006	1	—	V
Voltage Out A-N	—	40007	1	—	V
Voltage Out B-N	—	40008	1	—	V
Voltage Out C-N	—	40009	1	—	V
Current Out A	—	40010	1	—	A
Current Out B	—	40011	1	—	A
Current Out C	—	40012	1	—	A
Ground Current	—	40013	1	10	A
Neutral Current	—	40014	1	—	A
kVA	—	40015	1	—	kVA
kW	—	40016	1	—	kW
Frequency	—	40017	1	10	Hz
% Capacity A	—	40018	1	—	%
% Capacity B	—	40019	1	—	%
% Capacity C	—	40020	1	—	%
Alarm Points	Discrete alarm objects available; use auto-discover for this unit				
Communications	—	40289	1	—	Bit 0
Output Undervoltage	—	40289	1	—	Bit 1
Output Overvoltage	—	40289	1	—	Bit 2
Output Overcurrent	—	40289	1	—	Bit 3
Frequency Deviation	—	40289	1	—	Bit 4
Ground Overcurrent	—	40289	1	—	Bit 5
Transformer Overtemp	—	40289	1	—	Bit 6
Ground Fault	—	40289	1	—	Bit 7
Ground Failure	—	40289	1	—	Bit 8
Liquid Detected	—	40289	1	—	Bit 9

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Table 3.82 Liebert® Datawave, Liebert® FPC, Liebert® PPC—Input and Holding—PMP Option for Liebert® FPC and Liebert® PPC (continued)

Controller	Power Monitoring Panel - PMP Option forLiebert® FPC and Liebert® PPC				
Liebert Products	Liebert® Datawave Liebert® FPC Liebert® PPC				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Security Alarm	—	40289	1	—	Bit 10
Phase Rotation/Loss	—	40290	1	—	Bit 0
Datawave Overtemperature	—	40290	1	—	Bit 1
Emergency Shutdown	—	40290	1	—	Bit 2
Load On Bypass	—	40290	1	—	Bit 3
Local Alarm	—	40290	1	—	Bit 4
Custom Alarm #1	—	40290	1	—	Bit 5
Custom Alarm #2	—	40290	1	—	Bit 6
Setpoints (View)					
None	—		1	—	—
Control Points (Set)					
None	—	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.83 Liebert® FPC, Liebert® PPC—Status and Coil

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Input Power 1					
Phase Loss	10001	—	1	—	Active on Alarm
Phase Rotation Error	10002	—	1	—	Active on Alarm
Input Power 2 (used only with 2nd VPMP controller)					
Phase Loss	10013	—	1	—	Active on Alarm

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Table 3.83 Liebert® FPC, Liebert® PPC—Status and Coil (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Phase Rotation Error	10014	—	1	—	Active on Alarm
Output Power 1					
Output Overvoltage	10025	—	1	—	Active on Alarm
Output Undervoltage	10026	—	1	—	Active on Alarm
Output Overcurrent	10027	—	1	—	Active on Alarm
Neutral Overcurrent	10028	—	1	—	Active on Alarm
Ground Overcurrent	10029	—	1	—	Active on Alarm
Output Voltage THD	10030	—	1	—	Active on Alarm
Frequency Deviation	10031	—	1	—	Active on Alarm
Transformer Overtemperature Power Off	10032	—	1	—	Active on Alarm
Transformer Overtemperature	10033	—	1	—	Active on Alarm
Transformer Temperature Sensor Fail	10034	—	1	—	Active on Alarm
Output Power 2 (used only with 2nd VPMP controller for Dual-output Transformer)					
Output Overvoltage	10045	—	1	—	Active on Alarm
Output Undervoltage	10046	—	1	—	Active on Alarm
Output Overcurrent	10047	—	1	—	Active on Alarm
Neutral Overcurrent	10048	—	1	—	Active on Alarm
Ground Overcurrent	10049	—	1	—	Active on Alarm
Output Voltage THD	10050	—	1	—	Active on Alarm
Frequency Deviation	10051	—	1	—	Active on Alarm
Transformer Overtemperature Power Off	10052	—	1	—	Active on Alarm
Transformer Overtemperature	10053	—	1	—	Active on Alarm
Transformer Temperature Sensor Fail	10054	—	1	—	Active on Alarm
Panel 1					
Panel Summary Alarm	10065	—	1	—	Active on Alarm
Panel Overvoltage	10066	—	1	—	Active on Alarm
Panel Undervoltage	10067	—	1	—	Active on Alarm
Panel Phase Overcurrent	10068	—	1	—	Active on Alarm

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Table 3.83 Liebert® FPC, Liebert® PPC—Status and Coil (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Panel Phase Overcurrent	10069	—	1	—	Active on Warning
Panel Neutral Overcurrent	10070	—	1	—	Active on Alarm
Panel Ground Overcurrent	10071	—	1	—	Active on Alarm
Panel 2					
Panel Summary Alarm	10082	—	1	—	Active on Alarm
Panel Overvoltage	10083	—	1	—	Active on Alarm
Panel Undervoltage	10084	—	1	—	Active on Alarm
Panel Phase Overcurrent	10085	—	1	—	Active on Alarm
Panel Phase Overcurrent	10086	—	1	—	Active on Warning
Panel Neutral Overcurrent	10087	—	1	—	Active on Alarm
Panel Ground Overcurrent	10088	—	1	—	Active on Alarm
Panel 4					
Panel Summary Alarm	10116	—	1	—	Active on Alarm
Panel Overvoltage	10117	—	1	—	Active on Alarm
Panel Undervoltage	10118	—	1	—	Active on Alarm
Panel Phase Overcurrent	10119	—	1	—	Active on Alarm
Panel Phase Overcurrent	10120	—	1	—	Active on Warning
Panel Neutral Overcurrent	10121	—	1	—	Active on Alarm
Panel Ground Overcurrent	10122	—	1	—	Active on Alarm
Panel 1 Position 1					
Branch Overcurrent	10133	—	1	—	Active on Alarm
Branch Overcurrent	10134	—	1	—	Active on Warning
Branch Undercurrent Warning	10135	—	1	—	Active on Alarm
Panel 1 Position 2					
Branch Overcurrent	10146	—	1	—	Active on Alarm
Branch Overcurrent	10147	—	1	—	Active on Warning
Branch Undercurrent Warning	10148	—	1	—	Active on Alarm
Panel 1 Position 84					

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Table 3.83 Liebert® FPC, Liebert® PPC—Status and Coil (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Branch Overcurrent	11212	—	1	—	Active on Alarm
Branch Overcurrent	11213	—	1	—	Active on Warning
Branch Undercurrent Warning	11214	—	1	—	Active on Alarm
Panel 2 Position 1					
Branch Overcurrent	11225	—	1	—	Active on Alarm
Branch Overcurrent	11226	—	1	—	Active on Warning
Branch Undercurrent Warning	11227	—	1	—	Active on Alarm
Panel 2 Position 2					
Branch Overcurrent	11238	—	1	—	Active on Alarm
Branch Overcurrent	11239	—	1	—	Active on Warning
Branch Undercurrent Warning	11240	—	1	—	Active on Alarm
Panel 2 Position 84					
Branch Overcurrent	12304	—	1	—	Active on Alarm
Branch Overcurrent	12305	—	1	—	Active on Warning
Branch Undercurrent Warning	12306	—	1	—	Active on Alarm
Panel 3 Position 1					
Branch Overcurrent	12317	—	1	—	Active on Alarm
Branch Overcurrent	12318	—	1	—	Active on Warning
Branch Undercurrent Warning	12319	—	1	—	Active on Alarm
Panel 3 Position 2					
Branch Overcurrent	12330	—	1	—	Active on Alarm
Branch Overcurrent	12331	—	1	—	Active on Warning
Branch Undercurrent Warning	12332	—	1	—	Active on Alarm
Panel 3 Position 84					
Branch Overcurrent	13396	—	1	—	Active on Alarm
Branch Overcurrent	13397	—	1	—	Active on Warning
Branch Undercurrent Warning	13398	—	1	—	Active on Alarm
Panel 4 Position 1					

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Table 3.83 Liebert® FPC, Liebert® PPC—Status and Coil (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Branch Overcurrent	13409	—	1	—	Active on Alarm
Branch Overcurrent	13410	—	1	—	Active on Warning
Branch Undercurrent Warning	13411	—	1	—	Active on Alarm
Panel 4 Position 2					
Branch Overcurrent	13422	—	1	—	Active on Alarm
Branch Overcurrent	13423	—	1	—	Active on Warning
Branch Undercurrent Warning	13424	—	1	—	Active on Alarm
Panel 4 Position 84					
Branch Overcurrent	14488	—	1	—	Active on Alarm
Branch Overcurrent	14489	—	1	—	Active on Warning
Branch Undercurrent Warning	14490	—	1	—	Active on Alarm
Subfeed 1					
Subfeed Phase Overcurrent	14501	—	1	—	Active on Alarm
Subfeed Phase Overcurrent	14502	—	1	—	Active on Warning
Subfeed Neutral Overcurrent	14503	—	1	—	Active on Alarm
Subfeed Ground Overcurrent	14504	—	1	—	Active on Alarm
Subfeed 2					
Subfeed Phase Overcurrent	14515	—	1	—	Active on Alarm
Subfeed Phase Overcurrent	14516	—	1	—	Active on Warning
Subfeed Neutral Overcurrent	14517	—	1	—	Active on Alarm
Subfeed Ground Overcurrent	14518	—	1	—	Active on Alarm
Subfeed 64					
Subfeed Phase Overcurrent	15383	—	1	—	Active on Alarm
Subfeed Phase Overcurrent	15384	—	1	—	Active on Warning
Subfeed Neutral Overcurrent	15385	—	1	—	Active on Alarm
Subfeed Ground Overcurrent	15386	—	1	—	Active on Alarm
Customer Events 1 (Alarms 1 - 5 for 1 VPMP, Alarms 6 - 10 only if 2nd VPMP is used)					
Event State	15397	—	1	—	Active on Alarm

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Table 3.83 Liebert® FPC, Liebert® PPC—Status and Coil (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Status	Coil	Number of Bits	Scale	Notes / Units
Customer Events 2					
Event State	15408	—	1	—	Active on Alarm
Customer Events 10					
Event State	15496	—	1	—	Active on Alarm
System					
System Shutdown - EPO	15507	—	1	—	Active on Alarm
System Shutdown - REPO	15508	—	1	—	Active on Alarm
Transformer Overtemperature Shutdown	15509	—	1	—	Active on Alarm
Transformer Overtemperature	15510	—	1	—	Active on Alarm
Equipment Temperature Sensor Fail	15511	—	1	—	Active on Alarm
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Input Power 1					
Input Voltage A-B	30385	—	1	—	VAC
Input Voltage B-C	30386	—	1	—	VAC
Input Voltage C-A	30387	—	1	—	VAC
Input Power 2 (used only with 2nd VPMP controller)					
Input Voltage A-B	30391	—	1	—	VAC
Input Voltage B-C	30392	—	1	—	VAC
Input Voltage C-A	30393	—	1	—	VAC
Output Power 1					
Output Voltage X-Y	30397	—	1	—	VAC

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Voltage Y-Z	30398	—	1	—	VAC
Output Voltage Z-X	30399	—	1	—	VAC
Output Voltage Vx	30400	—	1	—	VAC
Output Voltage Vy	30401	—	1	—	VAC
Output Voltage Vz	30402	—	1	—	VAC
Output Current Ix	30403	—	1	—	A AC
Output Current Iy	30404	—	1	—	A AC
Output Current Iz	30405	—	1	—	A AC
Output Neutral Current	30406	—	1	—	A AC
Ground Current	30407	—	1	10	A AC
Output Frequency	30408	—	1	—	Hz
Output Power (kVA)	30409	—	1	—	kVA
Output Power (kW)	30410	—	1	—	kW
Output kW-Hrs	30411	40411	2	—	kWH
Output Power Factor	30413	—	1	100	—
Output Percent Load	30414	—	1	—	%
Output Voltage Vx THD	30415	—	1	10	% THD
Output Voltage Vy THD	30416	—	1	10	% THD
Output Voltage Vz THD	30417	—	1	10	% THD
Output Current Ix THD	30418	—	1	10	% THD
Output Current Iy THD	30419	—	1	10	% THD
Output Current Iz THD	30420	—	1	10	% THD
Output Current Ix K-Factor	30421	—	1	10	—
Output Current Iy K-Factor	30422	—	1	10	—
Output Current Iz K-Factor	30423	—	1	10	—
Output Current Ix Crest Factor	30424	—	1	10	—
Output Current Iy Crest Factor	30425	—	1	10	—
Output Current Iz Crest Factor	30426	—	1	10	—

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Power 2 (used only with 2nd VPMP controller)					
Output Voltage X-Y	30430	—	1	—	VAC
Output Voltage Y-Z	30431	—	1	—	VAC
Output Voltage Z-X	30432	—	1	—	VAC
Output Voltage Vx	30433	—	1	—	VAC
Output Voltage Vy	30434	—	1	—	VAC
Output Voltage Vz	30435	—	1	—	VAC
Output Current Ix	30436	—	1	—	A AC
Output Current Iy	30437	—	1	—	A AC
Output Current Iz	30438	—	1	—	A AC
Output Neutral Current	30439	—	1	—	A AC
Ground Current	30440	—	1	10	A AC
Output Frequency	30441	—	1	—	Hz
Output Power (kVA)	30442	—	1	—	kVA
Output Power (kW)	30443	—	1	—	kW
Output kW-Hrs	30444	40444	2	—	kWH
Output Power Factor	30446	—	1	100	—
Output Percent Load	30447	—	1	-	%
Output Voltage Vx THD	30448	—	1	10	% THD
Output Voltage Vy THD	30449	—	1	10	% THD
Output Voltage Vz THD	30450	—	1	10	% THD
Output Current Ix THD	30451	—	1	10	% THD
Output Current Iy THD	30452	—	1	10	% THD
Output Current Iz THD	30453	—	1	10	% THD
Output Current Ix K-Factor	30454	—	1	10	—
Output Current Iy K-Factor	30455	—	1	10	—
Output Current Iz K-Factor	30456	—	1	10	—
Output Current Ix Crest Factor	30457	—	1	10	—

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Current Iy Crest Factor	30458	—	1	10	—
Output Current Iz Crest Factor	30459	—	1	10	—
Panel 1					
Columns of Breakers	30463	—	1	—	—
Number of Breakers	30464	—	1	—	—
Panel Main Voltage X-Y	30465	—	1	—	VAC
Panel Main Voltage Y-Z	30466	—	1	—	VAC
Panel Main Voltage Z-X	30467	—	1	—	VAC
Panel Main Voltage X-N	30468	—	1	—	VAC
Panel Main Voltage Y-N	30469	—	1	—	VAC
Panel Main Voltage Z-N	30470	—	1	—	VAC
Panel Main Current Ix	30471	—	1	—	A AC
Panel Main Current Iy	30472	—	1	—	A AC
Panel Main Current Iz	30473	—	1	—	A AC
Panel Main Neutral Current	30474	—	1	—	A AC
Panel Main Ground Current	30475	—	1	10	A AC
Panel Main Output Power (kVA)	30476	—	1	—	kVA
Panel Main Output Power (kW)	30477	—	1	—	kW
Panel Main Output kW-Hrs	30478	40478	2	10	kWH
Panel Main Output Power Factor	30480	—	1	100	—
Panel Main Output Percent Load	30481	—	1	—	%
Panel Main Voltage Vx THD	30482	—	1	10	% THD
Panel Main Voltage Vy THD	30483	—	1	10	% THD
Panel Main Voltage Vz THD	30484	—	1	10	% THD
Panel Main Current Ix THD	30485	—	1	10	% THD
Panel Main Current Iy THD	30486	—	1	10	% THD
Panel Main Current Iz THD	30487	—	1	10	% THD
Panel Main Current Ix Crest Factor	30488	—	1	10	—

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Current Iy Crest Factor	30489	—	1	10	—
Panel Main Current Iz Crest Factor	30490	—	1	10	—
Panel 2					
Columns of Breakers	30494	—	1	—	—
Number of Breakers	30495	—	1	—	—
Panel Main Voltage X-Y	30496	—	1	—	VAC
Panel Main Voltage Y-Z	30497	—	1	—	VAC
Panel Main Voltage Z-X	30498	—	1	—	VAC
Panel Main Voltage X-N	30499	—	1	—	VAC
Panel Main Voltage Y-N	30500	—	1	—	VAC
Panel Main Voltage Z-N	30501	—	1	—	VAC
Panel Main Current Ix	30502	—	1	—	A AC
Panel Main Current Iy	30503	—	1	—	A AC
Panel Main Current Iz	30504	—	1	—	A AC
Panel Main Neutral Current	30505	—	1	—	A AC
Panel Main Ground Current	30506	—	1	10	A AC
Panel Main Output Power (kVA)	30507	—	1	—	kVA
Panel Main Output Power (kW)	30508	—	1	—	kW
Panel Main Output kW-Hrs	30509	40509	2	10	kWH
Panel Main Output Power Factor	30511	—	1	100	—
Panel Main Output Percent Load	30512	—	1	—	%
Panel Main Voltage Vx THD	30513	—	1	10	% THD
Panel Main Voltage Vy THD	30514	—	1	10	% THD
Panel Main Voltage Vz THD	30515	—	1	10	% THD
Panel Main Current Ix THD	30516	—	1	10	% THD
Panel Main Current Iy THD	30517	—	1	10	% THD
Panel Main Current Iz THD	30518	—	1	10	% THD
Panel Main Current Ix Crest Factor	30519	—	1	10	—

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Current Iy Crest Factor	30520	—	1	10	—
Panel Main Current Iz Crest Factor	30521	—	1	10	—
Panel 4					
Columns of Breakers	30556	—	1	—	—
Number of Breakers	30557	—	1	—	—
Panel Main Voltage X-Y	30558	—	1	—	VAC
Panel Main Voltage Y-Z	30559	—	1	—	VAC
Panel Main Voltage Z-X	30560	—	1	—	VAC
Panel Main Voltage X-N	30561	—	1	—	VAC
Panel Main Voltage Y-N	30562	—	1	—	VAC
Panel Main Voltage Z-N	30563	—	1	—	VAC
Panel Main Current Ix	30564	—	1	—	A AC
Panel Main Current Iy	30565	—	1	—	A AC
Panel Main Current Iz	30566	—	1	—	A AC
Panel Main Neutral Current	30567	—	1	—	A AC
Panel Main Ground Current	30568	—	1	10	A AC
Panel Main Output Power (kVA)	30569	—	1	—	kVA
Panel Main Output Power (kW)	30570	—	1	—	kW
Panel Main Output kW-Hrs	30571	40571	2	10	kWH
Panel Main Output Power Factor	30573	—	1	100	—
Panel Main Output Percent Load	30574	—	1	-	%
Panel Main Voltage Vx THD	30575	—	1	10	% THD
Panel Main Voltage Vy THD	30576	—	1	10	% THD
Panel Main Voltage Vz THD	30577	—	1	10	% THD
Panel Main Current Ix THD	30578	—	1	10	% THD
Panel Main Current Iy THD	30579	—	1	10	% THD
Panel Main Current Iz THD	30580	—	1	10	% THD
Panel Main Current Ix Crest Factor	30581	—	1	10	—

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel Main Current Iy Crest Factor	30582	—	1	10	—
Panel Main Current Iz Crest Factor	30583	—	1	10	—
Panel 1 Position 1					
Breaker position	30587	—	1	—	—
Branch Current Phase 1	30588	—	1	10	A AC
Branch Current Phase 2	30589	—	1	10	A AC
Branch Current Phase 3	30590	—	1	10	A AC
Branch Output Power (kW)	30591	—	1	1000	kW
Output kW-Hrs	30592	—	2	1000	kWH
Branch Output Power Factor	30594	—	1	100	-
Branch Output Percent Load	30595	—	1	—	%
Panel 1 Position 2					
Breaker position	30599	—	1	—	—
Branch Current Phase 1	30600	—	1	10	A AC
Branch Current Phase 2	30601	—	1	10	A AC
Branch Current Phase 3	30602	—	1	10	A AC
Branch Output Power (kW)	30603	—	1	1000	kW
Output kW-Hrs	30604	—	2	1000	kWH
Branch Output Power Factor	30606	—	1	100	—
Branch Output Percent Load	30607	—	1	—	%
Panel 1 Position 84					
Breaker position	31583	—	1	—	—
Branch Current Phase 1	31584	—	1	10	A AC
Branch Current Phase 2	31585	—	1	10	A AC
Branch Current Phase 3	31586	—	1	10	A AC
Branch Output Power (kW)	31587	—	1	1000	kW
Output kW-Hrs	31588	—	2	1000	kWH
Branch Output Power Factor	31590	—	1	100	—

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Branch Output Percent Load	31591	—	1	—	%
Panel 2 Position 1					
Breaker position	31595	—	1	-	—
Branch Current Phase 1	31596	—	1	10	A AC
Branch Current Phase 2	31597	—	1	10	A AC
Branch Current Phase 3	31598	—	1	10	A AC
Branch Output Power (kW)	31599	—	1	1000	kW
Output kW-Hrs	31600	—	2	1000	kWH
Branch Output Power Factor	31602	—	1	100	—
Branch Output Percent Load	31603	—	1	—	%
Panel 2 Position 2					
Breaker position	31607	—	1	—	—
Branch Current Phase 1	31608	—	1	10	A AC
Branch Current Phase 2	31609	—	1	10	A AC
Branch Current Phase 3	31610	—	1	10	A AC
Branch Output Power (kW)	31611	—	1	1000	kW
Output kW-Hrs	31612	—	2	1000	kWH
Branch Output Power Factor	31614	—	1	100	—
Branch Output Percent Load	31615	—	1	—	%
Panel 2 Position 84					
Breaker position	32591	—	1	—	—
Branch Current Phase 1	32592	—	1	10	A AC
Branch Current Phase 2	32593	—	1	10	A AC
Branch Current Phase 3	32594	—	1	10	A AC
Branch Output Power (kW)	32595	—	1	1000	kW
Output kW-Hrs	32596	—	2	1000	kWH
Branch Output Power Factor	32598	—	1	100	—
Branch Output Percent Load	32599	—	1	—	%

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Panel 3 Position 1					
Breaker position	32603	—	1	—	—
Branch Current Phase 1	32604	—	1	10	A AC
Branch Current Phase 2	32605	—	1	10	A AC
Branch Current Phase 3	32606	—	1	10	A AC
Branch Output Power (kW)	32607	—	1	1000	kW
Output kW-Hrs	32608	—	2	1000	kWH
Branch Output Power Factor	32610	—	1	100	—
Branch Output Percent Load	32611	—	1	—	%
Panel 3 Position 2					
Breaker position	32615	—	1	—	—
Branch Current Phase 1	32616	—	1	10	A AC
Branch Current Phase 2	32617	—	1	10	A AC
Branch Current Phase 3	32618	—	1	10	A AC
Branch Output Power (kW)	32619	—	1	1000	kW
Output kW-Hrs	32620	—	2	1000	kWH
Branch Output Power Factor	32622	—	1	100	—
Branch Output Percent Load	32623	—	1	—	%
Panel 3 Position 84					
Breaker position	33599	—	1	—	—
Branch Current Phase 1	33600	—	1	10	A AC
Branch Current Phase 2	33601	—	1	10	A AC
Branch Current Phase 3	33602	—	1	10	A AC
Branch Output Power (kW)	33603	—	1	1000	kW
Output kW-Hrs	33604	—	2	1000	kWH
Branch Output Power Factor	33606	—	1	100	—
Branch Output Percent Load	33607	—	1	—	%
Panel 4 Position 1					

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Breaker position	33611	—	1	—	—
Branch Current Phase 1	33612	—	1	10	A AC
Branch Current Phase 2	33613	—	1	10	A AC
Branch Current Phase 3	33614	—	1	10	A AC
Branch Output Power (kW)	33615	—	1	1000	kW
Output kW-Hrs	33616	—	2	1000	kWH
Branch Output Power Factor	33618	—	1	100	—
Branch Output Percent Load	33619	—	1	—	%
Panel 4 Position 2					
Breaker position	33623	—	1	—	—
Branch Current Phase 1	33624	—	1	10	A AC
Branch Current Phase 2	33625	—	1	10	A AC
Branch Current Phase 3	33626	—	1	10	A AC
Branch Output Power (kW)	33627	—	1	1000	kW
Output kW-Hrs	33628	—	2	1000	kWH
Branch Output Power Factor	33630	—	1	100	—
Branch Output Percent Load	33631	—	1	-	%
Panel 4 Position 84					
Breaker position	34607	—	1	—	—
Branch Current Phase 1	34608	—	1	10	A AC
Branch Current Phase 2	34609	—	1	10	A AC
Branch Current Phase 3	34610	—	1	10	A AC
Branch Output Power (kW)	34611	—	1	1000	kW
Output kW-Hrs	34612	—	2	1000	kWH
Branch Output Power Factor	34614	—	1	100	—
Branch Output Percent Load	34615	—	1	—	%
Subfeed 1					
Subfeed Current Ix	34619	—	1	—	A AC

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Subfeed Current Iy	34620	—	1	—	A AC
Subfeed Current Iz	34621	—	1	—	A AC
Subfeed Neutral Current	34622	—	1	—	A AC
Subfeed Ground Current	34623	—	1	10	A AC
Subfeed Output Power (kVA)	34624	—	1	—	kVA
Subfeed Output Power (kW)	34625	—	1	—	kW
Subfeed Output kW-Hrs	34626	44626	2	10	kWH
Subfeed Power Factor	34628	—	1	100	—
Subfeed Output Percent Load	34629	—	1	-	%
Subfeed Current Ix THD	34630	—	1	10	%
Subfeed Current Iy THD	34631	—	1	10	%
Subfeed Current Iz THD	34632	—	1	10	%
Subfeed Current Ix Crest Factor	34633	—	1	10	—
Subfeed Current Iy Crest Factor	34634	—	1	10	—
Subfeed Current Iz Crest Factor	34635	—	1	10	—
Subfeed 2					
Subfeed Current Ix	34639	—	1	—	A AC
Subfeed Current Iy	34640	—	1	—	A AC
Subfeed Current Iz	34641	—	1	—	A AC
Subfeed Neutral Current	34642	—	1	—	A AC
Subfeed Ground Current	34643	—	1	10	A AC
Subfeed Output Power (kVA)	34644	—	1	—	kVA
Subfeed Output Power (kW)	34645	—	1	—	kW
Subfeed Output kW-Hrs	34646	44646	2	10	kWH
Subfeed Power Factor	34648	—	1	100	—
Subfeed Output Percent Load	34649	—	1	-	%
Subfeed Current Ix THD	34650	—	1	10	%
Subfeed Current Iy THD	34651	—	1	10	%

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Table 3.84 Liebert® FPC, Liebert® PPC—Input and Holding (continued)

Controller	Liebert®iCOM™ v4				
Liebert Products	Liebert FPC, Liebert PPC				
Available Points					
Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Subfeed Current Iz THD	34652	—	1	10	%
Subfeed Current Ix Crest Factor	34653	—	1	10	—
Subfeed Current Iy Crest Factor	34654	—	1	10	—
Subfeed Current Iz Crest Factor	34655	—	1	10	—
Subfeed 64					
Subfeed Current Ix	35879	—	1	—	A AC
Subfeed Current Iy	35880	—	1	—	A AC
Subfeed Current Iz	35881	—	1	—	A AC
Subfeed Neutral Current	35882	—	1	—	A AC
Subfeed Ground Current	35883	—	1	10	A AC
Subfeed Output Power (kVA)	35884	—	1	—	kVA
Subfeed Output Power (kW)	35885	—	1	—	kW
Subfeed Output kW-Hrs	35886	45886	2	10	kWH
Subfeed Power Factor	35888	—	1	100	—
Subfeed Output Percent Load	35889	—	1	-	%
Subfeed Current Ix THD	35890	—	1	10	%
Subfeed Current Iy THD	35891	—	1	10	%
Subfeed Current Iz THD	35892	—	1	10	%
Subfeed Current Ix Crest Factor	35893	—	1	10	—
Subfeed Current Iy Crest Factor	35894	—	1	10	—
Subfeed Current Iz Crest Factor	35895	—	1	10	—
System					
System Status	35899	—	1	—	1 = Normal Operation 2 = Startup 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Event Acknowledge/Reset	—	45900	1	—	2 = Reset 4 = Acknowledge
System Date and Time	39998	49998	2	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range

Data Label	Status	Coil	Number of Bits	Notes
System Status				
System Shutdown - EPO	100001	—	1	Active on Alarm
System Shutdown - REPO	100002	—	1	Active on Alarm
System Shutdown - Undervoltage	100003	—	1	Active on Alarm
Transformer High Temperature	100004	—	1	Active on Alarm
Transformer High Temperature	103749	—	1	Active on Warning
Transformer Temperature Sensor Failure	100005	—	1	Active on Alarm
Metering Board Communication Fail	100006	—	1	Active on Alarm
Accessory Board Communication Fail	100007	—	1	Active on Alarm
System Misconfiguration	100008	—	1	Active on Alarm
Main Input Breaker 1 Tripped	100009	—	1	Active on Alarm
Main Input Breaker 1 Accessory Error	100010	—	1	Active on Alarm
Main Input Breaker 1 Open Fail	100011	—	1	Active on Alarm
Main Input Breaker 2 Tripped	100012	—	1	Active on Alarm
Main Input Breaker 2 Accessory Error	100013	—	1	Active on Alarm
Main Input Breaker 2 Open Fail	100014	—	1	Active on Alarm
System Metering				
Output Overvoltage	100015	—	1	Active on Alarm
Output Undervoltage	100016	—	1	Active on Alarm
Phase Overcurrent	100017	—	1	Active on Alarm
Phase Overcurrent	102075	—	1	Active on Warning
Neutral Overcurrent	100018	—	1	Active on Alarm
Neutral Overcurrent	102076	—	1	Active on Warning
Ground Overcurrent	100019	—	1	Active on Alarm
Output Frequency Deviation	100020	—	1	Active on Alarm
Input 1 Overvoltage	100021	—	1	Active on Alarm
Input 1 Undervoltage	100022	—	1	Active on Alarm
Input 1 Phase Loss	100023	—	1	Active on Alarm
Input 1 Invalid Phase Rotation	100024	—	1	Active on Alarm
Input 1 Frequency Deviation	100025	—	1	Active on Alarm
Input 1 High Voltage THD	100026	—	1	Active on Alarm
Input 2 Overvoltage	100027	—	1	Active on Alarm

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Input 2 Undervoltage	100028	—	1	Active on Alarm
Input 2 Phase Loss	100029	—	1	Active on Alarm
Input 2 Invalid Phase Rotation	100030	—	1	Active on Alarm
Input 2 Frequency Deviation	100031	—	1	Active on Alarm
Input 2 High Voltage THD	100032	—	1	Active on Alarm
Shunt Trip Unavailable	103750	—	1	Active on Alarm
Branch PB 1				
Panelboard Phase Overcurrent	100033	—	1	Active on Alarm
Panelboard Phase Overcurrent	102077	—	1	Active on Warning
Panelboard Neutral Overcurrent	100034	—	1	Active on Alarm
Panelboard Neutral Overcurrent	102078	—	1	Active on Warning
Panelboard Ground Overcurrent	100035	—	1	Active on Alarm
Panelboard Main Breaker Tripped	100036	—	1	Active on Alarm
Panelboard Main Breaker Accessory Error	100037	—	1	Active on Alarm
Panelboard Overvoltage	101421		1	Active on Alarm
Panelboard Undervoltage	101422	—	1	Active on Alarm
Panelboard Frequency Deviation	101423	—	1	Active on Alarm
Panelboard Main Breaker Open Fail	103233	—	1	Active on Alarm
Panelboard Shunt Trip Unavailable	103751	—	1	Active on Alarm
Branch PB 2				
Panelboard Phase Overcurrent	100038	—	1	Active on Alarm
Panelboard Phase Overcurrent	102079	—	1	Active on Warning
Panelboard Neutral Overcurrent	100039	—	1	Active on Alarm
Panelboard Neutral Overcurrent	102080	—	1	Active on Warning
Panelboard Ground Overcurrent	100040	—	1	Active on Alarm
Panelboard Main Breaker Tripped	100041	—	1	Active on Alarm
Panelboard Main Breaker Accessory Error	100042	—	1	Active on Alarm
Panelboard Overvoltage	101424	—	1	Active on Alarm
Panelboard Undervoltage	101425	—	1	Active on Alarm
Panelboard Frequency Deviation	101426	—	1	Active on Alarm
Panelboard Main Breaker Open Fail	103234	—	1	Active on Alarm
Panelboard Shunt Trip Unavailable	103752	—	1	Active on Alarm

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
. . .				
Branch PB 12				
Panelboard Phase Overcurrent	100088	—	1	Active on Alarm
Panelboard Phase Overcurrent	102099	—	1	Active on Warning
Panelboard Neutral Overcurrent	100089	—	1	Active on Alarm
Panelboard Neutral Overcurrent	102100	—	1	Active on Warning
Panelboard Ground Overcurrent	100090	—	1	Active on Alarm
Panelboard Main Breaker Tripped	100091	—	1	Active on Alarm
Panelboard Main Breaker Accessory Error	100092	—	1	Active on Alarm
Panelboard Overvoltage	101454	—	1	Active on Alarm
Panelboard Undervoltage	101455	—	1	Active on Alarm
Panelboard Frequency Deviation	101456	—	1	Active on Alarm
Panelboard Main Breaker Open Fail	103244	—	1	Active on Alarm
Panelboard Shunt Trip Unavailable	103762	—	1	Active on Alarm
Branch PB 1 Branch 1				
Branch Phase Overcurrent	100093	—	1	Active on Alarm
Branch Phase Overcurrent	102101	—	1	Active on Warning
Branch Phase Undercurrent	100094	—	1	Active on Alarm
Branch Neutral Overcurrent	101457	—	1	Active on Alarm
Branch Neutral Overcurrent	102102	—	1	Active on Warning
Load Loss Detected	103245	—	1	Active on Alarm
Branch PB 1 Branch 2				
Branch Phase Overcurrent	100095	—	1	Active on Alarm
Branch Phase Overcurrent	102103	—	1	Active on Warning
Branch Phase Undercurrent	100096	—	1	Active on Alarm
Branch Neutral Overcurrent	101458	—	1	Active on Alarm
Branch Neutral Overcurrent	102104	—	1	Active on Warning
Load Loss Detected	103246	—	1	Active on Alarm
. . .				
Branch PB 1 Branch 42				
Branch Phase Overcurrent	100075	—	1	Active on Alarm
Branch Phase Overcurrent	102183	—	1	Active on Warning

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Branch Phase Undercurrent	100076	—	1	Active on Alarm
Branch Neutral Overcurrent	101498	—	1	Active on Alarm
Branch Neutral Overcurrent	102184	—	1	Active on Warning
Load Loss Detected	103286	—	1	Active on Alarm
Branch PB 2 Branch 1				
Branch Phase Overcurrent	100177	—	1	Active on Alarm
Branch Phase Overcurrent	102185	—	1	Active on Warning
Branch Phase Undercurrent	100178	—	1	Active on Alarm
Branch Neutral Overcurrent	101499	—	1	Active on Alarm
Branch Neutral Overcurrent	102186	—	1	Active on Warning
Load Loss Detected	103287	—	1	Active on Alarm
Branch PB 2 Branch 2				
Branch Phase Overcurrent	100179	—	1	Active on Alarm
Branch Phase Overcurrent	102187	—	1	Active on Warning
Branch Phase Undercurrent	100180	—	1	Active on Alarm
Branch Neutral Overcurrent	101500	—	1	Active on Alarm
Branch Neutral Overcurrent	102188	—	1	Active on Warning
Load Loss Detected	103288	—	1	Active on Alarm
. . .				
Branch PB 2 Branch 42				
Branch Phase Overcurrent	100259	—	1	Active on Alarm
Branch Phase Overcurrent	102267	—	1	Active on Warning
Branch Phase Undercurrent	100260	—	1	Active on Alarm
Branch Neutral Overcurrent	101540	—	1	Active on Alarm
Branch Neutral Overcurrent	102268	—	1	Active on Warning
Load Loss Detected	103328	—	1	Active on Alarm
. . .				
Branch PB 12 Branch 1				
Branch Phase Overcurrent	101017	—	1	Active on Alarm
Branch Phase Overcurrent	103025	—	1	Active on Warning
Branch Phase Undercurrent	101018	—	1	Active on Alarm
Branch Neutral Overcurrent	101919	—	1	Active on Alarm

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Branch Neutral Overcurrent	103026	—	1	Active on Warning
Load Loss Detected	103707	—	1	Active on Alarm
Branch PB 12 Branch 2				
Branch Phase Overcurrent	101019	—	1	Active on Alarm
Branch Phase Overcurrent	103027	—	1	Active on Warning
Branch Phase Undercurrent	101020	—	1	Active on Alarm
Branch Neutral Overcurrent	101920	—	1	Active on Alarm
Branch Neutral Overcurrent	103028	—	1	Active on Warning
Load Loss Detected	103708	—	1	Active on Alarm
. . .				
Branch PB 12 Branch 42				
Branch Phase Overcurrent	101099	—	1	Active on Alarm
Branch Phase Overcurrent	103107	—	1	Active on Warning
Branch Phase Undercurrent	101100	—	1	Active on Alarm
Branch Neutral Overcurrent	101960	—	1	Active on Alarm
Branch Neutral Overcurrent	103108	—	1	Active on Warning
Load Loss Detected	103748	—	1	Active on Alarm
Subfeed PB 1				
Panelboard Phase Overcurrent	101101	—	1	Active on Alarm
Panelboard Phase Overcurrent	103109	—	1	Active on Warning
Panelboard Neutral Overcurrent	101102	—	1	Active on Alarm
Panelboard Neutral Overcurrent	103110	—	1	Active on Warning
Panelboard Ground Overcurrent	101103	—	1	Active on Alarm
Panelboard Main Breaker Tripped	101104	—	1	Active on Alarm
Panelboard Main Breaker Accessory Error	101105	—	1	Active on Alarm
Panelboard Overvoltage	101961	—	1	Active on Alarm
Panelboard Undervoltage	101962	—	1	Active on Alarm
Panelboard Frequency Deviation	101963	—	1	Active on Alarm
Subfeed PB 2				
Panelboard Phase Overcurrent	101106	—	1	Active on Alarm
Panelboard Phase Overcurrent	103111	—	1	Active on Warning
Panelboard Neutral Overcurrent	101107	—	1	Active on Alarm

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Panelboard Neutral Overcurrent	103112	—	1	Active on Warning
Panelboard Ground Overcurrent	101108	—	1	Active on Alarm
Panelboard Main Breaker Tripped	101109	—	1	Active on Alarm
Panelboard Main Breaker Accessory Error	101110	—	1	Active on Alarm
Panelboard Overvoltage	101964	—	1	Active on Alarm
Panelboard Undervoltage	101965	—	1	Active on Alarm
Panelboard Frequency Deviation	101966	—	1	Active on Alarm
Subfeed PB 1 Subfeed 1				
Subfeed Phase Overcurrent	101111	—	1	Active on Alarm
Subfeed Phase Overcurrent	103113	—	1	Active on Warning
Subfeed Neutral Overcurrent	101112	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103114	—	1	Active on Warning
Subfeed Ground Overcurrent	101113	—	1	Active on Alarm
Subfeed Breaker Tripped	101114	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101115	—	1	Active on Alarm
Subfeed PB 1 Subfeed 2				
Subfeed Phase Overcurrent	101116	—	1	Active on Alarm
Subfeed Phase Overcurrent	103115	—	1	Active on Warning
Subfeed Neutral Overcurrent	101117	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103116	—	1	Active on Warning
Subfeed Ground Overcurrent	101118	—	1	Active on Alarm
Subfeed Breaker Tripped	101119	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101120	—	1	Active on Alarm
. . .				
Subfeed PB 1 Subfeed 12				
Subfeed Phase Overcurrent	101166	—	1	Active on Alarm
Subfeed Phase Overcurrent	103135	—	1	Active on Warning
Subfeed Neutral Overcurrent	101167	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103136	—	1	Active on Warning
Subfeed Ground Overcurrent	101168	—	1	Active on Alarm
Subfeed Breaker Tripped	101169	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101170	—	1	Active on Alarm

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Subfeed PB 2 Subfeed 1				
Subfeed Phase Overcurrent	101171	—	1	Active on Alarm
Subfeed Phase Overcurrent	103137	—	1	Active on Warning
Subfeed Neutral Overcurrent	101172	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103138	—	1	Active on Warning
Subfeed Ground Overcurrent	101173	—	1	Active on Alarm
Subfeed Breaker Tripped	101174	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101175	—	1	Active on Alarm
Subfeed PB 2 Subfeed 2				
Subfeed Phase Overcurrent	101176	—	1	Active on Alarm
Subfeed Phase Overcurrent	103139	—	1	Active on Warning
Subfeed Neutral Overcurrent	101177	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103140	—	1	Active on Warning
Subfeed Ground Overcurrent	101178	—	1	Active on Alarm
Subfeed Breaker Tripped	101179	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101180	—	1	Active on Alarm
. . .				
Subfeed PB 2 Subfeed 12				
Subfeed Phase Overcurrent	101226	—	1	Active on Alarm
Subfeed Phase Overcurrent	103159	—	1	Active on Warning
Subfeed Neutral Overcurrent	101227	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103160	—	1	Active on Warning
Subfeed Ground Overcurrent	101228	—	1	Active on Alarm
Subfeed Breaker Tripped	101229	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101230	—	1	Active on Alarm
Subfeed 1				
Subfeed Phase Overcurrent	101231	—	1	Active on Alarm
Subfeed Phase Overcurrent	103161	—	1	Active on Warning
Subfeed Neutral Overcurrent	101232	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103162	—	1	Active on Warning
Subfeed Ground Overcurrent	101233	—	1	Active on Alarm
Subfeed Breaker Tripped	101234	—	1	Active on Alarm

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Subfeed Breaker Accessory Error	101235	—	1	Active on Alarm
Subfeed Overvoltage	101967	—	1	Active on Alarm
Subfeed Undervoltage	101968	—	1	Active on Alarm
Subfeed Frequency Deviation	101969	—	1	Active on Alarm
Subfeed 2				
Subfeed Phase Overcurrent	101236	—	1	Active on Alarm
Subfeed Phase Overcurrent	103163	—	1	Active on Warning
Subfeed Neutral Overcurrent	101237	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103164	—	1	Active on Warning
Subfeed Ground Overcurrent	101238	—	1	Active on Alarm
Subfeed Breaker Tripped	101239	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101240	—	1	Active on Alarm
Subfeed Overvoltage	101970	—	1	Active on Alarm
Subfeed Undervoltage	101971	—	1	Active on Alarm
Subfeed Frequency Deviation	101972	—	1	Active on Alarm
. . .				
Subfeed 36				
Subfeed Phase Overcurrent	101406	—	1	Active on Alarm
Subfeed Phase Overcurrent	103231	—	1	Active on Warning
Subfeed Neutral Overcurrent	101407	—	1	Active on Alarm
Subfeed Neutral Overcurrent	103232	—	1	Active on Warning
Subfeed Ground Overcurrent	101408	—	1	Active on Alarm
Subfeed Breaker Tripped	101409	—	1	Active on Alarm
Subfeed Breaker Accessory Error	101410	—	1	Active on Alarm
Subfeed Overvoltage	102072	—	1	Active on Alarm
Subfeed Undervoltage	102073	—	1	Active on Alarm
Subfeed Frequency Deviation	102074	—	1	Active on Alarm
External Input Contact 1		—		
External Input Contact State	101411	—	1	Active on Alarm
External Input Contact 2		—		
External Input Contact State	101412	—	1	Active on Alarm
Internal Input Contact 1		—		

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Table 3.85 Liebert® RXA, Liebert® RXV and Liebert® TFX—Status and Coil, Normal Range (continued)

Data Label	Status	Coil	Number of Bits	Notes
Internal Input Contact State	101413	—	1	Active on Alarm
Internal Input Contact 2		—		
Internal Input Contact State	101414	—	1	Active on Alarm
. . .				
Internal Input Contact 8				
Internal Input Contact State	101420	—	1	Active on Alarm

Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	300001	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System Status					
System Status	300002	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Restart Procedure	300003	—	1	—	0 = Auto 1 = Manual
Overtemperature Shutdown	300004	—	1	—	0 = disabled 1 = enabled
Main Input Breaker 1 Status	300005	—	1	—	0 = Unknown 1 = Open 2 = Closed
Main Input Breaker 2 Status	300006	—	1	—	0 = Unknown 1 = Open 2 = Closed
System Metering					
System Current Rating	300007	—	1	—	Units : A AC Uint16
Input 1 Frequency	300008	—	1	10	Units : Hz Uint16
Input 2 Frequency	300009	—	1	10	Units : Hz Uint16
Input 1 Voltage (L-L) A-B	300010	—	1	10	Units : VAC

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Input 1 Voltage (L-L) B-C	300011	—	1	10	Units : VAC Uint16
InputVoltage (L-L) C-A	300012	—	1	10	Units : VAC Uint16
Input 2 Voltage (L-L) A-B	300013	—	1	10	Units : VAC Uint16
Input 2 Voltage (L-L) B-C	300014	—	1	10	Units : VAC Uint16
Input 2 Voltage (L-L) C-A	300015	—	1	10	Units : VAC Uint16
Output Voltage (L-L) A-B	300016	—	1	10	Units : VAC Uint16
Output Voltage (L-L) B-C	300017	—	1	10	Units : VAC Uint16
Output Voltage (L-L) C-A	300018	—	1	10	Units : VAC Uint16
Output Voltage (L-N) A-N	300019	—	1	10	Units : VAC Uint16
Output Voltage (L-N) B-N	300020	—	1	10	Units : VAC Uint16
Output Voltage (L-N) C-N	300021	—	1	10	Units : VAC Uint16
Current Ph A	300022	—	1	10	Units : A AC Uint16
Current Ph B	300023	—	1	10	Units : A AC Uint16
Current Ph C	300024	—	1	10	Units : A AC Uint16
Neutral Current	300025	—	1	10	Units : A AC Uint16
Ground Current	300026	—	1	10	Units : A AC Uint16
Current Load Ph A	300027	—	1	10	Units : % Uint16
Current Load Ph B	300028	—	1	10	Units : % Uint16
Current Load Ph C	300029	—	1	10	Units : % Uint16
Highest Phase Current Load	300030	—	1	10	Units : % Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Real Power	300031	—	1	10	Units : kW Uint16
Apparent Power	300032	—	1	10	Units : kVA Uint16
Apparent Power Load	300033	—	1	10	Units : % Uint16
Power Factor Ph A	300034	—	1	100	Uint16
Power Factor Ph B	300035	—	1	100	Uint16
Power Factor Ph C	300036	—	1	100	Uint16
Power Factor Total	300037	—	1	100	Uint16
Energy	300038	—	2	1000	Units : kWH Uint32
Peak Current Ph A	300040	—	1	10	Units : A AC Uint16
Peak Current Ph B	300041	—	1	10	Units : A AC Uint16
Peak Current Ph C	300042	—	1	10	Units : A AC Uint16
Peak Demand	300043	—	1	10	Units : kW Uint16
Current Crest Factor Ph A	300044	—	1	100	Uint16
Current Crest Factor Ph B	300045	—	1	100	Uint16
Current Crest Factor Ph C	300046	—	1	100	Uint16
K-Factor Ph A	300047	—	1	10	Uint16
K-Factor Ph B	300048	—	1	10	Uint16
K-Factor Ph C	300049	—	1	10	Uint16
Highest Phase K-Factor	300050	—	1	10	Uint16
iTHD Ph A	300051	—	1	10	Units : % Uint16
iTHD Ph B	300052	—	1	10	Units : % Uint16
iTHD Ph C	300053	—	1	10	Units : % Uint16
Input 1 vTHD Ph A	300054	—	1	10	Units : % Uint16
Input 1 vTHD Ph B	300055	—	1	10	Units : % Uint16
Input 1 vTHD Ph C	300056	—	1	10	Units : % Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input 2 vTHD Ph A	300057	—	1	10	Units : % Uint16
Input 2 vTHD Ph B	300058	—	1	10	Units : % Uint16
Input 2 vTHD Ph C	300059	—	1	10	Units : % Uint16
Output vTHD Ph A	300060	—	1	10	Units : % Uint16
Output vTHD Ph B	300061	—	1	10	Units : % Uint16
Output vTHD Ph C	300062	—	1	10	Units : % Uint16
Metering Configuration	300063	—	1	—	0 = Master Side 1 = Slave Side
Input 1 Phase Overvoltage Alarm Threshold	300064	—	1	—	Units : % Uint16
Input 1 Phase Undervoltage Alarm Threshold	300065	—	1	—	Units : % Uint16
Input 2 Phase Overvoltage Alarm Threshold	300066	—	1	—	Units : % Uint16
Input 2 Phase Undervoltage Alarm Threshold	300067	—	1	—	Units : % Uint16
Output Phase Overvoltage Alarm Threshold	300068	—	1	—	Units : % Uint16
Output Phase Undervoltage Alarm Threshold	300069	—	1	—	Units : % Uint16
System Power Rating	309310	—	1	—	Units : kVA Uint16
System Frequency	309311	—	1	10	Units : Hz Uint16
Neutral Overcurrent Warning Threshold	309312	—	1	—	Units : % Uint16
Branch PB 1					
Panelboard Status	300070	—	1	—	0 = Normal 1 = Abnormal
Panelboard Total Pole Positions	300071	—	1	—	Uint16
Panelboard Available Pole Positions	300072	—	1	—	Uint16
Panelboard Main Breaker Current Rating	300073	—	1	—	Units : A AC Int16
Panelboard Current Ph A	300074	—	1	1000	Units : A AC

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Panelboard Current Ph B	300075	—	1	1000	Units : A AC Uint16
Panelboard Current Ph C	300076	—	1	1000	Units : A AC Uint16
Panelboard Neutral Current	300077	—	1	1000	Units : A AC Uint16
Panelboard Ground Current	300078	—	1	10	Units : A AC Uint16
Panelboard Current Load Ph A	300079	—	1	10	Units : % Uint16
Panelboard Current Load Ph B	300080	—	1	10	Units : % Uint16
Panelboard Current Load Ph C	300081	—	1	10	Units : % Uint16
Panelboard Highest Phase Current Load	300082	—	1	10	Units : % Uint16
Panelboard Real Power	300083	—	1	1000	Units : kW Uint16
Panelboard Apparent Power	300084	—	1	1000	Units : kVA Uint16
Panelboard Power Factor Ph A	300085	—	1	100	Uint16
Panelboard Power Factor Ph B	300086	—	1	100	Uint16
Panelboard Power Factor Ph C	300087	—	1	100	Uint16
Panelboard Power Factor Total	300088	—	1	100	Uint16
Panelboard Energy	300089	—	2	1000	Units : kWH Uint32
Panelboard Peak Current Ph A	300091	—	1	1000	Units : A AC Uint16
Panelboard Peak Current Ph B	300092	—	1	1000	Units : A AC Uint16
Panelboard Peak Current Ph C	300093	—	1	1000	Units : A AC Uint16
Panelboard Peak Demand	300094	—	1	1000	Units : kW Uint16
Panelboard Current Crest Factor Ph A	300095	—	1	10	Uint16
Panelboard Current Crest Factor Ph B	300096	—	1	10	Uint16
Panelboard Current Crest Factor Ph C	300097	—	1	10	Uint16
Panelboard iTHD Ph A	300098	—	1	10	Units : % Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard iTHD Ph B	300099	—	1	10	Units : % Uint16
Panelboard iTHD Ph C	300100	—	1	10	Units : % Uint16
Panelboard Main Breaker Status	300101	—	1	—	0 = Unknown 1 = Open 2 = Closed
Branch PB 2					
Panelboard Status	300102	—	1	—	0 = Normal 1 = Abnormal
Panelboard Total Pole Positions	300103	—	1	—	Uint16
Panelboard Available Pole Positions	300104	—	1	—	Uint16
Panelboard Main Breaker Current Rating	300105	—	1	—	Units : A AC Int16
Panelboard Current Ph A	300106	—	1	1000	Units : A AC Uint16
Panelboard Current Ph B	300107	—	1	1000	Units : A AC Uint16
Panelboard Current Ph C	300108	—	1	1000	Units : A AC Uint16
Panelboard Neutral Current	300109	—	1	1000	Units : A AC Uint16
Panelboard Ground Current	300110	—	1	10	Units : A AC Uint16
Panelboard Current Load Ph A	300111	—	1	10	Units : % Uint16
Panelboard Current Load Ph B	300112	—	1	10	Units : % Uint16
Panelboard Current Load Ph C	300113	—	1	10	Units : % Uint16
Panelboard Highest Phase Current Load	300114	—	1	10	Units : % Uint16
Panelboard Real Power	300115	—	1	1000	Units : kW Uint16
Panelboard Apparent Power	300116	—	1	1000	Units : kVA Uint16
Panelboard Power Factor Ph A	300117	—	1	100	Uint16
Panelboard Power Factor Ph B	300118	—	1	100	Uint16
Panelboard Power Factor Ph C	300119	—	1	100	Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Power Factor Total	300120	—	1	100	Uint16
Panelboard Energy	300121	—	2	1000	Units : kWH Uint32
Panelboard Peak Current Ph A	300123	—	1	1000	Units : A AC Uint16
Panelboard Peak Current Ph B	300124	—	1	1000	Units : A AC Uint16
Panelboard Peak Current Ph C	300125	—	1	1000	Units : A AC Uint16
Panelboard Peak Demand	300126	—	1	1000	Units : kW Uint16
Panelboard Current Crest Factor Ph A	300127	—	1	10	Uint16
Panelboard Current Crest Factor Ph B	300128	—	1	10	Uint16
Panelboard Current Crest Factor Ph C	300129	—	1	10	Uint16
Panelboard iTHD Ph A	300130	—	1	10	Units : % Uint16
Panelboard iTHD Ph B	300131	—	1	10	Units : % Uint16
Panelboard iTHD Ph C	300132	—	1	10	Units : % Uint16
Panelboard Main Breaker Status	300133	—	1	—	0 = Unknown 1 = Open 2 = Closed
. . .					
Branch PB 12					
Panelboard Status	300422	—	1	—	0 = Normal 1 = Abnormal
Panelboard Total Pole Positions	300423	—	1	—	Uint16
Panelboard Available Pole Positions	300424	—	1	—	Uint16
Panelboard Main Breaker Current Rating	300425	—	1	—	Units : A AC Int16
Panelboard Current Ph A	300426	—	1	1000	Units : A AC Uint16
Panelboard Current Ph B	300427	—	1	1000	Units : A AC Uint16
Panelboard Current Ph C	300428	—	1	1000	Units : A AC Uint16
Panelboard Neutral Current	300429	—	1	1000	Units : A AC Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Ground Current	300430	—	1	10	Units : A AC Uint16
Panelboard Current Load Ph A	300431	—	1	10	Units : % Uint16
Panelboard Current Load Ph B	300432	—	1	10	Units : % Uint16
Panelboard Current Load Ph C	300433	—	1	10	Units : % Uint16
Panelboard Highest Phase Current Load	300434	—	1	10	Units : % Uint16
Panelboard Real Power	300435	—	1	1000	Units : kW Uint16
Panelboard Apparent Power	300436	—	1	1000	Units : kVA Uint16
Panelboard Power Factor Ph A	300437	—	1	100	Uint16
Panelboard Power Factor Ph B	300438	—	1	100	Uint16
Panelboard Power Factor Ph C	300439	—	1	100	Uint16
Panelboard Power Factor Total	300440	—	1	100	Uint16
Panelboard Energy	300441	—	2	1000	Units : kWH Uint32
Panelboard Peak Current Ph A	300443	—	1	1000	Units : A AC Uint16
Panelboard Peak Current Ph B	300444	—	1	1000	Units : A AC Uint16
Panelboard Peak Current Ph C	300445	—	1	1000	Units : A AC Uint16
Panelboard Peak Demand	300446	—	1	1000	Units : kW Uint16
Panelboard Current Crest Factor Ph A	300447	—	1	10	Uint16
Panelboard Current Crest Factor Ph B	300448	—	1	10	Uint16
Panelboard Current Crest Factor Ph C	300449	—	1	10	Uint16
Panelboard iTHD Ph A	300450	—	1	10	Units : % Uint16
Panelboard iTHD Ph B	300451	—	1	10	Units : % Uint16
Panelboard iTHD Ph C	300452	—	1	10	Units : % Uint16
Panelboard Main Breaker Status	300453	—	1	—	0 = Unknown 1 = Open 2 = Closed

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch PB 1 Branch 1					
Branch Position	300454	—	1	—	Uint16
Branch Current Rating	300455	—	1	—	Units : A AC Uint16
Branch Current L1	300456	—	1	100	Units : A AC Uint16
Branch Current L2	300457	—	1	100	Units : A AC Uint16
Branch Current L3	300458	—	1	100	Units : A AC Uint16
Branch Real Power	300459	—	1	1000	Units : kW Uint16
Branch Power Factor	300460	—	1	100	Uint16
Branch Energy	300461	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	300463	—	1	10	Units : % Uint16
Branch Peak Current L1	300464	—	1	100	Units : A AC Uint16
Branch Peak Current L2	300465	—	1	100	Units : A AC Uint16
Branch Peak Current L3	300466	—	1	100	Units : A AC Uint16
Branch Peak Demand	300467	—	1	1000	Units : kW Uint16
Branch Current Neutral	309313		1	100	Units : A AC Uint16
Branch PB 1 Branch 2					
Branch Position	300468	—	1	—	Uint16
Branch Current Rating	300469	—	1	—	Units : A AC Uint16
Branch Current L1	300470	—	1	100	Units : A AC Uint16
Branch Current L2	300471	—	1	100	Units : A AC Uint16
Branch Current L3	300472	—	1	100	Units : A AC Uint16
Branch Real Power	300473	—	1	1000	Units : kW Uint16
Branch Power Factor	300474	—	1	100	Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch Energy	300475	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	300477	—	1	10	Units : % Uint16
Branch Peak Current L1	300478	—	1	100	Units : A AC Uint16
Branch Peak Current L2	300479	—	1	100	Units : A AC Uint16
Branch Peak Current L3	300480	—	1	100	Units : A AC Uint16
Branch Peak Demand	300481	—	1	1000	Units : kW Uint16
Branch Current Neutral	309314	—	1	100	Units : A AC Uint16
. . .					
Branch PB 1 Branch 42					
Branch Position	301028	—	1	—	Uint16
Branch Current Rating	301029	—	1	—	Units : A AC Uint16
Branch Current L1	301030	—	1	100	Units : A AC Uint16
Branch Current L2	301031	—	1	100	Units : A AC Uint16
Branch Current L3	301032	—	1	100	Units : A AC Uint16
Branch Real Power	301033	—	1	1000	Units : kW Uint16
Branch Power Factor	301034	—	1	100	Uint16
Branch Energy	301035	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	301037	—	1	10	Units : % Uint16
Branch Peak Current L1	301038	—	1	100	Units : A AC Uint16
Branch Peak Current L2	301039	—	1	100	Units : A AC Uint16
Branch Peak Current L3	301040	—	1	100	Units : A AC Uint16
Branch Peak Demand	301041	—	1	1000	Units : kW Uint16
Branch Current Neutral	309354	—	1	100	Units : A AC

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Branch PB 2 Branch 1					
Branch Position	301042	—	1	—	Uint16
Branch Current Rating	301043	—	1	—	Units : A AC Uint16
Branch Current L1	301044	—	1	100	Units : A AC Uint16
Branch Current L2	301045	—	1	100	Units : A AC Uint16
Branch Current L3	301046	—	1	100	Units : A AC Uint16
Branch Real Power	301047	—	1	1000	Units : kW Uint16
Branch Power Factor	301048	—	1	100	Uint16
Branch Energy	301049	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	301051	—	1	10	Units : % Uint16
Branch Peak Current L1	301052	—	1	100	Units : A AC Uint16
Branch Peak Current L2	301053	—	1	100	Units : A AC Uint16
Branch Peak Current L3	301054	—	1	100	Units : A AC Uint16
Branch Peak Demand	301055	—	1	1000	Units : kW Uint16
Branch Current Neutral	309355		1	100	Units : A AC Uint16
Branch PB 2 Branch 2					
Branch Position	301056	—	1	—	Uint16
Branch Current Rating	301057	—	1	—	Units : A AC Uint16
Branch Current L1	301058	—	1	100	Units : A AC Uint16
Branch Current L2	301059	—	1	100	Units : A AC Uint16
Branch Current L3	301060	—	1	100	Units : A AC Uint16
Branch Real Power	301061	—	1	1000	Units : kW Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch Power Factor	301062	—	1	100	Uint16
Branch Energy	301063	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	301065	—	1	10	Units : % Uint16
Branch Peak Current L1	301066	—	1	100	Units : A AC Uint16
Branch Peak Current L2	301067	—	1	100	Units : A AC Uint16
Branch Peak Current L3	301068	—	1	100	Units : A AC Uint16
Branch Peak Demand	301069	—	1	1000	Units : kW Uint16
Branch Current Neutral	309356	—	1	100	Units : A AC Uint16
. . .					
Branch PB 2 Branch 42					
Branch Position	301616	—	1	—	Uint16
Branch Current Rating	301617	—	1	—	Units : A AC Uint16
Branch Current L1	301618	—	1	100	Units : A AC Uint16
Branch Current L2	301619	—	1	100	Units : A AC Uint16
Branch Current L3	301620	—	1	—	Units : A AC Uint16
Branch Real Power	301621	—	1	1100000	Units : kW Uint16
Branch Power Factor	301622	—	1	100	Uint16
Branch Energy	301623	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	301625	—	1	10	Units : % Uint16
Branch Peak Current L1	301626	—	1	100	Units : A AC Uint16
Branch Peak Current L2	301627	—	1	100	Units : A AC Uint16
Branch Peak Current L3	301628	—	1	100	Units : A AC Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch Peak Demand	301629	—	1	1000	Units : kW Uint16
Branch Current Neutral	309396	—	1	100	Units : A AC Uint16
. . .					
Branch PB 12 Branch 1					
Branch Position	306922	—	1	—	Uint16
Branch Current Rating	306923	—	1	—	Units : A AC Uint16
Branch Current L1	306924	—	1	100	Units : A AC Uint16
Branch Current L2	306925	—	1	100	Units : A AC Uint16
Branch Current L3	306926	—	1	100	Units : A AC Uint16
Branch Real Power	306927	—	1	1000	Units : kW Uint16
Branch Power Factor	306928	—	1	100	Uint16
Branch Energy	306929	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	306931	—	1	10	Units : % Uint16
Branch Peak Current L1	306932	—	1	100	Units : A AC Uint16
Branch Peak Current L2	306933	—	1	100	Units : A AC Uint16
Branch Peak Current L3	306934	—	1	100	Units : A AC Uint16
Branch Peak Demand	306935	—	1	1000	Units : kW Uint16
Branch Current Neutral	309775	—	1	100	Units : A AC Uint16
Branch PB 12 Branch 2					
Branch Position	306936	—	1	—	Uint16
Branch Current Rating	306937	—	1	—	Units : A AC Uint16
Branch Current L1	306938	—	1	100	Units : A AC Uint16
Branch Current L2	306939	—	1	100	Units : A AC

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Branch Current L3	306940	—	1	100	Units : A AC Uint16
Branch Real Power	306941	—	1	1000	Units : kW Uint16
Branch Power Factor	306942	—	1	100	Uint16
Branch Energy	306943	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	306945	—	1	10	Units : % Uint16
Branch Peak Current L1	306946	—	1	100	Units : A AC Uint16
Branch Peak Current L2	306947	—	1	100	Units : A AC Uint16
Branch Peak Current L3	306948	—	1	100	Units : A AC Uint16
Branch Peak Demand	306949	—	1	1000	Units : kW Uint16
Branch Current Neutral	309776	—	1	100	Units : A AC Uint16
. . .					
Branch PB 12 Branch 42					
Branch Position	307496	—	1	—	Uint16
Branch Current Rating	307497	—	1	—	Units : A AC Uint16
Branch Current L1	307498	—	1	100	Units : A AC Uint16
Branch Current L2	307499	—	1	100	Units : A AC Uint16
Branch Current L3	307500	—	1	100	Units : A AC Uint16
Branch Real Power	307501	—	1	1000	Units : kW Uint16
Branch Power Factor	307502	—	1	100	Uint16
Branch Energy	307503	—	2	1000	Units : kWH Uint32
Branch Highest Phase Current Load	307505	—	1	10	Units : % Uint16
Branch Peak Current L1	307506	—	1	100	Units : A AC Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch Peak Current L2	307507	—	1	100	Units : A AC Uint16
Branch Peak Current L3	307508	—	1	100	Units : A AC Uint16
Branch Peak Demand	307509	—	1	1000	Units : kW Uint16
Branch Current Neutral	309816	—	1	100	Units : A AC Uint16
Subfeed PB 1					
Panelboard Status	307510	—	1	—	0 = Normal 1 = Abnormal
Panelboard Subfeed Count	307511	—	1	—	Int16
Panelboard Current Ph A	307512	—	1	10	Units : A AC Uint16
Panelboard Current Ph B	307513	—	1	10	Units : A AC Uint16
Panelboard Current Ph C	307514	—	1	10	Units : A AC Uint16
Panelboard Neutral Current	307515	—	1	10	Units : A AC Uint16
Panelboard Ground Current	307516	—	1	10	Units : A AC Uint16
Panelboard Current Load Ph A	307517	—	1	10	Units : % Uint16
Panelboard Current Load Ph B	307518	—	1	10	Units : % Uint16
Panelboard Current Load Ph C	307519	—	1	10	Units : % Uint16
Panelboard Highest Phase Current Load	307520	—	1	10	Units : % Uint16
Panelboard Real Power	307521	—	1	10	Units : kW Uint16
Panelboard Apparent Power	307522	—	1	10	Units : kVA Uint16
Panelboard Power Factor Ph A	307523	—	1	100	Uint16
Panelboard Power Factor Ph B	307524	—	1	100	Uint16
Panelboard Power Factor Ph C	307525	—	1	100	Uint16
Panelboard Power Factor Total	307526	—	1	100	Uint16
Panelboard Energy	307527	—	2	1000	Units : kWH Uint32

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Peak Current Ph A	307529	—	1	10	Units : A AC Uint16
Panelboard Peak Current Ph B	307530	—	1	10	Units : A AC Uint16
Panelboard Peak Current Ph C	307531	—	1	10	Units : A AC Uint16
Panelboard Peak Demand	307532	—	1	10	Units : kW Uint16
Panelboard Current Crest Factor Ph A	307533	—	1	100	Uint16
Panelboard Current Crest Factor Ph B	307534	—	1	100	Uint16
Panelboard Current Crest Factor Ph C	307535	—	1	100	Uint16
Panelboard iTHD Ph A	307536	—	1	10	Units : % Uint16
Panelboard iTHD Ph B	307537	—	1	10	Units : % Uint16
Panelboard iTHD Ph C	307538	—	1	10	Units : % Uint16
Panelboard Main Breaker Status	307539	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed PB 2					
Panelboard Status	307540	—	1	—	0 = Normal 1 = Abnormal
Panelboard Subfeed Count	307541	—	1	—	Int16
Panelboard Current Ph A	307542	—	1	10	Units : A AC Uint16
Panelboard Current Ph B	307543	—	1	10	Units : A AC Uint16
Panelboard Current Ph C	307544	—	1	10	Units : A AC Uint16
Panelboard Neutral Current	307545	—	1	10	Units : A AC Uint16
Panelboard Ground Current	307546	—	1	10	Units : A AC Uint16
Panelboard Current Load Ph A	307547	—	1	10	Units : % Uint16
Panelboard Current Load Ph B	307548	—	1	10	Units : % Uint16
Panelboard Current Load Ph C	307549	—	1	10	Units : % Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Highest Phase Current Load	307550	—	1	10	Units : % Uint16
Panelboard Real Power	307551	—	1	10	Units : kW Uint16
Panelboard Apparent Power	307552	—	1	10	Units : kVA Uint16
Panelboard Power Factor Ph A	307553	—	1	100	Uint16
Panelboard Power Factor Ph B	307554	—	1	100	Uint16
Panelboard Power Factor Ph C	307555	—	1	100	Uint16
Panelboard Power Factor Total	307556	—	1	100	Uint16
Panelboard Energy	307557	—	2	1000	Units : kWH Uint32
Panelboard Peak Current Ph A	307559	—	1	10	Units : A AC Uint16
Panelboard Peak Current Ph B	307560	—	1	10	Units : A AC Uint16
Panelboard Peak Current Ph C	307561	—	1	10	Units : A AC Uint16
Panelboard Peak Demand	307562	—	1	10	Units : kW Uint16
Panelboard Current Crest Factor Ph A	307563	—	1	100	Uint16
Panelboard Current Crest Factor Ph B	307564	—	1	100	Uint16
Panelboard Current Crest Factor Ph C	307565	—	1	100	Uint16
Panelboard iTHD Ph A	307566	—	1	10	Units : % Uint16
Panelboard iTHD Ph B	307567	—	1	10	Units : % Uint16
Panelboard iTHD Ph C	307568	—	1	10	Units : % Uint16
Panelboard Main Breaker Status	307569	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed PB 1 Subfeed 1					
Subfeed Current Rating	307570	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	307571	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	307572	—	1	10	Units : A AC Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Current Ph C	307573	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	307574	—	1	10	Units : A AC Uint16
Subfeed Ground Current	307575	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	307576	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	307577	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	307578	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	307579	—	1	10	Units : % Uint16
Subfeed Real Power	307580	—	1	100	Units : kW Uint16
Subfeed Apparent Power	307581	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	307582	—	1	100	Uint16
Subfeed Power Factor Ph B	307583	—	1	100	Uint16
Subfeed Power Factor Ph C	307584	—	1	100	Uint16
Subfeed Power Factor Total	307585	—	1	100	Uint16
Subfeed Energy	307586	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	307588	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	307589	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	307590	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	307591	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	307592	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	307593	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	307594	—	1	100	Uint16
Subfeed iTHD Ph A	307595	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	307596	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	307597	—	1	10	Units : % Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Main Breaker Status	307598	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed PB 1 Subfeed 2					
Subfeed Current Rating	307599	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	307600	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	307601	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	307602	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	307603	—	1	10	Units : A AC Uint16
Subfeed Ground Current	307604	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	307605	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	307606	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	307607	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	307608	—	1	10	Units : % Uint16
Subfeed Real Power	307609	—	1	100	Units : kW Uint16
Subfeed Apparent Power	307610	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	307611	—	1	100	Uint16
Subfeed Power Factor Ph B	307612	—	1	100	Uint16
Subfeed Power Factor Ph C	307613	—	1	100	Uint16
Subfeed Power Factor Total	307614	—	1	100	Uint16
Subfeed Energy	307615	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	307617	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	307618	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	307619	—	1	10	Units : A AC Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Peak Demand	307620	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	307621	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	307622	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	307623	—	1	100	Uint16
Subfeed iTHD Ph A	307624	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	307625	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	307626	—	1	10	Units : % Uint16
Subfeed Main Breaker Status	307627	—	1	—	0 = Unknown 1 = Open 2 = Closed
. . .					
Subfeed PB 1 Subfeed 12					
Subfeed Current Rating	307889	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	307890	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	307891	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	307892	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	307893	—	1	10	Units : A AC Uint16
Subfeed Ground Current	307894	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	307895	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	307896	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	307897	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	307898	—	1	10	Units : % Uint16
Subfeed Real Power	307899	—	1	100	Units : kW Uint16
Subfeed Apparent Power	307900	—	1	100	Units : kVA Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Power Factor Ph A	307901	—	1	100	Uint16
Subfeed Power Factor Ph B	307902	—	1	100	Uint16
Subfeed Power Factor Ph C	307903	—	1	100	Uint16
Subfeed Power Factor Total	307904	—	1	100	Uint16
Subfeed Energy	307905	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	307907	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	307908	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	307909	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	307910	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	307911	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	307912	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	307913	—	1	100	Uint16
Subfeed iTHD Ph A	307914	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	307915	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	307916	—	1	10	Units : % Uint16
Subfeed Main Breaker Status	307917	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed PB 2 Subfeed 1					
Subfeed Current Rating	307918	—	1		Units : A AC Uint16
Subfeed Current Ph A	307919	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	307920	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	307921	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	307922	—	1	10	Units : A AC Uint16
Subfeed Ground Current	307923	—	1	10	Units : A AC Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Current Load Ph A	307924	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	307925	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	307926	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	307927	—	1	10	Units : % Uint16
Subfeed Real Power	307928	—	1	100	Units : kW Uint16
Subfeed Apparent Power	307929	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	307930	—	1	100	Uint16
Subfeed Power Factor Ph B	307931	—	1	100	Uint16
Subfeed Power Factor Ph C	307932	—	1	100	Uint16
Subfeed Power Factor Total	307933	—	1	100	Uint16
Subfeed Energy	307934	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	307936	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	307937	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	307938	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	307939	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	307940	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	307941	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	307942	—	1	100	Uint16
Subfeed iTHD Ph A	307943	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	307944	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	307945	—	1	10	Units : % Uint16
Subfeed Main Breaker Status	307946	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed PB 2 Subfeed 2					

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Current Rating	307947	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	307948	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	307949	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	307950	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	307951	—	1	10	Units : A AC Uint16
Subfeed Ground Current	307952	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	307953	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	307954	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	307955	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	307956	—	1	10	Units : % Uint16
Subfeed Real Power	307957	—	1	100	Units : kW Uint16
Subfeed Apparent Power	307958	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	307959	—	1	100	Uint16
Subfeed Power Factor Ph B	307960	—	1	100	Uint16
Subfeed Power Factor Ph C	307961	—	1	100	Uint16
Subfeed Power Factor Total	307962	—	1	100	Uint16
Subfeed Energy	307963	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	307965	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	307966	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	307967	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	307968	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	307969	—	1	100	Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Current Crest Factor Ph B	307970	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	307971	—	1	100	Uint16
Subfeed iTHD Ph A	307972	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	307973	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	307974	—	1	10	Units : % Uint16
Subfeed Main Breaker Status	307975	—	1	—	0 = Unknown 1 = Open 2 = Closed
. . .					
Subfeed PB 2 Subfeed 12					
Subfeed Current Rating	308237	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	308238	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	308239	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	308240	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	308241	—	1	10	Units : A AC Uint16
Subfeed Ground Current	308242	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	308243	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	308244	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	308245	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	308246	—	1	10	Units : % Uint16
Subfeed Real Power	308247	—	1	100	Units : kW Uint16
Subfeed Apparent Power	308248	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	308249	—	1	100	Uint16
Subfeed Power Factor Ph B	308250	—	1	100	Uint16

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Power Factor Ph C	308251	—	1	100	Uint16
Subfeed Power Factor Total	308252	—	1	100	Uint16
Subfeed Energy	308253	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	308255	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	308256	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	308257	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	308258	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	308259	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	308260	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	308261	—	1	100	Uint16
Subfeed iTHD Ph A	308262	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	308263	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	308264	—	1	10	Units : % Uint16
Subfeed Main Breaker Status	308265	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed 1					
Subfeed Current Rating	308266	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	308267	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	308268	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	308269	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	308270	—	1	10	Units : A AC Uint16
Subfeed Ground Current	308271	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	308272	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	308273	—	1	10	Units : %

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed Current Load Ph C	308274	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	308275	—	1	10	Units : % Uint16
Subfeed Real Power	308276	—	1	100	Units : kW Uint16
Subfeed Apparent Power	308277	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	308278	—	1	100	Uint16
Subfeed Power Factor Ph B	308279	—	1	100	Uint16
Subfeed Power Factor Ph C	308280	—	1	100	Uint16
Subfeed Power Factor Total	308281	—	1	100	Uint16
Subfeed Energy	308282	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	308284	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	308285	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	308286	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	308287	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	308288	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	308289	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	308290	—	1	100	Uint16
Subfeed iTHD Ph A	308291	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	308292	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	308293	—	1	10	Units : % Uint16
Subfeed Breaker Status	308294	—	1	—	0 = Unknown 1 = Open 2 = Closed
Subfeed 2					
Subfeed Current Rating	308295	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	308296	—	1	10	Units : A AC

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed Current Ph B	308297	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	308298	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	308299	—	1	10	Units : A AC Uint16
Subfeed Ground Current	308300	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	308301	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	308302	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	308303	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	308304	—	1	10	Units : % Uint16
Subfeed Real Power	308305	—	1	100	Units : kW Uint16
Subfeed Apparent Power	308306	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	308307	—	1	100	Uint16
Subfeed Power Factor Ph B	308308	—	1	100	Uint16
Subfeed Power Factor Ph C	308309	—	1	100	Uint16
Subfeed Power Factor Total	308310	—	1	100	Uint16
Subfeed Energy	308311	—	2	1000	Units : kWH Uint32
Subfeed Peak Current Ph A	308313	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	308314	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	308315	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	308316	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	308317	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	308318	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	308319	—	1	100	Uint16
Subfeed iTHD Ph A	308320	—	1	10	Units : %

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed iTHD Ph B	308321	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	308322	—	1	10	Units : % int16
Subfeed Breaker Status	308323	—	1	—	0 = Unknown 1 = Open 2 = Closed
. . .					
Subfeed 36					
Subfeed Current Rating	309281	—	1	—	Units : A AC Uint16
Subfeed Current Ph A	309282	—	1	10	Units : A AC Uint16
Subfeed Current Ph B	309283	—	1	10	Units : A AC Uint16
Subfeed Current Ph C	309284	—	1	10	Units : A AC Uint16
Subfeed Neutral Current	309285	—	1	10	Units : A AC Uint16
Subfeed Ground Current	309286	—	1	10	Units : A AC Uint16
Subfeed Current Load Ph A	309287	—	1	10	Units : % Uint16
Subfeed Current Load Ph B	309288	—	1	10	Units : % Uint16
Subfeed Current Load Ph C	309289	—	1	10	Units : % Uint16
Subfeed Highest Phase Current Load	309290	—	1	10	Units : % Uint16
Subfeed Real Power	309291	—	1	100	Units : kW Uint16
Subfeed Apparent Power	309292	—	1	100	Units : kVA Uint16
Subfeed Power Factor Ph A	309293	—	1	100	Uint16
Subfeed Power Factor Ph B	309294	—	1	100	Uint16
Subfeed Power Factor Ph C	309295	—	1	100	Uint16
Subfeed Power Factor Total	309296	—	1	100	Uint16
Subfeed Energy	309297	—	2	1000	Units : kWH Uint32

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Table 3.86 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input and Holding, Normal Range (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Peak Current Ph A	309299	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph B	309300	—	1	10	Units : A AC Uint16
Subfeed Peak Current Ph C	309301	—	1	10	Units : A AC Uint16
Subfeed Peak Demand	309302	—	1	100	Units : kW Uint16
Subfeed Current Crest Factor Ph A	309303	—	1	100	Uint16
Subfeed Current Crest Factor Ph B	309304	—	1	100	Uint16
Subfeed Current Crest Factor Ph C	309305	—	1	100	Uint16
Subfeed iTHD Ph A	309306	—	1	10	Units : % Uint16
Subfeed iTHD Ph B	309307	—	1	10	Units : % Uint16
Subfeed iTHD Ph C	309308	—	1	10	Units : % Uint16
Subfeed Breaker Status	309309	—	1	—	0 = Unknown 1= Open 2 = Closed

Table 3.87 Liebert® RXA, Liebert® RXV and Liebert® TFX—Input and Holding, Resets

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Status					
System-wide Event Acknowledge/Reset	—	413000	1	—	2 = Reset 4 = Acknowledge
System-wide Energy Reset	—	413001	1	—	0 = Reset
System-wide Peak Current Reset	—	413002	1	—	0 = Reset
System-wide Peak Demand Reset	—	413003	1	—	0 = Reset
System Metering					
Energy Reset	—	413004	1	—	0 = Reset
Peak Current Reset	—	413005	1	—	0 = Reset
Peak Demand Reset	—	413006	1	—	0 = Reset
Branch PB 1					
Panelboard Energy Reset	—	413007	1	—	0 = Reset
Panelboard Peak Current Reset	—	413008	1	—	0 = Reset
Panelboard Peak Demand Reset	—	413009	1	—	0 = Reset

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Table 3.87 Liebert® RXA, Liebert® RXV and Liebert® TFX—Input and Holding, Resets (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch PB 2					
Panelboard Energy Reset	—	413010	1	—	0 = Reset
Panelboard Peak Current Reset	—	413011	1	—	0 = Reset
Panelboard Peak Demand Reset	—	413012	1	—	0 = Reset
. . .					
Branch PB 12					
Panelboard Energy Reset	—	413040	1	—	0 = Reset
Panelboard Peak Current Reset	—	413041	1	—	0 = Reset
Panelboard Peak Demand Reset	—	413042	1	—	0 = Reset
1 Branch 1					
Branch Energy Reset	—	413043	1	—	0 = Reset
Branch Peak Current Reset	—	413044	1	—	0 = Reset
Branch Peak Demand Reset	—	413045	1	—	0 = Reset
1 Branch 2					
Branch Energy Reset	—	413046	1	—	0 = Reset
Branch Peak Current Reset	—	413047	1	—	0 = Reset
Branch Peak Demand Reset	—	413048	1	—	0 = Reset
. . .					
1 Branch 504					
Branch Energy Reset	—	414552	1	—	0 = Reset
Branch Peak Current Reset	—	414553	1	—	0 = Reset
Branch Peak Demand Reset	—	414554	1	—	0 = Reset
Subfeed PB 1					
Panelboard Energy Reset	—	414555	1	—	0 = Reset
Panelboard Peak Current Reset	—	414556	1	—	0 = Reset
Panelboard Peak Demand Reset	—	414557	1	—	0 = Reset
Subfeed PB 2					
Panelboard Energy Reset	—	414558	1	—	0 = Reset
Panelboard Peak Current Reset	—	414559	1	—	0 = Reset
Panelboard Peak Demand Reset	—	414560	1	—	0 = Reset
1 Subfeed 1					
Subfeed Energy Reset	—	414561	1	—	0 = Reset

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Table 3.87 Liebert® RXA, Liebert® RXV and Liebert® TFX—Input and Holding, Resets (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Peak Current Reset	—	414562	1	—	0 = Reset
Subfeed Peak Demand Reset	—	414563	1	—	0 = Reset
1 Subfeed 2					
Subfeed Energy Reset	—	414564	1	—	0 = Reset
Subfeed Peak Current Reset	—	414565	1	—	0 = Reset
Subfeed Peak Demand Reset	—	414566	1	—	0 = Reset
. . .					
1 Subfeed 24					
Subfeed Energy Reset	—	414630	1	—	0 = Reset
Subfeed Peak Current Reset	—	414631	1	—	0 = Reset
Subfeed Peak Demand Reset	—	414632	1	—	0 = Reset
Subfeed 1					
Subfeed Energy Reset	—	414633	1	—	0 = Reset
Subfeed Peak Current Reset	—	414634	1	—	0 = Reset
Subfeed Peak Demand Reset	—	414635	1	—	0 = Reset
Subfeed 2					
Subfeed Energy Reset	—	414636	1	—	0 = Reset
Subfeed Peak Current Reset	—	414637	1	—	0 = Reset
Subfeed Peak Demand Reset	—	414638	1	—	0 = Reset
. . .					
Subfeed 36					
Subfeed Energy Reset	—	414738	1	—	0 = Reset
Subfeed Peak Current Reset	—	414739	1	—	0 = Reset
Subfeed Peak Demand Reset	—	414740	1	—	0 = Reset

Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Metering					
Current 3rd Harmonic Ph A	310001	—	1	10	Units: % Uint16
Current 3rd Harmonic Ph B	310002	—	1	10	Units: % Uint16
Current 3rd Harmonic Ph C	310003	—	1	10	Units: % Uint16
Current 5th Harmonic Ph A	310004	—	1	10	Units: % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Current 5th Harmonic Ph B	310005	—	1	10	Units: % Uint16
Current 5th Harmonic Ph C	310006	—	1	10	Units: % Uint16
Current 7th Harmonic Ph A	310007	—	1	10	Units: % Uint16
Current 7th Harmonic Ph B	310008	—	1	10	Units: % Uint16
Current 7th Harmonic Ph C	310009	—	1	10	Units: % Uint16
Current 9th Harmonic Ph A	310010	—	1	10	Units: % Uint16
Current 9th Harmonic Ph B	310011	—	1	10	Units: % Uint16
Current 9th Harmonic Ph C	310012	—	1	10	Units: % Uint16
Input 1 Voltage 3rd Harmonic Ph A	310013	—	1	10	Units: % Uint16
Input 1 Voltage 3rd Harmonic Ph B	310014	—	1	10	Units: % Uint16
Input 1 Voltage 3rd Harmonic Ph C	310015	—	1	10	Units: % Uint16
Input 1 Voltage 5th Harmonic Ph A	310016	—	1	10	Units: % Uint16
Input 1 Voltage 5th Harmonic Ph B	310017	—	1	10	Units: % Uint16
Input 1 Voltage 5th Harmonic Ph C	310018	—	1	10	Units: % Uint16
Input 1 Voltage 7th Harmonic Ph A	310019	—	1	10	Units: % Uint16
Input 1 Voltage 7th Harmonic Ph B	310020	—	1	10	Units: % Uint16
Input 1 Voltage 7th Harmonic Ph C	310021	—	1	10	Units: % Uint16
Input 1 Voltage 9th Harmonic Ph A	310022	—	1	10	Units: % Uint16
Input 1 Voltage 9th Harmonic Ph B	310023	—	1	10	Units: % Uint16
Input 1 Voltage 9th Harmonic C	310024	—	1	10	Units: % Uint16
Input 2 Voltage 3rd Harmonic Ph A	310025	—	1	10	Units: % Uint16
Input 2 Voltage 3rd Harmonic Ph B	310026	—	1	10	Units: % Uint16
Input 2 Voltage 3rd Harmonic Ph C	310027	—	1	10	Units: % Uint16
Input 2 Voltage 5th Harmonic Ph A	310028	—	1	10	Units: % Uint16
Input 2 Voltage 5th Harmonic Ph B	310029	—	1	10	Units: % Uint16
Input 2 Voltage 5th Harmonic Ph C	310030	—	1	10	Units: % Uint16
Input 2 Voltage 7th Harmonic Ph A	310031	—	1	10	Units: % Uint16
Input 2 Voltage 7th Harmonic Ph B	310032	—	1	10	Units: % Uint16
Input 2 Voltage 7th Harmonic Ph C	310033	—	1	10	Units: % Uint16
Input 2 Voltage 9th Harmonic Ph A	310034	—	1	10	Units: % Uint16
Input 2 Voltage 9th Harmonic Ph B	310035	—	1	10	Units: % Uint16
Input 2 Voltage 9th Harmonic Ph C	310036	—	1	10	Units: % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Output Voltage 3rd Harmonic A	310037	—	1	10	Units: % Uint16
Output Voltage 3rd Harmonic B	310038	—	1	10	Units: % Uint16
Output Voltage 3rd Harmonic C	310039	—	1	10	Units: % Uint16
Output Voltage 5th Harmonic A	310040	—	1	10	Units: % Uint16
Output Voltage 5th Harmonic B	310041	—	1	10	Units: % Uint16
Output Voltage 5th Harmonic C	310042	—	1	10	Units: % Uint16
Output Voltage 7th Harmonic A	310043	—	1	10	Units: % Uint16
Output Voltage 7th Harmonic B	310044	—	1	10	Units: % Uint16
Output Voltage 7th Harmonic C	310045	—	1	10	Units: % Uint16
Output Voltage 9th Harmonic A	310046	—	1	10	Units: % Uint16
Output Voltage 9th Harmonic B	310047	—	1	10	Units: % Uint16
Output Voltage 9th Harmonic C	310048	—	1	10	Units: % Uint16
Phase Overcurrent Alarm Threshold	310049	—	1	—	Units: % Uint16
Phase Overcurrent Warning Threshold	310050	—	1	—	Units: % Uint16
Neutral Overcurrent Alarm Threshold	310051	—	1	—	Units: % Uint16
Ground Overcurrent Alarm Threshold	310052	—	1	—	Units : A AC Uint16
Voltage Over THD Alarm Threshold	310053	—	1	—	Units: % Uint16
Branch PB 1					
Panelboard Current 3rd Harmonic Ph A	310054	—	1	10	Units: % Uint16
Panelboard Current 3rd Harmonic Ph B	310055	—	1	10	Units: % Uint16
Panelboard Current 3rd Harmonic Ph C	310056	—	1	10	Units: % Uint16
Panelboard Current 5th Harmonic Ph A	310057	—	1	10	Units: % Uint16
Panelboard Current 5th Harmonic Ph B	310058	—	1	10	Units: % Uint16
Panelboard Current 5th Harmonic Ph C	310059	—	1	10	Units: % Uint16
Panelboard Current 7th Harmonic Ph A	310060	—	1	10	Units: % Uint16
Panelboard Current 7th Harmonic Ph B	310061	—	1	10	Units: % Uint16
Panelboard Current 7th Harmonic Ph C	310062	—	1	10	Units: % Uint16
Panelboard Current 9th Harmonic Ph A	310063	—	1	10	Units: % Uint16
Panelboard Current 9th Harmonic Ph B	310064	—	1	10	Units: % Uint16
Panelboard Current 9th Harmonic Ph C	310065	—	1	10	Units: % Uint16
Panelboard Phase Overcurrent Warning Threshold	310066	—	1	—	Units: % Uint16
Panelboard Phase Overcurrent Alarm Threshold	310067	—	1	—	Units: % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Neutral Overcurrent Alarm Threshold	310068	—	1	—	Units: % Uint16
Panelboard Ground Overcurrent Alarm Threshold	310069	—	1	—	Units : A AC Uint16
Panelboard Highest Phase Peak Current	315000	—	2	1000	Units : A AC Uint32
Panelboard Neutral Overcurrent Warning Threshold	316200	—	1	—	Units : % Uint16
Panelboard Phase Overvoltage Alarm Threshold	316201	—	1	—	Units : % Uint16
Panelboard Phase Undervoltage Alarm Threshold	316202	—	1	—	Units : % Uint16
Panelboard Voltage (L-L) A-B	317400	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) B-C	317401	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) C-A	317402	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) A-N	317403	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) B-N	317404	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) C-N	317405	—	1	10	Units : VAC Uint16
Panelboard Frequency	317406	—	1	10	Units : Hz Uint16
Panelboard vTHD Ph A	317407	—	1	10	Units : % Uint16
Panelboard vTHD Ph B	317408	—	1	10	Units : % Uint16
Panelboard vTHD Ph C	317409	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph A	317410	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph B	317411	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph C	317412	—	1	10	Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Voltage 5th Harmonic Ph A	317413	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph B	317414	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph C	317415	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph A	317416	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph B	317417	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph C	317418	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph A	317419	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph B	317420	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph C	317421	—	1	10	Units : % Uint16
Branch PB 2					
Panelboard Current 3rd Harmonic Ph A	310070	—	1	10	Units: % Uint16
Panelboard Current 3rd Harmonic Ph B	310071	—	1	10	Units: % Uint16
Panelboard Current 3rd Harmonic Ph C	310072	—	1	10	Units: % Uint16
Panelboard Current 5th Harmonic Ph A	310073	—	1	10	Units: % Uint16
Panelboard Current 5th Harmonic Ph B	310074	—	1	10	Units: % Uint16
Panelboard Current 5th Harmonic Ph C	310075	—	1	10	Units: % Uint16
Panelboard Current 7th Harmonic Ph A	310076	—	1	10	Units: % Uint16
Panelboard Current 7th Harmonic Ph B	310077	—	1	10	Units: % Uint16
Panelboard Current 7th Harmonic Ph C	310078	—	1	10	Units: % Uint16
Panelboard Current 9th Harmonic Ph A	310079	—	1	10	Units: % Uint16
Panelboard Current 9th Harmonic Ph B	310080	—	1	10	Units: % Uint16
Panelboard Current 9th Harmonic Ph C	310081	—	1	10	Units: % Uint16
Panelboard Phase Overcurrent Warning Threshold	310082	—	1	—	Units: % Uint16
Panelboard Phase Overcurrent Alarm Threshold	310083	—	1	—	Units: % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Neutral Overcurrent Alarm Threshold	310084	—	1	—	Units: % Uint16
Panelboard Ground Overcurrent Alarm Threshold	310085	—	1	—	Units : A AC Uint16
Panelboard Highest Phase Peak Current	315002	—	2	1000	Units : A AC Uint32
Panelboard Neutral Overcurrent Warning Threshold	316203	—	1	—	Units : % Uint16
Panelboard Phase Overvoltage Alarm Threshold	316204	—	1	—	Units : % Uint16
Panelboard Phase Undervoltage Alarm Threshold	316205	—	1	—	Units : % Uint16
Panelboard Voltage (L-L) A-B	317422	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) B-C	317423	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) C-A	317424	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) A-N	317425	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) B-N	317426	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) C-N	317427	—	1	10	Units : VAC Uint16
Panelboard Frequency	317428	—	1	10	Units : Hz Uint16
Panelboard vTHD Ph A	317429	—	1	10	Units : % Uint16
Panelboard vTHD Ph B	317430	—	1	10	Units : % Uint16
Panelboard vTHD Ph C	317431	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph A	317432	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph B	317433	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph C	317434	—	1	10	Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Voltage 5th Harmonic Ph A	317435	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph B	317436	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph C	317437	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph A	317438	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph B	317439	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph C	317440	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph A	317441	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph B	317442	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph C	317443	—	1	10	Units : % Uint16
. . .					
Branch PB 12					
Panelboard Current 3rd Harmonic Ph A	310230	—	1	10	Units : % Uint16
Panelboard Current 3rd Harmonic Ph B	310231	—	1	10	Units : % Uint16
Panelboard Current 3rd Harmonic Ph C	310232	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph A	310233	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph B	310234	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph C	310235	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph A	310236	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph B	310237	—	1	10	Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Panelboard Current 7th Harmonic Ph C	310238	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph A	310239	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph B	310240	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph C	310241	—	1	10	Units : % Uint16
Panelboard Phase Overcurrent Warning Threshold	310242	—	1		Units : % Uint16
Panelboard Phase Overcurrent Alarm Threshold	310243	—	1		Units : % Uint16
Panelboard Neutral Overcurrent Alarm Threshold	310244	—	1		Units : % Uint16
Panelboard Ground Overcurrent Alarm Threshold	310245	—	1		Units : A AC Uint16
Panelboard Highest Phase Peak Current	315022	—	2	1000	Units : A AC Uint32
Panelboard Neutral Overcurrent Warning Threshold	316233	—	1		Units : % Uint16
Panelboard Phase Overvoltage Alarm Threshold	316234	—	1		Units : % Uint16
Panelboard Phase Undervoltage Alarm Threshold	316235	—	1		Units : % Uint16
Panelboard Voltage (L-L) A-B	317642	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) B-C	317643	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) C-A	317644	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) A-N	317645	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) B-N	317646	—	1	10	Units : VAC Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Voltage (L-N) C-N	317647	—	1	10	Units : VAC Uint16
Panelboard Frequency	317648	—	1	10	Units : Hz Uint16
Panelboard vTHD Ph A	317649	—	1	10	Units : % Uint16
Panelboard vTHD Ph B	317650	—	1	10	Units : % Uint16
Panelboard vTHD Ph C	317651	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph A	317652	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph B	317653	—	1	10	Units : % Uint16
Panelboard Voltage 3rd Harmonic Ph C	317654	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph A	317655	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph B	317656	—	1	10	Units : % Uint16
Panelboard Voltage 5th Harmonic Ph C	317657	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph A	317658	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph B	317659	—	1	10	Units : % Uint16
Panelboard Voltage 7th Harmonic Ph C	317660	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph A	317661	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph B	317662	—	1	10	Units : % Uint16
Panelboard Voltage 9th Harmonic Ph C	317663	—	1	10	Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch PB 1 Branch 1					
Branch Overcurrent Warning Threshold	310246	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	310247	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	310248	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315024	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	316236	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	316237	—	1		Units : % Uint16
Load Loss Min Load	318500	—	1		Units : % Uint16
Branch PB 1 Branch 2					
Branch Overcurrent Warning Threshold	310249	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	310250	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	310251	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315026	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	316238	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	316239	—	1		Units : % Uint16
Load Loss Min Load	318501	—	1		Units : % Uint16
. . .					
Branch PB 1 Branch 42					
Branch Overcurrent Warning Threshold	310369	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	310370	—	1		Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Branch Low Current Alarm Threshold	310371	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315106	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	316318	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	316319	—	1		Units : % Uint16
Load Loss Min Load	318541	—	1		Units : % Uint16
Branch PB 2 Branch 1					
Branch Overcurrent Warning Threshold	310372	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	310373	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	310374	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315108	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	316320	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	316321	—	1		Units : % Uint16
Load Loss Min Load	318542	—	1		Units : % Uint16
Branch PB 2 Branch 2					
Branch Overcurrent Warning Threshold	310375	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	310376	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	310377	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315110	—	2	1000	Units : A AC Uint32

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Branch Neutral Overcurrent Warning Threshold	316322	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	316323	—	1		Units : % Uint16
Load Loss Min Load	318543	—	1		Units : % Uint16
. . .					
Branch PB 2 Branch 42					
Branch Overcurrent Warning Threshold	310495	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	310496	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	310497	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315190	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	316402	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	316403	—	1		Units : % Uint16
Load Loss Min Load	318583	—	1		Units : % Uint16
. . .					
Branch PB 12 Branch 1					
Branch Overcurrent Warning Threshold	311632	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	311633	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	311634	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315948	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	317160	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	317161	—	1		Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Load Loss Min Load	318962	—	1		Units : % Uint16
Branch PB 12 Branch 2					
Branch Overcurrent Warning Threshold	311635	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	311636	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	311637	—	1		Units : % Uint16
Branch Highest Phase Peak Current	315950	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	317162	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	317163	—	1		Units : % Uint16
Load Loss Min Load	318963	—	1		Units : % Uint16
. . .					
Branch PB 12 Branch 42					
Branch Overcurrent Warning Threshold	311755	—	1		Units : % Uint16
Branch Overcurrent Alarm Threshold	311756	—	1		Units : % Uint16
Branch Low Current Alarm Threshold	311757	—	1		Units : % Uint16
Branch Highest Phase Peak Current	316030	—	2	1000	Units : A AC Uint32
Branch Neutral Overcurrent Warning Threshold	317242	—	1		Units : % Uint16
Branch Neutral Overcurrent Alarm Threshold	317243	—	1		Units : % Uint16
Load Loss Min Load	319003	—	1		Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed PB 1					
Panelboard Current 3rd Harmonic Ph A	311758	—	1	10	Units : % Uint16
Panelboard Current 3rd Harmonic Ph B	311759	—	1	10	Units : % Uint16
Panelboard Current 3rd Harmonic Ph C	311760	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph A	311761	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph B	311762	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph C	311763	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph A	311764	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph B	311765	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph C	311766	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph A	311767	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph B	311768	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph C	311769	—	1	10	Units : % Uint16
Panelboard Phase Overcurrent Warning Threshold	311770	—	1		Units : % Uint16
Panelboard Phase Overcurrent Alarm Threshold	311771	—	1		Units : % Uint16
Panelboard Neutral Overcurrent Alarm Threshold	311772	—	1		Units : % Uint16
Panelboard Ground Overcurrent Alarm Threshold	311773	—	1		Units : A AC Uint16
Panelboard Highest Phase Peak Current	316032	—	2	1000	Units : A AC Uint32

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Neutral Overcurrent Warning Threshold	317244	—	1		Units : % Uint16
Panelboard Phase Overvoltage Alarm Threshold	317245	—	1		Units : % Uint16
Panelboard Phase Undervoltage Alarm Threshold	317246	—	1		Units : % Uint16
Panelboard Voltage (L-L) A-B	317664	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) B-C	317665	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) C-A	317666	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) A-N	317667	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) B-N	317668	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) C-N	317669	—	1	10	Units : VAC Uint16
Panelboard Frequency	317670	—	1	10	Units : Hz Uint16
Subfeed PB 2					
Panelboard Current 3rd Harmonic Ph A	311774	—	1	10	Units : % Uint16
Panelboard Current 3rd Harmonic Ph B	311775	—	1	10	Units : % Uint16
Panelboard Current 3rd Harmonic Ph C	311776	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph A	311777	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph B	311778	—	1	10	Units : % Uint16
Panelboard Current 5th Harmonic Ph C	311779	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph A	311780	—	1	10	Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Panelboard Current 7th Harmonic Ph B	311781	—	1	10	Units : % Uint16
Panelboard Current 7th Harmonic Ph C	311782	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph A	311783	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph B	311784	—	1	10	Units : % Uint16
Panelboard Current 9th Harmonic Ph C	311785	—	1	10	Units : % Uint16
Panelboard Phase Overcurrent Warning Threshold	311786	—	1		Units : % Uint16
Panelboard Phase Overcurrent Alarm Threshold	311787	—	1		Units : % Uint16
Panelboard Neutral Overcurrent Alarm Threshold	311788	—	1		Units : % Uint16
Panelboard Ground Overcurrent Alarm Threshold	311789	—	1		Units : A AC Uint16
Panelboard Highest Phase Peak Current	316034	—	2	1000	Units : A AC Uint32
Panelboard Neutral Overcurrent Warning Threshold	317247	—	1		Units : % Uint16
Panelboard Phase Overvoltage Alarm Threshold	317248	—	1		Units : % Uint16
Panelboard Phase Undervoltage Alarm Threshold	317249	—	1		Units : % Uint16
Panelboard Voltage (L-L) A-B	317686	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) B-C	317687	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-L) C-A	317688	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) A-N	317689	—	1	10	Units : VAC Uint16
Panelboard Voltage (L-N) B-N	317690	—	1	10	Units : VAC

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Panelboard Voltage (L-N) C-N	317691	—	1	10	Units : VAC Uint16
Panelboard Frequency	317692	—	1	10	Units : Hz Uint16
Subfeed PB 1 Subfeed 1					
Subfeed Current 3rd Harmonic Ph A	311790	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	311791	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	311792	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	311793	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	311794	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	311795	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	311796	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	311797	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	311798	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	311799	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	311800	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	311801	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	311802	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	311803	—	1		Units : % Uint16
Subfeed Neutral Overcurrent Threshold	311804	—	1		Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed Highest Phase Peak Current	316036	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317250	—	1		Units : % Uint16
Subfeed PB 1 Subfeed 2					
Subfeed Current 3rd Harmonic Ph A	311805	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	311806	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	311807	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	311808	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	311809	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	311810	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	311811	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	311812	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	311813	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	311814	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	311815	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	311816	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	311817	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	311818	—	1		Units : % Uint16
Subfeed Neutral Overcurrent Threshold	311819	—	1		Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed Highest Phase Peak Current	316038	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317251	—	1		Units : % Uint16
. . .					
Subfeed PB 1 Subfeed 12					
Subfeed Current 3rd Harmonic Ph A	311955	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	311956	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	311957	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	311958	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	311959	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	311960	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	311961	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	311962	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	311963	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	311964	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	311965	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	311966	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	311967	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	311968	—	1		Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Neutral Overcurrent Threshold	311969	—	1		Units : % Uint16
Subfeed Highest Phase Peak Current	316058	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317261	—	1		Units : % Uint16
Subfeed PB 2 Subfeed 1					
Subfeed Current 3rd Harmonic Ph A	311970	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	311971	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	311972	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	311973	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	311974	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	311975	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	311976	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	311977	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	311978	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	311979	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	311980	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	311981	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	311982	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	311983	—	1		Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Neutral Overcurrent Threshold	311984	—	1		Units : % Uint16
Subfeed Highest Phase Peak Current	316060	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317262	—	1		Units : % Uint16
Subfeed PB 2 Subfeed 2					
Subfeed Current 3rd Harmonic Ph A	311985	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	311986	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	311987	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	311988	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	311989	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	311990	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	311991	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	311992	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	311993	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	311994	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	311995	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	311996	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	311997	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	311998	—	1		Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Neutral Overcurrent Threshold	311999	—	1		Units : % Uint16
Subfeed Highest Phase Peak Current	316062	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317263	—	1		Units : % Uint16
. . .					
Subfeed PB 2 Subfeed 12					
Subfeed Current 3rd Harmonic Ph A	312135	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	312136	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	312137	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	312138	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	312139	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	312140	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	312141	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	312142	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	312143	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	312144	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	312145	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	312146	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	312147	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	312148	—	1		Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed Neutral Overcurrent Threshold	312149	—	1		Units : % Uint16
Subfeed Highest Phase Peak Current	316082	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317273	—	1		Units : % Uint16
Subfeed 1					
Subfeed Current 3rd Harmonic Ph A	312150	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	312151	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	312152	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	312153	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	312154	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	312155	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	312156	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	312157	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	312158	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	312159	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	312160	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	312161	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	312162	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	312163	—	1		Units : %

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Subfeed Neutral Overcurrent Threshold	312164	—	1		Uint16
Subfeed Ground Overcurrent Alarm Threshold	312165	—	1		Units : A AC Uint16
Subfeed Highest Phase Peak Current	316084	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317274	—	1		Units : % Uint16
Subfeed Phase Overvoltage Alarm Threshold	317275	—	1		Units : % Uint16
Subfeed Phase Undervoltage Alarm Threshold	317276	—	1		Units : % Uint16
Subfeed Voltage (L-L) A-B	317708	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-L) B-C	317709	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-L) C-A	317710	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) A-N	317711	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) B-N	317712	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) C-N	317713	—	1	10	Units : VAC Uint16
Subfeed Frequency	317714	—	1	10	Units : Hz Uint16
Subfeed 2					
Subfeed Current 3rd Harmonic Ph A	312166	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	312167	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	312168	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	312169	—	1	10	Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Current 5th Harmonic Ph B	312170	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	312171	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	312172	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	312173	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	312174	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	312175	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	312176	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	312177	—	1	10	Units : % Uint16
Subfeed Phase Overcurrent Warning Threshold	312178	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	312179	—	1		Units : % Uint16
Subfeed Neutral Overcurrent Threshold	312180	—	1		Uint16
Subfeed Ground Overcurrent Alarm Threshold	312181	—	1		Units : A AC Uint16
Subfeed Highest Phase Peak Current	316086	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317277	—	1		Units : % Uint16
Subfeed Phase Overvoltage Alarm Threshold	317278	—	1		Units : % Uint16
Subfeed Phase Undervoltage Alarm Threshold	317279	—	1		Units : % Uint16
Subfeed Voltage (L-L) A-B	317730	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-L) B-C	317731	—	1	10	Units : VAC Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Voltage (L-L) C-A	317732	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) A-N	317733	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) B-N	317734	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) C-N	317735	—	1	10	Units : VAC Uint16
Subfeed Frequency	317736	—	1	10	Units : Hz Uint16
Subfeed 36					
Subfeed Current 3rd Harmonic Ph A	312710	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph B	312711	—	1	10	Units : % Uint16
Subfeed Current 3rd Harmonic Ph C	312712	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph A	312713	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph B	312714	—	1	10	Units : % Uint16
Subfeed Current 5th Harmonic Ph C	312715	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph A	312716	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph B	312717	—	1	10	Units : % Uint16
Subfeed Current 7th Harmonic Ph C	312718	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph A	312719	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph B	312720	—	1	10	Units : % Uint16
Subfeed Current 9th Harmonic Ph C	312721	—	1	10	Units : % Uint16

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Table 3.88 Liebert® RXA, , Liebert® RXV and Liebert® TFX—Input Extended Range (Six-Digit Registers) (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Subfeed Phase Overcurrent Warning Threshold	312722	—	1		Units : % Uint16
Subfeed Phase Overcurrent Alarm Threshold	312723	—	1		Units : % Uint16
Subfeed Neutral Overcurrent Threshold	312724	—	1		Uint16
Subfeed Ground Overcurrent Alarm Threshold	312725	—	1		Units : A AC Uint16
Subfeed Highest Phase Peak Current	316154	—	2	1000	Units : A AC Uint32
Subfeed Neutral Overcurrent Warning Threshold	317379	—	1		Units : % Uint16
Subfeed Phase Overvoltage Alarm Threshold	317380	—	1		Units : % Uint16
Subfeed Phase Undervoltage Alarm Threshold	317381	—	1		Units : % Uint16
Subfeed Voltage (L-L) A-B	318478	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-L) B-C	318479	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-L) C-A	318480	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) A-N	318481	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) B-N	318482	—	1	10	Units : VAC Uint16
Subfeed Voltage (L-N) C-N	318483	—	1	10	Units : VAC Uint16
Subfeed Frequency	318484	—	1	10	Units : Hz Uint16

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary

Data Label	Description
Accessory Board Communication Fail	The accessory board(s) reported a communication failure
Apparent Power	The total apparent power of all phases
Apparent Power Load	The percentage of total apparent power of all phases to the rated capacity
Branch Current L1	The RMS current of L1 (1st pole) of the branch
Branch Current L2	The RMS current of L2 (2nd pole) of the branch
Branch Current L3	The RMS current of L3 (3rd pole) of the branch
Branch Current Neutral	The RMS current of the neutral of the branch
Branch Current Rating	The RMS current rating of the branch circuit breaker
Branch Energy	The total accumulated energy of the branch since the last reset
Branch Energy Reset	Set the total accumulated energy value of the branch to zero
Branch Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the branch
Branch Highest Phase Peak Current	The highest peak RMS current of all phases of the branch
Branch Low Current Alarm Threshold	The threshold for triggering a phase low current alarm of the branch
Branch Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm of the branch
Branch Neutral Overcurrent Warning Threshold	The threshold for triggering a neutral overcurrent warning of the branch
Branch Neutral Overcurrent	The neutral current crossed above the threshold of the branch
Branch Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the branch
Branch Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the branch
Branch Peak Current L1	The peak RMS current of L1 (1st pole) of the branch
Branch Peak Current L2	The peak RMS current of L2 (2nd pole) of the branch
Branch Peak Current L3	The peak RMS current of L3 (3rd pole) of the branch
Branch Peak Current Reset	Set the peak current value of the branch to zero
Branch Peak Demand	The peak demand of all phases of the branch
Branch Peak Demand Reset	Set the peak demand value of the branch to zero
Branch Phase Overcurrent	The phase current crossed above the threshold of the branch
Branch Phase Undercurrent	The phase current crossed below the threshold of the branch
Branch Position	The pole position of the branch circuit breaker within the panelboard, lowest pole if two or three pole circuit breaker
Branch Power Factor	The ratio of real to apparent power for the sum of all phases for the branch
Branch Real Power	The total real (active) power of all phases of the branch
Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current with respect to the fundamental frequency
Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current with respect to the fundamental frequency

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current with respect to the fundamental frequency
Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current with respect to the fundamental frequency
Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current with respect to the fundamental frequency
Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current with respect to the fundamental frequency
Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current with respect to the fundamental frequency
Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current with respect to the fundamental frequency
Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current with respect to the fundamental frequency
Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current with respect to the fundamental frequency
Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current with respect to the fundamental frequency
Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current with respect to the fundamental frequency
Current Crest Factor Ph A	The ratio of phase A peak to RMS current
Current Crest Factor Ph B	The ratio of phase B peak to RMS current
Current Crest Factor Ph C	The ratio of phase C peak to RMS current
Current Load Ph A	The percentage of phase A RMS current to the rated capacity
Current Load Ph B	The percentage of phase B RMS current to the rated capacity
Current Load Ph C	The percentage of phase C RMS current to the rated capacity
Current Ph A	The RMS current of phase A
Current Ph B	The RMS current of phase B
Current Ph C	The RMS current of phase C
Energy	The total accumulated energy of the system since the last reset
Energy Reset	Set the total accumulated energy value to zero
External Input Contact State	The state of the external input contact
Ground Current	The RMS current of the ground
Ground Overcurrent	The ground current crossed above the threshold
Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm
Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity
Highest Phase K-Factor	The highest K-factor of all phases
Input 1 Frequency	The frequency of input 1 voltage
Input 1 Frequency Deviation	The frequency deviated beyond the threshold of input 1
Input 1 High Voltage THD	The voltage total harmonic distortion crossed above the threshold of input 1
Input 1 Invalid Phase Rotation	The phases are not in the expected sequence for input 1
Input 1 Overvoltage	The voltage crossed above the threshold of input 1

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Input 1 Phase Loss	The voltage of one or more phases dropped below the threshold of input 1
Input 1 Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of input 1
Input 1 Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of input 1
Input 1 Undervoltage	The voltage crossed below the threshold of input 1
Input 1 Voltage (L-L) A-B	The RMS voltage between phase A and B
Input 1 Voltage (L-L) B-C	The RMS voltage between phase B and C
Input 1 Voltage (L-L) C-A	The RMS voltage between phase C and A
Input 1 Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 9th Harmonic C	The percentage of the 9th harmonic present in phase C voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage of input 1 with respect to the fundamental frequency
Input 1 Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage of input 1 with respect to the fundamental frequency
Input 1 vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of input 1 with respect to the fundamental frequency
Input 1 vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of input 1 with respect to the fundamental frequency
Input 1 vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of input 1 with respect to the fundamental frequency

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Input 2 Frequency	The frequency of input 2 voltage
Input 2 Frequency Deviation	The frequency deviated beyond the threshold of input 2
Input 2 High Voltage THD	The voltage total harmonic distortion crossed above the threshold of input 2
Input 2 Invalid Phase Rotation	The phases are not in the expected sequence for input 2
Input 2 Overvoltage	The voltage crossed above the threshold of input 2
Input 2 Phase Loss	The voltage of one or more phases dropped below the threshold of input 2
Input 2 Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of input 2
Input 2 Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of input 2
Input 2 Undervoltage	The voltage crossed below the threshold of input 2
Input 2 Voltage (L-L) A-B	The RMS voltage between phase A and B
Input 2 Voltage (L-L) B-C	The RMS voltage between phase B and C
Input 2 Voltage (L-L) C-A	The RMS voltage between phase C and A
Input 2 Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage of input 2 with respect to the fundamental frequency
Input 2 Voltage 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C voltage of input 2 with respect to the fundamental frequency

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Input 2 vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of input 2 with respect to the fundamental frequency
Input 2 vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of input 2 with respect to the fundamental frequency
Input 2 vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of input 2 with respect to the fundamental frequency
Internal Input Contact State	The state of the internal input contact
iTHD Ph A	The percentage of total harmonic distortion present in phase A current with respect to the fundamental frequency
iTHD Ph B	The percentage of total harmonic distortion present in phase B current with respect to the fundamental frequency
iTHD Ph C	The percentage of total harmonic distortion present in phase C current with respect to the fundamental frequency
K-Factor Ph A	The K-factor of phase A
K-Factor Ph B	The K-factor of phase B
K-Factor Ph C	The K-factor of phase C
Load Loss Detected	Load loss detected.
Load Loss Min Load	Load Loss Minimum Load
Main Input Breaker 1 Accessory Error	The main input circuit breaker 1 reported an invalid state
Main Input Breaker 1 Open Fail	The main input circuit breaker 1 failed to open as commanded
Main Input Breaker 1 Status	The operating status of main input breaker 1
Main Input Breaker 1 Tripped	The main input circuit breaker 1 reported a tripped state
Main Input Breaker 2 Accessory Error	The main input circuit breaker 2 reported an invalid state
Main Input Breaker 2 Open Fail	The main input circuit breaker 2 failed to open as commanded
Main Input Breaker 2 Status	The operating status of main input breaker 2
Main Input Breaker 2 Tripped	The main input circuit breaker 2 reported a tripped state
Metering Board Communication Fail	The metering board(s) reported a communication failure
Metering Configuration	The configuration of the system current transformers (CTs)
Neutral Current	The RMS current of the neutral
Neutral Overcurrent	The neutral current crossed above the threshold
Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm
Neutral Overcurrent Warning Threshold	The threshold for triggering a neutral overcurrent warning
Output Frequency Deviation	The output frequency deviated beyond the threshold
Output Overvoltage	The output voltage crossed above the threshold

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Output Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of the output
Output Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of the output
Output Undervoltage	The output voltage crossed below the threshold
Output Voltage (L-L) A-B	The RMS voltage between phase A and B
Output Voltage (L-L) B-C	The RMS voltage between phase B and C
Output Voltage (L-L) C-A	The RMS voltage between phase C and A
Output Voltage (L-N) A-N	The RMS voltage between phase A and neutral
Output Voltage (L-N) B-N	The RMS voltage between phase B and neutral
Output Voltage (L-N) C-N	The RMS voltage between phase C and neutral
Output Voltage 3rd Harmonic A	The percentage of the 3rd harmonic present in phase A voltage of the output with respect to the fundamental frequency
Output Voltage 3rd Harmonic B	The percentage of the 3rd harmonic present in phase B voltage of the output with respect to the fundamental frequency
Output Voltage 3rd Harmonic C	The percentage of the 3rd harmonic present in phase C voltage of the output with respect to the fundamental frequency
Output Voltage 5th Harmonic A	The percentage of the 5th harmonic present in phase A voltage of the output with respect to the fundamental frequency
Output Voltage 5th Harmonic B	The percentage of the 5th harmonic present in phase B voltage of the output with respect to the fundamental frequency
Output Voltage 5th Harmonic C	The percentage of the 5th harmonic present in phase C voltage of the output with respect to the fundamental frequency
Output Voltage 7th Harmonic A	The percentage of the 7th harmonic present in phase A voltage of the output with respect to the fundamental frequency
Output Voltage 7th Harmonic B	The percentage of the 7th harmonic present in phase B voltage of the output with respect to the fundamental frequency
Output Voltage 7th Harmonic C	The percentage of the 7th harmonic present in phase C voltage of the output with respect to the fundamental frequency
Output Voltage 9th Harmonic A	The percentage of the 9th harmonic present in phase A voltage of the output with respect to the fundamental frequency
Output Voltage 9th Harmonic B	The percentage of the 9th harmonic present in phase B voltage of the output with respect to the fundamental frequency
Output Voltage 9th Harmonic C	The percentage of the 9th harmonic present in phase C voltage of the output with respect to the fundamental frequency
Output vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of the output with respect to the fundamental frequency
Output vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of the output with respect to the fundamental frequency

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Output vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of the output with respect to the fundamental frequency
Overtemperature Shutdown	Will the system shutdown when there is an overtemperature alarm
Panelboard Apparent Power	The total apparent power of all phases of the panelboard
Panelboard Apparent Power	The total apparent power of all phases of the panelboard
Panelboard Available Pole Positions	The available number of pole positions within the panelboard
Panelboard Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current with respect to the fundamental frequency of the panelboard

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Panelboard Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the panelboard
Panelboard Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the panelboard
Panelboard Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the panelboard
Panelboard Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the panelboard
Panelboard Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the panelboard
Panelboard Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the panelboard
Panelboard Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the panelboard
Panelboard Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the panelboard
Panelboard Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the panelboard
Panelboard Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the panelboard
Panelboard Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the panelboard
Panelboard Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the panelboard
Panelboard Current Ph A	The RMS current of phase A of the panelboard
Panelboard Current Ph A	The RMS current of phase A of the panelboard
Panelboard Current Ph B	The RMS current of phase B of the panelboard
Panelboard Current Ph B	The RMS current of phase B of the panelboard
Panelboard Current Ph C	The RMS current of phase C of the panelboard
Panelboard Current Ph C	The RMS current of phase C of the panelboard
Panelboard Energy	The total accumulated energy of the panelboard since the last reset
Panelboard Energy	The total accumulated energy of the panelboard since the last reset
Panelboard Frequency	The frequency of the panelboard voltage

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Panelboard Frequency Deviation	The panelboard frequency deviated beyond the threshold
Panelboard Frequency Deviation	The panelboard frequency deviated beyond the threshold
Panelboard Energy Reset	Set the total accumulated energy value of the panelboard to zero
Panelboard Energy Reset	Set the total accumulated energy value of the panelboard to zero
Panelboard Ground Current	The RMS current of the ground of the panelboard
Panelboard Ground Current	The RMS current of the ground of the panelboard
Panelboard Ground Overcurrent	The ground current crossed above the threshold of the panelboard
Panelboard Ground Overcurrent	The ground current crossed above the threshold of the panelboard
Panelboard Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm of the panelboard
Panelboard Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm of the panelboard
Panelboard Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the panelboard
Panelboard Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the panelboard
Panelboard Highest Phase Peak Current	The highest peak RMS current of all phases of the panelboard
Panelboard Highest Phase Peak Current	The highest peak RMS current of all phases of the panelboard
Panelboard iTHD Ph A	The percentage of total harmonic distortion present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard iTHD Ph A	The percentage of total harmonic distortion present in phase A current with respect to the fundamental frequency of the panelboard
Panelboard iTHD Ph B	The percentage of total harmonic distortion present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard iTHD Ph B	The percentage of total harmonic distortion present in phase B current with respect to the fundamental frequency of the panelboard
Panelboard iTHD Ph C	The percentage of total harmonic distortion present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard iTHD Ph C	The percentage of total harmonic distortion present in phase C current with respect to the fundamental frequency of the panelboard
Panelboard Main Breaker Accessory Error	The main panelboard circuit breaker reported an invalid state
Panelboard Main Breaker Accessory Error	The main panelboard circuit breaker reported an invalid state
Panelboard Main Breaker Current Rating	The RMS current rating of the main circuit breaker
Panelboard Main Breaker Open Fail	The main panelboard circuit breaker failed to open when tripped.
Panelboard Main Breaker Status	The operating status of the main panelboard circuit breaker
Panelboard Main Breaker Status	The operating status of the main panelboard circuit breaker
Panelboard Main Breaker Tripped	The main panelboard circuit breaker reported a tripped state
Panelboard Main Breaker Tripped	The main panelboard circuit breaker reported a tripped state

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Panelboard Neutral Current	The RMS current of the neutral of the panelboard
Panelboard Neutral Current	The RMS current of the neutral of the panelboard
Panelboard Neutral Overcurrent	The neutral current crossed above the threshold of the panelboard
Panelboard Neutral Overcurrent	The neutral current crossed above the threshold of the panelboard
Panelboard Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm of the panelboard
Panelboard Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm of the panelboard
Panelboard Neutral Overcurrent Warning Threshold	The neutral current crossed above the warning threshold of the panelboard
Panelboard Neutral Overcurrent Warning Threshold	The threshold for triggering a neutral overcurrent warning of the panelboard
Panelboard Overvoltage	The panelboard voltage crossed above the threshold
Panelboard Overvoltage	The Panelboard voltage crossed above the threshold
Panelboard Peak Current Ph A	The peak RMS current of phase A of the panelboard
Panelboard Peak Current Ph A	The peak RMS current of phase A of the panelboard
Panelboard Peak Current Ph B	The peak RMS current of phase B of the panelboard
Panelboard Peak Current Ph B	The peak RMS current of phase B of the panelboard
Panelboard Peak Current Ph C	The peak RMS current of phase C of the panelboard
Panelboard Peak Current Ph C	The peak RMS current of phase C of the panelboard
Panelboard Peak Current Reset	Set the peak current value of the panelboard to zero
Panelboard Peak Current Reset	Set the peak current value of the panelboard to zero
Panelboard Peak Demand	The peak demand of all phases of the panelboard
Panelboard Peak Demand	The peak demand of all phases of the panelboard
Panelboard Peak Demand Reset	Set the peak demand value of the panelboard to zero
Panelboard Peak Demand Reset	Set the peak demand value of the panelboard to zero
Panelboard Phase Overcurrent	The phase current crossed above the threshold of the panelboard
Panelboard Phase Overcurrent	The phase current crossed above the threshold of the panelboard
Panelboard Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the panelboard
Panelboard Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the panelboard
Panelboard Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the panelboard
Panelboard Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the panelboard

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Panelboard Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of the panelboard
Panelboard Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of the subfeed panelboard
Panelboard Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of the panelboard
Panelboard Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of the subfeed panelboard
Panelboard Power Factor Ph A	The ratio of phase A real to apparent power for the panelboard
Panelboard Power Factor Ph A	The ratio of phase A real to apparent power for the panelboard
Panelboard Power Factor Ph B	The ratio of phase B real to apparent power for the panelboard
Panelboard Power Factor Ph B	The ratio of phase B real to apparent power for the panelboard
Panelboard Power Factor Ph C	The ratio of phase C real to apparent power for the panelboard
Panelboard Power Factor Ph C	The ratio of phase C real to apparent power for the panelboard
Panelboard Power Factor Total	The ratio of real to apparent power for the sum of all phases of the panelboard
Panelboard Power Factor Total	The ratio of real to apparent power for the sum of all phases of the panelboard
Panelboard Real Power	The total real (active) power of all phases of the panelboard
Panelboard Real Power	The total real (active) power of all phases of the panelboard
Panelboard Shunt Trip Unavailable	Shunt trip power has failed. The voltage is insufficient to shunt trip the panelboard main breaker.
Panelboard Status	The operating status of the panelboard
Panelboard Status	The operating status of the panelboard
Panelboard Subfeed Count	The count of circuit breakers within the panelboard
Panelboard Total Pole Positions	The total number of pole positions within the panelboard
Panelboard Undervoltage	The panelboard voltage crossed below the threshold
Panelboard Undervoltage	The panelboard voltage crossed below the threshold
Panelboard Voltage (L-L) A-B	The RMS voltage between phase A and B of the panelboard
Panelboard Voltage (L-L) B-C	The RMS voltage between phase B and C of the panelboard
Panelboard Voltage (L-L) C-A	The RMS voltage between phase C and A of the panelboard
Panelboard Voltage (L-N) A-N	The RMS voltage between phase A and neutral of the panelboard
Panelboard Voltage (L-N) B-N	The RMS voltage between phase B and neutral of the panelboard
Panelboard Voltage (L-N) C-N	The RMS voltage between phase C and neutral of the panelboard
Panelboard Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Panelboard Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard
Panelboard Voltage 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard
Panelboard vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage with respect to the fundamental frequency of the panelboard
Panelboard vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage with respect to the fundamental frequency of the panelboard
Panelboard vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage with respect to the fundamental frequency of the panelboard
Peak Current Ph A	The peak RMS current of phase A
Peak Current Ph B	The peak RMS current of phase B
Peak Current Ph C	The peak RMS current of phase C
Peak Current Reset	Set the peak current value to zero
Peak Demand	The peak demand of all phases
Peak Demand Reset	Set the peak demand value to zero
Phase Overcurrent	The phase current crossed above the threshold
Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm
Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning
Power Factor Ph A	The ratio of phase A real to apparent power
Power Factor Ph B	The ratio of phase B real to apparent power
Power Factor Ph C	The ratio of phase C real to apparent power

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Power Factor Total	The ratio of real to apparent power for the sum of all phases
Real Power	The total real (active) power of all phases
Restart Procedure	Will the system automatically restart or need a manual interaction
Server Class	The general classification for this system
Shunt Trip Unavailable	Shunt trip power has failed. The voltage is insufficient to shunt trip the input breaker.
Subfeed Apparent Power	The total apparent power of all phases of the subfeed
Subfeed Apparent Power	The total apparent power of all phases of the subfeed
Subfeed Breaker Accessory Error	The subfeed circuit breaker reported an invalid state
Subfeed Breaker Accessory Error	The subfeed circuit breaker reported an invalid state
Subfeed Breaker Status	The operating status of the subfeed circuit breaker
Subfeed Breaker Tripped	The subfeed circuit breaker reported a tripped state
Subfeed Breaker Tripped	The subfeed circuit breaker reported a tripped state
Subfeed Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current of the subfeed with respect to the fundamental frequency

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Subfeed Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the subfeed
Subfeed Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the subfeed
Subfeed Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the subfeed
Subfeed Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the subfeed
Subfeed Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the subfeed
Subfeed Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the subfeed
Subfeed Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the subfeed
Subfeed Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the subfeed
Subfeed Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the subfeed
Subfeed Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the subfeed
Subfeed Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the subfeed
Subfeed Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the subfeed
Subfeed Current Ph A	The RMS current of phase A of the subfeed
Subfeed Current Ph A	The RMS current of phase A of the subfeed
Subfeed Current Ph B	The RMS current of phase B of the subfeed

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Subfeed Current Ph B	The RMS current of phase B of the subfeed
Subfeed Current Ph C	The RMS current of phase C of the subfeed
Subfeed Current Ph C	The RMS current of phase C of the subfeed
Subfeed Current Rating	The RMS current rating of the subfeed circuit breaker
Subfeed Current Rating	The RMS current rating of the subfeed circuit breaker
Subfeed Energy	The total accumulated energy of the subfeed since the last reset
Subfeed Energy	The total accumulated energy of the subfeed since the last reset
Subfeed Energy Reset	Set the total accumulated energy value of the subfeed to zero
Subfeed Energy Reset	Set the total accumulated energy value of the subfeed to zero
Subfeed Frequency	The frequency of the subfeed voltage
Subfeed Frequency Deviation	The subfeed frequency deviated beyond the threshold
Subfeed Ground Current	The RMS current of the ground of the subfeed
Subfeed Ground Current	The RMS current of the ground of the subfeed
Subfeed Ground Overcurrent	The ground current crossed above the threshold of the subfeed
Subfeed Ground Overcurrent	The ground current crossed above the threshold of the subfeed
Subfeed Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm of the subfeed
Subfeed Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the subfeed
Subfeed Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the subfeed
Subfeed Highest Phase Peak Current	The highest peak RMS current of all phases of the subfeed
Subfeed Highest Phase Peak Current	The highest peak RMS current of all phases of the subfeed
Subfeed iTHD Ph A	The percentage of total harmonic distortion present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed iTHD Ph A	The percentage of total harmonic distortion present in phase A current of the subfeed with respect to the fundamental frequency
Subfeed iTHD Ph B	The percentage of total harmonic distortion present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed iTHD Ph B	The percentage of total harmonic distortion present in phase B current of the subfeed with respect to the fundamental frequency
Subfeed iTHD Ph C	The percentage of total harmonic distortion present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed iTHD Ph C	The percentage of total harmonic distortion present in phase C current of the subfeed with respect to the fundamental frequency
Subfeed Main Breaker Status	The operating status of the subfeed circuit breaker
Subfeed Neutral Current	The RMS current of the neutral of the subfeed

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Subfeed Neutral Current	The RMS current of the neutral of the subfeed
Subfeed Neutral Overcurrent	The neutral current crossed above the threshold of the subfeed
Subfeed Neutral Overcurrent	The neutral current crossed above the threshold of the subfeed
Subfeed Neutral Overcurrent Threshold	The threshold for triggering a neutral overcurrent alarm of the subfeed
Subfeed Neutral Overcurrent Threshold	The threshold for triggering a neutral overcurrent alarm of the subfeed
Subfeed Neutral Overcurrent Warning Threshold	The threshold for triggering a neutral overcurrent warning of the subfeed
Subfeed Neutral Overcurrent Warning Threshold	The threshold for triggering a neutral overcurrent warning of the subfeed
Subfeed Overvoltage	The subfeed voltage crossed above the threshold
Subfeed Peak Current Ph A	The peak RMS current of phase A of the subfeed
Subfeed Peak Current Ph A	The peak RMS current of phase A of the subfeed
Subfeed Peak Current Ph B	The peak RMS current of phase B of the subfeed
Subfeed Peak Current Ph B	The peak RMS current of phase B of the subfeed
Subfeed Peak Current Ph C	The peak RMS current of phase C of the subfeed
Subfeed Peak Current Ph C	The peak RMS current of phase C of the subfeed
Subfeed Peak Current Reset	Set the peak current value of the subfeed to zero
Subfeed Peak Current Reset	Set the peak current value of the subfeed to zero
Subfeed Peak Demand	The peak demand of all phases of the subfeed
Subfeed Peak Demand	The peak demand of all phases of the subfeed
Subfeed Peak Demand Reset	Set the peak demand value of the subfeed to zero
Subfeed Peak Demand Reset	Set the peak demand value of the subfeed to zero
Subfeed Phase Overcurrent	The phase current crossed above the threshold of the subfeed
Subfeed Phase Overcurrent	The phase current crossed above the threshold of the subfeed
Subfeed Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the subfeed
Subfeed Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the subfeed
Subfeed Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the subfeed
Subfeed Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the subfeed
Subfeed Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of the subfeed
Subfeed Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of the subfeed

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Table 3.89 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Description
Subfeed Power Factor Ph A	The ratio of phase A real to apparent power for the subfeed
Subfeed Power Factor Ph A	The ratio of phase A real to apparent power for the subfeed
Subfeed Power Factor Ph B	The ratio of phase B real to apparent power for the subfeed
Subfeed Power Factor Ph B	The ratio of phase B real to apparent power for the subfeed
Subfeed Power Factor Ph C	The ratio of phase C real to apparent power for the subfeed
Subfeed Power Factor Ph C	The ratio of phase C real to apparent power for the subfeed
Subfeed Power Factor Total	The ratio of real to apparent power for the sum of all phases of the subfeed
Subfeed Power Factor Total	The ratio of real to apparent power for the sum of all phases of the subfeed
Subfeed Real Power	The total real (active) power of all phases of the subfeed
Subfeed Real Power	The total real (active) power of all phases of the subfeed
Subfeed Undervoltage	The subfeed voltage crossed below the threshold
Subfeed Voltage (L-L) A-B	The RMS voltage between phase A and B of the subfeed
Subfeed Voltage (L-L) B-C	The RMS voltage between phase B and C of the subfeed
Subfeed Voltage (L-L) C-A	The RMS voltage between phase C and A of the subfeed
Subfeed Voltage (L-N) A-N	The RMS voltage between phase A and neutral of the subfeed
Subfeed Voltage (L-N) B-N	The RMS voltage between phase B and neutral of the subfeed
Subfeed Voltage (L-N) C-N	The RMS voltage between phase C and neutral of the subfeed
System Current Rating	The current rating of the system
System Frequency	The frequency of the system.
System Misconfiguration	The system reported a misconfiguration
System Power Rating	The power rating of the system.
System Shutdown - EPO	Unit shutdown by Emergency Power Off (EPO) switch
System Shutdown - REPO	System shutdown due to Remote Emergency Power Off (REPO)
System Shutdown - Undervoltage	System shutdown due to an undervoltage condition
System Status	The operating status for the system
System-wide Energy Reset	Set all of the total accumulated energy values in the system to zero
System-wide Event Acknowledge/Reset	Reset and/or acknowledge all events.
System-wide Peak Current Reset	Set all of the peak current values in the system to zero
System-wide Peak Demand Reset	Set all of the peak demand values in the system to zero
Transformer High Temperature	The transformer crossed the high temperature threshold
Transformer Temperature Sensor Failure	The transformer temperature sensor is reporting an invalid state
Voltage Over THD Alarm Threshold	The threshold for triggering a voltage over total harmonic distortion alarm

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Table 3.90 Liebert® STS, Liebert® STS/PDU—Input and Holding—STS

Controller	STS				
Liebert Products	Liebert® STS Liebert® STS/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Transfer Count	—	40001	1	—	—
Preferred Source	—	40002	1	—	1=Source 1 / 2=Source 2
Load On Source	—	40003	1	—	1=Source 1 / 2=Source 2
Source 1 Voltage A-B	—	40004	1	—	V
Source 1 Voltage B-C	—	40005	1	—	V
Source 1 Voltage C-A	—	40006	1	—	V
Source 1 Current A	—	40007	1	—	A
Source 1 Current B	—	40008	1	—	A
Source 1 Current C	—	40009	1	—	A
Source 1 Frequency	—	40010	1	10	Hz
Source 2 Voltage A-B	—	40011	1	—	V
Source 2 Voltage B-C	—	40012	1	—	V
Source 2 Voltage C-A	—	40013	1	—	V
Source 2 Current A	—	40014	1	—	A
Source 2 Current B	—	40015	1	—	A
Source 2 Current C	—	40016	1	—	A
Source 2 Frequency	—	40017	1	10	Hz
kW	—	40018	1	—	kW
kVA	—	40019	1	—	kVA
Auto Transfer Timer	—	40020	1	—	Seconds
Nominal Voltage Deviation	—	40021	1	—	V
Phase Differential Limit	—	40022	1	—	Degree
Frequency Deviation	—	40023	1	10	Hz
Alarm Points					
Communications	—	40289	1	—	Bit 0

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Table 3.90 Liebert® STS, Liebert® STS/PDU—Input and Holding—STS (continued)

Controller	STS				
Liebert Products	Liebert® STS Liebert® STS/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Logic Failure	—	40289	1	—	Bit 1
Equipment Overtemp	—	40289	1	—	Bit 2
Power Supply 1 Fault	—	40289	1	—	Bit 3
Source 1 Overvoltage	—	40289	1	—	Bit 4
Source 1 Undervoltage	—	40289	1	—	Bit 5
Source 2 Overvoltage	—	40289	1	—	Bit 6
Source 2 Undervoltage	—	40289	1	—	Bit 7
Source 1 Overload	—	40289	1	—	Bit 8
Shorted SCR1	—	40289	1	—	Bit 9
Shorted SCR2	—	40289	1	—	Bit 10
Open SCR1	—	40290	1	—	Bit 0
Open SCR2	—	40290	1	—	Bit 1
Fan Failure	—	40290	1	—	Bit 2
Source 2 Overload	—	40290	1	—	Bit 3
Power Supply 2 Fault	—	40290	1	—	Bit 4
Frequency Deviation	—	40290	1	—	Bit 5
Transfer Inhibit	—	40290	1	—	Bit 6
Auto Retransfer Primed	—	40290	1	—	Bit 7
Out of Synchronization	—	40290	1	—	Bit 8
Source 1 Failure	—	40290	1	—	Bit 9
Source 2 Failure	—	40290	1	—	Bit 10
Auto Retransfer Failed	—	40291	1	—	Bit 0
Overload	—	40291	1	—	Bit 1
Control Fuse 1 Blown	—	40291	1	—	Bit 2
Control Fuse 2 Blown	—	40291	1	—	Bit 3
Source 1 CB1 Open	—	40291	1	—	Bit 4

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Table 3.90 Liebert® STS, Liebert® STS/PDU—Input and Holding—STS (continued)

Controller	STS				
Liebert Products	Liebert® STS Liebert® STS/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Source 2 CB2 Open	—	40291	1	—	Bit 5
Output CB3 Open	—	40291	1	—	Bit 6
Custom Alarm 1	—	40291	1	—	Bit 7
Custom Alarm 2	—	40291	1	—	Bit 8
Bypass CB4 Closed	—	40291	1	—	Bit 9
Bypass CB5 Closed	—	40291	1	—	Bit 10
Custom Alarm 3	—	40292	1	—	Bit 0
Custom Alarm 4	—	40292	1	—	Bit 1
Custom Alarm 5	—	40292	1	—	Bit 2
Custom Alarm 6	—	40292	1	—	Bit 3
Custom Alarm 7	—	40292	1	—	Bit 4
Custom Alarm 8	—	40292	1	—	Bit 5
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.91 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2 Liebert® STS2/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Total Transfer Count	—	40001	1	—	—
Preferred Source	—	40002	1	—	1=Source 1, 2=Source 2
Active Source	—	40003	1	—	1=Source 1, 2=Source 2
Source 1 Volts A-B	—	40004	1	—	V
Source 1 Volts B-C	—	40005	1	—	V

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Table 3.91 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2 Liebert® STS2/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Source 1 Volts C-A	—	40006	1	—	V
Source 1 Current A	—	40007	1	—	A
Source 1 Current B	—	40008	1	—	A
Source 1 Current C	—	40009	1	—	A
Source 1 Frequency	—	40010	1	10	Hz
Source 2 Volts A-B	—	40011	1	—	V
Source 2 Volts B-C	—	40012	1	—	V
Source 2 Volts C-A	—	40013	1	—	V
Source 2 Current A	—	40014	1	—	A
Source 2 Current B	—	40015	1	—	A
Source 2 Current C	—	40016	1	—	A
Source 2 Frequency	—	40017	1	10	Hz
Output kW	—	40018	1	—	kW
Output kVA	—	40019	1	—	kVA
CB 1 Status	—	40024	1	—	Bit 0
CB 2 Status	—	40024	1	—	Bit 1
CB 3 Status	—	40024	1	—	Bit 2
CB 3A Status	—	40024	1	—	Bit 3
CB 4 Status	—	40024	1	—	Bit 4
CB 5 Status	—	40024	1	—	Bit 5
CB Spare 1 Status	—	40024	1	—	Bit 6
CB Spare 2 Status	—	40024	1	—	Bit 7
CB 6 Status	—	40024	1	—	Bit 8
CB 7 Status	—	40024	1	—	Bit 9
Auto Xfer Enabled	—	40025	1	—	Bit 0
Has Dual Out Breakers	—	40025	1	—	Bit 1
Has PDU Equipped	—	40025	1	—	Bit 2

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Table 3.91 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2 Liebert® STS2/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Has 4 pole Switch	—	40025	1	—	Bit 3
Has Shunt Trip	—	40025	1	—	Bit 4
Has Wye Out Xfmr	—	40025	1	—	Bit 5
Has Rmt Sorce Sel	—	40025	1	—	Bit 6
Manual I peak Reset	—	40025	1	—	Bit 7
Auto Restart Enabled	—	40025	1	—	Bit 8
LoadKVA %	—	40026	1	—	%
Source 1 Volts A-B	—	40027	1	—	V (4 Pole only)
Source 1 Volts B-C	—	40028	1	—	V (4 Pole only)
Source 1 Volts C-A	—	40029	1	—	V (4 Pole only)
Source 2 Volts A-B	—	40030	1	—	V (4 Pole only)
Source 2 Volts B-C	—	40031	1	—	V (4 Pole only)
Source 2 Volts C-A	—	40032	1	—	V (4 Pole only)
Source 1 Neutral Current	—	40033	1	—	A (4 Pole only)
Source 2 Neutral Current	—	40034	1	—	A (4 Pole only)
Setpoints (View)					
Retransfer Delay	—	40020	1	—	Seconds
STS2 Voltage Rating	—	40021	1	—	V
Max Xfer Phase Angle	—	40022	1	—	Degree
Freq. Deviation Trip Point	—	40023	1	10	Hz
Source 1 Neutral Current Limit	—	40035	1	—	A (4 Pole only)
Source 2 Neutral Current Limit	—	40036	1	—	A (4 Pole only)
Alarm Points					Discrete alarm objects available; use auto-discover for this unit
Communications Lost	—	40289	1	—	Bit 0
S1 SCR Short	—	40289	1	—	Bit 1
S2 SCR Short	—	40289	1	—	Bit 2
S1 SCR Open	—	40289	1	—	Bit 3

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Table 3.91 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2 Liebert® STS2/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
S2 SCR Open	—	40289	1	—	Bit 4
Master Fan Fail	—	40289	1	—	Bit 5
Control Module Fail	—	40289	1	—	Bit 6
PWR Supply DC A Fail	—	40289	1	—	Bit 7
PWR Supply DC B Fail	—	40289	1	—	Bit 8
PWR Supply SRC 1 AC Fail	—	40289	1	—	Bit 9
PWR Supply SRC 2 AC Fail	—	40289	1	—	Bit 10
PWR Supply Logic Fail	—	40289	1	—	Bit 11
Output Voltage Sense Fail	—	40289	1	—	Bit 12
S1 Voltage Sense Fail	—	40289	1	—	Bit 13
S2 Voltage Sense Fail	—	40289	1	—	Bit 14
S1 SCR Sense Fail	—	40289	1	—	Bit 15
S2 SCR Sense Fail	—	40290	1	—	Bit 0
S1 Current Sense Fail	—	40290	1	—	Bit 1
S2 Current Sense Fail	—	40290	1	—	Bit 2
S1 Gate Drive Fail	—	40290	1	—	Bit 3
S2 Gate Drive Fail	—	40290	1	—	Bit 4
Internal Comm Fail	—	40290	1	—	Bit 5
External Comm Fail	—	40290	1	—	Bit 6
CB1 Shunt Trip Fail	—	40290	1	—	Bit 7
CB2 Shunt Trip Fail	—	40290	1	—	Bit 8
CB6 Neutral Open	—	40290	1	—	Bit 9 (N/A to 4P)
Contactor Neutral Fail	—	40290	1	—	Bit 10 (N/A to 4P)
Heatsink Overtemp	—	40290	1	—	Bit 11
Equipment Overtemp	—	40290	1	—	Bit 12 (N/A to 4P)
Ambient Overtemp	—	40290	1	—	Bit 13 (N/A to 4P)
S1 Undervolts	—	40290	1	—	Bit 14

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Table 3.91 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2 Liebert® STS2/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
S1 Undervolts (RMS)	—	40290	1	—	Bit 15
S1 Overvolts	—	40291	1	—	Bit 0
S1 Over/Under Freq	—	40291	1	—	Bit 1
S1 Fail	—	40291	1	—	Bit 2
S2 Undervolts	—	40291	1	—	Bit 3
S2 Undervolts (RMS)	—	40291	1	—	Bit 4
S2 Overvolts	—	40291	1	—	Bit 5
S2 Over/Under Frequency	—	40291	1	—	Bit 6
S2 Fail	—	40291	1	—	Bit 7
S1 Overcurrent	—	40291	1	—	Bit 8
S2 Overcurrent	—	40291	1	—	Bit 9
S1 I-Peak	—	40291	1	—	Bit 10
S2 I-Peak	—	40291	1	—	Bit 11
Sources Out of Sync	—	40291	1	—	Bit 12
Load On Alternate Source	—	40291	1	—	Bit 13
Auto Retransfer Inhibit	—	40291	1	—	Bit 14
CB1 (S1) Open	—	40292	1	—	Bit 0
CB2 (S2) Open	—	40292	1	—	Bit 1
CB4 (S1 BYP) Closed	—	40292	1	—	Bit 2
CB5 (S2 BYP) Closed	—	40292	1	—	Bit 3
CB3 Output Bkr Open	—	40292	1	—	Bit 4
CB3A Output Bkr Open	—	40292	1	—	Bit 5
S1 Phase Rotation Error	—	40292	1	—	Bit 6
S2 Phase Rotation Error	—	40292	1	—	Bit 7
Transfer Inhibited	—	40292	1	—	Bit 8
Output Undervoltage	—	40292	1	—	Bit 9
History Logs Full	—	40292	1	—	Bit 10

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Table 3.91 Liebert® STS2, Liebert® STS2/PDU—Input and Holding—Liebert® STS2 (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2 Liebert® STS2/PDU				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Equipment Fan Fail	—	40292	1	—	Bit 11
Load Volt THD High	—	40292	1	—	Bit 12
Load Over-current	—	40292	1	—	Bit 13
Ground Over-current	—	40292	1	—	Bit 14
Neutral Over-current	—	40292	1	—	Bit 15
Customer Alarm #1	—	40293	1	—	Bit 0
Customer Alarm #2	—	40293	1	—	Bit 1
Customer Alarm #3	—	40293	1	—	Bit 2
Customer Alarm #4	—	40293	1	—	Bit 3
Customer Alarm #5	—	40293	1	—	Bit 4
Customer Alarm #6	—	40293	1	—	Bit 5
Customer Alarm #7	—	40293	1	—	Bit 6
Customer Alarm #8	—	40293	1	—	Bit 7
Neutral Current 1 Over Limit	—	40294	1	—	Bit 13 (4P Only)
Neutral Current 2 Over Limit	—	40294	1	—	Bit 14 (4P Only)
Neutral Snubber Fail	—	40294	1	—	Bit 15 (4P Only)
Neutral 1 SCR Short	—	40295	1	—	Bit 0 (4P Only)
Neutral 2 SCR Short	—	40295	1	—	Bit 1 (4P Only)
Neutral 1 SCR Open	—	40295	1	—	Bit 2 (4P Only)
Neutral 2 SCR Open	—	40295	1	—	Bit 3 (4P Only)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.92 Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2/PDU, Liebert®IS_UNITY_DP				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Total Transfer Count	—	40001	1	—	—
Preferred Source	—	40002	1	—	1=Source 1, 2=Source 2
Active Source	—	40003	1	—	1=Source 1, 2=Source 2
Source 1 Volts A-B	—	40004	1	—	V
Source 1 Volts B-C	—	40005	1	—	V
Source 1 Volts C-A	—	40006	1	—	V
Source 1 Current A	—	40007	1	—	A
Source 1 Current B	—	40008	1	—	A
Source 1 Current C	—	40009	1	—	A
Source 1 Frequency	—	40010	1	10	Hz
Source 2 Volts A-B	—	40011	1	—	V
Source 2 Volts B-C	—	40012	1	—	V
Source 2 Volts C-A	—	40013	1	—	V
Source 2 Current A	—	40014	1	—	A
Source 2 Current B	—	40015	1	—	A
Source 2 Current C	—	40016	1	—	A
Source 2 Frequency	—	40017	1	10	Hz
Output kW	—	40018	1	—	kW
Output kVA	—	40019	1	—	kVA
CB 1 Status	—	40024	1	—	Bit 0
CB 2 Status	—	40024	1	—	Bit 1
CB 3 Status	—	40024	1	—	Bit 2
CB 3A Status	—	40024	1	—	Bit 3
CB 4 Status	—	40024	1	—	Bit 4
CB 5 Status	—	40024	1	—	Bit 5
CB Spare 1 Status	—	40024	1	—	Bit 6
CB Spare 2 Status	—	40024	1	—	Bit 7

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Table 3.92 Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2/PDU, Liebert®IS_UNITY_DP				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
CB 6 Status	—	40024	1	—	Bit 8
CB 7 Status	—	40024	1	—	Bit 9
Auto Xfer Enabled	—	40025	1	—	Bit 0
Has Dual Out Breakers	—	40025	1	—	Bit 1
Has PDU Equipped	—	40025	1	—	Bit 2
Has 4 pole Switch	—	40025	1	—	Bit 3
Has Shunt Trip	—	40025	1	—	Bit 4
Has Wye Out Xfmr	—	40025	1	—	Bit 5
Has Rmt Sorce Sel	—	40025	1	—	Bit 6
Manual I peak Reset	—	40025	1	—	Bit 7
Auto Restart Enabled	—	40025	1	—	Bit 8
LoadKVA %	—	40026	1	—	%
Source 1 Volts A-B	—	40027	1	—	V (4 Pole only)
Source 1 Volts B-C	—	40028	1	—	V (4 Pole only)
Source 1 Volts C-A	—	40029	1	—	V (4 Pole only)
Source 2 Volts A-B	—	40030	1	—	V (4 Pole only)
Source 2 Volts B-C	—	40031	1	—	V (4 Pole only)
Source 2 Volts C-A	—	40032	1	—	V (4 Pole only)
Source 1 Neutral Current	—	40033	1	—	A (4 Pole only)
Source 2 Neutral Current	—	40034	1	—	A (4 Pole only)
Source 1 Volts A-N	—	40037	1	-	V (4 Pole only)
Source 1 Volts B-N	—	40038	1	-	V (4 Pole only)
Source 1 Volts C-N	—	40039	1	-	V (4 Pole only)
Source 2 Volts A-N	—	40040	1	-	V (4 Pole only)
Source 2 Volts B-N	—	40041	1	-	V (4 Pole only)
Source 2 Volts C-N	—	40042	1	-	V (4 Pole only)
Setpoints (View)					
Retransfer Delay	—	40020	1	—	Seconds

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Table 3.92 Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2/PDU, Liebert®IS_UNITY_DP				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
STS2 Voltage Rating	—	40021	1	—	V
Max Xfer Phase Angle	—	40022	1	—	Degree
Freq. Deviation Trip Point	—	40023	1	10	Hz
Source 1 Neutral Current Limit	—	40035	1	—	A (4 Pole only)
Source 2 Neutral Current Limit	—	40036	1	—	A (4 Pole only)
Alarm Points					Discrete alarm objects available; use auto-discover for this unit
Communications Lost	—	40289	1	—	Bit 0
S1 SCR Short	—	40289	1	—	Bit 1
S2 SCR Short	—	40289	1	—	Bit 2
S1 SCR Open	—	40289	1	—	Bit 3
S2 SCR Open	—	40289	1	—	Bit 4
Master Fan Fail	—	40289	1	—	Bit 5
Control Module Fail	—	40289	1	—	Bit 6
PWR Supply DC A Fail	—	40289	1	—	Bit 7
PWR Supply DC B Fail	—	40289	1	—	Bit 8
PWR Supply SRC 1 AC Fail	—	40289	1	—	Bit 9
PWR Supply SRC 2 AC Fail	—	40289	1	—	Bit 10
PWR Supply Logic Fail	—	40289	1	—	Bit 11
Output Voltage Sense Fail	—	40289	1	—	Bit 12
S1 Voltage Sense Fail	—	40289	1	—	Bit 13
S2 Voltage Sense Fail	—	40289	1	—	Bit 14
S1 SCR Sense Fail	—	40289	1	—	Bit 15
S2 SCR Sense Fail	—	40290	1	—	Bit 0
S1 Current Sense Fail	—	40290	1	—	Bit 1
S2 Current Sense Fail	—	40290	1	—	Bit 2
S1 Gate Drive Fail	—	40290	1	—	Bit 3
S2 Gate Drive Fail	—	40290	1	—	Bit 4

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Table 3.92 Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2/PDU, Liebert®IS_UNITY_DP				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Internal Comm Fail	—	40290	1	—	Bit 5
External Comm Fail	—	40290	1	—	Bit 6
CB1 Shunt Trip Fail	—	40290	1	—	Bit 7
CB2 Shunt Trip Fail	—	40290	1	—	Bit 8
CB6 Neutral Open	—	40290	1	—	Bit 9 (N/A to 4P)
Contactor Neutral Fail	—	40290	1	—	Bit 10 (N/A to 4P)
Heatsink Overtemp	—	40290	1	—	Bit 11
Equipment Overtemp	—	40290	1	—	Bit 12 (N/A to 4P)
Ambient Overtemp	—	40290	1	—	Bit 13 (N/A to 4P)
S1 Undervolts	—	40290	1	—	Bit 14
S1 Undervolts (RMS)	—	40290	1	—	Bit 15
S1 Overvolts	—	40291	1	—	Bit 0
S1 Over/Under Freq	—	40291	1	—	Bit 1
S1 Fail	—	40291	1	—	Bit 2
S2 Undervolts	—	40291	1	—	Bit 3
S2 Undervolts (RMS)	—	40291	1	—	Bit 4
S2 Overvolts	—	40291	1	—	Bit 5
S2 Over/Under Frequency	—	40291	1	—	Bit 6
S2 Fail	—	40291	1	—	Bit 7
S1 Overcurrent	—	40291	1	—	Bit 8
S2 Overcurrent	—	40291	1	—	Bit 9
S1 I-Peak	—	40291	1	—	Bit 10
S2 I-Peak	—	40291	1	—	Bit 11
Sources Out of Sync	—	40291	1	—	Bit 12
Load On Alternate Source	—	40291	1	—	Bit 13
Auto Retransfer Inhibit	—	40291	1	—	Bit 14
CB1 (S1) Open	—	40292	1	—	Bit 0
CB2 (S2) Open	—	40292	1	—	Bit 1

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Table 3.92 Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2/PDU, Liebert®IS_UNITY_DP				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
CB4 (S1 BYP) Closed	—	40292	1	—	Bit 2
CB5 (S2 BYP) Closed	—	40292	1	—	Bit 3
CB3 Output Bkr Open	—	40292	1	—	Bit 4
CB3A Output Bkr Open	—	40292	1	—	Bit 5
S1 Phase Rotation Error	—	40292	1	—	Bit 6
S2 Phase Rotation Error	—	40292	1	—	Bit 7
Transfer Inhibited	—	40292	1	—	Bit 8
Output Undervoltage	—	40292	1	—	Bit 9
History Logs Full	—	40292	1	—	Bit 10
Equipment Fan Fail	—	40292	1	—	Bit 11
Load Volt THD High	—	40292	1	—	Bit 12
Load Over-current	—	40292	1	—	Bit 13
Ground Over-current	—	40292	1	—	Bit 14
Neutral Over-current	—	40292	1	—	Bit 15
Customer Alarm #1	—	40293	1	—	Bit 0
Customer Alarm #2	—	40293	1	—	Bit 1
Customer Alarm #3	—	40293	1	—	Bit 2
Customer Alarm #4	—	40293	1	—	Bit 3
Customer Alarm #5	—	40293	1	—	Bit 4
Customer Alarm #6	—	40293	1	—	Bit 5
Customer Alarm #7	—	40293	1	—	Bit 6
Customer Alarm #8	—	40293	1	—	Bit 7
Neutral Current 1 Over Limit	—	40294	1	—	Bit 13 (4P Only)
Neutral Current 2 Over Limit	—	40294	1	—	Bit 14 (4P Only)
Neutral Snubber Fail	—	40294	1	—	Bit 15 (4P Only)
Neutral 1 SCR Short	—	40295	1	—	Bit 0 (4P Only)

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Table 3.92 Liebert® STS2, Liebert® STS2/PDU—Input and Holding— Liebert® IS-UNITY-DP (continued)

Controller	Liebert® STS2				
Liebert Products	Liebert® STS2/PDU, Liebert®IS_UNITY_DP				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Neutral 2 SCR Short	—	40295	1	—	Bit 1 (4P Only)
Neutral 1 SCR Open	—	40295	1	—	Bit 2 (4P Only)
Neutral 2 SCR Open	—	40295	1	—	Bit 3 (4P Only)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.93 Liebert®STS2, Liebert® STS2/PDU—Glossary— Liebert® IS-UNITY-DP

Data Label	Data Description
Branch Current Phase 1	Branch breaker Phase 1 RMS current
Branch Current Phase 2	Branch Breaker Phase 2 RMS current
Branch Current Phase 3	Branch breaker Phase 3 RMS current
Branch Output Percent Load	Branch breaker percent load of rated current
Branch Output Power (W)	Branch breaker W
Branch Output Power Factor	Branch breaker Power Factor (real power/apparent power)
Branch Overcurrent	Branch breaker current has exceeded the limit.
Branch Undercurrent Warning	Branch breaker current is less than the limit.
Breaker position	Panelboard pole position of the branch breaker. First position if 2 or 3 pole breaker
Columns of Breakers	The breakers in this panel are physically arranged in this many columns.
Equipment Temperature Sensor Fail	Transformer temperature sensor has failed
Event State	Alarm present
Frequency Deviation	The output frequency is outside a specified range.
Ground Current	Unit Ground RMS current.
Ground Overcurrent	Unit ground current has exceeded the limit.
Input Voltage A-B	Unit Input RMS Voltage between Phase A and Phase B
Input Voltage B-C	Unit Input RMS Voltage between Phase B and Phase C
Input Voltage C-A	Unit Input RMS Voltage between Phase C and Phase A
Neutral Overcurrent	Unit neutral current has exceeded the limit.
Number of Breakers	Number of Breakers in this panelboard.
Output Current Ix Crest Factor	Unit phase X Current Crest Factor (peak/RMS).
Output Current Ix K-Factor	Unit output Current Harmonic K-Factor for phase X.

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Table 3.93 Liebert®STS2, Liebert® STS2/PDU—Glossary— Liebert® IS-UNITY-DP (continued)

Data Label	Data Description
Output Current Ix THD	Unit Current Total Harmonic Distortion for phase X.
Output Current Ix	Unit Phase X output RMS current.
Output Current Iy Crest Factor	Unit phase Y Current Crest Factor (peak/RMS).
Output Current Iy K-Factor	Unit output Current Harmonic K-Factor for phase Y.
Output Current Iy THD	Unit Current Total Harmonic Distortion for phase Y.
Output Current Iy	Unit Phase Y output RMS current.
Output Current Iz Crest Factor	Unit phase Z Current Crest Factor (peak/RMS).
Output Current Iz K-Factor	Unit output Current Harmonic K-Factor for phase Z.
Output Current Iz THD	Unit Current Total Harmonic Distortion for phase Z.
Output Current Iz	Unit Phase Z output RMS current.
Output Frequency	The system output frequency.
Output kW-Hrs	Branch Breaker accumulated KW-Hours since last KW-Hours reset.
Output kW-Hrs	Unit accumulated KW-Hours since last KW-Hours reset.
Output Neutral Current	Unit output Neutral RMS current.
Output Overcurrent	Unit phase current has exceeded the limit.
Output Overvoltage	Unit voltage has exceeded the limit.
Output Percent Load	Unit percent load of rated current
Output Power (kVA)	Unit output kVA
Output Power (kW)	Unit output KW
Output Power Factor	Unit output Power Factor (real power/apparent power)
Output Undervoltage	Unit voltage is less than the limit.
Output Voltage THD	Unit output Voltage Total Harmonic Distortion has exceeded the limit.
Output Voltage Vx THD	Unit Voltage Total Harmonic Distortion for phase X.
Output Voltage Vx	Unit output RMS voltage between phase X and Neutral
Output Voltage Vy THD	Unit Voltage Total Harmonic Distortion for phase Y.
Output Voltage Vy	Unit output RMS voltage between phase Y and Neutral
Output Voltage Vz THD	Unit Voltage Total Harmonic Distortion for phase Z.
Output Voltage Vz	Unit output RMS voltage between phase Z and Neutral
Output Voltage X-Y	Unit output RMS voltage between phases X and Y
Output Voltage Y-Z	Unit output RMS voltage between phases Y and Z.
Output Voltage Z-X	Unit output RMS voltage between phases Z and X.
Panel Ground Overcurrent	Panelboard Ground current has exceeded the limit.

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Table 3.93 Liebert®STS2, Liebert® STS2/PDU—Glossary— Liebert® IS-UNITY-DP (continued)

Data Label	Data Description
Panel Main Current Ix Crest Factor	Panelboard phase X Current Crest Factor (peak/RMS).
Panel Main Current Ix THD	Current Total Harmonic Distortion for Panelboard phase X.
Panel Main Current Ix	Panelboard RMS current for phase X.
Panel Main Current Iy Crest Factor	Panelboard phase Y Current Crest Factor (peak/RMS).
Panel Main Current Iy THD	Current Total Harmonic Distortion for Panelboard phase Y.
Panel Main Current Iy	Panelboard RMS current for phase Y.
Panel Main Current Iz Crest Factor	Panelboard phase Z Current Crest Factor (peak/RMS).
Panel Main Current Iz THD	Current Total Harmonic Distortion for Panelboard phase Z.
Panel Main Current Iz	Panelboard RMS current for phase Z.
Panel Main Ground Current	Panelboard Ground RMS current.
Panel Main Neutral Current	Panelboard Neutral RMS current.
Panel Main Output kW-Hrs	Panelboard accumulated KW-Hours since last KW-Hours reset.
Panel Main Output Percent Load	Panelboard percent load of rated current
Panel Main Output Power (kVA)	Panelboard output kVA.
Panel Main Output Power (kW)	Panelboard output KW
Panel Main Output Power Factor	Panelboard Output Power Factor (real power/apparent power)
Panel Main Voltage Vx THD	Voltage Total Harmonic Distortion for Panelboard phase X.
Panel Main Voltage Vy THD	Voltage Total Harmonic Distortion for Panelboard phase Y.
Panel Main Voltage Vz THD	Voltage Total Harmonic Distortion for Panelboard phase Z.
Panel Main Voltage X-N	Panelboard RMS voltage between Phase X and Neutral.
Panel Main Voltage X-Y	Panelboard RMS voltage between phases X and Y.
Panel Main Voltage Y-N	Panelboard RMS voltage between Phase Y and Neutral.
Panel Main Voltage Y-Z	Panelboard RMS voltage between phases Y and Z.
Panel Main Voltage Z-N	Panelboard RMS voltage between Phase Z and Neutral.
Panel Main Voltage Z-X	Panelboard RMS voltage between phases Z and X.
Panel Neutral Overcurrent	Panelboard Neutral current has exceeded the limit.
Panel Overvoltage	Panelboard voltage has exceeded the limit.
Panel Phase Overcurrent	Panelboard phase current has exceeded the limit.
Panel Summary Alarm	Panelboard Summary Alarm. Annunciates upon occurrence of any branch or panelboard main breaker alarm.
Panel Undervoltage	Panelboard voltage is less than the limit.
Phase Loss	Voltage and/or Frequency on one or more of the phases is outside the limit.
Phase Rotation Error	Unit input phase sequence is not A, B, C. The phase sequence should be verified and corrected.

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Table 3.93 Liebert®STS2, Liebert® STS2/PDU—Glossary— Liebert® IS-UNITY-DP (continued)

Data Label	Data Description
Subfeed Current Ix Crest Factor	Subfeed breaker phase X Current Crest Factor (peak/RMS).
Subfeed Current Ix THD	Current Total Harmonic Distortion for Subfeed breaker phase X.
Subfeed Current Ix	Subfeed breaker RMS current for phase X.
Subfeed Current Iy Crest Factor	Subfeed breaker phase Y Current Crest Factor (peak/RMS).
Subfeed Current Iy THD	Current Total Harmonic Distortion for Subfeed breaker phase Y.
Subfeed Current Iy	Subfeed breaker RMS current for phase Y.
Subfeed Current Iz Crest Factor	Subfeed breaker phase Z Current Crest Factor (peak/RMS).
Subfeed Current Iz THD	Current Total Harmonic Distortion for Subfeed breaker phase Z.
Subfeed Current Iz	Subfeed breaker RMS current for phase Z.
Subfeed Ground Current	Subfeed breaker Ground RMS current.
Subfeed Ground Overcurrent	Subfeed breaker Ground current has exceeded the limit.
Subfeed Neutral Current	Subfeed breaker Neutral RMS current.
Subfeed Neutral Overcurrent	Subfeed breaker Neutral current has exceeded the limit.
Subfeed Output kW-Hrs	Subfeed breaker accumulated KW-Hours since last KW-Hours reset.
Subfeed Output Percent Load	Subfeed breaker percent load of rated current
Subfeed Output Power (kVA)	Subfeed breaker output kVA.
Subfeed Output Power (kW)	Subfeed breaker output KW
Subfeed Phase Overcurrent	Subfeed breaker phase current has exceeded the limit.
Subfeed Power Factor	Subfeed breaker Power Factor (real power/apparent power)
System Date and Time	Unit date and time
System Event Acknowledge/Reset	Alarm Present/Reset
System Shutdown - EPO	Unit shutdown by Emergency Power Off (EPO) switch
System Shutdown - REPO	Unit shutdown by Remote Emergency Power Off (REPO) switch
System Status	The operating status for the system
Transformer Overtemperature Power Off	Output power shutdown due to high transformer temperature
Transformer Overtemperature Shutdown	Unit shutdown due to transformer over temperature
Transformer Overtemperature	Transformer temperature has exceeded the limit
Transformer Overtemperature	Transformer temperature has exceeded the limit
Transformer Temperature Sensor Fail	Transformer temperature sensor has failed

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3.3 UPS Systems—Modbus Protocols

Table 3.94 Liebert® APM, Liebert® NXC, Liebert® NXR—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes / Units
System Status				
Battery Auto Test In Progress	10001	—	1	Active on Alarm
Battery Equalize	10002	—	1	Active on Alarm
Battery Charging Inhibited	10003	—	1	Active on Alarm
On Generator	10004	—	1	Active on Alarm
System Events				
System Input Power Problem	10015	—	1	Active on Alarm
Rectifier Failure	10016	—	1	Active on Alarm
Inverter Failure	10017	—	1	Active on Alarm
Bypass Not Available	10018	—	1	Active on Alarm
Battery Low	10019	—	1	Active on Alarm
LBS Inhibited	10020	—	1	Active on Alarm
System Fan Failure	10021	—	1	Active on Alarm
Equipment Over Temperature	10022	—	1	Active on Alarm
System Shutdown - EPO	10023	—	1	Active on Alarm
Bypass Static Switch Unavailable	10024	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10025	—	1	Active on Alarm
Parallel Comm Warning	10026	—	1	Active on Alarm
Power Supply Failure	10027	—	1	Active on Alarm
Battery Over Temperature	10028	—	1	Active on Alarm
System Input Phs Rotation Error	10029	—	1	Active on Alarm
Fuse Failure	10030	—	1	Active on Alarm
Inverter Overload Phase A	10031	—	1	Active on Alarm
Inverter Overload Phase B	10032	—	1	Active on Alarm
Inverter Overload Phase C	10033	—	1	Active on Alarm
MMS Overload	10034	—	1	Active on Alarm
Inverter Shutdown - Overload	10035	—	1	Active on Alarm
System Output Fault	10036	—	1	Active on Alarm
Internal Communications Failure	10037	—	1	Active on Alarm
Battery Charging Error	10038	—	1	Active on Alarm
System Input Current Imbalance	10039	—	1	Active on Alarm

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Table 3.94 Liebert® APM, Liebert® NXC, Liebert® NXR—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units
Main Battery Disconnect Open	10040	—	1	Active on Alarm
Inverter Static Switch SCR Short	10041	—	1	Active on Alarm
Battery Not Qualified	10042	—	1	Active on Alarm
Battery Terminals Reversed	10043	—	1	Active on Alarm
Battery Converter Failure	10044	—	1	Active on Alarm
Inverter SCR Open	10045	—	1	Active on Alarm
Load Sharing Fault	10046	—	1	Active on Alarm
DC Bus Abnormal	10047	—	1	Active on Alarm
Mains Input Neutral Lost	10048	—	1	Active on Alarm
Load Impact Transfer	10049	—	1	Active on Alarm
User Operation Invalid	10050	—	1	Active on Alarm
Power Sub Module Fault	10051	—	1	Active on Alarm
Battery Discharging	10052	—	1	Active on Alarm
UPS Output on Bypass	10053	—	1	Active on Alarm
Output Load on Maint. Bypass	10054	—	1	Active on Alarm
Battery Capacity Low	10055	—	1	Active on Alarm
MMS On Battery	10056	—	1	Active on Alarm
Loss of Redundancy	10057	—	1	Active on Alarm
Top Outlet Fan Fault	10058	—	1	Active on Alarm
MMS Over Capacity	10059	—	1	Active on Alarm
Battery Charge Equalization Timeout	10060	—	1	Active on Alarm

Table 3.95 Liebert® APM, Liebert® NXC, Liebert® NXR—Input and Holding

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16
System Input RMS C-A	30387	—	1	—	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16

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Table 3.95 Liebert® APM, Liebert® NXC, Liebert® NXR—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes/Units
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
System Input RMS A-N	30392	—	1	—	Units : VAC Uint16
System Input RMS B-N	30393	—	1	—	Units : VAC Uint16
System Input RMS C-N	30394	—	1	—	Units : VAC Uint16
System Input Power Factor Phs A	30395	—	1	100	Uint16
System Input Power Factor Phs B	30396	—	1	100	Uint16
System Input Power Factor Phs C	30397	—	1	100	Uint16
System Input Power Phase A	30398	—	1	10	Units : kW Uint16
System Input Power Phase B	30399	—	1	10	Units : kW Uint16
System Input Power Phase C	30400	—	1	10	Units : kW Uint16
UPS input real power	30500	—	1	10	Units : kW Uint16
Bypass					
Bypass Input Voltage RMS A-N	30401	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30402	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30403	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30404	—	1	10	Units : Hz Uint16
Battery					
Battery Time Remaining	30408	—	1	—	Units : min Uint16
Battery Volts for Cabinet	30409	—	1	—	Units : VDC Int16
Battery Temperature for Cabinet	30410	—	1	—	Units : deg C Int16

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Table 3.95 Liebert® APM, Liebert® NXC, Liebert® NXR—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes/Units
Battery Temperature for Cabinet	30411	—	1	—	Units : deg F Int16
Inlet Air Temperature	30412	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30413	—	1	—	Units : deg F Uint16
DC Bus Current	30414	—	1	—	Units : A DC Int16
UPS battery1 status	30415	—	1	—	1 = Unknown 2 = Normal| 3 = Low 4 = Depleted
Output					
System Output Voltage RMS A-N	30419	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30420	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30421	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30422	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30423	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30424	—	1	—	Units : A AC Uint16
System Output Frequency	30425	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30426	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30427	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30428	—	1	—	Units : VAC Uint16
System Output Power Factor Phs A	30429	—	1	100	Uint16
System Output Power Factor Phs B	30430	—	1	100	Uint16
System Output Power Factor Phs C	30431	—	1	100	Uint16
System Output Pct Power Phase A	30432	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30433	—	1	—	Units : % Uint16

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Table 3.95 Liebert® APM, Liebert® NXC, Liebert® NXR—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes/Units
System Output Pct Power Phase C	30434	—	1	—	Units : % Uint16
MMS Output Apparent Power	30435	—	1	—	Units : kVA Uint16
MMS Output Power	30436	—	1	—	Units : kW Uint16
System Output Apparent Power	30437	—	1	—	Units : kVA Uint16
System Output Power	30438	—	1	—	Units : kW Uint16
Output Current Crest Factor Phs A	30439	—	1	10	Uint16
Output Current Crest Factor Phs B	30440	—	1	10	Uint16
Output Current Crest Factor Phs C	30441	—	1	10	Uint16
System Output Power Phase A	30442	—	1	10	Units : kW Uint16
System Output Power Phase B	30443	—	1	10	Units : kW Uint16
System Output Power Phase C	30444	—	1	10	Units : kW Uint16
System Status					
Inverter On/Off State	30445	—	1	—	0 = off 1 = on
Maintenance Bypass Breaker (MBB)	30446	—	1	—	0 = Open 1 = Close 2 = Not Installed
UPS Output Source	30447	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30448	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
ECO Mode Operation State	30449	—	1	—	0 = disabled 1 = enabled
System Configuration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.96 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary

Data Label	Data Description
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Capacity Low	Battery capacity is low.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between Phase A and Neutral.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between Phase B and Neutral.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between Phase C and Neutral.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode..

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Table 3.96 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
Equipment Over Temperature	Equipment over temperature summary event.
Fuse Failure	A summary event indicating one or more fuse failures.
Inlet Air Temperature	The temperature of the inlet air.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state.
Inverter Overload Phase A	Inverter is operating with an overload on Phase A.
Inverter Overload Phase B	Inverter is operating with an overload on Phase B.
Inverter Overload Phase C	Inverter is operating with an overload on Phase C.
Inverter SCR Open	The system has detected an open across one or more inverter static switch Silicon Controlled Rectifiers.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Static Switch SCR Short	The system has detected a short across one or more inverter static switch Silicon Controlled Rectifiers (SCR).
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Main Battery Disconnect Open	Main battery disconnect is open.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS On Battery	The multi-module system is on battery.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Power	The sum total power of all system output modules.
MMS Over Capacity	The multi-module system load is larger than the apparent power limit setting.
MMS Overload	Multi-module system overload.
On Generator	A generator is supplying the power to the system.
Output Current Crest Factor Phs A	Output current crest factor of Phase A.

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Table 3.96 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Parallel Comm Warning	Parallel communication bus warning
Power Sub Module Fault	One or more failures detected in power module, inverter or rectifier.
Power Supply Failure	Power supply failure.
Rectifier Failure	Rectifier failure - rectifier is off.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Frequency	The system input frequency.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.
System Input Power Factor Phs B	The system input power factor for Phase B.
System Input Power Factor Phs C	The system input power factor for Phase C.
System Input Power Phase A	The system input power on Phase A.
System Input Power Phase B	The system input power on Phase B.
System Input Power Phase C	The system input power on Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.

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Table 3.96 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between Phases A and Neutral.

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Table 3.96 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
UPS battery1 status	UPS battery status.
UPS input real power	The magnitude of the present input true power (calculated on the three phases).
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation..

Table 3.97 Liebert®APM 160—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001		1	Active on Alarm
System Input Phs Rotation Error	10002		1	Active on Alarm
System Input Power Problem	10003		1	Active on Alarm
Input Source Backfeed	10004		1	Active on Alarm
Bypass				
Bypass Not Available	10015		1	Active on Alarm
Bypass Static Switch Unavailable	10016		1	Active on Alarm
Bypass - Excess Auto Retransfers	10017		1	Active on Alarm
UPS Output on Bypass	10018		1	Active on Alarm
Output Load on Maint. Bypass	10019		1	Active on Alarm
Bypass Backfeed Detected	10020		1	Active on Alarm
Load on Bypass Union	10021		1	Active on Alarm
Bypass Control Module Not Available	10022		1	Active on Alarm
Bypass Module Not Available	10023		1	Active on Alarm

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Table 3.97 Liebert®APM 160—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Bypass controlling the SCR autonomously	10024		1	Active on Alarm
Bypass Unable to Trace	10025		1	Active on Alarm
Battery				
Battery Circuit Breaker Open	10036		1	Active on Alarm
Battery Self Test	10037		1	Active on Alarm
Battery Charging Inhibited	10038		1	Active on Alarm
Battery Discharging	10039		1	Active on Alarm
Battery Manual Test In Progress	10040		1	Active on Alarm
Battery Auto Test In Progress	10041		1	Active on Alarm
Battery Test Passed	10042		1	Active on Alarm
Battery Test Failed	10043		1	Active on Alarm
Battery Over Temperature	10044		1	Active on Alarm
Battery Low	10045		1	Active on Alarm
Battery Ground Fault	10046		1	Active on Alarm
Battery Not Qualified	10047		1	Active on Alarm
Battery Terminals Reversed	10048		1	Active on Alarm
Battery Capacity Low	10049		1	Active on Alarm
Battery Converter Current Limit	10050		1	Active on Alarm
Battery Charge Equalization Timeout	10051		1	Active on Alarm
Battery Room Alarm	10052		1	Active on Alarm
Battery Breaker Open Failure	10053		1	Active on Alarm
Battery Equalize	10054		1	Active on Alarm
Battery Over Voltage	10055		1	Active on Alarm
Battery Terminal Abnormal	10056		1	Active on Alarm
Battery Management System Rack is Offline Warning	10057		1	Active on Alarm
Battery Management System General Warning	10058		1	Active on Alarm
Battery Management System Fault	10059		1	Active on Alarm
Inverter				
Loss of Synchronization	10070		1	Active on Alarm
Output				
Output Overload	10081		1	Active on Alarm
System Output Fault	10082		1	Active on Alarm

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Table 3.97 Liebert®APM 160—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Output Breaker Open	10083		1	Active on Alarm
Power Modules 1				
Power Module Input Current Abnormal	10094		1	Active on Alarm
Power Module Input Current High	10095		1	Active on Alarm
Rectifier Failure	10096		1	Active on Alarm
Inverter Failure	10097		1	Active on Alarm
DC Bus Abnormal	10098		1	Active on Alarm
Load Sharing Fault	10099		1	Active on Alarm
Inverter Relay Fault	10100		1	Active on Alarm
Battery Charging Error	10101		1	Active on Alarm
Battery Converter Failure	10102		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10103		1	Active on Alarm
Inverter Shutdown - Overload	10104		1	Active on Alarm
Power Module Fuse Failure	10105		1	Active on Alarm
Power Module Power Supply Failure	10106		1	Active on Alarm
Power Module Fan Fault	10107		1	Active on Alarm
Power Module Over Temperature	10108		1	Active on Alarm
Power Module Communication status	10109		1	Active on Alarm
Power Module Lever Unlocked	10110		1	Active on Alarm
Power Modules 2				
Power Module Input Current Abnormal	10121		1	Active on Alarm
Power Module Input Current High	10122		1	Active on Alarm
Rectifier Failure	10123		1	Active on Alarm
Inverter Failure	10124		1	Active on Alarm
DC Bus Abnormal	10125		1	Active on Alarm
Load Sharing Fault	10126		1	Active on Alarm
Inverter Relay Fault	10127		1	Active on Alarm
Battery Charging Error	10128		1	Active on Alarm
Battery Converter Failure	10129		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10130		1	Active on Alarm
Inverter Shutdown - Overload	10131		1	Active on Alarm
Power Module Fuse Failure	10132		1	Active on Alarm

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Table 3.97 Liebert®APM 160—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Power Supply Failure	10133		1	Active on Alarm
Power Module Fan Fault	10134		1	Active on Alarm
Power Module Over Temperature	10135		1	Active on Alarm
Power Module Communication status	10136		1	Active on Alarm
Power Module Lever Unlocked	10137		1	Active on Alarm
Power Modules 20				
Power Module Input Current Abnormal	10607		1	Active on Alarm
Power Module Input Current High	10608		1	Active on Alarm
Rectifier Failure	10609		1	Active on Alarm
Inverter Failure	10610		1	Active on Alarm
DC Bus Abnormal	10611		1	Active on Alarm
Load Sharing Fault	10612		1	Active on Alarm
Inverter Relay Fault	10613		1	Active on Alarm
Battery Charging Error	10614		1	Active on Alarm
Battery Converter Failure	10615		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10616		1	Active on Alarm
Inverter Shutdown - Overload	10617		1	Active on Alarm
Power Module Fuse Failure	10618		1	Active on Alarm
Power Module Power Supply Failure	10619		1	Active on Alarm
Power Module Fan Fault	10620		1	Active on Alarm
Power Module Over Temperature	10621		1	Active on Alarm
Power Module Communication status	10622		1	Active on Alarm
Power Module Lever Unlocked	10623		1	Active on Alarm
System Status				
Loss of Redundancy	10634		1	Active on Alarm
Hardware Mismatch	10635		1	Active on Alarm
Parallel Cable Failure	10636		1	Active on Alarm
LBS Cable Failure	10637		1	Active on Alarm
Transfer to Bypass - System Overload	10638		1	Active on Alarm
Excess ECO Suspends	10639		1	Active on Alarm
User Operation Invalid	10640		1	Active on Alarm
Load Impact Transfer	10641		1	Active on Alarm

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Table 3.97 Liebert®APM 160—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Internal Communications Failure	10642		1	Active on Alarm
MMS Overload	10643		1	Active on Alarm
Parallel Comm Warning	10644		1	Active on Alarm
Equipment Over Temperature	10645		1	Active on Alarm
LBS Inhibited	10646		1	Active on Alarm
On Generator	10647		1	Active on Alarm
LBS Active	10648		1	Active on Alarm
System Shutdown - EPO	10649		1	Active on Alarm
MMS Capacity Exceeded	10650		1	Active on Alarm
Fuse Failure	10651		1	Active on Alarm
Ground Fault	10652		1	Active on Alarm
System Fan Failure	10653		1	Active on Alarm
Parameter Configuration Failed	10654		1	Active on Alarm
System Output Off	10655		1	Active on Alarm
1 Branch 1				
Branch Over Current	10666		1	Active on Alarm
Branch Current Over HL	10667		1	Active on Alarm
Branch Current Over LL	10668		1	Active on Alarm
Branch Breaker Fail	10669		1	Active on Alarm
1 Branch 2				
Branch Over Current	10680		1	Active on Alarm
Branch Current Over HL	10681		1	Active on Alarm
Branch Current Over LL	10682		1	Active on Alarm
Branch Breaker Fail	10683		1	Active on Alarm
1 Branch 24				
Branch Over Current	10988		1	Active on Alarm
Branch Current Over HL	10989		1	Active on Alarm
Branch Current Over LL	10990		1	Active on Alarm
Branch Breaker Fail	10991		1	Active on Alarm
2 Branch 1				
Branch Over Current	11002		1	Active on Alarm
Branch Current Over HL	11003		1	Active on Alarm

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Table 3.97 Liebert®APM 160—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Branch Current Over LL	11004		1	Active on Alarm
Branch Breaker Fail	11005		1	Active on Alarm
2 Branch 2				
Branch Over Current	11016		1	Active on Alarm
Branch Current Over HL	11017		1	Active on Alarm
Branch Current Over LL	11018		1	Active on Alarm
Branch Breaker Fail	11019		1	Active on Alarm
2 Branch 24				
Branch Over Current	11324		1	Active on Alarm
Branch Current Over HL	11325		1	Active on Alarm
Branch Current Over LL	11326		1	Active on Alarm
Branch Breaker Fail	11327		1	Active on Alarm
3 Branch 1				
Branch Over Current	11338		1	Active on Alarm
Branch Current Over HL	11339		1	Active on Alarm
Branch Current Over LL	11340		1	Active on Alarm
Branch Breaker Fail	11341		1	Active on Alarm
3 Branch 2				
Branch Over Current	11352		1	Active on Alarm
Branch Current Over HL	11353		1	Active on Alarm
Branch Current Over LL	11354		1	Active on Alarm
Branch Breaker Fail	11355		1	Active on Alarm
3 Branch 24				
Branch Over Current	11660		1	Active on Alarm
Branch Current Over HL	11661		1	Active on Alarm
Branch Current Over LL	11662		1	Active on Alarm
Branch Breaker Fail	11663		1	Active on Alarm
SPM				
SPM Internal Comm Failure	11674		1	Active on Alarm
SPM CRC Check Error	11675		1	Active on Alarm
SPM Board Not Ready 1				
SPM Board Not Ready	11686		1	Active on Alarm

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Table 3.97 Liebert®APM 160—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
SPM Board Not Ready 2				
SPM Board Not Ready	11697		1	Active on Alarm
SPM Board Not Ready 12				
SPM Board Not Ready	11807		1	Active on Alarm

Table 3.98 Liebert® APM 160—Input and Holding

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Input					
System Input RMS A-B	30385		1		Units : VAC Uint16
System Input RMS B-C	30386		1		Units : VAC Uint16
System Input RMS C-A	30387		1		Units : VAC Uint16
System Input RMS Current Phase A	30388		1		Units : A AC Uint16
System Input RMS Current Phase B	30389		1		Units : A AC Uint16
System Input RMS Current Phase C	30390		1		Units : A AC Uint16
System Input Frequency	30391		1	10	Units : Hz Uint16
System Input RMS A-N	30392		1		Units : VAC Uint16
System Input RMS B-N	30393		1		Units : VAC Uint16
System Input RMS C-N	30394		1		Units : VAC Uint16
System Input Power Factor Phs A	30395		1	100	Uint16
System Input Power Factor Phs B	30396		1	100	Uint16
System Input Power Factor Phs C	30397		1	100	Uint16
System Input Power Phase A	30398		1		Units : kW Uint16

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
System Input Power Phase B	30399		1		Units : kW Uint16
System Input Power Phase C	30400		1		Units : kW Uint16
System Input Apparent Power Phs A	30401		1		Units : kVA Uint16
System Input Apparent Power Phs B	30402		1		Units : kVA Uint16
System Input Apparent Power Phs C	30403		1		Units : kVA Uint16
System Input Nominal Voltage	30404		1		Units : VAC Uint16
System Input Nominal Current	30405		1		Units : A AC Uint16
System Input Brown Out Count	30406		1		Uint16
System Input Black Out Count	30407		1		Uint16
Input Breaker	30408		1		0 = Open 1 = Close 2 = Not Installed
External Input Breaker	30409		1		0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-N	30420		1		Units : VAC Uint16
Bypass Input Voltage RMS B-N	30421		1		Units : VAC Uint16
Bypass Input Voltage RMS C-N	30422		1		Units : VAC Uint16
Bypass Input Frequency	30423		1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30424		1		Units : VAC Uint16
Bypass Input Voltage RMS B-C	30425		1		Units : VAC

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
Bypass Input Voltage RMS C-A	30426		1		Units : VAC Uint16
Bypass Power Phase A	30427		1		Units : kW Uint16
Bypass Power Phase B	30428		1		Units : kW Uint16
Bypass Power Phase C	30429		1		Units : kW Uint16
Bypass Apparent Power Phase A	30430		1		Units : kVA Uint16
Bypass Apparent Power Phase B	30431		1		Units : kVA Uint16
Bypass Apparent Power Phase C	30432		1		Units : kVA Uint16
Bypass Nominal Voltage	30433		1		Units : VAC Uint16
External Bypass Breaker	30434		1		0 = Open 1 = Close 2 = Not Installed
Internal Bypass Breaker	30435		1		0 = Open 1 = Close 2 = Not Installed
Battery					
Battery Time Remaining	30446		1		Units : min Uint16
DC Bus Current	30447		1	100	Units : A DC Int16
Time Until Next Auto Battery Test	30448		2		Units : min Uint32
Battery Percentage Charge	30450		1		Units : % Uint16
Number of Discharge Cycles	30451		1		Uint16
Accumulated Discharge Time	30452		1	100	Units : hr

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
Low Battery Warning Time	30453		1		Units : min Uint16
Automatic Battery Test	30454		1		0 = disabled 1 = enabled
Battery Self Test Cycle Time	30455		1		Units : day Uint16
DC Bus Voltage	30456		1		Units : VDC Uint16
Battery Temperature	30457		1		Units : deg C Int16
Battery Temperature	30458		1		Units : deg F Int16
UPS Battery Status	30459		1		1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status.	30460		1		0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Positive DC Bus Voltage	30461		1		Units : VDC Uint16
Negative DC Bus Voltage	30462		1		Units : VDC Uint16
Battery Cabinets 1					
Battery Temperature for Cabinet	30473		1		Units : deg C Int16
Battery Temperature for Cabinet	30474		1		Units : deg F Int16
Battery Volts for Cabinet	30475		1		Units : VDC Uint16
Battery Cabinets 2					
Battery Temperature for Cabinet	30486		1		Units : deg C

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Int16
Battery Temperature for Cabinet	30487		1		Units : deg F Int16
Battery Volts for Cabinet	30488		1		Units : VDC Uint16
Battery Cabinets 8					
Battery Temperature for Cabinet	30564		1		Units : deg C Int16
Battery Temperature for Cabinet	30565		1		Units : deg F Int16
Battery Volts for Cabinet	30566		1		Units : VDC Uint16
Inverter					
Output Breaker	30577		1		0 = Open 1 = Close 2 = Not Installed
Inverter On/Off State	30578		1		0 = off 1 = on
Output					
System Output Voltage RMS A-N	30589		1		Units : VAC Uint16
System Output Voltage RMS B-N	30590		1		Units : VAC Uint16
System Output Voltage RMS C-N	30591		1		Units : VAC Uint16
System Output RMS Current Phs A	30592		1		Units : A AC Uint16
System Output RMS Current Phs B	30593		1		Units : A AC Uint16
System Output RMS Current Phs C	30594		1		Units : A AC Uint16
System Output Frequency	30595		1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30596		1		Units : VAC

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
System Output Voltage RMS B-C	30597		1		Units : VAC Uint16
System Output Voltage RMS C-A	30598		1		Units : VAC Uint16
System Output Power Factor Phs A	30599		1	100	Uint16
System Output Power Factor Phs B	30600		1	100	Uint16
System Output Power Factor Phs C	30601		1	100	Uint16
System Output Pct Power Phase A	30602		1		Units : % Uint16
System Output Pct Power Phase B	30603		1		Units : % Uint16
System Output Pct Power Phase C	30604		1		Units : % Uint16
MMS Output Apparent Power	30605		1		Units : kVA Uint16
MMS Output Power	30606		1		Units : kW Uint16
Output Current Crest Factor Phs A	30607		1	10	Uint16
Output Current Crest Factor Phs B	30608		1	10	Uint16
Output Current Crest Factor Phs C	30609		1	10	Uint16
System Output Power Phase A	30610		1		Units : kW Uint16
System Output Power Phase B	30611		1		Units : kW Uint16
System Output Power Phase C	30612		1		Units : kW Uint16
System Output Apparent Power Phs A	30613		1		Units : kVA Uint16
System Output Apparent Power Phs B	30614		1		Units : kVA Uint16
System Output Apparent Power Phs C	30615		1		Units : kVA Uint16
System Output Power	30616		1		Units : kW

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
System Output Apparent Power	30617		1		Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30618		1		Units : % Uint16
System Output Pct Pwr (VA) Phs B	30619		1		Units : % Uint16
System Output Pct Pwr (VA) Phs C	30620		1		Units : % Uint16
ECO Suspended Time Remaining	30621		1		Units : sec Uint16
System Output Nominal Voltage	30622		1		Units : VAC Uint16
System Output Nominal Frequency	30623		1	10	Units : Hz Uint16
Power Modules 1					
Power Module Sleep Status	30634		1		0 = Sleeping 1 = Not Sleeping
Power Module Ready Status	30635		1		0 = Not ready 1 = Ready
Module Operating Status	30636		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30637		1		0 = Inverter Inactive 1 = Inverter Active
Power Modules 2					
Power Module Sleep Status	30648		1		0 = Sleeping 1 = Not Sleeping
Power Module Ready Status	30649		1		0 = Not ready 1 = Ready
Module Operating Status	30650		1		0 = Normal 1 = Warning 2 = Alarm

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					4 = Fault
Inverter Status	30651		1		0 = Inverter Inactive 1 = Inverter Active
Power Modules 20					
Power Module Sleep Status	30900		1		0 = Sleeping 1 = Not Sleeping
Power Module Ready Status	30901		1		0 = Not ready 1 = Ready
Module Operating Status	30902		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30903		1		0 = Inverter Inactive 1 = Inverter Active
Bypass Control Module					
Power Module Bypass Input Frequency	30914		1	10	Units : Hz Uint16
Power Module Bypass Input Voltage RMS A-N	30915		1		Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-N	30916		1		Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-N	30917		1		Units : VAC Uint16
Power Module Bypass Input Voltage RMS A-B	30918		1		Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-C	30919		1		Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-A	30920		1		Units : VAC Uint16
System Status					
Application Mode For UPS	30931		1		0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode 10 = Frequency Converter Mode without Battery 11 = Dynamic Online Model
System Set To Operate With	30932		1		0 = No Redundancy 1 = Redundancy
Maintenance Bypass Breaker	30933		1		0 = Open 1 = Close 2 = Not Installed
MMS UPS Output Source	30934		1		1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Number Of Active Power Modules	30935		1		Uint16
Number of Installed Power Modules	30936		1		Uint16
Inlet Air Temperature	30937		1		Units : deg C Uint16
Inlet Air Temperature	30938		1		Units : deg F Uint16
Average system efficiency	30939		1	10	Units : % Uint16
System Configuration					
Total System Operating Time	30952		2		Units : hr Uint32
System Capacity	30954		1		Units : kVA Uint16
UPS Output Source	30955		1		1 = Other

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30956		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
1 Branch 1					
Branch Current	30967		1	10	Units : A AC Uint16
Branch Energy	30968		2	10	Units : kWH Uint32
Branch Breaker	30970		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	30971		1	100	Units : kW Uint16
Branch Apparent Power	30972		1	100	Units : kVA Uint16
Branch THDI	30973		1	10	Units : % THD Uint16
Branch Phase Current Load	30974		1	10	Units : % Uint16
Branch Current Rating	30975		1	10	Units : A AC Uint16
Branch Power Factor	30976		1	100	Int16
Branch Voltage	30977		1	10	Units : VAC Uint16
Group Identifier	30978		1		Uint16

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
1 Branch 2					
Branch Current	30989		1	10	Units : A AC Uint16
Branch Energy	30990		2	10	Units : kWH Uint32
Branch Breaker	30992		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	30993		1	100	Units : kW Uint16
Branch Apparent Power	30994		1	100	Units : kVA Uint16
Branch THDI	30995		1	10	Units : % THD Uint16
Branch Phase Current Load	30996		1	10	Units : % Uint16
Branch Current Rating	30997		1	10	Units : A AC Uint16
Branch Power Factor	30998		1	100	Int16
Branch Voltage	30999		1	10	Units : VAC Uint16
Group Identifier	31000		1		Uint16
1 Branch 24					
Branch Current	31473		1	10	Units : A AC Uint16
Branch Energy	31474		2	10	Units : kWH Uint32
Branch Breaker	31476		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	31477		1	100	Units : kW Uint16

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Branch Apparent Power	31478		1	100	Units : kVA Uint16
Branch THDI	31479		1	10	Units : % THD Uint16
Branch Phase Current Load	31480		1	10	Units : % Uint16
Branch Current Rating	31481		1	10	Units : A AC Uint16
Branch Power Factor	31482		1	100	Int16
Branch Voltage	31483		1	10	Units : VAC Uint16
Group Identifier	31484		1		Uint16
2 Branch 1					
Branch Current	31495		1	10	Units : A AC Uint16
Branch Energy	31496		2	10	Units : kWH Uint32
Branch Breaker	31498		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	31499		1	100	Units : kW Uint16
Branch Apparent Power	31500		1	100	Units : kVA Uint16
Branch THDI	31501		1	10	Units : % THD Uint16
Branch Phase Current Load	31502		1	10	Units : % Uint16
Branch Current Rating	31503		1	10	Units : A AC Uint16
Branch Power Factor	31504		1	100	Int16
Branch Voltage	31505		1	10	Units : VAC Uint16

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Group Identifier	31506		1		Uint16
2 Branch 2					
Branch Current	31517		1	10	Units : A AC Uint16
Branch Energy	31518		2	10	Units : kWH Uint32
Branch Breaker	31520		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	31521		1	100	Units : kW Uint16
Branch Apparent Power	31522		1	100	Units : kVA Uint16
Branch THDI	31523		1	10	Units : % THD Uint16
Branch Phase Current Load	31524		1	10	Units : % Uint16
Branch Current Rating	31525		1	10	Units : A AC Uint16
Branch Power Factor	31526		1	100	Int16
Branch Voltage	31527		1	10	Units : VAC Uint16
Group Identifier	31528		1		Uint16
2 Branch 24					
Branch Current	32001		1	10	Units : A AC Uint16
Branch Energy	32002		2	10	Units : kWH Uint32
Branch Breaker	32004		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	32005		1	100	Units : kW

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
Branch Apparent Power	32006		1	100	Units : kVA Uint16
Branch THDI	32007		1	10	Units : % THD Uint16
Branch Phase Current Load	32008		1	10	Units : % Uint16
Branch Current Rating	32009		1	10	Units : A AC Uint16
Branch Power Factor	32010		1	100	Int16
Branch Voltage	32011		1	10	Units : VAC Uint16
Group Identifier	32012		1		Uint16
3 Branch 1					
Branch Current	32023		1	10	Units : A AC Uint16
Branch Energy	32024		2	10	Units : kWH Uint32
Branch Breaker	32026		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	32027		1	100	Units : kW Uint16
Branch Apparent Power	32028		1	100	Units : kVA Uint16
Branch THDI	32029		1	10	Units : % THD Uint16
Branch Phase Current Load	32030		1	10	Units : % Uint16
Branch Current Rating	32031		1	10	Units : A AC Uint16
Branch Power Factor	32032		1	100	Int16
Branch Voltage	32033		1	10	Units : VAC

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
Group Identifier	32034		1		Uint16
3 Branch 2					
Branch Current	32045		1	10	Units : A AC Uint16
Branch Energy	32046		2	10	Units : kWH Uint32
Branch Breaker	32048		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Branch Active Power	32049		1	100	Units : kW Uint16
Branch Apparent Power	32050		1	100	Units : kVA Uint16
Branch THDI	32051		1	10	Units : % THD Uint16
Branch Phase Current Load	32052		1	10	Units : % Uint16
Branch Current Rating	32053		1	10	Units : A AC Uint16
Branch Power Factor	32054		1	100	Int16
Branch Voltage	32055		1	10	Units : VAC Uint16
Group Identifier	32056		1		Uint16
3 Branch 24					
Branch Current	32529		1	10	Units : A AC Uint16
Branch Energy	32530		2	10	Units : kWH Uint32
Branch Breaker	32532		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Branch Active Power	32533		1	100	Units : kW Uint16
Branch Apparent Power	32534		1	100	Units : kVA Uint16
Branch THDI	32535		1	10	Units : % THD Uint16
Branch Phase Current Load	32536		1	10	Units : % Uint16
Branch Current Rating	32537		1	10	Units : A AC Uint16
Branch Power Factor	32538		1	100	Int16
Branch Voltage	32539		1	10	Units : VAC Uint16
Group Identifier	32540		1		Uint16
SPM					
Input Source Switch	32551		1		0 = None 1 = ATS 2 = Breaker
ATS Status	32552		1		0 = Not Installed 1 = Channel 1 2 = Channel 2 3 = Unknown
Total Input Breaker Status	32553		1		0 = Open 1 = Closed 2 = Not Installed 3 = Unknown
Total Input Source 1					
Total Input RMS Current Phase A	32564		1	10	Units : A AC Uint16
Total Input RMS Current Phase B	32565		1	10	Units : A AC Uint16
Total Input RMS Current Phase C	32566		1	10	Units : A AC Uint16
Total Input Energy Phase A	32567		2	10	Units : kWH

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint32
Total Input Energy Phase B	32569		2	10	Units : kWH Uint32
Total Input Energy Phase C	32571		2	10	Units : kWH Uint32
Total Input Active Power Phase A	32573		1	100	Units : kW Uint16
Total Input Active Power Phase B	32574		1	100	Units : kW Uint16
Total Input Active Power Phase C	32575		1	100	Units : kW Uint16
Total Input Apparent Power Phase A	32576		1	100	Units : kVA Uint16
Total Input Apparent Power Phase B	32577		1	100	Units : kVA Uint16
Total Input Apparent Power Phase C	32578		1	100	Units : kVA Uint16
Total Input THDI Phase A	32579		1	10	Units : % THD Uint16
Total Input THDI Phase B	32580		1	10	Units : % THD Uint16
Total Input THDI Phase C	32581		1	10	Units : % THD Uint16
Input Current Rating	32582		1	10	Units : A AC Uint16
Total Input Current Load Phase A	32583		1	10	Units : % Uint16
Total Input Current Load Phase B	32584		1	10	Units : % Uint16
Total Input Current Load Phase C	32585		1	10	Units : % Uint16
Total Input Power Factor Phase A	32586		1	100	Int16
Total Input Power Factor Phase B	32587		1	100	Int16
Total Input Power Factor Phase C	32588		1	100	Int16

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Total Input Voltage Phase A	32589		1	10	Units : VAC Uint16
Total Input Voltage Phase B	32590		1	10	Units : VAC Uint16
Total Input Voltage Phase C	32591		1	10	Units : VAC Uint16
Total Input Frequency	32592		1	10	Units : Hz Uint16
Total Input THDU Phase A	32593		1	10	Units : % THD Uint16
Total Input THDU Phase B	32594		1	10	Units : % THD Uint16
Total Input THDU Phase C	32595		1	10	Units : % THD Uint16
Total Input Source 2					
Total Input RMS Current Phase A	32606		1	10	Units : A AC Uint16
Total Input RMS Current Phase B	32607		1	10	Units : A AC Uint16
Total Input RMS Current Phase C	32608		1	10	Units : A AC Uint16
Total Input Energy Phase A	32609		2	10	Units : kWH Uint32
Total Input Energy Phase B	32611		2	10	Units : kWH Uint32
Total Input Energy Phase C	32613		2	10	Units : kWH Uint32
Total Input Active Power Phase A	32615		1	100	Units : kW Uint16
Total Input Active Power Phase B	32616		1	100	Units : kW Uint16
Total Input Active Power Phase C	32617		1	100	Units : kW Uint16
Total Input Apparent Power Phase A	32618		1	100	Units : kVA

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
					Uint16
Total Input Apparent Power Phase B	32619		1	100	Units : kVA Uint16
Total Input Apparent Power Phase C	32620		1	100	Units : kVA Uint16
Total Input THDI Phase A	32621		1	10	Units : % THD Uint16
Total Input THDI Phase B	32622		1	10	Units : % THD Uint16
Total Input THDI Phase C	32623		1	10	Units : % THD Uint16
Input Current Rating	32624		1	10	Units : A AC Uint16
Total Input Current Load Phase A	32625		1	10	Units : % Uint16
Total Input Current Load Phase B	32626		1	10	Units : % Uint16
Total Input Current Load Phase C	32627		1	10	Units : % Uint16
Total Input Power Factor Phase A	32628		1	100	Int16
Total Input Power Factor Phase B	32629		1	100	Int16
Total Input Power Factor Phase C	32630		1	100	Int16
Total Input Voltage Phase A	32631		1	10	Units : VAC Uint16
Total Input Voltage Phase B	32632		1	10	Units : VAC Uint16
Total Input Voltage Phase C	32633		1	10	Units : VAC Uint16
Total Input Frequency	32634		1	10	Units : Hz Uint16
Total Input THDU Phase A	32635		1	10	Units : % THD Uint16
Total Input THDU Phase B	32636		1	10	Units : % THD Uint16

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Table 3.98 Liebert® APM 160—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Total Input THDU Phase C	32637		1	10	Units : % THD Uint16
SystemConfiguration					
System Date and Time	39998	49998	2		Units : Secs since Epoch(UTC)

Table 3.99 Liebert®APM 160—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
ATS Status	The status of ATS
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker Open Failure	Battery circuit breaker failed to open
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charge Status	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker Open	Battery circuit breaker is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Management System Fault	The Battery Management System has reported a Fault
Battery Management System General Warning	The Battery Management System has reported a General Warning

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
Battery Management System Rack is Offline Warning	The Battery Management System has reported a rack-is-offline warning
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminal Abnormal	Battery Terminal Abnormal
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Branch Active Power	The active power of the branch
Branch Apparent Power	The apparent power of the branch
Branch Breaker Fail	A failure has been detected with the branch breaker.
Branch Breaker	Branch Breaker
Branch Current Over HL	The current of pdu branch is over the high level.
Branch Current Over LL	The current of pdu branch is over the low level.
Branch Current Rating	The RMS current rating of the branch circuit breaker
Branch Current	The RMS current of the branch
Branch Energy	The total accumulated energy of the branch since the last reset
Branch Over Current	The PDU branch current is over limit.
Branch Phase Current Load	The percentage of phase RMS current to the rated capacity of the branch
Branch Power Factor	The ratio of real to apparent power for the branch
Branch THDI	Branch THDI
Branch Voltage	The voltage of the branch

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Control Module Not Available	The bypass control module is not available.
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Module Not Available	The bypass module is not available.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Unable to Trace	The voltage amplitude or frequency of bypass is out of the range of trace.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
External Input Breaker	The status of the external input breaker.
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Group Identifier	A runtime assigned group identification number
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Current Rating	The RMS current rating of input souce on one phase
Input Source Backfeed	The battery is backfeeding the input source.
Input Source Switch	Type of Input Source Switch
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Load Impact Transfer	On bypass as result of load impact.
Load on Bypass Union	The output power is supplied by the bypass and maintenance bypass.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker Open	UPS internal or external output breaker is open.
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Bypass Input Frequency	The bypass input frequency detected by power module
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral detected by power module
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Ready Status	Status of the inverter. Active means the inverter is ready to power the load. Inactive means the inverter is not ready to power the load.
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
SPM Board Not Ready	The Server Power Management sample board is not ready.
SPM CRC Check Error	Server Power Management CRC Check Error
SPM Internal Comm Failure	The communication with Server Power Management is lost.
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Total Input Active Power Phase A	The active power of the input source on Phase A.
Total Input Active Power Phase B	The active power of the input source on Phase B.
Total Input Active Power Phase C	The active power of the input source on Phase C.
Total Input Apparent Power Phase A	Total Input Apparent Power Phase A
Total Input Apparent Power Phase B	Total Input Apparent Power Phase B
Total Input Apparent Power Phase C	Total Input Apparent Power Phase C
Total Input Breaker Status	The status of total input breaker
Total Input Current Load Phase A	The percentage of RMS current to the rated capacity of Phase A.
Total Input Current Load Phase B	The percentage of RMS current to the rated capacity of Phase B.
Total Input Current Load Phase C	The percentage of RMS current to the rated capacity of Phase C.
Total Input Energy Phase A	The total accumulated energy for Phase A since the last reset.
Total Input Energy Phase B	The total accumulated energy for Phase B since the last reset.
Total Input Energy Phase C	The total accumulated energy for Phase C since the last reset.
Total Input Frequency	The input source phase frequency
Total Input Power Factor Phase A	The ratio of real to apparent power for input source Phase A.

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Table 3.99 Liebert®APM 160—Glossary (continued)

Data Label	Data Description
Total Input Power Factor Phase B	The ratio of real to apparent power for input source Phase B.
Total Input Power Factor Phase C	The ratio of real to apparent power for input source Phase C.
Total Input RMS Current Phase A	The RMS current for input source phase A
Total Input RMS Current Phase B	The RMS current for input source phase B
Total Input RMS Current Phase C	The RMS current for input source phase C
Total Input THDI Phase A	Total Input THDI Phase A
Total Input THDI Phase B	Total Input THDI Phase B
Total Input THDI Phase C	Total Input THDI Phase C
Total Input THDU Phase A	The input source Phase A THDU.
Total Input THDU Phase B	The input source Phase B THDU.
Total Input THDU Phase C	The input source Phase C THDU.
Total Input Voltage Phase A	The voltage of input source Phase A.
Total Input Voltage Phase B	The voltage of input source Phase B.
Total Input Voltage Phase C	The voltage of input source Phase C.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 3.100 Liebert® APM 600—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Power Problem	10003	—	1	Active on Alarm
Input Source Backfeed	10004	—	1	Active on Alarm
Bypass				

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Table 3.100 Liebert® APM 600—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Bypass Not Available	10015	—	1	Active on Alarm
Bypass Static Switch Unavailable	10016	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10017	—	1	Active on Alarm
UPS Output on Bypass	10018	—	1	Active on Alarm
Output Load on Maint. Bypass	10019	—	1	Active on Alarm
Bypass Input Voltage Fault	10020	—	1	Active on Alarm
Bypass Backfeed Detected	10021	—	1	Active on Alarm
Battery				
Main Battery Disconnect Open	10032	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10033	—	1	Active on Alarm
Battery Circuit Breaker 3 Open	10034	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10035	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10036	—	1	Active on Alarm
Battery Self Test	10037	—	1	Active on Alarm
Battery Charging Inhibited	10038	—	1	Active on Alarm
Battery Discharging	10039	—	1	Active on Alarm
Battery Manual Test In Progress	10040	—	1	Active on Alarm
Battery Auto Test In Progress	10041	—	1	Active on Alarm
Battery Test Passed	10042	—	1	Active on Alarm
Battery Test Failed	10043	—	1	Active on Alarm
Battery Over Temperature	10044	—	1	Active on Alarm
Battery Low	10045	—	1	Active on Alarm
Battery Ground Fault	10046	—	1	Active on Alarm
Battery Not Qualified	10047	—	1	Active on Alarm
Battery Terminals Reversed	10048	—	1	Active on Alarm
Battery Capacity Low	10049	—	1	Active on Alarm
Battery Converter Current Limit	10050	—	1	Active on Alarm
Battery Charge Equalization Timeout	10051	—	1	Active on Alarm
Battery Room Alarm	10052	—	1	Active on Alarm
Battery Breaker 1 Open Failure	10053	—	1	Active on Alarm
Battery Breaker 2 Open Failure	10054	—	1	Active on Alarm
Battery Breaker 3 Open Failure	10055	—	1	Active on Alarm

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Table 3.100 Liebert® APM 600—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Breaker 4 Open Failure	10056	—	1	Active on Alarm
Battery Equalize	10057	—	1	Active on Alarm
Battery Circuit Breaker Open	10058	—	1	Active on Alarm
Battery Breaker Open Failure	10059	—	1	Active on Alarm
Lithium-Ion Battery System				
Lithium-Ion Battery System Abnormal	10062	—	1	Active on Alarm
Lithium-Ion Battery System Disconnect Request	10063	—	1	Active on Alarm
Lithium-Ion Battery System Communication Abnormal	10064	—	1	Active on Alarm
Lithium-Ion Battery System Warning	10065	—	1	Active on Alarm
Lithium-Ion Battery System Fault	10066	—	1	Active on Alarm
Inverter				
Loss of Synchronization	10068	—	1	Active on Alarm
Output				
Output Overload	10079	—	1	Active on Alarm
System Output Fault	10080	—	1	Active on Alarm
System Output Off	10081	—	1	Active on Alarm
PowerModules 1				
Power Module Input Current Abnormal	10091	—	1	Active on Alarm
Rectifier Failure	10092	—	1	Active on Alarm
Inverter Failure	10093	—	1	Active on Alarm
DC Bus Abnormal	10094	—	1	Active on Alarm
Load Sharing Fault	10095	—	1	Active on Alarm
Inverter Relay Fault	10096	—	1	Active on Alarm
Battery Charging Error	10097	—	1	Active on Alarm
Battery Converter Failure	10098	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10099	—	1	Active on Alarm
Inverter Shutdown - Overload	10100	—	1	Active on Alarm
Power Module Fuse Failure	10101	—	1	Active on Alarm
Power Module Power Supply Failure	10102	—	1	Active on Alarm
Power Module Fan Fault	10103	—	1	Active on Alarm
Power Module Over Temperature	10104	—	1	Active on Alarm
Power Module Lever Unlocked	10105	—	1	Active on Alarm

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Table 3.100 Liebert® APM 600—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Communication status	10106	—	1	Active on Alarm
PowerModules 2				
Power Module Input Current Abnormal	10115	—	1	Active on Alarm
Rectifier Failure	10116	—	1	Active on Alarm
Inverter Failure	10117	—	1	Active on Alarm
DC Bus Abnormal	10118	—	1	Active on Alarm
Load Sharing Fault	10119	—	1	Active on Alarm
Inverter Relay Fault	10120	—	1	Active on Alarm
Battery Charging Error	10121	—	1	Active on Alarm
Battery Converter Failure	10122	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10123	—	1	Active on Alarm
Inverter Shutdown - Overload	10124	—	1	Active on Alarm
Power Module Fuse Failure	10125	—	1	Active on Alarm
Power Module Power Supply Failure	10126	—	1	Active on Alarm
Power Module Fan Fault	10127	—	1	Active on Alarm
Power Module Over Temperature	10128	—	1	Active on Alarm
Power Module Lever Unlocked	10129	—	1	Active on Alarm
Power Module Communication status	10130	—	1	Active on Alarm
PowerModules 20				
Power Module Input Current Abnormal	10547	—	1	Active on Alarm
Rectifier Failure	10548	—	1	Active on Alarm
Inverter Failure	10549	—	1	Active on Alarm
DC Bus Abnormal	10550	—	1	Active on Alarm
Load Sharing Fault	10551	—	1	Active on Alarm
Inverter Relay Fault	10552	—	1	Active on Alarm
Battery Charging Error	10553	—	1	Active on Alarm
Battery Converter Failure	10554	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10555	—	1	Active on Alarm
Inverter Shutdown - Overload	10556	—	1	Active on Alarm
Power Module Fuse Failure	10557	—	1	Active on Alarm
Power Module Power Supply Failure	10558	—	1	Active on Alarm
Power Module Fan Fault	10559	—	1	Active on Alarm

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Table 3.100 Liebert® APM 600—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Over Temperature	10560	—	1	Active on Alarm
Power Module Lever Unlocked	10561	—	1	Active on Alarm
Power Module Communication status	10562	—	1	Active on Alarm
System Status				
Loss of Redundancy	10571	—	1	Active on Alarm
Parallel Cable Failure	10572	—	1	Active on Alarm
LBS Cable Failure	10573	—	1	Active on Alarm
Transfer to Bypass - System Overload	10574	—	1	Active on Alarm
Excess ECO Suspends	10575	—	1	Active on Alarm
User Operation Invalid	10576	—	1	Active on Alarm
Load Impact Transfer	10577	—	1	Active on Alarm
Internal Communications Failure	10578	—	1	Active on Alarm
MMS Overload	10579	—	1	Active on Alarm
Parallel Comm Warning	10580	—	1	Active on Alarm
Equipment Over Temperature	10581	—	1	Active on Alarm
LBS Inhibited	10582	—	1	Active on Alarm
On Generator	10583	—	1	Active on Alarm
LBS Active	10584	—	1	Active on Alarm
System Shutdown - EPO	10585	—	1	Active on Alarm
Top Outlet Fan Fault	10586	—	1	Active on Alarm
Hardware Mismatch	10587	—	1	Active on Alarm
MMS Capacity Exceeded	10588	—	1	Active on Alarm
Fuse Failure	10589	—	1	Active on Alarm

Table 3.101 Liebert® APM 600—Input and Holding

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16
System Input RMS C-A	30387	—	1	—	Units : VAC Uint16

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
System Input RMS A-N	30392	—	1	—	Units : VAC Uint16
System Input RMS B-N	30393	—	1	—	Units : VAC Uint16
System Input RMS C-N	30394	—	1	—	Units : VAC Uint16
System Input Power Factor Phs A	30395	—	1	100	Uint16
System Input Power Factor Phs B	30396	—	1	100	Uint16
System Input Power Factor Phs C	30397	—	1	100	Uint16
System Input Nominal Voltage	30398	—	1	—	Units : VAC
Uint16					
System Input Nominal Frequency	30399	—	1	10	Units : Hz
Uint16					
System Input Nominal Current	30400	—	1	—	Units : A AC Uint16
System Input Brown Out Count	30401	—	1	—	Uint16
System Input Black Out Count	30402	—	1	—	Uint16
Input Breaker	30403	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Input Power Phase A	30404	—	1	—	Units : kW Uint16
System Input Power Phase B	30405	—	1	—	Units : kW Uint16
System Input Power Phase C	30406	—	1	—	Units : kW Uint16
System Input Apparent Power Phs A	30407	—	1	—	Units : kVA Uint16
System Input Apparent Power Phs B	30408	—	1	—	Units : kVA Uint16

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
System Input Apparent Power Phs C	30409	—	1	—	Units : kVA Uint16
Bypass					
Bypass Input Voltage RMS A-N	30414	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30415	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30416	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30417	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30418	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30419	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30420	—	1	—	Units : VAC Uint16
Bypass Nominal Voltage	30421	—	1	—	Units : VAC Uint16
External Bypass Breaker	30422	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Power Phase A	30423	—	1	—	Units : kW Uint16
Bypass Power Phase B	30424	—	1	—	Units : kW Uint16
Bypass Power Phase C	30425	—	1	—	Units : kW Uint16
Bypass Apparent Power Phase A	30426	—	1	—	Units : kVA Uint16
Bypass Apparent Power Phase B	30427	—	1	—	Units : kVA Uint16
Bypass Apparent Power Phase C	30428	—	1	—	Units : kVA Uint16
Battery					
Battery Time Remaining	30433	—	1	—	Units : min Uint16
DC Bus Current	30434	—	1	—	Units : A DC Int16
Time Until Next Auto Battery Test	30435	—	2	—	Units : min Uint32

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Battery Percentage Charge	30437	—	1	—	Units : % Uint16
Number of Discharge Cycles	30438	—	1	—	Uint16
Accumulated Discharge Time	30439	—	1	—	Units : hr Uint16
Low Battery Warning Time	30440	—	1	—	Units : min Uint16
UPS Battery Status	30441	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery charge status.	30442	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Automatic Battery Test	30443	—	1	—	0 = disabled 1 = enabled
Battery Self Test Cycle Time	30444	—	1	—	Units : day Uint16
DC Bus Voltage	30445	—	1	—	Units : VDC Uint16
Battery Temperature	30446	—	1	—	Units : deg C Int16
Battery Temperature	30447	—	1	—	Units : deg F Int16
Positive DC Bus Voltage	30448	—	1	—	Units : VDC Uint16
Negative DC Bus Voltage	30449	—	1	—	Units : VDC Uint16
Battery Cabinets 1					
Battery Temperature for Cabinet	30458	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30459	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30460	—	1	—	Units : VDC Uint16
Battery Cabinets 2					
Battery Temperature for Cabinet	30471	—	1	—	Units : deg C Int16

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
Battery Temperature for Cabinet	30472	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30473	—	1	—	Units : VDC Uint16
Battery Cabinets 12					
Battery Temperature for Cabinet	30954	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30955	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30956	—	1	—	Units : VDC Uint16
Lithium-Ion Battery System					
Lithium-Ion Battery System Status	30557	—	1	—	0 = offline 1 = online
Inverter					
Output Breaker	30562	—	1	—	0 = Open 1 = Close 2 = Not Installed
Inverter On/Off State	30563	—	1	—	0 = off 1 = on
Output					
System Output Voltage RMS A-N	30574	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30575	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30576	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30577	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30578	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30579	—	1	—	Units : A AC Uint16
System Output Frequency	30580	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30581	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30582	—	1	—	Units : VAC Uint16

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
System Output Voltage RMS C-A	30583	—	1	—	Units : VAC Uint16
System Output Power Factor Phs A	30584	—	1	100	Uint16
System Output Power Factor Phs B	30585	—	1	100	Uint16
System Output Power Factor Phs C	30586	—	1	100	Uint16
System Output Pct Power Phase A	30587	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30588	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30589	—	1	—	Units : % Uint16
MMS Output Apparent Power	30590	—	1	—	Units : kVA Uint16
MMS Output Power	30591	—	1	—	Units : kW Uint16
Output Current Crest Factor Phs A	30592	—	1	10	Uint16
Output Current Crest Factor Phs B	30593	—	1	10	Uint16
Output Current Crest Factor Phs C	30594	—	1	10	Uint16
System Output Power Phase A	30595	—	1	—	Units : kW Uint16
System Output Power Phase B	30596	—	1	—	Units : kW Uint16
System Output Power Phase C	30597	—	1	—	Units : kW Uint16
System Output Apparent Power Phs A	30598	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs B	30599	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs C	30600	—	1	—	Units : kVA Uint16
System Output Power	30601	—	1	—	Units : kW Uint16
System Output Apparent Power	30602	—	1	—	Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30603	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30604	—	1	—	Units : % Uint16

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
System Output Pct Pwr (VA) Phs C	30605	—	1	—	Units : % Uint16
System Output Nominal Voltage	30606	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30607	—	1	10	Units : Hz Uint16
ECO Suspended Time Remaining	30608	—	1	—	Units : sec Uint16
PowerModules 1					
Power Module Sleep Status	30618	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30619	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30620	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Power Module Ready Status	30621	—	1	—	0 = Not ready 1 = Ready
PowerModules 2					
Power Module Sleep Status	30631	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30632	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30633	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Power Module Ready Status	30634	—	1	—	0 = Not ready 1 = Ready
PowerModules 20					
Power Module Sleep Status	30865	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30866	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30867	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Power Module Ready Status	30868	—	1	—	0 = Not ready 1 = Ready

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
BypassControlModule					
Power Module Bypass Input Frequency	30878	—	1	10	Units : Hz Uint16
Power Module Bypass Input Voltage RMS A-N	30879	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-N	30880	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-N	30881	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS A-B	30882	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-C	30883	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-A	30884	—	1	—	Units : VAC Uint16
System Status					
System Set To Operate With	30895	—	1	—	0 = No Redundancy 1 = Redundancy
Number Of Active Power Modules	30896	—	1	—	Uint16
Number of Installed Power Modules	30897	—	1	—	Uint16
Inlet Air Temperature	30898	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30899	—	1	—	Units : deg F Uint16
Average system efficiency	30900	—	1	10	Units : % Uint16
Maintenance Bypass Breaker	30901	—	1	—	0 = Open 1 = Close 2 = Not Installed
ECO Mode Operation State	30902	—	1	—	0 = disabled 1 = enabled
UPS Application Mode	30903	—	1	—	0 = UPS Mode 1 = Frequency converter mode Only supported in FDM Version 28

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Table 3.101 Liebert® APM 600—Input and Holding (continued)

Data Label	Status	Coil	Number of Bits	Notes / Units	Data Label
MMS UPS Output Source	30904	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	30905	—	1	—	0 = disabled 1 = enabled
Application Mode For UPS	30906	—	1	—	0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo 4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode
System Configuration					
Total System Operating Time	30916	—	2	—	Units : hr Uint32
System Capacity	30918	—	1	—	Units : kVA Uint16
UPS Output Source	30919	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30920	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
SystemConfiguration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.102 Liebert® APM 600—Glossary

Data Label	Data Description
(Deprecated) UPS Application Mode	(Deprecated) UPS application mode. This data point has been replaced and should no longer be used.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker Open Failure	Battery circuit breaker failed to open
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker Open	Battery circuit breaker is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
Fuse Failure	A summary event indicating one or more fuse failures
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Lithium-Ion Battery System Communication Abnormal	Lithium-Ion Battery System Communication Abnormal
Lithium-Ion Battery System Disconnect Request	A request to disconnect the Lithium-Ion battery system was received.
Lithium-Ion Battery System Fault	The Lithium-Ion Battery system has one or more faults.
Lithium-Ion Battery System Status	Lithium-Ion Battery System Status

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
Lithium-Ion Battery System Warning	The Lithium-Ion Battery system has one or more warnings.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Bypass Input Frequency	The bypass input frequency detected by power module
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral detected by power module
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Ready Status	Status of the inverter. Active means the inverter is ready to power the load. Inactive means the inverter is not ready to power the load.
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B

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Table 3.102 Liebert® APM 600—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 3.103 Liebert® APM2—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Power Problem	10003	—	1	Active on Alarm
Input Under Voltage	10004	—	1	Active on Alarm
Input Source Backfeed	10005	—	1	Active on Alarm
Input Surge Protection Device Alarm	10640	—	1	Active on Alarm
Bypass				
Bypass out of sync	10006	—	1	Active on Alarm
Bypass Input Voltage Fault	10007	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Backfeed Breaker Open	10008	—	1	Active on Alarm
Maintenance Bypass Breaker Closed	10009	—	1	Active on Alarm
System Bypass Phase Rotation Error	10010	—	1	Active on Alarm
Bypass Surge Protection Device Alarm	10641	—	1	Active on Alarm
Output				
Output Overload	10011	—	1	Active on Alarm
System Output Fault	10012	—	1	Active on Alarm
Module Output Breaker Open	10013	—	1	Active on Alarm
System Control Card 1				
System Control Card Not Ready	10014	—	1	Active on Alarm
System Control Card Power Supply Failure	10015	—	1	Active on Alarm
System Control Card Communication Fail	10016	—	1	Active on Alarm
System Control Card 2				
System Control Card Not Ready	10017	—	1	Active on Alarm
System Control Card Power Supply Failure	10018	—	1	Active on Alarm
System Control Card Communication Fail	10019	—	1	Active on Alarm
Bypass Module				
Bypass Module Not Ready	10020	—	1	Active on Alarm
Bypass Module Power Supply Failure	10021	—	1	Active on Alarm
Bypass Module Communication Fault	10022	—	1	Active on Alarm
Bypass Static Switch Unavailable	10023	—	1	Active on Alarm
Bypass Backfeed Detected	10024	—	1	Active on Alarm
Bypass controlling the SCR autonomously	10025	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10026	—	1	Active on Alarm
Bypass Module Over Temperature	10027	—	1	Active on Alarm
Bypass Module Fan Fault	10028	—	1	Active on Alarm
Power Module 1				
Power Module Not Ready	10029	—	1	Active on Alarm
Power Module Power Supply Failure	10030	—	1	Active on Alarm
Power Module Communication status	10031	—	1	Active on Alarm
Power Module Fuse Failure	10032	—	1	Active on Alarm
Power Module Fan Fault	10033	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Over Temperature	10034	—	1	Active on Alarm
Power Module 2				
Power Module Not Ready	10035	—	1	Active on Alarm
Power Module Power Supply Failure	10036	—	1	Active on Alarm
Power Module Communication status	10037	—	1	Active on Alarm
Power Module Fuse Failure	10038	—	1	Active on Alarm
Power Module Fan Fault	10039	—	1	Active on Alarm
Power Module Over Temperature	10040	—	1	Active on Alarm
Power Module 10				
Power Module Not Ready	10083	—	1	Active on Alarm
Power Module Power Supply Failure	10084	—	1	Active on Alarm
Power Module Communication status	10085	—	1	Active on Alarm
Power Module Fuse Failure	10086	—	1	Active on Alarm
Power Module Fan Fault	10087	—	1	Active on Alarm
Power Module Over Temperature	10088	—	1	Active on Alarm
Rectifier 1				
Power Module Input Current Abnormal	10089	—	1	Active on Alarm
Power Module Input Current High	10090	—	1	Active on Alarm
Rectifier Failure	10091	—	1	Active on Alarm
Rectifier 2				
Power Module Input Current Abnormal	10092	—	1	Active on Alarm
Power Module Input Current High	10093	—	1	Active on Alarm
Rectifier Failure	10094	—	1	Active on Alarm
Rectifier 10				
Power Module Input Current Abnormal	10116	—	1	Active on Alarm
Power Module Input Current High	10117	—	1	Active on Alarm
Rectifier Failure	10118	—	1	Active on Alarm
DC Bus 1				
DC Bus Abnormal	10119	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10120	—	1	Active on Alarm
DC Bus 2				
DC Bus Abnormal	10121	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Balancer of DC Bus Failure	10122	—	1	Active on Alarm
DC Bus 10				
DC Bus Abnormal	10137	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10138	—	1	Active on Alarm
Inverter 1				
Load Sharing Fault	10139	—	1	Active on Alarm
Inverter Relay Fault	10140	—	1	Active on Alarm
Inverter Shutdown - Overload	10141	—	1	Active on Alarm
Loss of Synchronization	10142	—	1	Active on Alarm
Inverter Failure	10143	—	1	Active on Alarm
Inverter 2				
Load Sharing Fault	10144	—	1	Active on Alarm
Inverter Relay Fault	10145	—	1	Active on Alarm
Inverter Shutdown - Overload	10146	—	1	Active on Alarm
Loss of Synchronization	10147	—	1	Active on Alarm
Inverter Failure	10148	—	1	Active on Alarm
Inverter 10				
Load Sharing Fault	10184		1	Active on Alarm
Inverter Relay Fault	10185	—	1	Active on Alarm
Inverter Shutdown - Overload	10186	—	1	Active on Alarm
Loss of Synchronization	10187	—	1	Active on Alarm
Inverter Failure	10188	—	1	Active on Alarm
Charger 1				
Charger Failure	10189	—	1	Active on Alarm
Charger 2				
Charger Failure	10190	—	1	Active on Alarm
Charger 10				
Charger Failure	10198	—	1	Active on Alarm
Discharger 1				
Discharger Failure	10199	—	1	Active on Alarm
Discharger Shutdown	10200	—	1	Active on Alarm
Battery Converter Current Limit	10201	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Discharger 2				
Discharger Failure	10202	—	1	Active on Alarm
Discharger Shutdown	10203	—	1	Active on Alarm
Battery Converter Current Limit	10204	—	1	Active on Alarm
Discharger 10				
Discharger Failure	10226	—	1	Active on Alarm
Discharger Shutdown	10227	—	1	Active on Alarm
Battery Converter Current Limit	10228	—	1	Active on Alarm
Multi Module				
Parallel Cable Failure	10229	—	1	Active on Alarm
Parallel Comm Warning	10230	—	1	Active on Alarm
MMS Capacity Exceeded	10231	—	1	Active on Alarm
Loss of Redundancy	10232	—	1	Active on Alarm
System Status				
Hardware Mismatch	10233	—	1	Active on Alarm
LBS Cable Failure	10234	—	1	Active on Alarm
Transfer to Bypass - System Overload	10235	—	1	Active on Alarm
Excess ECO Suspends	10236	—	1	Active on Alarm
User Operation Invalid	10237	—	1	Active on Alarm
Load Impact Transfer	10238	—	1	Active on Alarm
Internal Communications Failure	10239	—	1	Active on Alarm
Equipment Over Temperature	10240	—	1	Active on Alarm
LBS Inhibited	10241	—	1	Active on Alarm
On Generator	10242	—	1	Active on Alarm
LBS Active	10243	—	1	Active on Alarm
System Shutdown - EPO	10244	—	1	Active on Alarm
Fuse Failure	10245	—	1	Active on Alarm
Ground Fault	10246	—	1	Active on Alarm
System Fan Failure	10247	—	1	Active on Alarm
Parameter Configuration Failed	10248	—	1	Active on Alarm
System Output Off	10249	—	1	Active on Alarm
Output Disabled	10250	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Top Outlet Fan Fault	10251	—	1	Active on Alarm
ECO mode Inhibited	10252	—	1	Active on Alarm
Inverter Transfer Inhibit - Ext	10253	—	1	Active on Alarm
UPS Output on Bypass	10254	—	1	Active on Alarm
Output Load on Maint. Bypass	10255	—	1	Active on Alarm
Transformer Overtemperature	10256	—	1	Active on Alarm
System Control Cards Missing	10642	—	1	Active on Alarm
Loss of Control Redundancy	10643	—	1	Active on Alarm
Battery System				
Battery Self Test	10257	—	1	Active on Alarm
Battery Charging Inhibited	10258	—	1	Active on Alarm
Battery Discharging	10259	—	1	Active on Alarm
Battery Manual Test In Progress	10260	—	1	Active on Alarm
Battery Auto Test In Progress	10261	—	1	Active on Alarm
Battery Test Failed	10262	—	1	Active on Alarm
Battery Low	10263	—	1	Active on Alarm
Battery Ground Fault	10264	—	1	Active on Alarm
Battery Not Qualified	10265	—	1	Active on Alarm
Battery Terminals Reversed	10266	—	1	Active on Alarm
Replace Battery	10267	—	1	Active on Alarm
Battery Charge Equalization Timeout	10268	—	1	Active on Alarm
Battery Room Alarm	10269	—	1	Active on Alarm
Battery Equalize	10270	—	1	Active on Alarm
Battery Terminal Abnormal	10271	—	1	Active on Alarm
Battery System Communication Abnormal	10272	—	1	Active on Alarm
Battery System Warning	10273	—	1	Active on Alarm
Battery System Fault	10274	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10275	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10276	—	1	Active on Alarm
Battery Circuit Breaker 3 Open	10277	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10278	—	1	Active on Alarm
Battery Circuit Breaker 5 Open	10279	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Circuit Breaker 6 Open	10280	—	1	Active on Alarm
Battery Circuit Breaker 7 Open	10281	—	1	Active on Alarm
Battery Circuit Breaker 8 Open	10282	—	1	Active on Alarm
Battery Circuit Breaker 9 Open	10283	—	1	Active on Alarm
Battery Circuit Breaker 10 Open	10284	—	1	Active on Alarm
Battery Circuit Breaker 11 Open	10285	—	1	Active on Alarm
Battery Circuit Breaker 12 Open	10286	—	1	Active on Alarm
Battery Breaker 1 Open Failure	10287	—	1	Active on Alarm
Battery Breaker 2 Open Failure	10288	—	1	Active on Alarm
Battery Breaker 3 Open Failure	10289	—	1	Active on Alarm
Battery Breaker 4 Open Failure	10290	—	1	Active on Alarm
Battery Breaker 5 Open Failure	10291	—	1	Active on Alarm
Battery Breaker 6 Open Failure	10292	—	1	Active on Alarm
Battery Breaker 7 Open Failure	10293	—	1	Active on Alarm
Battery Breaker 8 Open Failure	10294	—	1	Active on Alarm
Battery Breaker 9 Open Failure	10295	—	1	Active on Alarm
Battery Breaker 10 Open Failure	10296	—	1	Active on Alarm
Battery Breaker 11 Open Failure	10297	—	1	Active on Alarm
Battery Breaker 12 Open Failure	10298	—	1	Active on Alarm
Main Battery Circuit Breaker is Open	10644	—	1	Active on Alarm
Main Battery Breaker Open Failure	10645	—	1	Active on Alarm
Battery Cabinet 2				
Battery Cabinet High Overall Voltage	10312	—	1	Active on Alarm
Battery Cabinet Low Overall Voltage	10313	—	1	Active on Alarm
Battery Cabinet High Cell Voltage	10314	—	1	Active on Alarm
Battery Cabinet Low Cell Voltage	10315	—	1	Active on Alarm
Battery Cabinet Over Overall Voltage	10316	—	1	Active on Alarm
Battery Cabinet Under Overall Voltage	10317	—	1	Active on Alarm
Battery Cabinet Over Cell Voltage	10318	—	1	Active on Alarm
Battery Cabinet Under Cell Voltage	10319	—	1	Active on Alarm
Battery Cabinet Charge Over Current	10320	—	1	Active on Alarm
Battery Cabinet Discharge Over Current	10321	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Cabinet Over Temperature	10322	—	1	Active on Alarm
Battery Cabinet Under Temperature	10323	—	1	Active on Alarm
Battery Temperature Sensor Fault	10324	—	1	Active on Alarm
Battery Cabinet 3				
Battery Cabinet High Overall Voltage	10325	—	1	Active on Alarm
Battery Cabinet Low Overall Voltage	10326	—	1	Active on Alarm
Battery Cabinet High Cell Voltage	10327	—	1	Active on Alarm
Battery Cabinet Low Cell Voltage	10328	—	1	Active on Alarm
Battery Cabinet Over Overall Voltage	10329	—	1	Active on Alarm
Battery Cabinet Under Overall Voltage	10330	—	1	Active on Alarm
Battery Cabinet Over Cell Voltage	10331	—	1	Active on Alarm
Battery Cabinet Under Cell Voltage	10332	—	1	Active on Alarm
Battery Cabinet Charge Over Current	10333	—	1	Active on Alarm
Battery Cabinet Discharge Over Current	10334	—	1	Active on Alarm
Battery Cabinet Over Temperature	10335	—	1	Active on Alarm
Battery Cabinet Under Temperature	10336	—	1	Active on Alarm
Battery Temperature Sensor Fault	10337	—	1	Active on Alarm
Battery Cabinet 9				
Battery Cabinet High Overall Voltage	10403	—	1	Active on Alarm
Battery Cabinet Low Overall Voltage	10404	—	1	Active on Alarm
Battery Cabinet High Cell Voltage	10405	—	1	Active on Alarm
Battery Cabinet Low Cell Voltage	10406	—	1	Active on Alarm
Battery Cabinet Over Overall Voltage	10407	—	1	Active on Alarm
Battery Cabinet Under Overall Voltage	10408	—	1	Active on Alarm
Battery Cabinet Over Cell Voltage	10409	—	1	Active on Alarm
Battery Cabinet Under Cell Voltage	10410	—	1	Active on Alarm
Battery Cabinet Charge Over Current	10411	—	1	Active on Alarm
Battery Cabinet Discharge Over Current	10412	—	1	Active on Alarm
Battery Cabinet Over Temperature	10413	—	1	Active on Alarm
Battery Cabinet Under Temperature	10414	—	1	Active on Alarm
Battery Temperature Sensor Fault	10415	—	1	Active on Alarm
Battery Cabinet 1 Battery Module 1				

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Module Disconnected	10416	—	1	Active on Alarm
Battery Module Over Temperature	10417	—	1	Active on Alarm
Battery Cabinet 1 Battery Module 2				
Battery Module Disconnected	10418	—	1	Active on Alarm
Battery Module Over Temperature	10419	—	1	Active on Alarm
Battery Cabinet 1 Battery Module 16				
Battery Module Disconnected	10446	—	1	Active on Alarm
Battery Module Over Temperature	10447	—	1	Active on Alarm
Lithium-Ion Battery Module 1				
Battery Module High Overall Voltage	10448	—	1	Active on Alarm
Battery Module Low Overall Voltage	10449	—	1	Active on Alarm
Battery Module High Cell Voltage	10450	—	1	Active on Alarm
Battery Module Low Cell Voltage	10451	—	1	Active on Alarm
Battery Module Over Overall Voltage	10452	—	1	Active on Alarm
Battery Module Under Overall Voltage	10453	—	1	Active on Alarm
Battery Module Over Cell Voltage	10454	—	1	Active on Alarm
Battery Module Under Cell Voltage	10455	—	1	Active on Alarm
Battery Module Charge Over Current	10456	—	1	Active on Alarm
Battery Module Discharge Over Current	10457	—	1	Active on Alarm
Battery Module Under Temperature	10458	—	1	Active on Alarm
Battery Module Fault	10459	—	1	Active on Alarm
Battery Module Not Ready	10646	—	1	Active on Alarm
Battery Module Balancing Abnormal	10647	—	1	Active on Alarm
Lithium-Ion Battery Module 2				
Battery Module High Overall Voltage	10460	—	1	Active on Alarm
Battery Module Low Overall Voltage	10461	—	1	Active on Alarm
Battery Module High Cell Voltage	10462	—	1	Active on Alarm
Battery Module Low Cell Voltage	10463	—	1	Active on Alarm
Battery Module Over Overall Voltage	10464	—	1	Active on Alarm
Battery Module Under Overall Voltage	10465	—	1	Active on Alarm
Battery Module Over Cell Voltage	10466	—	1	Active on Alarm
Battery Module Under Cell Voltage	10467	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Module Charge Over Current	10468	—	1	Active on Alarm
Battery Module Discharge Over Current	10469	—	1	Active on Alarm
Battery Module Under Temperature	10470	—	1	Active on Alarm
Battery Module Fault	10471	—	1	Active on Alarm
Battery Module Not Ready	10648	—	1	Active on Alarm
Battery Module Balancing Abnormal	10649	—	1	Active on Alarm
Lithium-Ion Battery Module 16				
Battery Module High Overall Voltage	10628	—	1	Active on Alarm
Battery Module Low Overall Voltage	10629	—	1	Active on Alarm
Battery Module High Cell Voltage	10630	—	1	Active on Alarm
Battery Module Low Cell Voltage	10631	—	1	Active on Alarm
Battery Module Over Overall Voltage	10632	—	1	Active on Alarm
Battery Module Under Overall Voltage	10633	—	1	Active on Alarm
Battery Module Over Cell Voltage	10634	—	1	Active on Alarm
Battery Module Under Cell Voltage	10635	—	1	Active on Alarm
Battery Module Charge Over Current	10636	—	1	Active on Alarm
Battery Module Discharge Over Current	10637	—	1	Active on Alarm
Battery Module Under Temperature	10638	—	1	Active on Alarm
Battery Module Fault	10639	—	1	Active on Alarm
Battery Module Not Ready	10676	—	1	Active on Alarm
Battery Module Balancing Abnormal	10677	—	1	Active on Alarm
Battery String 1				
Battery String High Overall Voltage	10678	—	1	Active on Alarm
Battery String Low Overall Voltage	10679	—	1	Active on Alarm
Battery String High Cell Voltage	10680	—	1	Active on Alarm
Battery String Low Cell Voltage	10681	—	1	Active on Alarm
Battery String Over Overall Voltage	10682	—	1	Active on Alarm
Battery String Under Overall Voltage	10683	—	1	Active on Alarm
Battery String Over Cell Voltage	10684	—	1	Active on Alarm
Battery String Under Cell Voltage	10685	—	1	Active on Alarm
Battery String Charge Over Current	10686	—	1	Active on Alarm
Battery String Discharge Over Current	10687	—	1	Active on Alarm

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Table 3.103 Liebert® APM2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery String Over Temperature	10688	—	1	Active on Alarm
Battery String Under Temperature	10689	—	1	Active on Alarm
Battery String 2				
Battery String High Overall Voltage	10690	—	1	Active on Alarm
Battery String Low Overall Voltage	10691	—	1	Active on Alarm
Battery String High Cell Voltage	10692	—	1	Active on Alarm
Battery String Low Cell Voltage	10693	—	1	Active on Alarm
Battery String Over Overall Voltage	10694	—	1	Active on Alarm
Battery String Under Overall Voltage	10695	—	1	Active on Alarm
Battery String Over Cell Voltage	10696	—	1	Active on Alarm
Battery String Under Cell Voltage	10697	—	1	Active on Alarm
Battery String Charge Over Current	10698	—	1	Active on Alarm
Battery String Discharge Over Current	10699	—	1	Active on Alarm
Battery String Over Temperature	10700	—	1	Active on Alarm
Battery String Under Temperature	10701	—	1	Active on Alarm
Battery String 12				
Battery String High Overall Voltage	10810	—	1	Active on Alarm
Battery String Low Overall Voltage	10811	—	1	Active on Alarm
Battery String High Cell Voltage	10812	—	1	Active on Alarm
Battery String Low Cell Voltage	10813	—	1	Active on Alarm
Battery String Over Overall Voltage	10814	—	1	Active on Alarm
Battery String Under Overall Voltage	10815	—	1	Active on Alarm
Battery String Over Cell Voltage	10816	—	1	Active on Alarm
Battery String Under Cell Voltage	10817	—	1	Active on Alarm
Battery String Charge Over Current	10818	—	1	Active on Alarm
Battery String Discharge Over Current	10819	—	1	Active on Alarm
Battery String Over Temperature	10820	—	1	Active on Alarm
Battery String Under Temperature	10821	—	1	Active on Alarm

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Table 3.104 Liebert® APM2—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30001	—	1	—	Units : VAC Uint16
System Input RMS B-C	30002	—	1	—	Units : VAC Uint16
System Input RMS C-A	30003	—	1	—	Units : VAC Uint16
System Input RMS A-N	30004	—	1	—	Units : VAC Uint16
System Input RMS B-N	30005	—	1	—	Units : VAC Uint16
System Input RMS C-N	30006	—	1	—	Units : VAC Uint16
System Input RMS Current Phase A	30007	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30008	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30009	—	1	—	Units : A AC Uint16
System Input Frequency	30010	—	1	10	Units : Hz Uint16
System Input Power Factor Phs A	30011	—	1	100	Uint16
System Input Power Factor Phs B	30012	—	1	100	Uint16
System Input Power Factor Phs C	30013	—	1	100	Uint16
System Input Power Phase A	30014	—	1	10	Units : kW Uint16
System Input Power Phase B	30015	—	1	10	Units : kW Uint16
System Input Power Phase C	30016	—	1	10	Units : kW Uint16
System Input Apparent Power Phs A	30017	—	1	10	Units : kVA Uint16
System Input Apparent Power Phs B	30018	—	1	10	Units : kVA Uint16
System Input Apparent Power Phs C	30019	—	1	10	Units : kVA

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
System Input Brown Out Count	30020	—	1	—	Uint16
System Input Black Out Count	30021	—	1	—	Uint16
Rectifier Isolation Breaker	30022	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-B	30023	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30024	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30025	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS A-N	30026	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30027	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30028	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30029	—	1	10	Units : Hz Uint16
Bypass Power Phase A	30030	—	1	10	Units : kW Uint16
Bypass Power Phase B	30031	—	1	10	Units : kW Uint16
Bypass Power Phase C	30032	—	1	10	Units : kW Uint16
Bypass Apparent Power Phase A	30033	—	1	10	Units : kVA Uint16
Bypass Apparent Power Phase B	30034	—	1	10	Units : kVA Uint16
Bypass Apparent Power Phase C	30035	—	1	10	Units : kVA Uint16
Bypass Isolation Breaker	30036	—	1	—	0 = Open 1 = Close

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					2 = Not Installed
Maintenance Bypass Breaker	30037	—	1	—	0 = Open 1 = Close 2 = Not Installed
Output					
System Output Voltage RMS A-B	30038	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30039	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30040	—	1	—	Units : VAC Uint16
System Output Voltage RMS A-N	30041	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30042	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30043	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30044	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30045	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30046	—	1	—	Units : A AC Uint16
Output Current Crest Factor Phs A	30047	—	1	10	Uint16
Output Current Crest Factor Phs B	30048	—	1	10	Uint16
Output Current Crest Factor Phs C	30049	—	1	10	Uint16
System Output Frequency	30050	—	1	10	Units : Hz Uint16
System Output Power Factor Phs A	30051	—	1	100	Uint16
System Output Power Factor Phs B	30052	—	1	100	Uint16
System Output Power Factor Phs C	30053	—	1	100	Uint16
System Output Power Phase A	30054	—	1	10	Units : kW Uint16
System Output Power Phase B	30055	—	1	10	Units : kW

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
System Output Power Phase C	30056	—	1	10	Units : kW Uint16
System Output Apparent Power Phs A	30057	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30058	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs C	30059	—	1	10	Units : kVA Uint16
System Output Power	30060	—	1	—	Units : kW Uint16
System Output Apparent Power	30061	—	1	—	Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30062	—	1	10	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30063	—	1	10	Units : % Uint16
System Output Pct Pwr (VA) Phs C	30064	—	1	10	Units : % Uint16
System Output Pct Power Phase A	30065	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30066	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30067	—	1	—	Units : % Uint16
Module Output Breaker	30068	—	1	—	0 = Open 1 = Close 2 = Not Installed
Maintenance Isolation Breaker	30069	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Control Card 1					
System Control Card Operating Status	30070	—	1	—	0 = Normal 1 = Warning 2 = Alarm

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					4 = Fault
System Control Card 2					
System Control Card Operating Status	30071	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Bypass Module					
Bypass Module Operating Status	30072	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Static Bypass Switch	30073	—	1	—	0 = off 1 = on
Power Module 1					
Module Operating Status	30074	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Power Module Sleep Status	30075	—	1	—	0 = Sleeping 1 = Not Sleeping
Power Module 2					
Module Operating Status	30076	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Power Module Sleep Status	30077	—	1	—	0 = Sleeping 1 = Not Sleeping
Power Module 10					
Module Operating Status	30092	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Power Module Sleep Status	30093	—	1	—	0 = Sleeping 1 = Not Sleeping
Rectifier 1					

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Rectifier Status	30094	—	1	—	0 = off 1 = on
Rectifier 2					
Rectifier Status	30095	—	1	—	0 = off 1 = on
Rectifier 10					
Rectifier Status	30103	—	1	—	0 = off 1 = on
DC Bus 1					
Positive DC Bus Voltage	30104	—	1	—	Units : VDC Uint16
Negative DC Bus Voltage	30105	—	1	—	Units : VDC Uint16
DC Bus 2					
Positive DC Bus Voltage	30106	—	1	—	Units : VDC Uint16
Negative DC Bus Voltage	30107	—	1	—	Units : VDC Uint16
DC Bus 10					
Positive DC Bus Voltage	30122	—	1	—	Units : VDC Uint16
Negative DC Bus Voltage	30123	—	1	—	Units : VDC Uint16
Inverter 1					
Inverter Status	30124	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Inverter 2					
Inverter Status	30125	—	1		0 = Inverter Inactive 1 = Inverter Active
Inverter 10					
Inverter Status	30133	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Charger 1					
Charger On/Off State	30134	—	1	—	0 = off

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = on
Charger 2					
Charger On/Off State	30135	—	1	—	0 = off 1 = on
Charger 10					
Charger On/Off State	30143	—	1	—	0 = off 1 = on
Discharger 1					
Discharger On/Off Status	30144	—	1	—	0 = off 1 = on
Discharger 2					
Discharger On/Off Status	30145	—	1	—	0 = off 1 = on
Discharger 10					
Discharger On/Off Status	30153	—	1	—	0 = off 1 = on
Multi Module					
MMS Output Power	30154	—	1	—	Units : kW Uint16
MMS Output Apparent Power	30155	—	1	—	Units : kVA Uint16
MMS UPS Loading Status	30156	—	1	—	1 = Load on Other Module 2 = Load Off 3 = Load on Inverter 4 = Load on Bypass 5 = Load on Maintenance Bypass 6 = Load on Battery 7 = Load on Shared Source
System Status					
Inlet Air Temperature	30157	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30158	—	1	—	Units : deg F Uint16
Average system efficiency	30159	—	1	10	Units : % Uint16

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
ECO Suspended Time Remaining	30160	—	1	—	Units : sec Uint16
Total System Operating Time	30161	—	2	—	Units : hr Uint32
Application Mode For UPS	30163	—	1	—	0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo 4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode 10 = Frequency Converter Mode without Battery 11 = Dynamic Online Mode 12 = Dynamic Online Mode Demo
UPS Loading Status	30164	—	1	—	1 = Load on Other Module 2 = Load Off 3 = Load on Inverter 4 = Load on Bypass 5 = Load on Maintenance Bypass 6 = Load on Battery 7 = Load on Shared Source
System Status	30165	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Configuration					
System Capacity	30167	—	1	—	Units : kVA Uint16
System Input Nominal Voltage	30168	—	1	—	Units : VAC Uint16
System Input Nominal Current	30169	—	1	—	Units : A AC Uint16

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Bypass Nominal Voltage	30170	—	1	—	Units : VAC Uint16
System Output Nominal Voltage	30171	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30172	—	1	10	Units : Hz Uint16
Battery System					
Battery type	30173	—	1	—	0 = VRLA 1 = Lithium Battery
External Battery Cabinet Count	30174	—	1	—	Uint16
DC Bus Voltage	30175	—	1	—	Units : VDC Uint16
DC Bus Current	30176	—	1	10	Units : A DC Int16
Battery Temperature	30177	—	1	10	Units : deg C Int16
Battery Temperature	30178	—	1	10	Units : deg F Int16
Battery Percentage Charge	30179	—	1	—	Units : % Uint16
Battery Time Remaining	30180	—	1	—	Units : min Uint16
Number of Discharge Cycles	30181	—	1	—	Uint16
Accumulated Discharge Time	30182	—	1	100	Units : hr Uint16
UPS Battery Status	30183	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery is	30184	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Automatic Battery Test	30185	—	1	—	0 = disabled 1 = enabled

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Self Test Cycle Time	30186	—	1	—	Units : day Uint16
Time Until Next Auto Battery Test	30187	—	2	—	Units : min Uint32
Low Battery Warning Time	30189	—	1	—	Units : min Uint16
Lithium-Ion Battery Connected	39342				0 = Connected 1 = Not Connected
Flywheel Connected	39343				0 = Connected 1 = Not Connected
Ultra Capacitor Connected	39344				0 = Connected 1 = Not Connected
Main Battery Circuit Breaker	39345				0 = Open 1 = Close 2 = Not Installed
Battery Cabinet 2					
Battery Cabinet Type	30206	—	1	—	0 = Internal 1 = External
Battery Volts for Cabinet	30207	—	1	10	Units : VDC Uint16
Battery Current for Cabinet	30208	—	1	10	Units : A DC Int16
Battery Temperature for Cabinet	30209	—	1	10	Units : deg C Int16
Battery Temperature for Cabinet	30210	—	1	10	Units : deg F Int16
Battery Cabinet Capacity	30211	—	1	—	Units : % Uint16
Battery Cabinet Max Cell Voltage	30212	—	1	1000	Units : VDC Uint16
Battery Cabinet Min Cell Voltage	30213	—	1	1000	Units : VDC Uint16
Battery Cabinet Highest Cell Temperature	30214	—	1	10	Units : deg C Int16
Battery Cabinet Highest Cell Temperature	30215	—	1	10	Units : deg F

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Battery Cabinet Lowest Cell Temperature	30216	—	1	10	Units : deg C Int16
Battery Cabinet Lowest Cell Temperature	30217	—	1	10	Units : deg F Int16
Battery Cabinet Operating Status	30218	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	30219	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet Charge Disconnect Status	30220	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet Discharge Disconnect Status	30221	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet 3					
Battery Cabinet Type	30222	—	1	—	0 = Internal 1 = External
Battery Volts for Cabinet	30223	—	1	10	Units : VDC Uint16
Battery Current for Cabinet	30224	—	1	10	Units : A DC Int16
Battery Temperature for Cabinet	30225	—	1	10	Units : deg C Int16
Battery Temperature for Cabinet	30226	—	1	10	Units : deg F Int16
Battery Cabinet Capacity	30227	—	1	—	Units : % Uint16
Battery Cabinet Max Cell Voltage	30228	—	1	1000	Units : VDC Uint16
Battery Cabinet Min Cell Voltage	30229	—	1	1000	Units : VDC Uint16

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cabinet Highest Cell Temperature	30230	—	1	10	Units : deg C Int16
Battery Cabinet Highest Cell Temperature	30231	—	1	10	Units : deg F Int16
Battery Cabinet Lowest Cell Temperature	30232	—	1	10	Units : deg C Int16
Battery Cabinet Lowest Cell Temperature	30233	—	1	10	Units : deg F Int16
Battery Cabinet Operating Status	30234	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	30235	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet Charge Disconnect Status	30236	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet Discharge Disconnect Status	30237	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet 9					
Battery Cabinet Type	30318	—	1	—	0 = Internal 1 = External
Battery Volts for Cabinet	30319	—	1	10	Units : VDC Uint16
Battery Current for Cabinet	30320	—	1	10	Units : A DC Int16
Battery Temperature for Cabinet	30321	—	1	10	Units : deg C Int16
Battery Temperature for Cabinet	30322	—	1	10	Units : deg F Int16
Battery Cabinet Capacity	30323	—	1	—	Units : % Uint16
Battery Cabinet Max Cell Voltage	30324	—	1	1000	Units : VDC

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Battery Cabinet Min Cell Voltage	30325	—	1	1000	Units : VDC Uint16
Battery Cabinet Highest Cell Temperature	30326	—	1	10	Units : deg C Int16
Battery Cabinet Highest Cell Temperature	30327	—	1	10	Units : deg F Int16
Battery Cabinet Lowest Cell Temperature	30328	—	1	10	Units : deg C Int16
Battery Cabinet Lowest Cell Temperature	30329	—	1	10	Units : deg F Int16
Battery Cabinet Operating Status	30330	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	30331	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet Charge Disconnect Status	30332	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet Discharge Disconnect Status	30333	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet 2 Battery Cell In Cabinet 1					
Cell Voltage	30334	—	1	1000	Units : VDC Uint16
Cell Temperature	30335	—	1	10	Units : deg C Int16
Cell Temperature	30336	—	1	10	Units : deg F Int16
Internal Resistance Value	30337	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 2 Battery Cell In Cabinet 2					
Cell Voltage	30338	—	1	1000	Units : VDC

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Cell Temperature	30339	—	1	10	Units : deg C Int16
Cell Temperature	30340	—	1	10	Units : deg F Int16
Internal Resistance Value	30341	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 2 Battery Cell In Cabinet 200					
Cell Voltage	31130	—	1	1000	Units : VDC Uint16
Cell Temperature	31131	—	1	10	Units : deg C Int16
Cell Temperature	31132	—	1	10	Units : deg F Int16
Internal Resistance Value	31133	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 3 Battery Cell In Cabinet 1					
Cell Voltage	31134	—	1	1000	Units : VDC Uint16
Cell Temperature	31135	—	1	10	Units : deg C Int16
Cell Temperature	31136	—	1	10	Units : deg F Int16
Internal Resistance Value	31137	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 3 Battery Cell In Cabinet 2					
Cell Voltage	31138	—	1	1000	Units : VDC Uint16
Cell Temperature	31139	—	1	10	Units : deg C Int16
Cell Temperature	31140	—	1	10	Units : deg F Int16
Internal Resistance Value	31141	—	1	1000	Units : milliOhm Uint16

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cabinet 3 Battery Cell In Cabinet 200					
Cell Voltage	31930	—	1	1000	Units : VDC Uint16
Cell Temperature	31931	—	1	10	Units : deg C Int16
Cell Temperature	31932	—	1	10	Units : deg F Int16
Internal Resistance Value	31933	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 9 Battery Cell In Cabinet 1					
Cell Voltage	35934	—	1	1000	Units : VDC Uint16
Cell Temperature	35935	—	1	10	Units : deg C Int16
Cell Temperature	35936	—	1	10	Units : deg F Int16
Internal Resistance Value	35937	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 9 Battery Cell In Cabinet 2					
Cell Voltage	35938	—	1	1000	Units : VDC Uint16
Cell Temperature	35939	—	1	10	Units : deg C Int16
Cell Temperature	35940	—	1	10	Units : deg F Int16
Internal Resistance Value	35941	—	1	1000	Units : milliOhm Uint16
Battery Cabinet 9 Battery Cell In Cabinet 200					
Cell Voltage	36730	—	1	1000	Units : VDC Uint16
Cell Temperature	36731	—	1	10	Units : deg C Int16
Cell Temperature	36732	—	1	10	Units : deg F Int16
Internal Resistance Value	36733	—	1	1000	Units : milliOhm

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Battery Cabinet 1 Battery Module 1					
Battery Module Temperature	36734	—	1	10	Units : deg C Int16
Battery Module Temperature	36735	—	1	10	Units : deg F Int16
Module Operating Status	36736	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery Module Disconnect Status	36737	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet 1 Battery Module 2					
Battery Module Temperature	36738	—	1	10	Units : deg C Int16
Battery Module Temperature	36739	—	1	10	Units : deg F Int16
Module Operating Status	36740	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery Module Disconnect Status	36741	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Cabinet 1 Battery Module 16					
Battery Module Temperature	36794	—	1	10	Units : deg C Int16
Battery Module Temperature	36795	—	1	10	Units : deg F Int16
Module Operating Status	36796	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery Module Disconnect Status	36797	—	1	—	0 = Open

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = Close 2 = Not Installed
Lithium-Ion Battery Module 1					
Battery Module Voltage	36798	—	1	10	Units : VDC Uint16
Battery Module Current	36799	—	1	10	Units : A DC Int16
Battery Module State Of Charge	36800	—	1	—	Units : % Uint16
Battery Module Max Cell Voltage	36801	—	1	1000	Units : VDC Uint16
Battery Module Min Cell Voltage	36802	—	1	1000	Units : VDC Uint16
Battery Module Highest Cell Temperature	36803	—	1	10	Units : deg C Int16
Battery Module Highest Cell Temperature	36804	—	1	10	Units : deg F Int16
Battery Module Lowest Cell Temperature	36805	—	1	10	Units : deg C Int16
Battery Module Lowest Cell Temperature	36806	—	1	10	Units : deg F Int16
Lithium-Ion Battery Module 2					
Battery Module Voltage	36807	—	1	10	Units : VDC Uint16
Battery Module Current	36808	—	1	10	Units : A DC Int16
Battery Module State Of Charge	36809	—	1	—	Units : % Uint16
Battery Module Max Cell Voltage	36810	—	1	1000	Units : VDC Uint16
Battery Module Min Cell Voltage	36811	—	1	1000	Units : VDC Uint16
Battery Module Highest Cell Temperature	36812	—	1	10	Units : deg C Int16
Battery Module Highest Cell Temperature	36813	—	1	10	Units : deg F

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Battery Module Lowest Cell Temperature	36814	—	1	10	Units : deg C Int16
Battery Module Lowest Cell Temperature	36815	—	1	10	Units : deg F Int16
Lithium-Ion Battery Module 16					
Battery Module Voltage	36933	—	1	10	Units : VDC Uint16
Battery Module Current	36934	—	1	10	Units : A DC Int16
Battery Module State Of Charge	36935	—	1	—	Units : % Uint16
Battery Module Max Cell Voltage	36936	—	1	1000	Units : VDC Uint16
Battery Module Min Cell Voltage	36937	—	1	1000	Units : VDC Uint16
Battery Module Highest Cell Temperature	36938	—	1	10	Units : deg C Int16
Battery Module Highest Cell Temperature	36939	—	1	10	Units : deg F Int16
Battery Module Lowest Cell Temperature	36940	—	1	10	Units : deg C Int16
Battery Module Lowest Cell Temperature	36941	—	1	10	Units : deg F Int16
Battery Module 1 Battery Cell In Module 1					
Battery Cell Voltage	36942	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	36943	—	1	10	Units : deg C Int16
Battery Cell Temperature	36944	—	1	10	Units : deg F Int16
Battery Module 1 Battery Cell In Module 2					
Battery Cell Voltage	36945	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	36946	—	1	10	Units : deg C

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Battery Cell Temperature	36947	—	1	10	Units : deg F Int16
Battery Module 1 Battery Cell In Module 100					
Battery Cell Voltage	37239	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	37240	—	1	10	Units : deg C Int16
Battery Cell Temperature	37241	—	1	10	Units : deg F Int16
Battery Module 2 Battery Cell In Module 1					
Battery Cell Voltage	37242	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	37243	—	1	10	Units : deg C Int16
Battery Cell Temperature	37244	—	1	10	Units : deg F Int16
Battery Module 2 Battery Cell In Module 2					
Battery Cell Voltage	37245	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	37246	—	1	10	Units : deg C Int16
Battery Cell Temperature	37247	—	1	10	Units : deg F Int16
Battery Module 2 Battery Cell In Module 100					
Battery Cell Voltage	37539	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	37540	—	1	10	Units : deg C Int16
Battery Cell Temperature	37541	—	1	10	Units : deg F Int16
Battery Module 8 Battery Cell In Module 1					
Battery Cell Voltage	39042	—	1	1000	Units : VDC Uint16

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cell Temperature	39043	—	1	10	Units : deg C Int16
Battery Cell Temperature	39044	—	1	10	Units : deg F Int16
Battery Module 8 Battery Cell In Module 2					
Battery Cell Voltage	39045	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	39046	—	1	10	Units : deg C Int16
Battery Cell Temperature	39047	—	1	10	Units : deg F Int16
Battery Module 8 Battery Cell In Module 100					
Battery Cell Voltage	39339	—	1	1000	Units : VDC Uint16
Battery Cell Temperature	39340	—	1	10	Units : deg C Int16
Battery Cell Temperature	39341	—	1	10	Units : deg F Int16
Battery String 1					
String Overall Voltage	309346	—	1	10	Units : VDC Uint16
String Current	309347	—	1	10	Units : A DC Int16
Battery String Temperature	309348	—	1	10	Units : deg F Int16
Battery String Temperature	309349	—	1	10	Units : deg F Int16
Battery String State Of Charge	309350	—	1	—	Units : % Uint16
Battery String Max Cell Voltage	309351	—	1	1000	Units : VDC Uint16
Battery String Min Cell Voltage	309352	—	1	1000	Units : VDC Uint16
Battery String Highest Cell Temperature	309353	—	1	10	Units : deg C Int16
Battery String Highest Cell Temperature	309354	—	1	10	Units : deg F

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Battery String Lowest Cell Temperature	309355	—	1	10	Units : deg C Int16
Battery String Lowest Cell Temperature	309356	—	1	10	Units : deg F Int16
Battery String Operating Status	309357	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery String Charge Disconnect Status	309358	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery String Discharge Disconnect Status	309359	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery String 2					
String Overall Voltage	309360	—	1	10	Units : VDC Uint16
String Current	309361	—	1	10	Units : A DC Int16
Battery String Temperature	309362	—	1	10	Units : deg C Int16
Battery String Temperature	309363	—	1	10	Units : deg F Int16
Battery String State Of Charge	309364	—	1	—	Units : % Uint16
Battery String Max Cell Voltage	309365	—	1	1000	Units : VDC Uint16
Battery String Min Cell Voltage	309366	—	1	1000	Units : VDC Uint16
Battery String Highest Cell Temperature	309367	—	1	10	Units : deg C Int16
Battery String Highest Cell Temperature	309368	—	1	10	Units : deg F Int16
Battery String Lowest Cell Temperature	309369	—	1	10	Units : deg C Int16
Battery String Lowest Cell Temperature	309370	—	1	10	Units : deg F Int16
Battery String Operating Status	309371	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery String Charge Disconnect Status	309372	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery String Discharge Disconnect Status	309373	—	1	—	0 = Open 1 = Close

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Table 3.104 Liebert® APM2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					2 = Not Installed
Battery String 12					
String Overall Voltage	309500	—	1	10	nits : VDC Uint16
String Current	309501	—	1	10	Units : A DC Int16
Battery String Temperature	309502	—	1	10	Units : deg C Int16
Battery String Temperature	309503	—	1	10	Units : deg F Int16
Battery String State Of Charge	309504	—	1	—	Units : % Uint16
Battery String Max Cell Voltage	309505	—	1	1000	Units : VDC Uint16
Battery String Min Cell Voltage	309506	—	1	1000	Units : VDC Uint16
Battery String Highest Cell Temperature	309507	—	1	10	Units : deg C Int16
Battery String Highest Cell Temperature	309508	—	1	10	Units : deg F Int16
Battery String Lowest Cell Temperature	309509	—	1	10	Units : deg C Int16
Battery String Lowest Cell Temperature	309510	—	1	10	Units : deg F Int16
Battery String Operating Status	309511	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery String Charge Disconnect Status	309512	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery String Discharge Disconnect Status	309513	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Configuration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

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Table 3.105 Liebert® APM2—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Backfeed Breaker Open	The backfeed breaker is in the open position
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 10 Open Failure	Battery circuit breaker 10 failed to open
Battery Breaker 11 Open Failure	Battery circuit breaker 11 failed to open
Battery Breaker 12 Open Failure	Battery circuit breaker 12 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker 5 Open Failure	Battery circuit breaker 5 failed to open
Battery Breaker 6 Open Failure	Battery circuit breaker 6 failed to open
Battery Breaker 7 Open Failure	Battery circuit breaker 7 failed to open
Battery Breaker 8 Open Failure	Battery circuit breaker 8 failed to open
Battery Breaker 9 Open Failure	Battery circuit breaker 9 failed to open
Battery Cabinet Capacity	The percentage of battery charge of a battery cabinet
Battery Cabinet Charge Disconnect Status	The charge disconnected status of a battery cabinet
Battery Cabinet Charge Over Current	Battery Cabinet Charge over current
Battery Cabinet Circuit Breaker Status	Battery cabinet circuit breaker status

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Cabinet Discharge Disconnect Status	The discharge disconnected status of a battery cabinet
Battery Cabinet Discharge Over Current	Battery Cabinet Discharge over current
Battery Cabinet High Cell Voltage	The system has detected a high cell voltage condition.
Battery Cabinet High Overall Voltage	The system has detected a high battery cabinet overall voltage condition.
Battery Cabinet Highest Cell Temperature	Battery cabinet highest cell temperature
Battery Cabinet Low Cell Voltage	The system has detected a low cell voltage condition.
Battery Cabinet Low Overall Voltage	The system has detected a low battery cabinet overall voltage condition.
Battery Cabinet Lowest Cell Temperature	Battery cabinet lowest cell temperature
Battery Cabinet Max Cell Voltage	Battery cabinet max cell voltage
Battery Cabinet Min Cell Voltage	Battery cabinet min cell voltage
Battery Cabinet Operating Status	The operating status for this Battery Cabinet.
Battery Cabinet Over Cell Voltage	The system has detected a battery cabinet over cell voltage condition.
Battery Cabinet Over Overall Voltage	The system has detected a battery cabinet over overall voltage condition.
Battery Cabinet Over Temperature	The system has detected a battery cabinet over temperature condition.
Battery Cabinet Type	The type of Battery Cabinet: Internal or External
Battery Cabinet Under Cell Voltage	The system has detected a battery cabinet under cell voltage condition.
Battery Cabinet Under Overall Voltage	The system has detected a battery cabinet under overall voltage condition.
Battery Cabinet Under Temperature	The system has detected a battery cabinet under temperature condition.
Battery Cell Temperature	Temperature reading of a Cell within a battery module.
Battery Cell Voltage	Voltage reading of a Cell within a battery module.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 10 Open	Battery circuit breaker 10 is open
Battery Circuit Breaker 11 Open	Battery circuit breaker 11 is open
Battery Circuit Breaker 12 Open	Battery circuit breaker 12 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open
Battery Circuit Breaker 9 Open	Battery circuit breaker 9 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Current for Cabinet	The current between the positive and negative battery terminals of a battery cabinet
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery is	Battery charge status.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Module Balancing Abnormal	Battery module voltage is not balanced
Battery Module Charge Over Current	Battery Module Charge over current
Battery Module Current	Battery Module Current

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Module Discharge Over Current	Battery Module Discharge over current
Battery Module Disconnect Status	Battery Module Disconnect Status
Battery Module Disconnected	Battery Module is disconnected
Battery Module Fault	Battery module fault
Battery Module High Cell Voltage	The system has detected a high cell voltage condition.
Battery Module High Overall Voltage	The system has detected a high battery module overall voltage condition.
Battery Module Highest Cell Temperature	Battery module highest cell temperature
Battery Module Low Cell Voltage	The system has detected a low cell voltage condition.
Battery Module Low Overall Voltage	The system has detected a low battery module overall voltage condition.
Battery Module Lowest Cell Temperature	Battery module lowest cell temperature
Battery Module Max Cell Voltage	Battery module max cell voltage
Battery Module Min Cell Voltage	Battery module min cell voltage
Battery Module Not Ready	Battery module is not ready
Battery Module Over Cell Voltage	The system has detected a battery module over cell voltage condition.
Battery Module Over Overall Voltage	The system has detected a battery module over overall voltage condition.
Battery Module Over Temperature	The system has detected a battery module over temperature condition.
Battery Module State Of Charge	Battery Module State Of Charge
Battery Module Temperature	The battery temperature measured by the Battery Module.
Battery Module Under Cell Voltage	The system has detected a battery module under cell voltage condition.
Battery Module Under Overall Voltage	The system has detected a battery module under overall voltage condition.
Battery Module Under Temperature	The system has detected a battery module under temperature condition.

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Module Voltage	Battery Module Voltage
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery String Charge Disconnect Status	Battery String Charge Disconnect Status
Battery String Charge Over Current	Battery string Charge over current
Battery String Discharge Disconnect Status	Battery String Discharge Disconnect Status
Battery String Discharge Over Current	Battery string Discharge over current
Battery String High Cell Voltage	The system has detected a high cell voltage condition.
Battery String High Overall Voltage	The system has detected a high battery string overall voltage condition.
Battery String Highest Cell Temperature	Battery string highest cell temperature
Battery String Low Cell Voltage	The system has detected a low cell voltage condition.
Battery String Low Overall Voltage	The system has detected a low battery string overall voltage condition.
Battery String Lowest Cell Temperature	Battery string lowest cell temperature
Battery String Max Cell Voltage	Battery string max cell voltage
Battery String Min Cell Voltage	Battery string min cell voltage
Battery String Operating Status	The operating status for this Battery String.
Battery String Over Cell Voltage	The system has detected a battery string over cell voltage condition.
Battery String Over Overall Voltage	The system has detected a battery string over overall voltage condition.
Battery String Over Temperature	Battery String State Of Charge
Battery String State Of	The battery temperature for a battery string

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Charge	
Battery String Temperature	The system has detected a battery string under cell voltage condition.
Battery String Under Cell Voltage	The system has detected a battery string under overall voltage condition.
Battery String Under Overall Voltage	The system has detected a battery string under temperature condition.
Battery String Under Temperature	The system has detected a battery string under temperature condition.
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected
Battery Temperature	Battery Temperature
Battery Terminal Abnormal	Battery Terminal Abnormal
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Battery type	Battery type of the UPS system
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Module Communication Fault	The bypass module communication failure.
Bypass Module Fan Fault	The Bypass Module has detected a fan fault.
Bypass Module Not Ready	Bypass Module is not ready
Bypass Module Operating Status	The operating status for this Bypass Module.
Bypass Module Over Temperature	The Bypass Module has detected an over temperature condition.
Bypass Module Power Supply Failure	Bypass module power supply failure
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Surge Protection Device Alarm	Bypass Surge Protection Device alarm
Cell Temperature	Temperature reading of a Cell within a BAM device.
Cell Voltage	Voltage reading of a Cell within a BAM device.
Charger Failure	Charger Failure - Charger is off
Charger On/Off State	Charger on/off state
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Discharger Failure	Discharger failure
Discharger On/Off Status	Discharger on/off status
Discharger Shutdown	A condition is present that prevents the Battery Discharger from working.
ECO mode Inhibited	ECO mode is inhibited due to an external inhibit signal.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Battery Cabinet Count	The battery cabinet count
Flywheel Connected	Flywheel is connected
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Source Backfeed	The battery is backfeeding the input source.
Input Surge Protection Device Alarm	Input Surge Protection Device alarm
Input Under Voltage	Input under voltage.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Internal Resistance Value	The measured internal resistance of a cell.
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery Connected	Lithium-Ion battery is connected
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Control Redundancy	Loss of control redundancy
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Breaker Open Failure	Main battery circuit breaker failed to open
Main Battery Circuit Breaker is Open	Main battery circuit is open
Main Battery Circuit Breaker	Main battery circuit breaker
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Bypass Breaker	Maintenance bypass breaker
Maintenance Isolation Breaker	Maintenance isolation breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS UPS Loading Status	Multi-module UPS loading status
Module Operating Status	The operating status for this Battery Module.
Module Operating Status	The operating status for this Power Module.
Module Output Breaker Open	The module output breaker is open.
Module Output Breaker	Module output breaker
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
On Generator	A generator is supplying the power to the system
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Disabled	Output Disabled
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Not Ready	Power module not ready
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Isolation Breaker	Rectifier isolation breaker
Rectifier Status	rectifier status

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Replace Battery	The battery is due for replacement.
Static Bypass Switch	Static Bypass Switch state - On/Off
String Current	Discharge(-) or charge(+) current of a battery string.
String Overall Voltage	Overall voltage of a battery string.
System Bypass Phase Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the bypass (A-B-C)
System Capacity	System capacity supported by the installed power modules.
System Control Card Communication Fail	System control card communication fail
System Control Card Not Ready	System control card is not ready
System Control Card Operating Status	The operating status for this system control card
System Control Card Power Supply Failure	System control card power supply failure
System Control Cards Missing	System control cards missing
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A

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Table 3.105 Liebert® APM2—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
Transformer Overtemperature	Indicates a unit transformer overtemperature condition.
Ultra Capacitor Connected	Ultra capacitor is connected
UPS Battery Status	UPS battery status
UPS Loading Status	UPS loading status
UPS Output on Bypass	The output power is supplied by the bypass
User Operation Invalid	User attempted an invalid operation.

Table 3.106 Liebert® APS—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Rectifier Failure	10001	—	1	Active on Alarm
System Input Power Problem	10002	—	1	Active on Alarm
System Input Current Imbalance	10003	—	1	Active on Alarm
Bypass				
UPS Output on Bypass	10014	—	1	Active on Alarm
Output Load on Maint. Bypass	10015	—	1	Active on Alarm
Bypass Not Available	10016	—	1	Active on Alarm
Bypass Overload	10017	—	1	Active on Alarm
Bypass Frequency Error	10018	—	1	Active on Alarm
Bypass Auto Retransfer Failed	10019	—	1	Active on Alarm
Battery				
Battery Discharging	10030	—	1	Active on Alarm
Battery Manual Test In Progress	10031	—	1	Active on Alarm

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Table 3.106 Liebert® APS—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Auto Test In Progress	10032	—	1	Active on Alarm
Battery Test Passed	10033	—	1	Active on Alarm
Battery Test Failed	10034	—	1	Active on Alarm
Low Battery - Shutdown Imminent	10035	—	1	Active on Alarm
Battery Module Fault	10036	—	1	Active on Alarm
Battery Module Warning	10037	—	1	Active on Alarm
Battery Over Temperature	10038	—	1	Active on Alarm
Battery Temperature Imbalance	10039	—	1	Active on Alarm
Output				
Output Overload	10050	—	1	Active on Alarm
Output Off Pending	10051	—	1	Active on Alarm
System Output Off	10052	—	1	Active on Alarm
System Shutdown - Transformer Over Temperature	10053	—	1	Active on Alarm
Inverter Shutdown - Overload	10054	—	1	Active on Alarm
System Shutdown - Output Short	10055	—	1	Active on Alarm
System Shutdown - Low Battery	10056	—	1	Active on Alarm
System Shutdown - Remote Shutdown	10057	—	1	Active on Alarm
System Shutdown - Hardware Fault	10058	—	1	Active on Alarm
Maximum Load Alarm	10059	—	1	Active on Alarm
Inverter				
Loss of Redundancy	10070	—	1	Active on Alarm
Power Module Failure	10071	—	1	Active on Alarm
Power Module Warning	10072	—	1	Active on Alarm
System Status				
Unspecified General Event	10083	—	1	Active on Alarm
Check Air Filter	10084	—	1	Active on Alarm
Frame Fan Fault	10085	—	1	Active on Alarm
Transformer Fan Fault	10086	—	1	Active on Alarm
Transformer Overtemperature	10087	—	1	Active on Alarm
No Load Warning	10088	—	1	Active on Alarm
PowerModule 1				
Power Module Fan Fault	10099	—	1	Active on Alarm

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Table 3.106 Liebert® APS—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Over Temperature	10100	—	1	Active on Alarm
Power Module Shutdown - Over Temperature	10101	—	1	Active on Alarm
PowerModule 2				
Power Module Fan Fault	10112	—	1	Active on Alarm
Power Module Over Temperature	10113	—	1	Active on Alarm
Power Module Shutdown - Over Temperature	10114	—	1	Active on Alarm
PowerModule 10				
Power Module Fan Fault	10216	—	1	Active on Alarm
Power Module Over Temperature	10217	—	1	Active on Alarm
Power Module Shutdown - Over Temperature	10218	—	1	Active on Alarm
BatteryModule 1				
Battery Module Temperature Sensor Fault	10229	—	1	Active on Alarm
Battery Module Over Temperature	10230	—	1	Active on Alarm
Replace Battery Module	10231	—	1	Active on Alarm
BatteryModule 2				
Battery Module Temperature Sensor Fault	10242	—	1	Active on Alarm
Battery Module Over Temperature	10243	—	1	Active on Alarm
Replace Battery Module	10244	—	1	Active on Alarm
BatteryModule 80				
Battery Module Temperature Sensor Fault	11256	—	1	Active on Alarm
Battery Module Over Temperature	11257	—	1	Active on Alarm
Replace Battery Module	11258	—	1	Active on Alarm
ChargerModule				
Charger Module Fan Fault	11269	—	1	Active on Alarm

Table 3.107 Liebert® APS—Input and Holding

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Protocol					
Server Class	30385	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Input					

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System Input RMS L1-N	30396	—	1	10	Units : VAC Uint16
System Input RMS L2-N	30397	—	1	10	Units : VAC Uint16
System Input RMS L3-N	30398	—	1	10	Units : VAC Uint16
System Input RMS L1-L2	30399	—	1	10	Units : VAC Uint16
System Input RMS L2-L3	30400	—	1	10	Units : VAC Uint16
System Input RMS L3-L1	30401	—	1	10	Units : VAC Uint16
System Input RMS Current L1	30402	—	1	10	Units : A AC Uint16
System Input RMS Current L2	30403	—	1	10	Units : A AC Uint16
System Input RMS Current L3	30404	—	1	10	Units : A AC Uint16
System Input Frequency	30405	—	1	100	Units : Hz Uint16
System Input Power Factor L1	30406	—	1	100	Uint16
System Input Power Factor L2	30407	—	1	100	Uint16
System Input Power Factor L3	30408	—	1	100	Uint16
System Input Brown Out Count	30409	—	1	—	Uint16
System Input Black Out Count	30410	—	1	—	Uint16
Bypass					
Bypass Input Voltage RMS L1-N	30421	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L2-N	30422	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L1-L2	30423	—	1	10	Units : VAC Uint16
Bypass Input Frequency	30424	—	1	100	Units : Hz Uint16
Number Of Transfers To Bypass	30425	—	1	—	Uint16
Bypass Qualification Status	30426	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery					
Battery Time Remaining	30437	—	1	—	Units : min Uint16
Battery Volts for Cabinet	30438	—	1	10	Units : VDC Uint16
DC Bus Current	30439	—	1	100	Units : A DC Uint16
Battery Percentage Charge	30440	—	1	—	Units : % Uint16
UPS Battery Status	30441	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery is	30442	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Battery Temperature	30443	—	1	10	Units : deg C Int16
Battery Temperature	30444	—	1	10	Units : deg F Int16
Number of Discharge Cycles	30445	—	1	—	Uint16
Accumulated Discharge Time	30446	—	1	10	Units : hr Uint16
Time Until Next Auto Battery Test	30447	—	2	—	Units : min Uint32
Number of EBC Installed	30449	—	1	—	Uint16
Low Battery Warning Time	30450	40450	1	—	Units : min Uint16
Automatic Battery Test	30451	40451	1	—	0 = disabled 1 = enabled
Auto Battery Test Interval	30452	40452	1	—	0 = 8 weeks 1 = 12 weeks 2 = 16 weeks 3 = 20 weeks 4 = 26 weeks
Manual Battery Test	—	40453	1	—	1 = Start Test
Output					
System Output Voltage RMS L1-N	30464	—	1	10	Units : VAC Uint16

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System Output Voltage RMS L2-N	30465	—	1	10	Units : VAC Uint16
System Output Voltage RMS L1-L2	30466	—	1	10	Units : VAC Uint16
System Output RMS Current L1	30467	—	1	10	Units : A AC Uint16
System Output RMS Current L2	30468	—	1	10	Units : A AC Uint16
System Output Frequency	30469	—	1	100	Units : Hz Uint16
System Output Power Factor L1	30470	—	1	100	Uint16
System Output Power Factor L2	30471	—	1	100	Uint16
System Output Apparent Power	30472	—	1	100	Units : kVA Uint16
System Output Apparent Power L1	30473	—	1	100	Units : kVA Uint16
System Output Apparent Power L2	30474	—	1	100	Units : kVA Uint16
System Output Power	30475	—	1	100	Units : kW Uint16
System Output Power L1	30476	—	1	100	Units : kW Uint16
System Output Power L2	30477	—	1	100	Units : kW Uint16
System Output Pct Power L1	30478	—	1	10	Units : % Uint16
System Output Pct Power L2	30479	—	1	10	Units : % Uint16
Output Qualification Status	30480	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Maximum Load Alarm Limit	30481	40481	1	10	Units : kVA Uint16
Shutdown After Delay	30482	40482	1	—	Units : sec Uint16
Reboot After Delay	30483	40483	1	—	Units : sec Uint16
Output On Delay	30484	40484	1	—	Units : sec Uint16
Inverter					

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Inverter On/Off State	30495	—	1	—	0 = off 1 = on
System Set To Operate With	30496	40496	1	—	0 = No Redundancy 1 = Redundancy
System Status					
System Capacity	30507	—	1	—	Units : VA Uint16
Frame Capacity	30508	—	1	—	Units : VA Uint16
Number of Installed Power Modules	30509	—	1	—	Uint16
Number Of Active Power Modules	30510	—	1	—	Uint16
Number Of Power Modules With Warnings	30511	—	1	—	Uint16
Number Of Failed Power Modules	30512	—	1	—	Uint16
Number of Installed Battery Strings	30513	—	1	—	Uint16
Number of Active Battery Strings	30514	—	1	—	Uint16
Number of Battery Strings With Warnings	30515	—	1	—	Uint16
Number of Failed Battery Strings	30516	—	1	—	Uint16
UPS Output Source	30517	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30518	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Auto Restart	30519	40519	1	—	0 = disabled 1 = enabled
Auto Restart Delay	30520	40520	1	—	Units : sec Uint16

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Auto Restart Minimum Battery Setting	30521	40521	1	—	0 = 0% 1 = 10% 2 = 20% 3 = 30% 4 = 40% 5 = 50% 6 = 60% 7 = 70% 8 = 80% 9 = 90%
No Load Warning Current Threshold	30522	40522	1	—	Units : A AC Int16
No Load Warning Delay	30523	40523	1	—	Units : min Uint16
Inlet Air Temperature	30524	—	1	10	Units : deg C Int16
Inlet Air Temperature	30525	—	1	10	Units : deg F Int16
PowerModule 1					
Module Operating Status	30534	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30535	—	1	—	0 = Inverter Inactive 1 = Inverter Active
PowerModule 2					
Module Operating Status	30546	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30547	—	1	—	0 = Inverter Inactive 1 = Inverter Active
PowerModule 10					
Module Operating Status	30642	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30643	—	1	—	0 = Inverter Inactive 1 = Inverter Active
BatteryModlue 1					

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Module Operating Status	30654	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery String Voltage	30655	—	1	10	Units : VDC Uint16
Battery Module Temperature	30656	—	1	10	Units : deg C Int16
Battery Module Temperature	30657	—	1	10	Units : deg F Int16
Number of Discharge Cycles	30658	—	1	—	Uint16
Accumulated Discharge Time	30659	—	1	10	Units : hr Uint16
BatteryModlue 2					
Module Operating Status	30670	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery String Voltage	30671	—	1	10	Units : VDC Uint16
Battery Module Temperature	30672	—	1	10	Units : deg C Int16
Battery Module Temperature	30673	—	1	10	Units : deg F Int16
Number of Discharge Cycles	30674	—	1	—	Uint16
Accumulated Discharge Time	30675	—	1	10	Units : hr Uint16
BatteryModule 80					
Module Operating Status	31918	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Battery String Voltage	31919	—	1	10	Units : VDC Uint16
Battery Module Temperature	31920	—	1	10	Units : deg C Int16
Battery Module Temperature	31921	—	1	10	Units : deg F Int16
Number of Discharge Cycles	31922	—	1	—	Uint16
Accumulated Discharge Time	31923	—	1	10	Units : hr Uint16

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Table 3.107 Liebert® APS—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
ChargerModule					
Module Operating Status	31934	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Charger Mode	31935	—	1	—	0 = Not Charging 1 = Float Charging 2 = Current Limit Charging 3 = Equalize Charging
BypassControlModule					
Module Operating Status	31946	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
System Configuration					
System Date and Time	31957	41957	2	—	Units : Secs since Epoch (UTC)
SystemConfiguration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch (UTC)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.108 Liebert® APS—Glossary

Data Label	Data Description
Accumulated Discharge Time	The highest accumulated battery discharge time among installed battery modules.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If 'Auto Restart' is set to 'enabled' the UPS will not restart the load after a battery discharge until this amount of time has elapsed since the restoration of utility power.
Auto Restart Minimum Battery Setting	The percent state of charge that the batteries must have before the unit is allowed to auto restart.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Discharging	The battery is discharging.
Battery is	Battery charge status..
Battery Manual Test In Progress	Manual battery test is in progress.

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Table 3.108 Liebert® APS—Glossary (continued)

Data Label	Data Description
Battery Module Fault	One or more battery modules are reporting a fault condition.
Battery Module Over Temperature	The Battery Module has detected an over temperature condition.
Battery Module Temperature Sensor Fault	A Battery Module temperature sensor fault has been detected.
Battery Module Temperature	The battery temperature measured by the Battery Module.
Battery Module Warning	One or more battery modules are reporting a warning condition.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Percentage Charge	The percentage of battery charge.
Battery String Voltage	The voltage between the positive and negative battery terminals of a battery string.
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected.
Battery Temperature	The highest battery temperature among all installed Battery Modules.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed.
Bypass Frequency Error	The bypass frequency is outside the inverter synchronization limits.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2.
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral.
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Qualification Status	bypass qualification status.
Charger Mode	The Charger Module is operating in the stated charging mode.
Charger Module Fan Fault	The Charger Module has detected a fan fault.
Check Air Filter	Please check air filter, it may need to be cleaned or replaced.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
Frame Capacity	Total system capacity supported when the maximum number of power modules are installed.

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Table 3.108 Liebert® APS—Glossary (continued)

Data Label	Data Description
Frame Fan Fault	The frame top outlet fan has failed.
Inlet Air Temperature	The temperature of the inlet air.
Inverter On/Off State	Inverter on/off state.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Low Battery - Shutdown Imminent	If active and guaranteed shutdown is enabled, a low battery reserve condition exists that will shutdown the UPS.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Manual Battery Test	Command to initiate a manual battery test.
Maximum Load Alarm Limit	Maximum load [VA] supportable without a 'Maximum Load Alarm' condition.
Maximum Load Alarm	Maximum load alarm indicating load setting has been exceeded.
Module Operating Status	The operating status for this Battery Module.
Module Operating Status	The operating status for this Bypass Control Module.
Module Operating Status	The operating status for this Charger Module.
Module Operating Status	The operating status for this Power Module.
No Load Warning Current Threshold	If the output current is below this number of amps for a period of [No Load Warning Delay] time, the [No Load Warning] will become active.
No Load Warning Delay	If the output current is below the [No Load Warning Current Threshold] number of amps for this period of time, the [No Load Warning] will become active.
No Load Warning	Indicates the UPS has output voltage but the output current is below a set threshold [No Load Warning Current Threshold] for a set period of time [No Load Warning Delay].
Number of Active Battery Strings	The total number of active battery strings.
Number Of Active Power Modules	The total number of active power modules.
Number of Battery Strings With Warnings	The total number of battery strings with warnings.
Number of Discharge Cycles	The highest number of battery discharge cycles among all installed Battery Modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Number of Failed Battery Strings	The total number of failed battery strings.
Number Of Failed Power Modules	The total number of failed power modules.
Number of Installed Battery	The total number of battery strings installed.

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Table 3.108 Liebert® APS—Glossary (continued)

Data Label	Data Description
Strings	
Number of Installed Power Modules	The total number of Power Modules installed.
Number Of Power Modules With Warnings	The total number of power modules with warnings.
Number Of Transfers To Bypass	The total number of transfers to bypass from inverter since system startup..
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Off Pending	Output off pending - shutdown imminent.
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Qualification Status	Output qualification status.
Power Module Failure	One or more conditions indicate a power module failure, service is required.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Shutdown - Over Temperature	Power Module has shutdown due to over temperature.
Power Module Warning	One or more power modules is reporting a warning condition.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Replace Battery Module	The Battery Module needs to be replaced.
Server Class	The general classification for this system.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time.
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Frequency	The system input frequency.
System Input Power Factor L1	The system input power factor for Line 1.
System Input Power Factor L2	The system input power factor for Line 2.

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Table 3.108 Liebert® APS—Glossary (continued)

Data Label	Data Description
System Input Power Factor L3	The system input power factor for Line 3.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS Current L1	The system input RMS current for Line 1.
System Input RMS Current L2	The system input RMS current for Line 2.
System Input RMS Current L3	The system input RMS current for Line 3.
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2.
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral.
System Input RMS L2-L3	The System Input RMS Voltage between Line 2 and Line 3.
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral.
System Input RMS L3-L1	The System Input RMS Voltage between Line 3 and Line 1.
System Input RMS L3-N	The System Input RMS Voltage between Line 3 and Neutral.
System Output Apparent Power L1	System output apparent power on Line 1.
System Output Apparent Power L2	System output apparent power on Line 2.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Frequency	The system output frequency.
System Output Off	The system output is off.
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity.
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1.
System Output Power Factor L2	The system output power factor of Line 2.
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.
System Output Power	The sum total power of all system output phases.
System Output RMS Current L1	The system output RMS current for Line 1.
System Output RMS Current L2	The system output RMS current for Line 2.
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2.
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral.
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral.
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is

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Table 3.108 Liebert® APS—Glossary (continued)

Data Label	Data Description
	enabled.
System Shutdown - Hardware Fault	Shutdown was due to an externally applied hardware control signal.
System Shutdown - Low Battery	Shutdown was due to a low battery condition.
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Shutdown - Remote Shutdown	Shutdown was due to a remote communications shutdown command.
System Shutdown - Transformer Over Temperature	System shutdown due to transformer over temperature.
System Status	The operating status for the system.
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Transformer Fan Fault	The transformer fan has failed.
Transformer Overtemperature	Transformer temperature has exceeded the limit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.

Table 3.109 Liebert® EPM—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
System Status				
Battery Equalize	10001	—	1	Active on Alarm
Battery Charging Inhibited	10002	—	1	Active on Alarm
On Generator	10003	—	1	Active on Alarm
Battery Self Test	10004	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10005	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10006	—	1	Active on Alarm
Battery Circuit Breaker 3 Open	10007	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10008	—	1	Active on Alarm
Main Battery Disconnect Open	10009	—	1	Active on Alarm
System Events				
System Input Power Problem	10020	—	1	Active on Alarm
Rectifier Failure	10021	—	1	Active on Alarm

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Table 3.109 Liebert® EPM—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Inverter Failure	10022	—	1	Active on Alarm
Bypass Not Available	10023	—	1	Active on Alarm
Battery Low	10024	—	1	Active on Alarm
LBS Inhibited	10025	—	1	Active on Alarm
System Fan Failure	10026	—	1	Active on Alarm
Equipment Over Temperature	10027	—	1	Active on Alarm
System Shutdown - EPO	10028	—	1	Active on Alarm
Bypass Static Switch Unavailable	10029	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10030	—	1	Active on Alarm
Parallel Comm Warning	10031	—	1	Active on Alarm
Power Supply Failure	10032	—	1	Active on Alarm
Battery Over Temperature	10033	—	1	Active on Alarm
System Input Phs Rotation Error	10034	—	1	Active on Alarm
Fuse Failure	10035	—	1	Active on Alarm
Inverter Overload	10036	—	1	Active on Alarm
MMS Overload	10037	—	1	Active on Alarm
Inverter Shutdown - Overload	10038	—	1	Active on Alarm
System Output Fault	10039	—	1	Active on Alarm
Internal Communications Failure	10040	—	1	Active on Alarm
Battery Charging Error	10041	—	1	Active on Alarm
System Input Current Imbalance	10042	—	1	Active on Alarm
Battery Not Qualified	10043	—	1	Active on Alarm
Battery Terminals Reversed	10044	—	1	Active on Alarm
Battery Converter Failure	10045	—	1	Active on Alarm
Load Sharing Fault	10046	—	1	Active on Alarm
DC Bus Abnormal	10047	—	1	Active on Alarm
Mains Input Neutral Lost	10048	—	1	Active on Alarm
Load Impact Transfer	10049	—	1	Active on Alarm
User Operation Invalid	10050	—	1	Active on Alarm
Battery Discharging	10051	—	1	Active on Alarm
UPS Output on Bypass	10052	—	1	Active on Alarm
Output Load on Maint. Bypass	10053	—	1	Active on Alarm

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Table 3.109 Liebert® EPM—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Capacity Low	10054	—	1	Active on Alarm
MMS On Battery	10055	—	1	Active on Alarm
Loss of Redundancy	10056	—	1	Active on Alarm
Top Outlet Fan Fault	10057	—	1	Active on Alarm
MMS Over Capacity	10058	—	1	Active on Alarm
Bypass Input Voltage Fault	10059	—	1	Active on Alarm
Power Module Over Temperature	10060	—	1	Active on Alarm
Excess ECO Suspends	10061	—	1	Active on Alarm
Battery Ground Fault	10062	—	1	Active on Alarm
System Input Current Limit	10063	—	1	Active on Alarm
Inverter Relay Fault	10064	—	1	Active on Alarm
Transfer to Bypass - System Overload	10065	—	1	Active on Alarm
Input Source Backfeed	10066	—	1	Active on Alarm
Loss of Synchronization	10067	—	1	Active on Alarm
Battery Converter Current Limit	10068	—	1	Active on Alarm
LBS Cable Failure	10069	—	1	Active on Alarm
Battery Charge Equalization Timeout	10070	—	1	Active on Alarm
Parallel Cable Failure	10071	—	1	Active on Alarm
Battery Fault	10072	—	1	Active on Alarm
Battery Room Alarm	10073	—	1	Active on Alarm
Battery Breaker 1 Open Failure	10074	—	1	Active on Alarm
Battery Breaker 2 Open Failure	10075	—	1	Active on Alarm
Battery Breaker 3 Open Failure	10076	—	1	Active on Alarm
Battery Breaker 4 Open Failure	10077	—	1	Active on Alarm
Bypass Backfeed Detected	10078	—	1	Active on Alarm

Table 3.110 Liebert® EPM—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16
System Input RMS C-A	30387	—	1	—	Units : VAC

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Table 3.110 Liebert® EPM—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A A Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
System Input RMS A-N	30392	—	1	—	Units : VAC Uint16
System Input RMS B-N	30393	—	1	—	Units : VAC Uint16
System Input RMS C-N	30394	—	1	—	Units : VAC Uint16
System Input Power Factor Phs A	30395	—	1	100	Uint16
System Input Power Factor Phs B	30396	—	1	100	Uint16
System Input Power Factor Phs C	30397	—	1	100	Uint16
Bypass					
Bypass Input Voltage RMS A-N	30408	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30409	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30410	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30411	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30412	—	1	—	Units: VAC Uint16
Bypass Input Voltage RMS B-C	30413	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30414	—	1	—	Units : VAC Uint16
Battery					
Battery Time Remaining	30425	—	1	—	Units : min Uint16
Battery Volts for Cabinet	30426	—	1	—	Units : VDC Int16
Battery Temperature for Cabinet	30427	—	1	—	Units : deg C Int16

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Table 3.110 Liebert® EPM—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Temperature for Cabinet	30428	—	1	—	Units : deg F Int16
DC Bus Current	30429	—	1	—	Units : A DC Int16
UPS battery1 status	30430	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Output					
System Output Voltage RMS A-N	30441	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30442	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30443	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30444	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30445	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30446	—	1	—	Units : A AC Uint16
System Output Frequency	30447	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30448	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30449	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30450	—	1	—	Units : VAC Uint16
System Output Power Factor Phs A	30451	—	1	100	Uint16
System Output Power Factor Phs B	30452	—	1	100	Uint16
System Output Power Factor Phs C	30453	—	1	100	Uint16
System Output Pct Power Phase A	30454	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30455	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30456	—	1	—	Units : % Uint16
MMS Output Apparent Power	30457	—	1	—	Units : kVA Uint16
MMS Output Power	30458	—	1	—	Units : kW

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Table 3.110 Liebert® EPM—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Output Current Crest Factor Phs A	30459	—	1	10	Uint16
Output Current Crest Factor Phs B	30460	—	1	10	Uint16
Output Current Crest Factor Phs C	30461	—	1	10	Uint16
System Output Power Phase A	30462	—	1	—	Units : kW Uint16
System Output Power Phase B	30463	—	1	—	Units : kW Uint16
System Output Power Phase C	30464	—	1	—	Units : kW Uint16
System Output Apparent Power Phs A	30465	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs B	30466	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs C	30467	—	1	—	Units : kVA Uint16
System Output Power	30468	—	1	—	Units : kW Uint16
System Output Apparent Power	30469	—	1	—	Units : kVA Uint16
System Status					
Inverter On/Off State	30480	—	1	—	0 = off 1 = on
Maintenance Bypass Breaker	30481	—	1	—	0 = Open 1 = Close 2 = Not Installed
UPS Output Source	30482	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30483	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
ECO Mode Operation State	30484	—	1	—	0 = disabled 1 = enabled

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Table 3.110 Liebert® EPM—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input Breaker	30485	—	1	—	0 = Open 1 = Close 2 = Not Installed
Internal Bypass Breaker	30486	—	1	—	0 = Open 1 = Close 2 = Not Installed
Output Breaker	30487	—	1	—	0 = Open 1 = Close 2 = Not Installed
UPS Application Mode	30488	—	1	—	0 = UPS Mode 1 = Frequency converter mode
MMS UPS Output Source	30489	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	30490	—	1	—	0 = disabled 1 = enabled
Advanced Efficiency Mode	30491	—	1	—	0 = unknown 1 = ECO mode 2 = Intelligent ECO mode 3 = Active Inverter ECO mode
System Configuration					
System Input Nominal Voltage	30502	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30503	—	1	10	Units : Hz Uint16
System Input Nominal Current	30504	—	1	—	Units : A AC Uint16
Bypass Nominal Voltage	30505	—	1	—	Units : VAC Uint16
System Output Nominal Voltage	30506	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30507	—	1	10	Units : Hz Uint16
System Analog					
Total System Operating Time	30518	—	2	—	Units : hr Uint32
Average system efficiency	30520	—	1	10	Units : % Uint16

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Table 3.110 Liebert® EPM—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Inlet Air Temperature	30521	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30522	—	1	—	Units : deg F Uint16
System Configuration					
System Date and Time	39998	49998	2	—	Secs since Epoch(UTC)

Table 3.111 Liebert® EPM—Glossary

Data Label	Data Description
Advanced Efficiency Mode	Advanced efficiency modes where the UPS supports the critical load using the static bypass.
Average system efficiency	Average system efficiency.
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open.
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open.
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open.
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open.
Battery Capacity Low	Battery capacity is low.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.

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Table 3.111 Liebert® EPM—Glossary (continued)

Data Label	Data Description
Battery Fault	A short circuit exists in the battery system.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test	Battery self-test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between Phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between Phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between Phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between Phase C and Neutral.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.

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Table 3.111 Liebert® EPM—Glossary (continued)

Data Label	Data Description
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures.
Inlet Air Temperature	The temperature of the inlet air.
Input Breaker	Input breaker.
Input Source Backfeed	The battery is back-feeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Bypass Breaker	Internal bypass breaker.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state.
Inverter Overload	Inverter in overload fault.
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Main Battery Disconnect Open	Main battery disconnect is open.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS On Battery	The multi-module system is on battery.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Power	The sum total power of all system output modules.
MMS Over Capacity	The multi-module system load is larger than the apparent power limit setting.

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Table 3.111 Liebert® EPM—Glossary (continued)

Data Label	Data Description
MMS Overload	Multi-module system overload.
MMS UPS Output Source	Multi-module UPS output source.
On Generator	A generator is supplying the power to the system.
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Supply Failure	Power supply failure.
Rectifier Failure	Rectifier failure - rectifier is off.
System Date and Time	The system date and time.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.
System Input Power Factor Phs B	The system input power factor for Phase B.
System Input Power Factor Phs C	The system input power factor for Phase C.

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Table 3.111 Liebert® EPM—Glossary (continued)

Data Label	Data Description
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power	The system output power factor of Phase C.

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Table 3.111 Liebert® EPM—Glossary (continued)

Data Label	Data Description
Factor Phs C	
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between Phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit.
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Application Mode	UPS application mode.
UPS battery1 status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation.

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Table 3.112 Liebert® EXL—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
System Input Power Problem	10001	—	1	Active on Alarm
System Input Current Limit	10002	—	1	Active on Alarm
Input Undervoltage	10003	—	1	Active on Alarm
Bypass				
Bypass Not Available	10014	—	1	Active on Alarm
Bypass Overload Phase A	10015	—	1	Active on Alarm
Bypass Overload Phase B	10016	—	1	Active on Alarm
Bypass Overload Phase C	10017	—	1	Active on Alarm
Bypass Auto Retransfer Primed	10018	—	1	Active on Alarm
Bypass Auto Retransfer Failed	10019	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10020	—	1	Active on Alarm
Bypass Static Switch Overload	10021	—	1	Active on Alarm
Bypass Static Switch Unavailable	10022	—	1	Active on Alarm
Bypass Excessive Pulse Parallel	10023	—	1	Active on Alarm
Bypass Auto Transfer Failed	10024	—	1	Active on Alarm
Bypass - Manual Rexfr Inhibited	10025	—	1	Active on Alarm
Bypass - Manual Xfr Inhibited	10026	—	1	Active on Alarm
Bypass Undervoltage Warning	10027	—	1	Active on Alarm
Battery				
Battery Test Inhibited	10038	—	1	Active on Alarm
Battery Capacity Low	10039	—	1	Active on Alarm
Battery Discharging	10040	—	1	Active on Alarm
Battery Temperature Imbalance	10041	—	1	Active on Alarm
Battery Equalize	10042	—	1	Active on Alarm
Battery Self Test	10043	—	1	Active on Alarm
Battery Test Failed	10044	—	1	Active on Alarm
Main Battery Disconnect Open	10045	—	1	Active on Alarm
Battery Low	10046	—	1	Active on Alarm
Battery Temperature Sensor Fault	10047	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10048	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10049	—	1	Active on Alarm

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Table 3.112 Liebert® EXL—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Circuit Breaker 3 Open	10050	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10051	—	1	Active on Alarm
Battery Circuit Breaker 5 Open	10052	—	1	Active on Alarm
Battery Circuit Breaker 6 Open	10053	—	1	Active on Alarm
Battery Circuit Breaker 7 Open	10054	—	1	Active on Alarm
Battery Circuit Breaker 8 Open	10055	—	1	Active on Alarm
Battery Over Temperature Limit	10056	—	1	Active on Alarm
Battery - External Monitor 1	10057	—	1	Active on Alarm
Battery - External Monitor 2	10058	—	1	Active on Alarm
Battery Low Shutdown	10059	—	1	Active on Alarm
DC Bus				
Precharge Circuit Failed	10065	—	1	Active on Alarm
Output				
System Shutdown - EPO	10070	—	1	Active on Alarm
System Output Low Power Factor	10071	—	1	Active on Alarm
Output Amp Over User Limit-Phs A	10072	—	1	Active on Alarm
Output Amp Over User Limit-Phs B	10073	—	1	Active on Alarm
Output Amp Over User Limit-Phs C	10074	—	1	Active on Alarm
System Output Fault	10075	—	1	Active on Alarm
Output Of/Uf	10076	—	1	Active on Alarm
Ground Fault	10077	—	1	Active on Alarm
Inverter				
Inverter Failure	10087	—	1	Active on Alarm
Inverter Overload Phase A	10088	—	1	Active on Alarm
Inverter Overload Phase B	10089	—	1	Active on Alarm
Inverter Overload Phase C	10090	—	1	Active on Alarm
Inverter Shutdown - Overload	10091	—	1	Active on Alarm
Environment				
Inlet Air Over Temperature	10102	—	1	Active on Alarm
Equipment Over Temp Warning	10103	—	1	Active on Alarm
Outlet Air Overtemperature Limit	10104	—	1	Active on Alarm
Equipment Temperature Sensor Fail	10105	—	1	Active on Alarm

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Table 3.112 Liebert® EXL—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Memory Card Removed	10106	—	1	Active on Alarm
Auto Calibration Active	10107	—	1	Active on Alarm
Auto Calibration Failed	10108	—	1	Active on Alarm
External Input Signals				
Input Contact 01	10116	—	1	Active on Alarm
Input Contact 02	10117	—	1	Active on Alarm
Input Contact 03	10118	—	1	Active on Alarm
Input Contact 04	10119	—	1	Active on Alarm
Input Contact 05	10120	—	1	Active on Alarm
Input Contact 06	10121	—	1	Active on Alarm
Input Contact 07	10122	—	1	Active on Alarm
Input Contact 08	10123	—	1	Active on Alarm
Input Contact 09	10124	—	1	Active on Alarm
Input Contact 10	10125	—	1	Active on Alarm
Input Contact 11	10126	—	1	Active on Alarm
Input Contact 12	10127	—	1	Active on Alarm
Input Contact 13	10128	—	1	Active on Alarm
Input Contact 14	10129	—	1	Active on Alarm
Input Contact 15	10130	—	1	Active on Alarm
Input Contact 16	10131	—	1	Active on Alarm
Rectifier				
Rectifier Failure	10142	—	1	Active on Alarm
System				
Fan Redundancy Warning	10153	—	1	Active on Alarm
Slave Fan Warning	10154	—	1	Active on Alarm
Internal Communications Failure	10155	—	1	Active on Alarm
UPS Output on Bypass	10156	—	1	Active on Alarm
Output Load on Maint. Bypass	10157	—	1	Active on Alarm
Backfeed Breaker Open	10158	—	1	Active on Alarm
Auto Restart In Progress	10159	—	1	Active on Alarm
Power Supply Failure	10160	—	1	Active on Alarm
On Generator	10161	—	1	Active on Alarm

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Table 3.112 Liebert® EXL—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Auto Restart Inhibited - Ext	10162	—	1	Active on Alarm
Automatic Restart Failed	10163	—	1	Active on Alarm
Main Controller Fault	10164	—	1	Active on Alarm
Fuse Failure	10165	—	1	Active on Alarm
System Controller Error	10166	—	1	Active on Alarm
System Breaker(s) Open Failure	10167	—	1	Active on Alarm
System Breaker(s) Close Failure	10168	—	1	Active on Alarm
EMO Shutdown	10169	—	1	Active on Alarm
Service Code Active	10170	—	1	Active on Alarm
LBS Inhibited	10171	—	1	Active on Alarm
Regeneration Active	10172	—	1	Active on Alarm
Regeneration Operation Terminated	10173	—	1	Active on Alarm
Regeneration Operation Failure	10174	—	1	Active on Alarm
Controls Reset Required	10175	—	1	Active on Alarm
LBS Active - Master	10176	—	1	Active on Alarm
LBS Active - Slave	10177	—	1	Active on Alarm
Cont Tie Active	10178	—	1	Active on Alarm
UPSC Communication Failure	10179	—	1	Active on Alarm
Parallel Cable Failure	10180	—	1	Active on Alarm
Thermal Margin Warning	10181	—	1	Active on Alarm
MultiModule				
Parallel Comm Warning	10191	—	1	Active on Alarm
Loss of Redundancy	10192	—	1	Active on Alarm
MMS Transfer Inhibit	10193	—	1	Active on Alarm
MMS Retransfer Inhibit	10194	—	1	Active on Alarm
MMS Overload	10195	—	1	Active on Alarm
MMS On Battery	10196	—	1	Active on Alarm
MMS Low Battery Warning	10197	—	1	Active on Alarm
MMS Module Alarm Active	10198	—	1	Active on Alarm
Module Output Breaker Open	10199	—	1	Active on Alarm
Intelligent Paralleling				
Module In Standby - Intelligent Paralleling	10209	—	1	Active on Alarm

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Table 3.112 Liebert® EXL—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
ECO Mode				
ECO Mode Active	10220	—	1	Active on Alarm
ECO Mode Suspended	10221	—	1	Active on Alarm
Excess ECO Suspends	10222	—	1	Active on Alarm
Service Reminder				
Service Required	10233	—	1	Active on Alarm

Table 3.113 Liebert® EXL—Input and Holding

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16
System Input RMS C-A	30387	—	1	—	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
Input Qualification Status	30392	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Input Breaker Operation	30393	—	1	—	0 = Manual 1 = Elec Op
Bypass					
Bypass Input Voltage RMS A-B	30404	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30405	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30406	—	1	—	Units : VAC Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Bypass Input Frequency	30407	—	1	10	Units : Hz Uint16
Bypass Sync Phase Difference	30408	—	1	—	Units : deg Int16
Bypass SS Overload Time Remain	30409	—	1	—	Units : sec Uint16
Manual Transfer Bypass Voltage High Limit	30410	—	1	—	Units : % Uint16
Manual Transfer Bypass Voltage Low Limit	30411	—	1	—	Units : % Uint16
Static Bypass Switch	30412	—	1	—	0 = off 1 = on
Bypass Qualification Status	30413	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Auto Retransfer Time Remaining	30414	—	1	—	Units : sec Uint16
Battery					
Battery Total Discharge Time	30425	—	1	—	Units : hr Uint16
Battery Percentage Charge	30426	—	1	—	Units : % Uint16
Battery Volts for Cabinet 1	30427	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 2	30428	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 3	30429	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 4	30430	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 5	30431	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 6	30432	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 7	30433	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 8	30434	—	1	—	Units : VDC Uint16
Battery Temperature for Cabinet	30435	—	1	—	Units : deg C Int16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Temperature for Cabinet 1	30436	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 2	30437	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 2	30438	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 3	30439	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 3	30440	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 4	30441	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 4	30442	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 5	30443	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 5	30444	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 6	30445	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 6	30446	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 7	30447	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 7	30448	—	1	—	Units : deg F Int16
Battery Temperature for Cabinet 8	30449	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet 8	30450	—	1	—	Units : deg F Int16
Battery Recharge Method	30451	—	1	—	0 = Constant Voltage 1 = Two Step Constant Voltage
Battery Recharge Voltage	30452	—	1	1000	Units : VDC Uint16
Battery Float Voltage	30453	—	1	1000	Units : VDC Uint16
Battery Amp-Hours Consumed This Discharge	30454	—	1	—	Units : AH Uint16
Battery Time Remaining	30455	—	1	—	Units : min Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Discharge Time	30456	—	1	—	Units : sec Uint16
Battery Discharge Power	30457	—	1	—	Units : kW Uint16
Battery Commission Date	30458	—	2	—	Units : Secs since Epoch(UTC)
Battery Equalize Voltage	30460	—	1	1000	Units : VDC Uint16
Battery Equalize Time	30461	—	1	—	Units : hr Uint16
Automatic Battery Test	30462	—	1	—	0 = disabled 1 = enabled
Battery Self Test Cycle Time	30463	—	1	—	Units : week(s) Uint16
Battery Self Test Time of Test	30464	—	1	—	Units : min Uint16
Battery Self Test Start Date	30465	—	2	—	Units : Secs since Epoch(UTC)
Battery Self Test Duration	30467	—	1	—	Units : min Uint16
Battery Self Test Minimum Voltage	30468	—	1	1000	Units : VDC Uint16
Low Battery Warning Time	30469	—	1	—	Units : min Uint16
Battery Over Temp Warn Setting	30470	—	1	—	Units : deg C Int16
Battery Over Temp Warn Setting	30471	—	1	—	Units : deg F Int16
Battery Over Temp Limit Setting	30472	—	1	—	Units : deg C Int16
Battery Over Temp Limit Setting	30473	—	1	—	Units : deg F Int16
Battery Disconnect Setting	30474	—	1	—	0 = disabled 1 = enabled
Battery Cell Count Adjust	30475	—	1	—	Int16
Battery Cell Count	30476	—	1	—	Uint16
Battery Breaker Operation	30477	—	1	—	0 = Manual 1 = Elec Op
DC Bus					
DC Bus Voltage	30488	—	1	—	Units : VDC Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
DC Bus Current	30489	—	1	—	Units : A DC Int16
DC Bus Qualification Status	30490	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
DC Converter Status	30491	—	1	—	0 = off 1 = on
Output					
System Output Voltage RMS A-B	30502	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30503	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30504	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30505	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30506	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30507	—	1	—	Units : A AC Uint16
System Output Frequency	30508	—	1	10	Units : Hz Uint16
System Output Power	30509	—	1	—	Units : kW Uint16
System Output Apparent Power	30510	—	1	—	Units : kVA Uint16
System Output Power Factor Phs A	30511	—	1	100	Int16
System Output Power Factor Phs B	30512	—	1	100	Int16
System Output Power Factor Phs C	30513	—	1	100	Int16
System Output Pct Power Phase A	30514	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30515	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30516	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs A	30517	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30518	—	1	—	Units : % Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System Output Pct Pwr (VA) Phs C	30519	—	1	—	Units : % Uint16
Output Qualification Status	30520	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Output Breaker Operation	30521	—	1	—	0 = Manual 1 = Elec Op
Inverter					
Inverter Overload Time Remaining	30532	—	1	—	Units : sec Uint16
Maximum Load Exceeded Phase A	30533	—	1	—	Units : % Uint16
Maximum Load Exceeded Phase B	30534	—	1	—	Units : % Uint16
Maximum Load Exceeded Phase C	30535	—	1	—	Units : % Uint16
Maximum Load Exceeded Delay	30536	—	1	—	Units : sec Uint16
Inverter Output Qualification Status	30537	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Inverter On/Off State	30538	—	1	—	0 = off 1 = on
Environment					
Inlet Air Warning Setting	30549	—	1	—	Units : deg C Uint16
Inlet Air Warning Setting	30550	—	1	—	Units : deg F Uint16
Inlet Air Temperature	30551	—	1	—	Units : deg C Int16
Inlet Air Temperature	30552	—	1	—	Units : deg F Int16
Total System Operating Time	30553	—	2	—	Units : hr Uint32
System Date and Time	30555	40555	2	—	Units : Secs since Epoch(UTC)
Total kW Hours Saved	30557		2	—	Units : kWH Uint32
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)
External Input Signals					

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Delay for Input Contact 01	30585	—	1	10	Units : sec Int16
Delay for Input Contact 02	30586	—	1	10	Units : sec Int16
Delay for Input Contact 03	30587	—	1	10	Units : sec Int16
Delay for Input Contact 04	30588	—	1	10	Units : sec Int16
Delay for Input Contact 05	30589	—	1	10	Units : sec Int16
Delay for Input Contact 06	30590	—	1	10	Units : sec Int16
Delay for Input Contact 07	30591	—	1	10	Units : sec Int16
Delay for Input Contact 08	30592	—	1	10	Units : sec Int16
Delay for Input Contact 09	30593	—	1	10	Units : sec Int16
Delay for Input Contact 10	30594	—	1	10	Units : sec Int16
Delay for Input Contact 11	30595	—	1	10	Units : sec Int16
Delay for Input Contact 12	30596	—	1	10	Units : sec Int16
Delay for Input Contact 13	30597	—	1	10	Units : sec Int16
Delay for Input Contact 14	30598	—	1	10	Units : sec Int16
Delay for Input Contact 15	30599	—	1	10	Units : sec Int16
Delay for Input Contact 16	30600	—	1	10	Units : sec Int16
Include Input Contact Interface 1 Alarms In Summary	30601	—	1	—	0 = Not Included 1 = Included
Include Input Contact Interface 2 Alarms In Summary	30602	—	1	—	0 = Not Included 1 = Included
External Output Signals 1					
PRB Relay Trigger Event # 1	30613	—	1	—	Uint16
PRB Relay Trigger Event # 2	30614	—	1	—	Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
PRB Relay Trigger Event # 3	30615	—	1	—	Uint16
PRB Relay Trigger Event # 4	30616	—	1	—	Uint16
PRB Delay	30617	—	1	10	Uint16
External Output Signals 2					
PRB Relay Trigger Event # 1	30628	—	1	—	Uint16
PRB Relay Trigger Event # 2	30629	—	1	—	Uint16
PRB Relay Trigger Event # 3	30630	—	1	—	Uint16
PRB Relay Trigger Event # 4	30631	—	1	—	Uint16
PRB Delay	30632	—	1	10	Uint16
External Output Signals 16					
PRB Relay Trigger Event # 1	30838	—	1	—	Uint16
PRB Relay Trigger Event # 2	30839	—	1	—	Uint16
PRB Relay Trigger Event # 3	30840	—	1	—	Uint16
PRB Relay Trigger Event # 4	30841	—	1	—	Uint16
PRB Delay	30842	—	1	10	Uint16
Rectifier					
Rectifier Status	30853	—	1	—	0 = off 1 = on
System					
UPS Module Type	30864	—	1	—	0 = Single Module System 1 = Module (1 + 1) 2 = Module (1 + N) 3 = Module (N + 1) 4 = System Control Cabinet 5 = Main Static Switch
UPS System Output Source	30865	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass
System Input Power Source	30866	—	1	—	0 = None 1 = Utility (mains) 2 = Generator
System Status	30867	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
UPS Output Source	30868	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Accumulated Energy	30869	40869	2	10	Units : kWH Uint32
Module Accumulated Energy	30871	40871	2	10	Units : kWH Uint32
Output kWh Reset Timestamp	30873	—	2	—	Units : Secs since Epoch(UTC)
Output Peak kW Demand	30875	—	1	—	Units : kW Uint16
Output Peak kW Demand Hist	30876	—	1	—	Units : kW Uint16
Peak kW Demand Period	30877	—	1	—	1 = Hourly 2 = Daily 3 = Weekly 4 = Monthly 5 = Yearly
Peak kW Demand Timestamp	30878	—	2	—	Units : Secs since Epoch(UTC)
Regeneration Time Remaining	30880	—	1	—	Units : min Uint16
Ratings					
Bypass Nominal Voltage	30891	—	1	—	Units : VAC Uint16
System Input Nominal Voltage	30892	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30893	—	1	10	Units : Hz Uint16
System Output Nominal Voltage	30894	—	1		Units : VAC Uint16
System Output Nominal Frequency	30895	—	1	10	Units : Hz Uint16
Battery Cell Count - Lead Acid	30896	—	1	—	Uint16
Output Apparent Power Rating	30897	—	1	—	Units : kVA Uint16
Output Real Power Rating	30898	—	1	—	Units : kW Uint16
System UPS Module Count	30899	—	1	—	Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System Output Maximum Amp Rating	30900	—	1	—	Units : A AC Uint16
Device Status					
Backfeed Breaker	30911	—	1	—	0 = Open 1 = Close 2 = Not Installed
Input Breaker (CB1/RIB)	30912	—	1	—	0 = Open 1 = Close 2 = Not Installed
Output Breaker (CB2/IOB)	30913	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker	30914	—	1	—	0 = Open 1 = Close 2 = Not Installed
Rectifier Feed Breaker (RFB)	30915	—	1	—	0 = Open 1 = Close 2 = Not Installed
Maintenance Bypass Breaker	30916	—	1	—	0 = Open 1 = Close 2 = Not Installed
Maintenance Isolation Breaker	30917	—	1	—	0 = Open 1 = Close 2 = Not Installed
Precharge Contactor	30918	—	1	—	0 = Open 1 = Close 2 = Not Installed
MultiModule					
Multi-module System Output Voltage RMS A-B	30929	—	1	—	Units : VAC Uint16
Multi-module System Output Voltage RMS B-C	30930	—	1	—	Units : VAC Uint16
Multi-module System Output Voltage RMS C-A	30931	—	1	—	Units : VAC Uint16
Multi-Module System Output Voltage RMS A-N	30932	—	1	—	Units : VAC Uint16
Multi-Module System Output Voltage RMS B-N	30933	—	1	—	Units : VAC Uint16
Multi-Module System Output Voltage RMS C-N	30934	—	1	—	Units : VAC Uint16
Sum of MMS Output RMS Currents for Phase A	30935	—	1	—	Units : A AC Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Sum of MMS Output RMS Currents for Phase B	30936	—	1	—	Units : A AC Uint16
Sum of MMS Output RMS Currents for Phase C	30937	—	1	—	Units : A AC Uint16
MMS Output Frequency	30938	—	1	10	Units : Hz Uint16
MMS Output Power	30939	—	1	—	Units : kW Uint16
MMS Output Apparent Power	30940	—	1	—	Units : kVA Uint16
MMS Output Power Factor Phase A	30941	—	1	100	Int16
MMS Output Power Factor Phase B	30942	—	1	100	Int16
MMS Output Power Factor Phase C	30943	—	1	100	Int16
MMS Output Pct Power Phase A	30944	—	1	—	Units : % Int16
MMS Output Pct Power Phase B	30945	—	1	—	Units : % Int16
MMS Output Pct Power Phase C	30946	—	1	—	Units : % Int16
MMS Output Pct Apparent Pwr (kVA) Phase A	30947	—	1	—	Units : % Int16
MMS Output Pct Apparent Pwr (kVA) Phase B	30948	—	1	—	Units : % Int16
MMS Output Pct Apparent Pwr (kVA) Phase C	30949	—	1	—	Units : % Int16
Number of Redundant Modules	30950	—	1	—	Uint16
MMS Module Number	30951	—	1	—	Int16
Number of Modules in a MMS	30952	—	1	—	Uint16
Module Output Breaker for Module 1	30953	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 2	30954	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 3	30955	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 4	30956	—	1	—	0 = Open 1 = Close 2 = Not Installed

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Module Output Breaker for Module 5	30957	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 6	30958	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 7	30959	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 8	30960	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 1	30961	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 2	30962	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 3	30963	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 4	30964	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 5	30965	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 6	30966	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 7	30967	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 8	30968	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Output Breaker	30969	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Load Bank Breaker	30970	—	1	—	0 = Open 1 = Close 2 = Not Installed

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
System Isolation Output Breaker	30971	—	1	—	0 = Open 1 = Close 2 = Not Installed
SCC Event Summary	30972	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS UPS Battery Status	30973	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
MMS UPS Output Source	30974	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
ModuleList 1					
MMS Inter-Module Comm Status	30985	—	1	—	0 = Failed 1 = Normal
MMS Event Summary	30986	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS Module Inverter Status	30987	—	1	—	0 = off 1 = on
MMS Module Output Voltage Status	30988	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
MMS Module Output Source	30989	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass
MMS Module Total kW Output	30990	—	1	—	Units : kW Uint16
MMS Module Total kVA Output	30991	—	1	—	Units : kVA Uint16
MMS Module DC Bus Voltage	30992	—	1	—	Units : VDC Uint16
MMS Module Battery Current	30993	—	1	—	Units : A DC Int16
MMS Module Battery Time Remaining	30994	—	1	—	Units : min Uint16

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
ModuleList 2					
MMS Inter-Module Comm Status	31005	—	1	—	0 = Failed 1 = Normal
MMS Event Summary	31006	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS Module Inverter Status	31007	—	1	—	0 = off 1 = on
MMS Module Output Voltage Status	31008	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
MMS Module Output Source	31009	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass
MMS Module Total kW Output	31010	—	1	—	Units : kW Uint16
MMS Module Total kVA Output	31011	—	1	—	Units : kVA Uint16
MMS Module DC Bus Voltage	31012	—	1	—	Units : VDC Uint16
MMS Module Battery Current	31013	—	1	—	Units : A DC Int16
MMS Module Battery Time Remaining	31014	—	1	—	Units : min Uint16
ModuleList 8					
MMS Inter-Module Comm Status	31125	—	1	—	0 = Failed 1 = Normal
MMS Event Summary	31126	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS Module Inverter Status	31127	—	1	—	0 = off 1 = on
MMS Module Output Voltage Status	31128	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
MMS Module Output Source	31129	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
MMS Module Total kW Output	31130	—	1	—	Units : kW Uint16
MMS Module Total kVA Output	31131	—	1	—	Units : kVA Uint16
MMS Module DC Bus Voltage	31132	—	1	—	Units : VDC Uint16
MMS Module Battery Current	31133	—	1	—	Units : A DC Int16
MMS Module Battery Time Remaining	31134	—	1	—	Units : min Uint16
Intelligent Paralleling					
Intelligent Parallel Operation State	31145	—	1	—	0 = disabled 1 = enabled
Intelligent Parallel Mode	31146	—	1	—	0 = Idle (Fast Recovery) |1 = Disconnect (More Efficient) 2 = Off (Most Efficient)
Intelligent Paralleling Shutdown Delay	31147	—	1	—	Units : min Uint16
Intelligent Parallel Minimum Redundancy	31148	—	1	—	Uint16
Intelligent Parallel Maximum Time in Standby	31149	—	1	—	Units : day Uint16
ECO Mode					
ECO Mode Operation State	31160	41160	1	—	0 = disabled 1 = enabled
Continuous Operation - ECO Mode	31161	—	1	—	0 = disabled 1 = enabled
Maximum Auto Suspensions - ECO Mode	31162	—	1	—	Uint16
Restart Delay - ECO Mode	31163	—	1	—	Units : min Uint16
Time Remaining - ECO Mode	31164	—	1	—	Units : min Uint16
EcoModeSchedule 1					
Schedule Operation State - ECO Mode	31175	—	1	—	0 = disabled 1 = enabled
Schedule Action - ECO Mode	31176	—	1	—	0 = stop 1 = start

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Schedule Day of Week - ECO Mode	31177	—	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Schedule Hour - ECO Mode	31178	—	1	—	Units : hr Uint16
Schedule Minute - ECO Mode	31179	—	1	—	Units : min Uint16
EcoModeSchedule 2					
Schedule Operation State - ECO Mode	31190	—	1	—	0 = disabled 1 = enabled
Schedule Action - ECO Mode	31191	—	1	—	0 = stop 1 = start
Schedule Day of Week - ECO Mode	31192	—	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Schedule Hour - ECO Mode	31193	—	1	—	Units : hr Uint16
Schedule Minute - ECO Mode	31194	—	1	—	Units : min Uint16
EcoModeSchedule 16					
Schedule Operation State - ECO Mode	31400	—	1	—	0 = disabled 1 = enabled
Schedule Action - ECO Mode	31401	—	1	—	0 = stop 1 = start
Schedule Day of Week - ECO Mode	31402	—	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday

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Table 3.113 Liebert® EXL—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Schedule Hour - ECO Mode	31403	—	1	—	Units : hr Uint16
Schedule Minute - ECO Mode	31404	—	1	—	Units : min Uint16
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.114 Liebert® EXL—Glossary

Data Label	Data Description
Auto Calibration Active	The system is automatically calibrating ADC channels.
Auto Calibration Failed	ADC channel calibration has failed.
Auto Restart In Progress	Auto restart is in progress.
Auto Restart Inhibited - Ext	Auto restart inhibited due to an external signal.
Auto Retransfer Time Remaining	Time remaining before an inverter overload or inverter fault can be cleared and auto retransfer from the bypass to the inverter can take place.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Automatic Restart Failed	Automatic restart failed.
Backfeed Breaker Open	The backfeed breaker is in the open position.
Backfeed Breaker	Backfeed breaker.
Battery - External Monitor 1	External battery monitor 1 - battery maintenance required.
Battery - External Monitor 2	External battery monitor 2 - battery maintenance required.
Battery Amp-Hours Consumed This Discharge	Battery amp-hours withdrawn this discharge.
Battery Breaker Operation	Indicates the type of breaker installed for the batteries.
Battery Capacity Low	Battery capacity is low.
Battery Cell Count - Lead Acid	Battery cell count - lead acid.
Battery Cell Count Adjust	The cell count adjustment for the batteries currently installed.
Battery Cell Count	The cell count of the attached battery.
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open.
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open.
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open.
Battery Commission Date	Date and time when battery placed into service.
Battery Discharge Power	Instantaneous battery power while discharging.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Disconnect Setting	Allow the battery overtemp to initiate a battery disconnect.
Battery Equalize Time	The duration used when the battery is being equalized.
Battery Equalize Voltage	The cell voltage that will be used when the battery is being equalized.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery Low Shutdown	Battery disconnect due to end-of-discharge.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Over Temp Limit Setting	The temperature setting that will initiate an over temperature limit.
Battery Over Temp Warn Setting	The temperature setting that will initiate an over temperature warning.
Battery Over Temperature Limit	A battery temperature sensor is reporting a value above a predetermined limit.
Battery Percentage Charge	The percentage of battery charge.
Battery Recharge Method	The recharge method used for battery recharging.
Battery Recharge Voltage	The recharge cell voltage for the battery.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test Duration	The duration of a successful battery self test cycle.
Battery Self Test Minimum Voltage	Minimum cell voltage acceptable during a successful battery test.
Battery Self Test Start Date	The date that the battery self tests will begin happening.
Battery Self Test Time of Test	The time of day that the automatic self test will be initiated.
Battery Self Test	Battery self-test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected.
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected.
Battery Test Failed	Battery test failed.
Battery Test Inhibited	Automatic (scheduled) battery tests are inhibited.
Battery Time Remaining	The calculated available time on battery.
Battery Total Discharge Time	The cumulative battery discharge time.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass - Manual Rexfr Inhibited	Manual transfer from bypass to inverter is inhibited.
Bypass - Manual Xfr Inhibited	Manual transfer from inverter to bypass is inhibited.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed.
Bypass Auto Retransfer Primed	Automatic retransfer from bypass to inverter is possible.
Bypass Auto Transfer Failed	An automatic transfer to static bypass failed.
Bypass Excessive Pulse Parallel	The system has performed too many pulse parallel operations within a specified time interval
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between Phases C and A.
Bypass Isolation Breaker for Module 1	Bypass isolation breaker for Module 1.
Bypass Isolation Breaker for Module 2	Bypass isolation breaker for Module 2.
Bypass Isolation Breaker for Module 3	Bypass isolation breaker for Module 3.
Bypass Isolation Breaker for Module 4	Bypass isolation breaker for Module 4.
Bypass Isolation Breaker for Module 5	Bypass isolation breaker for Module 5.
Bypass Isolation Breaker for Module 6	Bypass isolation breaker for Module 6.
Bypass Isolation Breaker for Module 7	Bypass isolation breaker for Module 7.
Bypass Isolation Breaker for Module 8	
Bypass Isolation Breaker	Bypass isolation breaker.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload Phase A	An overload exists on output Phase A while operating on the bypass.
Bypass Overload Phase B	An overload exists on output Phase B while operating on the bypass.
Bypass Overload Phase C	An overload exists on output Phase C while operating on the bypass.
Bypass Qualification Status	Bypass qualification status.
Bypass SS Overload Time Remain	The calculated time remaining before bypass static switch shutdown due to the present overload condition.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Bypass Static Switch Overload	Bypass off due to static switch overload.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Sync Phase Difference	The phase angle difference between the inverter output and bypass source.
Bypass Undervoltage Warning	The voltage on one or more bypass phases is less than a specified percentage of the nominal voltage.
Cont Tie Active	Continuous Power Tie Active.
Continuous Operation - ECO Mode	This setting gives the user the ability to Enable/Disable ECO Mode continuous operation.
Controls Reset Required	A controls reset is required due to one or more critical settings changing.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Qualification Status	DC bus qualification status.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
DC Converter Status	The operating state of the dc converter.
Delay for Input Contact 01	The activation delay associated with input contact 1.
Delay for Input Contact 02	The activation delay associated with input contact 2.
Delay for Input Contact 03	The activation delay associated with input contact 3.
Delay for Input Contact 04	The activation delay associated with input contact 4.
Delay for Input Contact 05	The activation delay associated with input contact 5.
Delay for Input Contact 06	The activation delay associated with input contact 6.
Delay for Input Contact 07	The activation delay associated with input contact 7.
Delay for Input Contact 08	The activation delay associated with input contact 8.
Delay for Input Contact 09	The activation delay associated with input contact 9.
Delay for Input Contact 10	The activation delay associated with input contact 10.
Delay for Input Contact 11	The activation delay associated with input contact 11.
Delay for Input Contact 12	The activation delay associated with input contact 12.
Delay for Input Contact 13	The activation delay associated with input contact 13.
Delay for Input Contact 14	The activation delay associated with input contact 14.
Delay for Input Contact 15	The activation delay associated with input contact 15.
Delay for Input Contact 16	The activation delay associated with input contact 16.
ECO Mode Active	Conditions for Activation or Automatic Reactivation have been satisfied.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Suspended	ECO Mode session is suspended.
EMO Shutdown	An Emergency Module Off command has been detected.
Equipment Over Temp Warning	Equipment over temperature warning is a summary event based on the detection of at least one measured

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
	temperature exceeding a threshold.
Equipment Temperature Sensor Fail	One or more temperature sensors report a temperature outside of the range of expected operation.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures.
Ground Fault	An AC phase-to-ground fault or three-phase fault-to-ground exists on the output of the UPS.
Include Input Contact Interface 1 Alarms In Summary	Should the inputs on input contact interface 1 be included in the summary event when activated.
Include Input Contact Interface 2 Alarms In Summary	Should the inputs on input contact interface 2 be included in the summary event when activated.
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold.
Inlet Air Temperature	The temperature of the inlet air
Inlet Air Warning Setting	The temperature setting that will cause an input temperature warning.
Input Breaker (CB1/RIB)	Input breaker (CB1/RIB).
Input Breaker Operation	Indicates the type of breaker installed for the Input.
Input Contact 01	The external input contact 1.
Input Contact 02	The external input contact 2.
Input Contact 03	The external input contact 3.
Input Contact 04	The external input contact 4.
Input Contact 05	The external input contact 5.
Input Contact 06	The external input contact 6.
Input Contact 07	The external input contact 7.
Input Contact 08	The external input contact 8.
Input Contact 09	The external input contact 9.
Input Contact 10	The external input contact 10.
Input Contact 11	The external input contact 11.
Input Contact 12	The external input contact 12.
Input Contact 13	The external input contact 13.
Input Contact 14	The external input contact 14.
Input Contact 15	The external input contact 15.
Input Contact 16	The external input contact 16.
Input Qualification Status	Input qualification status.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Intelligent Parallel Maximum Time	The maximum time a module can be in standby mode due to Intelligent Paralleling.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
in Standby	
Intelligent Parallel Minimum Redundancy	This is the minimum Number of Redundant Modules that the system will allow before bringing one or more modules back to normal operation and terminating Intelligent Paralleling.
Intelligent Parallel Mode	This setting gives the user the ability to choose between different energy consumption modes while Intelligent Paralleling is active and module is in standby.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Intelligent Paralleling Shutdown Delay	This is the length of time the conditions for module standby must remain satisfied before the module goes into standby.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state.
Inverter Output Qualification Status	Inverter output qualification status.
Inverter Overload Phase A	Inverter is operating with an overload on Phase A.
Inverter Overload Phase B	Inverter is operating with an overload on Phase B.
Inverter Overload Phase C	Inverter is operating with an overload on Phase C.
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
LBS Active - Master	This UPS system has been selected as the functional Master Load Bus Synchronization (LBS) system.
LBS Active - Slave	This UPS system is synchronized to the output bus of the UPS system that has been selected as the Master Load Bus Synchronization (LBS) system.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open.
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
Maintenance Isolation Breaker	Maintenance isolation breaker.
Manual Transfer Bypass Voltage High Limit	The manual bypass voltage high limit setting.
Manual Transfer Bypass Voltage Low Limit	The manual bypass voltage low limit setting.
Maximum Auto Suspensions - ECO Mode	This setting sets the maximum number of automatic ECO Mode suspensions in a session.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Maximum Load Exceeded Delay	The maximum load exceeded event delay time.
Maximum Load Exceeded Phase A	The maximum load current exceeded setting for Phase A.
Maximum Load Exceeded Phase B	The maximum load current exceeded setting for Phase B.
Maximum Load Exceeded Phase C	The maximum load current exceeded setting for Phase C.
Memory Card Removed	The memory card on the control board has been removed.
MMS Event Summary	Summary of any active user alarm or fault of this module in a multi-module system.
MMS Inter-Module Comm Status	Intermodule communication status of this module in a multi-module system.
MMS Low Battery Warning	Multi-module system low battery warning.
MMS Module Alarm Active	Active alarm or fault of any module in a multi-module system.
MMS Module Battery Current	Battery current of this module in a multi-module system.
MMS Module Battery Time Remaining	Battery time remaining for this module in a multi-module system.
MMS Module DC Bus Voltage	DC bus voltage of this module in a multi-module system.
MMS Module Inverter Status	Multi-module inverter status of this module (on/off).
MMS Module Number	MMS module number
MMS Module Output Source	Module output source in a multi-module system (normal/bypass/maintenance bypass/off).
MMS Module Output Voltage Status	Output voltage status of this module in multi-module system.
MMS Module Total kVA Output	Total kVA output of this module in a multi-module system.
MMS Module Total kW Output	Total kW output of this module in a multi-module system.
MMS On Battery	The multi-module system is on battery
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Frequency	The multi-module system output frequency.
MMS Output Pct Apparent Pwr (kVA) Phase A	The multi-module system output apparent power on Phase A as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase B	The multi-module system output apparent power on Phase B as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase C	The multi-module system output apparent power on Phase C as a percentage of the rated capacity.
MMS Output Pct Power Phase A	The multi-module system output power on Phase A as a percentage of the rated capacity.
MMS Output Pct Power Phase B	The multi-module system output power on Phase B as a percentage of the rated capacity.
MMS Output Pct Power Phase C	The multi-module system output power on Phase C as a percentage of the rated capacity.
MMS Output Power Factor Phase	The multi-module system output power factor for Phase A.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
A	
MMS Output Power Factor Phase B	The multi-module system output power factor for Phase B.
MMS Output Power Factor Phase C	The multi-module system output power factor for Phase C.
MMS Output Power	The sum total power of all system output modules.
MMS Overload	Multi-module system overload.
MMS Retransfer Inhibit	The critical load can not be manually retransferred from bypass to inverter.
MMS Transfer Inhibit	The critical load can not be manually transferred from inverter to bypass.
MMS UPS Battery Status	Multi-module UPS battery status
MMS UPS Output Source	Multi-module UPS output source.
Module Accumulated Energy	Total accumulated energy output for this module, since last energy reset.
Module In Standby - Intelligent Paralleling	Module is placed into standby operation per Intelligent Paralleling.
Module Output Breaker for Module 1	Module output breaker for Module 1.
Module Output Breaker for Module 2	Module output breaker for Module 2.
Module Output Breaker for Module 3	Module output breaker for Module 3.
Module Output Breaker for Module 4	Module output breaker for Module 4.
Module Output Breaker for Module 5	Module output breaker for Module 5.
Module Output Breaker for Module 6	Module output breaker for Module 6.
Module Output Breaker for Module 7	Module output breaker for Module 7.
Module Output Breaker for Module 8	Module output breaker for Module 8.
Module Output Breaker Open	The module output breaker is open.
Multi-Module System Output Voltage RMS A-B	Multi-module system output RMS voltage between Phases A and B.
Multi-Module System Output Voltage RMS A-N	Multi-module system output RMS voltage between Phase B and Neutral.
Multi-Module System Output Voltage RMS B-C	Multi-module system output RMS voltage between Phases B and C.
Multi-Module System Output Voltage RMS B-N	Multi-module system output RMS voltage between Phase B and Neutral.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Multi-Module System Output Voltage RMS C-A	Multi-module system output RMS voltage between Phases C and A.
Multi-Module System Output Voltage RMS C-N	Multi-module system output RMS voltage between Phase C and Neutral.
Multiple Fan Failure	Multiple fan failure.
Number of Modules in a MMS	The number of modules in a multi-module system.
Number of Redundant Modules	The number of redundant modules in a multi-module collective.
On Generator	A generator is supplying the power to the system.
Outlet Air Overtemperature Limit	The difference between the outlet air temperature and inlet air temperature exceeds a specified maximum temperature.
Output Amp Over User Limit-Phs A	The Phase A output has exceeded the user amperage threshold.
Output Amp Over User Limit-Phs B	The Phase B output has exceeded the user amperage threshold.
Output Amp Over User Limit-Phs C	The Phase C output has exceeded the user amperage threshold.
Output Apparent Power Rating	Output apparent power rating.
Output Breaker (CB2/IOB)	Output breaker (CB2/IOB).
Output Breaker Operation	Indicates the type of breaker installed for the output.
Output kWh Reset Timestamp	The date/time stamp when the User kWh accumulator was last reset to zero.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Peak kW Demand Hist	The Output Peak kW Demand for the last completed programmed time interval.
Output Peak kW Demand	The Output Peak kW Demand for the programmed time interval.
Output Qualification Status	Output qualification status.
Output Real Power Rating	Output real power rating.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning.
Peak kW Demand Period	The Peak kW Demand Period..
Peak kW Demand Timestamp	The date/time stamp when the Peak kW Demand accumulator was last reset.
Power Supply Failure	Power supply failure
PRB Delay	Programmable Relay Board activation delay time.
PRB Relay Trigger Event # 1	Programmable Relay Board Trigger Event # 1.
PRB Relay Trigger Event # 2	Programmable Relay Board Trigger Event # 2.
PRB Relay Trigger Event # 3	Programmable Relay Board Trigger Event # 3.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
PRB Relay Trigger Event # 4	Programmable Relay Board Trigger Event # 4.
Precharge Circuit Failed	DC Bus precharge/discharge didn't reach specified level within a specified time.
Precharge Contactor	The Precharge Contactor is engaged to pre-charge the DC bus in preparation for starting the Rectifier.
Rectifier Failure	Rectifier failure - rectifier is off.
Rectifier Feed Breaker (RFB)	Rectifier feed breaker (RFB).
Rectifier Status	Rectifier status.
Regeneration Active	Regeneration operation is active.
Regeneration Operation Failure	Regeneration operation has been terminated due to bypass source instability or unit misoperation.
Regeneration Operation Terminated	Regeneration operation is not active.
Regeneration Time Remaining	The time remaining until the termination of regeneration mode.
Restart Delay - ECO Mode	The time delay that the conditions to activate ECO Mode must be satisfied before ECO Mode can be reactivated during an active session.
SCC Event Summary	Summary of any active user alarms or faults on the SCC.
Schedule Action - ECO Mode	This setting gives the user the ability to choose the action of a schedule entry to be either stop or start.
Schedule Day of Week - ECO Mode	This setting represents the day of the week when an associated ECO Mode schedule entry action will take effect.
Schedule Hour - ECO Mode	This setting represents the hour of the day when an associated schedule entry action will take effect.
Schedule Minute - ECO Mode	This setting represents the minute of the hour when an associated schedule entry action will take effect.
Schedule Operation State - ECO Mode	This setting gives the user the ability to either enable or disable a schedule entry if the action is Start.
Service Code Active	Service code is running.
Service Required	Unit requires servicing.
Static Bypass Switch	Static Bypass Switch state - On/Off.
Sum of MMS Output RMS Currents for Phase A	The sum of the multi-module system output RMS currents for Phase A.
Sum of MMS Output RMS Currents for Phase B	The sum of the multi-module system output RMS currents for Phase B.
Sum of MMS Output RMS Currents for Phase C	The sum of the multi-module system output RMS currents for Phase C.
System Accumulated Energy	Total accumulated energy output for the mms system, since last energy reset.
System Breaker(s) Close Failure	One or more breakers in the system failed to close.
System Breaker(s) Open Failure	One or more breakers in the system failed to open.
System Controller Error	System controller internal error.
System Date and Time	The system date and time.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
System Fan Failure - Redundant	Redundant system fan failure.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input Power Source	System input power source
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Isolation Output Breaker	System isolation output breaker.
System Load Bank Breaker	System load bank breaker.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Breaker	System output breaker.
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency.
System Output Low Power Factor	The system output power factor is low, resulting in reduced output capacity.
System Output Maximum Amp Rating	System output maximum amperage rating.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs A	The system output apparent power on Phase A as a percentage of the rated capacity.

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Table 3.114 Liebert® EXL—Glossary (continued)

Data Label	Data Description
System Output Pct Pwr (VA) Phs B	The system output apparent power on Phase B as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs C	The system output apparent power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
System UPS Module Count	Number of UPS modules in the system.
Time Remaining - ECO Mode	Time remaining before current active ECO Mode session stops.
Total kW Hours Saved	Total kW hours saved by ECO Mode or Intelligent Paralleling.
Total System Operating Time	The cumulative operation time of the unit.
UPS Module Type	UPS module type.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
UPS System Output Source	The UPS system's output power source.
UPSC Communication Failure	The UPSC has failed to communicate in a designated time period.

Table 3.115 Liebert® EXL S1 – Status and Legacy Chloride Registers

Data Label	Status	Legacy Chloride Label	Legacy Chloride Register	Notes
Switch Gear				
Backfeed Breaker Open	10001	BFD Open	40097, bit 7	Active on Alarm
Input Breaker Open	10002	—	—	Active on Alarm

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Table 3.115 Liebert® EXL S1 – Status and Legacy Chloride Registers (continued)

Data Label	Status	Legacy Chloride Label	Legacy Chloride Register	Notes
Output Breaker Open	10003	Ups Output Off MOB Open	40088, bit 6 40097, bit 5	Active on Alarm
Battery Breaker Open	10004	—	—	Active on Alarm
Maintenance Bypass Breaker Closed	10005	MBB Closed	40097, bit 6	Active on Alarm
Battery Circuit Breaker 1 Open	10006	—	—	Active on Alarm
Battery Circuit Breaker 2 Open	10007	—	—	Active on Alarm
Battery Circuit Breaker 3 Open	10008	—	—	Active on Alarm
Battery Circuit Breaker 4 Open	10009	—	—	Active on Alarm
Battery Circuit Breaker 5 Open	10010	—	—	Active on Alarm
Battery Circuit Breaker 6 Open	10011	—	—	Active on Alarm
Battery Circuit Breaker 7 Open	10012	—	—	Active on Alarm
Battery Circuit Breaker 8 Open	10013	—	—	Active on Alarm
Bypass Breaker Closed	10014	RBB Open	40097, bit 1	Active on Alarm
Bypass Breaker (SBB) Open	10015	SBB Open	40097, bit 2	Active on Alarm
System Events				
Data Label	Status	Legacy Chloride Label	Legacy Chloride Register	Notes
General Fault	10016	General Fault	40089, bit 2	Active on Alarm
General Warning	10017	General Warning	40090, bit 2	Active on Alarm
System Output Off	10018	—	—	Active on Alarm
UPS Output on Bypass	10019	On Bypass	40088, bit 1	Active on Alarm
Output Off Pending	10020	Shutdown Pending	40089, bit 6	Active on Alarm
System Restart Pending	10021	System Restart Pending	40090, bit 6	Active on Alarm
Bypass out of sync	10022	—	—	Active on Alarm
System Output Fault	10023	Output Bad	40087, bit 7	Active on Alarm
System Shutdown - EPO	10024	Ups Off As Requested	40088, bit 4	Active on Alarm
System Shutdown - Output Short	10025	—	—	Active on Alarm
Ground Fault	10026	—	—	Active on Alarm
System Input Power Problem	10027	Input Bad	40087, bit 6	Active on Alarm
Bypass Input Voltage Fault	10028	—	—	Active on Alarm
Bypass Overload	10029	—	—	Active on Alarm
Inverter Overload	10030	—	—	Active on Alarm
System Input Current Limit	10031	—	—	Active on Alarm

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Table 3.115 Liebert® EXL S1 – Status and Legacy Chloride Registers (continued)

Data Label	Status	Legacy Chloride Label	Legacy Chloride Register	Notes
Bypass Not Available	10032	Bypass Bad	40088, bit 2	Active on Alarm
Bypass Static Switch Unavailable	10033	—	—	Active on Alarm
Rectifier Failure	10034	—	—	Active on Alarm
Inverter Failure	10035	—	—	Active on Alarm
Charger Failure	10036	Charger Failed	40088, bit 5	Active on Alarm
Booster Failure	10037	—	—	Active on Alarm
DC Bus Abnormal	10038	—	—	Active on Alarm
Battery Ground Fault	10039	—	—	Active on Alarm
Battery Discharging	10040	On Battery	40087, bit 2	Active on Alarm
Battery Charging	10041	Battery Charging	40090, bit 3	Active on Alarm
Battery Low	10042	—	—	Active on Alarm
Battery Test Passed	10043	—	—	Active on Alarm
Battery Test Failed	10044	Battery Bad	40087, bit 1	Active on Alarm
Battery Auto Test In Progress	10045	Test In Progress	40090, bit 0	Active on Alarm
Battery Manual Test In Progress	10046	—	—	Active on Alarm
System Fan Failure	10047	Fan Failure	40089, bit 0	Active on Alarm
Fuse Failure	10048	Fuse Failure	40089, bit 1	Active on Alarm
Equipment Over Temperature	10049	Temperature Bad	40087, bit 5	Active on Alarm
Battery Under Voltage	10050	Battery Degraded	40090, bit 7	Active on Alarm
Output Overload	10051	Output Overload	40088, bit 0	Active on Alarm
Internal Communications Failure	10052	Communications Lost	40089, bit 4	Active on Alarm
Battery Circuit Open	10053	Battery Circuit Open	40090, bit 5	Active on Alarm
BIB Battery Breaker Power Supply Failure	10055	—	—	Active on Alarm
Battery Management System Power Supply Failure	10056	—	—	Active on Alarm
Battery Management System Rack is Offline Warning	10057	—	—	Active on Alarm
Battery Management System General Warning	10058	—	—	Active on Alarm
Battery Management System Fault	10059	—	—	Active on Alarm
Battery Management System End-Of-Discharge Warning	10060	—	—	Active on Alarm
MOB Aux Sensing Fault	10061	—	—	Active on Alarm
SMPS Input Power Supply Failure	10062	—	—	Active on Alarm
Rectifier off due to fan power not available	10063	—	—	Active on Alarm

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Table 3.115 Liebert® EXL S1 – Status and Legacy Chloride Registers (continued)

Data Label	Status	Legacy Chloride Label	Legacy Chloride Register	Notes
SMS Stop Inverter Inhibit	10064	—	—	Active on Alarm
Unit In Special Capacity Mode	10065	—	—	Active on Alarm
Rectifier Overcurrent Warning	10066	—	—	Active on Alarm

Table 3.116 Liebert® EXL S1 – Input and Chloride Registers

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
System Information						
UPS manufacturer	30385	—	Manufacturer	40003	—	0 = Chloride 1 = Masterguard 2 = Oneac 4 = Vertiv 5 = Other
UPS Module Type	30386	—	—	—	—	0 = Single Module System 1 = Module (1 + 1) 2 = Module (1 + N) 3 = Module (N + 1) 4 = System Control Cabinet 5 = Main Static Switch
Ratings						
Output Apparent Power Rating	30397	—	Configured Output VA	40116	10	Units : kVA Uint16
System Input Nominal Frequency	30398	—	—	—	—	Units : Hz Uint16
System Input Nominal Voltage	30399	—	—	—	—	Units : VAC Uint16
System Output Nominal Frequency	30400	—	—	—	—	Units : Hz Uint16
System Output Nominal Voltage	30401	—	—	—	—	Units : VAC Uint16
System Input Nominal Current	30402	—	Nominal Input Current	40015	—	Units : A AC Uint16
Input						
System Input Black Out Count	30412	—	Line Bads	40032	—	Uint16
System Input Frequency	30413	10	Frequency	40033	10	Units : Hz Uint16
System Input RMS A-N	30414	10	Voltage L1	40035	—	Units : VAC Uint16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
System Input RMS B-N	30415	10	Voltage L2	40036	—	Units : VAC Uint16
System Input RMS C-N	30416	10	Voltage L3	40037	—	Units : VAC Uint16
System Input RMS A-B	30417	10	—	—	—	Units : VAC Uint16
System Input RMS B-C	30418	10	—	—	—	Units : VAC Uint16
System Input RMS C-A	30419	10	—	—	—	Units : VAC Uint16
System Input RMS Current Phase A	30420	10	Current L1	40038	10	Units : A AC Uint16
System Input RMS Current Phase B	30421	10	Current L2	40039	10	Units : A AC Uint16
System Input RMS Current Phase C	30422	10	Current L3	40040	10	Units : A AC Uint16
System Input Power Phase A	30423	10	Input Real Power L1	40041	10	Units : kW Uint16
System Input Power Phase B	30424	10	Input Real Power L2	40042	10	Units : kW Uint16
System Input Power Phase C	30425	10	Input Real Power L3	40043	10	Units : kW Uint16
UPS DC input voltage	30426	—	DC Voltage	40044	10	Units : VDC Uint16
System Input Apparent Power Phs A	30429	10	Input Apparent Power L1	40137	10	Units : kVA Uint16
System Input Apparent Power Phs B	30430	10	Input Apparent Power L2	40138	10	Units : kVA Uint16
System Input Apparent Power Phs C	30431	10	Input Apparent Power L3	40139	10	Units : kVA Uint16
Rectifier Module Temperature 1						
Rectifier Phase A Temperature sensor	30437	—	—	—	—	Units : deg C Int16
Rectifier Phase A Temperature sensor	30438	—	—	—	—	Units : deg F Int16
Rectifier Phase B Temperature sensor	30439	—	—	—	—	Units : deg C Int16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
Rectifier Phase B Temperature sensor	30440	—	—	—	—	Units : deg F Int16
Rectifier Phase C Temperature sensor	30441	—	—	—	—	Units : deg C Int16
Rectifier Phase C Temperature sensor	30442	—	—	—	—	Units : deg F Int16
Rectifier Module Temperature 2						
Rectifier Phase A Temperature sensor	30453	—	—	—	—	Units : deg C Int16
Rectifier Phase A Temperature sensor	30454	—	—	—	—	Units : deg F Int16
Rectifier Phase B Temperature sensor	30455	—	—	—	—	Units : deg C Int16
Rectifier Phase B Temperature sensor	30456	—	—	—	—	Units : deg F Int16
Rectifier Phase C Temperature sensor	30457	—	—	—	—	Units : deg C Int16
Rectifier Phase C Temperature sensor	30458	—	—	—	—	Units : deg F Int16
. . .						
Rectifier Module Temperature 4						
Rectifier Phase A Temperature sensor	30485	—	—	—	—	Units : deg C Int16
Rectifier Phase A Temperature sensor	30486	—	—	—	—	Units : deg F Int16
Rectifier Phase B Temperature sensor	30487	—	—	—	—	Units : deg C Int16
Rectifier Phase B Temperature sensor	30488	—	—	—	—	Units : deg F Int16
Rectifier Phase C Temperature sensor	30489	—	—	—	—	Units : deg C Int16
Rectifier Phase C Temperature sensor	30490	—	—	—	—	Units : deg F Int16
Bypass						
Bypass Input Frequency	30501	10	Frequency	40071	10	Units : Hz Uint16
Bypass Input Voltage RMS A-N	30502	10	Voltage L1	40073	—	Units : VAC Uint16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
Bypass Input Voltage RMS B-N	30503	10	Voltage L2	40074	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30504	10	Voltage L3	40075	—	Units : VAC Uint16
Bypass Input Voltage RMS A-B	30505	10	—	—	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30506	10	—	—	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30507	10	—	—	—	Units : VAC Uint16
Bypass Input RMS Current Phase A	30508	10	—	—	—	Units : A AC Uint16
Bypass Input RMS Current Phase B	30509	10	—	—	—	Units : A AC Uint16
Bypass Input RMS Current Phase C	30510	10	—	—	—	Units : A AC Uint16
Bypass Input Power Factor Phase A	30511	100	Bypass Input PF L1	40123	100	Uint16
Bypass Input Power Factor Phase B	30512	100	Bypass Input PF L2	40124	100	Uint16
Bypass Input Power Factor Phase C	30513	100	Bypass Input PF L3	40125	100	Uint16
Bypass Power Phase A	30514	—	Bypass Real Power L1	40079	—	Units : kW Uint16
Bypass Power Phase B	30515	—	Bypass Real Power L2	40080	—	Units : kW Uint16
Bypass Power Phase C	30516	—	Bypass Real Power L3	40081	—	Units : kW Uint16
Battery						
Battery Volts for Cabinet	30518	—	Battery Voltage	40024	10	Units : VDC Int16
DC Bus Current	30519	—	Battery Current	40025	10	Units : A DC Int16
Battery Discharge Time	30520	—	Seconds On Battery	40021	—	Units : sec Uint16
Battery Time Remaining	30521	—	Estimated Seconds Remaining	40022	—	Input Register Units : min Legacy Chloride Register Units: sec Unit 16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
Battery Percentage Charge	30522	—	Estimated Charge Remaining	40023	—	Units : % Uint16
Battery Temperature for Cabinet	30523	—	Battery Temperature	40026	—	Units : deg C Int16
Battery Temperature for Cabinet	30524	—	—	—	—	Units : deg F Int16
Booster Charger Module Temperature 1						
Booster-Charger Temperature	30535		—	—	—	Units : deg C Int16
Booster-Charger Temperature	30536		—	—	—	Units : deg F Int16
Booster Charger Module Temperature 2						
Booster-Charger Temperature	30547	—	—	—	—	Units : deg C Int16
Booster-Charger Temperature	30548	—	—	—	—	Units : deg F Int16
. . .						
Booster Charger Module Temperature 8						
Booster-Charger Temperature	30619	—	—	—	—	Units : deg C Int16
Booster-Charger Temperature	30620	—	—	—	—	Units : deg F Int16
Output						
System Output Frequency	30631	10	Frequency	40051	10	Units : Hz Uint16
System Output Voltage RMS A-N	30632	10	Voltage L1	40053	—	Units : VAC Uint16
System Output Voltage RMS B-N	30633	10	Voltage L2	40054	—	Units : VAC Uint16
System Output Voltage RMS C-N	30634	10	Voltage L3	40055	—	Units : VAC Uint16
System Output Voltage RMS A-B	30635	10	—	—	—	Units : VAC Uint16
System Output Voltage RMS B-C	30636	10	—	—	—	Units : VAC Uint16
System Output Voltage RMS C-A	30637	10	—	—	—	Units : VAC Uint16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
System Output RMS Current Phs A	30638	10	Current L1	40056	10	Units : A AC Uint16
System Output RMS Current Phs B	30639	10	Current L2	40057	10	Units : A AC Uint16
System Output RMS Current Phs C	30640	10	Current L3	40058	10	Units : A AC Uint16
System Output Power Phase A	30641	10	Real Power L1	40059	10	Units : kW Uint16
System Output Power Phase B	30642	10	Real Power L2	40060	10	Units : kW Uint16
System Output Power Phase C	30643	10	Real Power L3	40061	10	Units : kW Uint16
System Output Pct Power Phase A	30644	—	Percent Load L1	40062	—	Units : % Uint16
System Output Pct Power Phase B	30645	—	Percent Load L2	40063	—	Units : % Uint16
System Output Pct Power Phase C	30646	—	Percent Load L3	40064	—	Units : % Uint16
System Output Apparent Power Phs A	30647	10	Output VA L1	40065	10	Units : kVA Uint16
System Output Apparent Power Phs B	30648	10	Output VA L2	40066	10	Units : kVA Uint16
System Output Apparent Power Phs C	30649	10	Output VA L3	40067	10	Units : kVA Uint16
Outside Air Temperature	30650	—	—	—	—	Units : deg C Int16
Outside Air Temperature	30651	—	—	—	—	Units : deg F Int16
Output Real Power Rating	30652	—	Configured Output Power	40115	10	Units : kW Uint16
System Output Power Factor Phs A	30653	100	Output PF L1	40126	100	Uint16
System Output Power Factor Phs B	30654	100	Output PF L2	40127	100	Uint16
System Output Power Factor Phs C	30655	100	Output PF L3	40128	100	Uint16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
Inverter Module Temperature 1						
Inverter Phase A Temperature sensor	30663	—	—	—	—	Units : deg C Int16
Inverter Phase A Temperature sensor	30664	—	—	—	—	Units : deg F Int16
Inverter Phase B Temperature sensor	30665	—	—	—	—	Units : deg C Int16
Inverter Phase B Temperature sensor	30666	—	—	—	—	Units : deg F Int16
Inverter Phase C temperature sensor	30667	—	—	—	—	Units : deg C Int16
Inverter Phase C temperature sensor	30668	—	—	—	—	Units : deg F Int16
Inverter Module Temperature 2						
Inverter Phase A Temperature sensor	30679	—	—	—	—	Units : deg C Int16
Inverter Phase A Temperature sensor	30680	—	—	—	—	Units : deg F Int16
Inverter Phase B Temperature sensor	30681	—	—	—	—	Units : deg C Int16
Inverter Phase B Temperature sensor	30682	—	—	—	—	Units : deg F Int16
Inverter Phase C temperature sensor	30683	—	—	—	—	Units : deg C Int16
Inverter Phase C temperature sensor	30684	—	—	—	—	Units : deg F Int16
. . .		—	—	—	—	
Inverter Module Temperature 4						
Inverter Phase A Temperature sensor	30711	—	—	—	—	Units : deg C Int16
Inverter Phase A Temperature sensor	30712	—	—	—	—	Units : deg F Int16
Inverter Phase B Temperature sensor	30713	—	—	—	—	Units : deg C Int16
Inverter Phase B Temperature sensor	30714	—	—	—	—	Units : deg F Int16
Inverter Phase C temperature sensor	30715	—	—	—	—	Units : deg C Int16

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
Inverter Phase C temperature sensor	30716	—	—	—	—	Units : deg F Int16
System Status						
UPS Output Source	30727	—	Source	40050	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30728	—	Alarms Present	40087, bit 0	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation Legacy Chloride Register 1 = Alarm 0 = Normal
Inverter Synchronization Source	30729	—	—	—	—	0 = External 1 = Self clock (internal) 2 = Output 3 = Bypass
UPS Operating Mode	30730	—	—	—	—	0 = Idle 1 = Double Conversion Mode (VFI) 2 = Interactive Mode (VI) 3 = Stand-By Mode (VFD) 4 = CR Mode (CR) 5 = ECO Mode (DIM)
ECO Mode Operation State	30731	—	—	—	—	0 = disabled 1 = enabled
Circular Redundancy Status	30732	—	—	—	—	0 = Idle 1 = Core Running 2 = Core Sleeping
Static Bypass Switch	30733	—	—	—	—	0 = off 1 = on
Bypass Qualification Status	30734	—	—	—	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Charger On/Off	30735	—	—	—	—	0 = off

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
State						1 = on
Booster On/Off State	30736	—	—	—	—	0 = off 1 = on
UPS battery1 status	30737	—	—	—	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Bypass Status	30738	—	Bypass	40091	—	0 = Bypass not present 1 = Bypass on 2 = Bypass off 3 = Bypass fault 4 = Bypass not ready
Inverter Status	30739	—	Inverter	40092	—	0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter stopped due to Fault 4 = Inverter in Stand By 5 = Inverter Ready and Sync 6 = Inverter Not Ready
Charger Status	30740	—	—	—	—	0 = Charger in standby 1 = Charger on 2 = Charger switched off 3 = Charger forced on 4 = Charger stopped due to a fault
Rectifier Status	30741	—	Rectifier	40093		0 = Rectifier off 1 = Rectifier turning on 2 = Rectifier on 3 = Rectifier fault
Total System Operating Time	30742	—	—	—	—	Units : hr Uint32
Switch Gear						
Maintenance Isolation Breaker	30744	—	MIB Open	40097, bit 3	—	0 = Open 1 = Close 2 = Not Installed Legacy Chloride Register 0 = Closed/Not Installed 1 = Open
System Load Bank Breaker	30745	—	LBB Closed	40097, bit 4	—	0 = Open 1 = Close 2 = Not Installed

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
						Legacy Chloride Register 0 = Open/Not Installed 1 = Closed
Grid Services						
Critical Load GS Battery Energy Available	30782	—	Battery Energy Available for Critical Load Protection	40145	—	Units : kWH Int16
UnderFreq GS Battery Energy Available	30783	—	Battery Energy Available for Under Frequency Requests	40146	—	Units : kWH Int16
OverFreq GS Battery Energy Available	30784	—	Battery Energy Available for Over Frequency Requests	40147	—	Units : kWH Int16
GS Enabled	30785	—	Int16 GS Enabled 30785	40148, bit 0	—	0 = disabled 1 = enabled
GS Paused	30786	—	GSE Operating Mod Paused	40148, bit 1	—	0 = disabled 1 = enabled
GS Stopped	30787	—	GSE Operating Mode Stopped	40148, bit 2	—	0 = disabled 1 = enabled
GS Run from Battery for a defined time	30788	—	GSE Operating Mode Run from Battery for a defined time	40148, bit 3	—	0 = disabled 1 = enabled
GS Stop Charging for a defined time	30789	—	GSE Operating Mode Stop Charging for a defined time	40148, bit 4	—	0 = disabled 1 = enabled
GS Stop Charging forever	30790	—	GSE Operating Mode Stop Charging Forever	40148, bit 5	—	0 = disabled 1 = enabled
GS Grid Support	30791	—	GSE Operating Mode Grid Support	40148, bit 6	—	0 = disabled 1 = enabled
GS Grid Support Charging	30792	—	GSE Operating Mode Grid Support Charging	40148, bit 7	—	0 = disabled 1 = enabled
GS Grid Support Discharging	30793	—	GSE Operating Mode Grid Support Discharging	40148, bit 8	—	0 = disabled 1 = enabled

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Table 3.116 Liebert® EXL S1 – Input and Chloride Registers (continued)

Data Label	Input	Scale	Legacy Chloride Label	Legacy Chloride Register	Legacy Chloride Scale	Notes/Units
System Info						
System Date and Time	39998/49998	—	—	—	—	Units: Secs since Epoch (UTC)
—	—	—	Modbus Protocol Version	40002		112
—	—	—	Model	40004		8 = 80Net MPR/Black/XL/eXL & NX 225-600
—	—	—	UPS Software 1 Code	40009		10HXXXXX code
—	—	—	UPS Software 2 Code	40014		10HXXXXX code
—	—	—	UPS Software 3 Code	40016		10HXXXXX code
—	—	—	Number Input Lines	40034		—
—	—	—	Number Output Lines	40052		—
—	—	—	Number Bypass Lines	40072		—

Table 3.117 Liebert® EXL S1 – Input and Holding

Data Label	Input	Holding	#of Reg	Scale	Notes/Units
Static Switch Fans 1					
Static Switch Fan Speed	30804	—	1	—	Units : RPM Uint16
Static Switch Fans 2					
Static Switch Fan Speed	30805	—	1	—	Units : RPM Uint16
Static Switch Fans 3					
Static Switch Fan Speed	30806	—	1	—	Units : RPM Uint16
Module 1 Phase 1 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30807	—	1	—	Units : RPM Uint16
Module 1 Phase 1 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30808	—	1	—	Units : RPM Uint16

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Table 3.117 Liebert® EXL S1 – Input and Holding (continued)

Data Label	Input	Holding	#of Reg	Scale	Notes/Units
Module 1 Phase 1 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30811	—	1	—	Units : RPM Uint16
Module 1 Phase 2 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30812	—	1	—	Units : RPM: Uint16
Module 1 Phase 2 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30813	—	1	—	Units : RPM: Uint16
Module 1 Phase 2 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30816	—	1	—	Units : RPM: Uint16
Module 1 Phase 3 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30817	—	1	—	Units : RPM: Uint16
Module 1 Phase 3 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30818	—	1	—	Units : RPM: Uint16
Module 1 Phase 3 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30821	—	1	—	Units : RPM: Uint16
Module 2 Phase 1 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30822	—	1	—	Units : RPM: Uint16
Module 2 Phase 1 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30823	—	1	—	Units : RPM: Uint16
Module 2 Phase 1 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30826	—	1		Units : RPM: Uint16
Module 2 Phase 2 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30827	—	1	—	Units : RPM: Uint16
Module 2 Phase 2 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30828	—	1	—	Units : RPM: Uint16
Module 2 Phase 2 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30831	—	1	—	Units : RPM: Uint16
Module 2 Phase 3 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30832	—	1	—	Units : RPM: Uint16
Module 2 Phase 3 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30833	—	1	—	Units : RPM: Uint16
Module 2 Phase 3 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30836	—	1	—	Units : RPM: Uint16

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Table 3.117 Liebert® EXL S1 – Input and Holding (continued)

Data Label	Input	Holding	#of Reg	Scale	Notes/Units
Module 3 Phase 1 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30837	—	1	—	Units : RPM: Uint16
Module 3 Phase 1 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30838	—	1	—	Units : RPM: Uint16
Module 3 Phase 1 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30841	—	1	—	Units : RPM: Uint16
Module 3 Phase 2 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30842	—	1	—	Units : RPM: Uint16
Module 3 Phase 2 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30843	—	1	—	Units : RPM: Uint16
Module 3 Phase 2 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30846	—	1	—	Units : RPM: Uint16
Module 3 Phase 3 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	30847	—	1	—	Units : RPM: Uint16
Module 3 Phase 3 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	30848	—	1	—	Units : RPM: Uint16
Module 3 Phase 3 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	30851	—	1	—	Units : RPM: Uint16
Module 1 Booster Fans 1					
Booster Fan Speed	30852	—	1	—	Units : RPM: Uint16
Module 1 Booster Fans 2					
Booster Fan Speed	30853	—	1	—	Units : RPM: Uint16
Module 1 Booster Fans 5					
Booster Fan Speed	30856	—	1	—	Units : RPM: Uint16
Module 2 Booster Fans 1					
Booster Fan Speed	30857	—	1	—	Units : RPM: Uint16
Module 2 Booster Fans 2					
Booster Fan Speed	30858	—	1	—	Units : RPM: Uint16
Module 2 Booster Fans 5					
Booster Fan Speed	30861	—	1	—	Units : RPM: Uint16
Module 3 Booster Fans 1					
Booster Fan Speed	30862	—	1	—	Units : RPM: Uint16

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Table 3.117 Liebert® EXL S1 – Input and Holding (continued)

Data Label	Input	Holding	#of Reg	Scale	Notes/Units
Module 3 Booster Fans 2					
Booster Fan Speed	30863	—	1	—	Units : RPM: Uint16
Module 3 Booster Fans 5					
Booster Fan Speed	30866	—	1	—	Units : RPM: Uint16

Table 3.118 Liebert® EXL S1 – Glossary

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker Open	The battery circuit is open.
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98).
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open.
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open.
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open.
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open.
Battery Circuit Open	Battery Circuit Open.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Management System End-Of-Discharge Warning	The Battery Management System has reported an End-Of-Discharge Warning
Battery Management System Fault	The Battery Management System has reported a Fault
Battery Management System General Warning	The Battery Management System has reported a General Warning
Battery Management System Power Supply Failure	The battery management system has reported a power supply failure.
Battery Management System Rack is Offline Warning	The Battery Management System has reported a rack-is-offline warning
Battery Manual Test In Progress	Manual battery test is in progress.
Battery Percentage Charge	The percentage of battery charge.
Battery Temperature for Cabinet	The battery temperature for a cabinet.

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Table 3.118 Liebert® EXL S1 – Glossary (continued)

Data Label	Data Description
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery.
Battery Under Voltage	Battery voltage is too low.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
BIB Battery Breaker Power Supply Failure	Battery Interface Board power supply has failed.
Booster Failure	Booster failure - boost is off.
Booster Fan Speed	Booster Fan Speed
Booster On/Off State	Booster on/off state.
Booster-Charger Temperature	Temperature measured at the charger stage.
Bypass Breaker (SBB) Open	The bypass circuit breaker (SBB) indicates that it is in the open position.
Bypass Breaker Closed	The bypass breaker is closed.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Power Factor Phase A	The bypass input Power Factor for Phase A.
Bypass Input Power Factor Phase B	The bypass input Power Factor for Phase B.
Bypass Input Power Factor Phase C	The bypass input Power Factor for Phase C.
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between Phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between Phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between Phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between Phase C and Neutral.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass out of sync	Bypass and Inverter inputs are not in sync.
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Power Phase A	The bypass power on Phase A.
Bypass Power Phase B	The bypass power on Phase B.
Bypass Power Phase C	The bypass power on Phase C.

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Table 3.118 Liebert® EXL S1 – Glossary (continued)

Data Label	Data Description
Bypass Qualification Status	bypass qualification status.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Status	Bypass status.
Charger Failure	Charger Failure - Charger is off.
Charger On/Off State	Charger on/off state
Charger Status	Charger Status.
Circular Redundancy Status	The status of the core if the UPS is rotating the redundant core in N+1 configuration.
Critical Load GS Battery Energy Available	Battery energy (kWh) available for critical load protection. It is computed on nominal UPS power.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Fuse Failure	A summary event indicating one or more fuse failures.
General Fault	A general fault in the UPS has been detected.
General Warning	A warning in the UPS has been detected.
Ground Fault	An AC phase-to-ground fault or three-phase-fault-to-ground exists on the output of the UPS.
GS Enabled	Grid Services Enabled.
GS Grid Support Charging	Grid Support Charging.
GS Grid Support Discharging	Grid Support Discharging.
GS Grid Support	Grid Support Enabled.
GS Paused	Grid Services Paused.
GS Run from Battery for a defined time	Run from Battery for a defined time.
GS Stop Charging for a defined time	Stop Charging for a defined time.
GS Stop Charging forever	Stop Charging Forever.
GS Stopped	Grid Services Stopped.
Input Breaker Open	The main input breaker is open.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter Overload	Inverter in overload fault
Inverter Phase A Temperature sensor	Inverter temperature sensor reading for Phase A.

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Table 3.118 Liebert® EXL S1 – Glossary (continued)

Data Label	Data Description
Inverter Phase B Temperature sensor	Inverter temperature sensor reading for Phase B.
Inverter Phase C temperature sensor	Inverter temperature sensor reading for Phase C.
Inverter/Rectifier Fan Speed	Inverter/Rectifier Fan Speed
Inverter Status	Inverter status.
Inverter Synchronization Source	The reference source for inverter synchronization.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Isolation Breaker	Maintenance isolation breaker.
MOB Aux Sensing Fault	There was a Master Output Breaker Aux Sensing Failure
Output Apparent Power Rating	Output apparent power rating.
Output Breaker Open	The output breaker is open.
Output Off Pending	Output off pending - shutdown imminent.
Output Overload	An overload exists on the output.
Output Real Power Rating	Output real power rating
Outside Air Temperature	Ambient outside air temperature.
OverFreq GS Battery Energy Available	Battery energy (kWh) available for Grid Services under-frequency requests. It is computed on nominal UPS power.
Rectifier Failure	Rectifier failure - rectifier is off.
Rectifier off due to fan power not available	The Rectifier is off due to fan power not available
Rectifier Overcurrent Warning	The rectifier stopped for overcurrent
Rectifier Phase A Temperature sensor	Rectifier temperature sensor reading for Phase A.
Rectifier Phase B Temperature sensor	Rectifier temperature sensor reading for Phase B.
Rectifier Phase C Temperature sensor	Rectifier temperature sensor reading for Phase C.
Rectifier Status	Rectifier status.
SMPS Input Power Supply Failure	Bypass Input power supply or Rectifier input power supply has failed
SMS Stop Inverter Inhibit	When active a single inverter stop cannot be initiated.
Static Bypass Switch	Static Bypass Switch state - On/Off.
Static Switch Fan Speed	Static Switch Fan Speed
System Date and Time	The system date and time.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Apparent Power Phs A	The system apparent power on phase A

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Table 3.118 Liebert® EXL S1 – Glossary (continued)

Data Label	Data Description
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Power Phase A	The system input power on Phase A.
System Input Power Phase B	The system input power on Phase B.
System Input Power Phase C	The system input power on Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Load Bank Breaker	System load bank breaker.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.

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Table 3.118 Liebert® EXL S1 – Glossary (continued)

Data Label	Data Description
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between Phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Restart Pending	A request for UPS restart has been received.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system.
Total System Operating Time	The cumulative operation time of the unit.
Under Freq GS Battery Energy Available	Battery energy (kWh) available for Grid Services over-frequency requests. It is computed on nominal UPS power.
Unit In Special Capacity Mode	When active in a MMS, the system will always be in capacity condition, regardless of actual load.
UPS battery1 status	UPS battery status.
UPS DC input voltage	The voltage between the positive and negative terminals of the DC bus.
UPS manufacturer	The company manufacturing this specific UPS.
UPS Module Type	UPS module type.
UPS Operating Mode	UPS operating mode.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.

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Table 3.119 Liebert® EXM—Controller with LCD HMI—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Power Problem	10003	—	1	Active on Alarm
Input Source Backfeed	10004	—	1	Active on Alarm
Bypass				
Bypass Not Available	10015	—	1	Active on Alarm
Bypass Static Switch Unavailable	10016	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10017	—	1	Active on Alarm
UPS Output on Bypass	10018	—	1	Active on Alarm
Output Load on Maint. Bypass	10019	—	1	Active on Alarm
Bypass Input Voltage Fault	10020	—	1	Active on Alarm
Bypass Backfeed Detected	10021	—	1	Active on Alarm
Battery				
Main Battery Disconnect Open	10032	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10033	—	1	Active on Alarm
Battery Circuit Breaker 3 Open	10034	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10035	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10036	—	1	Active on Alarm
Battery Self Test	10037	—	1	Active on Alarm
Battery Charging Inhibited	10038	—	1	Active on Alarm
Battery Discharging	10039	—	1	Active on Alarm
Battery Manual Test In Progress	10040	—	1	Active on Alarm
Battery Auto Test In Progress	10041	—	1	Active on Alarm
Battery Test Passed	10042	—	1	Active on Alarm
Battery Test Failed	10043	—	1	Active on Alarm
Battery Over Temperature	10044	—	1	Active on Alarm
Battery Low	10045	—	1	Active on Alarm
Battery Ground Fault	10046	—	1	Active on Alarm
Battery Not Qualified	10047	—	1	Active on Alarm
Battery Terminals Reversed	10048	—	1	Active on Alarm
Battery Capacity Low	10049	—	1	Active on Alarm

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Table 3.119 Liebert® EXM—Controller with LCD HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Converter Current Limit	10050	—	1	Active on Alarm
Battery Charge Equalization Timeout	10051	—	1	Active on Alarm
Battery Room Alarm	10052	—	1	Active on Alarm
Battery Breaker 1 Open Failure	10053	—	1	Active on Alarm
Battery Breaker 2 Open Failure	10054	—	1	Active on Alarm
Battery Breaker 3 Open Failure	10055	—	1	Active on Alarm
Battery Breaker 4 Open Failure	10056	—	1	Active on Alarm
Battery Equalize	10057	—	1	Active on Alarm
All Chargers Shutdown	10688	—	1	Active on Alarm
Battery System Warning	10689	—	1	Active on Alarm
Battery System Fault	10690	—	1	Active on Alarm
Battery System Communication Abnormal	10691	—	1	Active on Alarm
Battery Circuit Breaker 5 Open	10692	—	1	Active on Alarm
Battery Breaker 5 Open Failure	10693	—	1	Active on Alarm
Lithium-Ion Battery System				
Lithium-Ion Battery System Abnormal	10062	—	1	Active on Alarm
Lithium-Ion Battery System Disconnect Request	10063	—	1	Active on Alarm
Inverter				
Loss of Synchronization	10068	—	1	Active on Alarm
Output				
Output Overload	10079	—	1	Active on Alarm
System Output Fault	10080	—	1	Active on Alarm
System Output Off	10081	—	1	Active on Alarm
PowerModules 1				
Power Module Input Current Abnormal	10091	—	1	Active on Alarm
Rectifier Failure	10092	—	1	Active on Alarm
Inverter Failure	10093	—	1	Active on Alarm
DC Bus Abnormal	10094	—	1	Active on Alarm
Load Sharing Fault	10095	—	1	Active on Alarm
Inverter Relay Fault	10096	—	1	Active on Alarm
Battery Charging Error	10097	—	1	Active on Alarm
Battery Converter Failure	10098	—	1	Active on Alarm

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Table 3.119 Liebert® EXM—Controller with LCD HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Balancer of DC Bus Failure	10099	—	1	Active on Alarm
Inverter Shutdown - Overload	10100	—	1	Active on Alarm
Power Module Fuse Failure	10101	—	1	Active on Alarm
Power Module Power Supply Failure	10102	—	1	Active on Alarm
Power Module Fan Fault	10103	—	1	Active on Alarm
Power Module Over Temperature	10104	—	1	Active on Alarm
Power Module Lever Unlocked	10105	—	1	Active on Alarm
PowerModules 2				
Power Module Input Current Abnormal	10115	—	1	Active on Alarm
Rectifier Failure	10116	—	1	Active on Alarm
Inverter Failure	10117	—	1	Active on Alarm
DC Bus Abnormal	10118	—	1	Active on Alarm
Load Sharing Fault	10119	—	1	Active on Alarm
Inverter Relay Fault	10120	—	1	Active on Alarm
Battery Charging Error	10121	—	1	Active on Alarm
Battery Converter Failure	10122	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10123	—	1	Active on Alarm
Inverter Shutdown - Overload	10124	—	1	Active on Alarm
Power Module Fuse Failure	10125	—	1	Active on Alarm
Power Module Power Supply Failure	10126	—	1	Active on Alarm
Power Module Fan Fault	10127	—	1	Active on Alarm
Power Module Over Temperature	10128	—	1	Active on Alarm
Power Module Lever Unlocked	10129	—	1	Active on Alarm
PowerModules 20				
Power Module Input Current Abnormal	10547	—	1	Active on Alarm
Rectifier Failure	10548	—	1	Active on Alarm
Inverter Failure	10549	—	1	Active on Alarm
DC Bus Abnormal	10550	—	1	Active on Alarm
Load Sharing Fault	10551	—	1	Active on Alarm
Inverter Relay Fault	10552	—	1	Active on Alarm
Battery Charging Error	10553	—	1	Active on Alarm
Battery Converter Failure	10554	—	1	Active on Alarm

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Table 3.119 Liebert® EXM—Controller with LCD HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Balancer of DC Bus Failure	10555	—	1	Active on Alarm
Inverter Shutdown - Overload	10556	—	1	Active on Alarm
Power Module Fuse Failure	10557	—	1	Active on Alarm
Power Module Power Supply Failure	10558	—	1	Active on Alarm
Power Module Fan Fault	10559	—	1	Active on Alarm
Power Module Over Temperature	10560	—	1	Active on Alarm
Power Module Lever Unlocked	10561	—	1	Active on Alarm
System Status				
Loss of Redundancy	10571	—	1	Active on Alarm
Parallel Cable Failure	10572	—	1	Active on Alarm
LBS Cable Failure	10573	—	1	Active on Alarm
Transfer to Bypass - System Overload	10574	—	1	Active on Alarm
Excess ECO Suspends	10575	—	1	Active on Alarm
User Operation Invalid	10576	—	1	Active on Alarm
Load Impact Transfer	10577	—	1	Active on Alarm
Internal Communications Failure	10578	—	1	Active on Alarm
MMS Overload	10579	—	1	Active on Alarm
Parallel Comm Warning	10580	—	1	Active on Alarm
Equipment Over Temperature	10581	—	1	Active on Alarm
LBS Inhibited	10582	—	1	Active on Alarm
On Generator	10583	—	1	Active on Alarm
LBS Active	10584	—	1	Active on Alarm
System Shutdown - EPO	10585	—	1	Active on Alarm
Top Outlet Fan Fault	10586	—	1	Active on Alarm
Hardware Mismatch	10587	—	1	Active on Alarm
MMS Capacity Exceeded	10588	—	1	Active on Alarm
Battery Cabinets 1				
Battery Cabinet Over Temperature	10600	—	1	Active on Alarm
Battery String Open	10601	—	1	Active on Alarm
Battery Cabinets 2				
Battery Cabinet Over Temperature	10611	—	1	Active on Alarm
Battery String Open	10612	—	1	Active on Alarm

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Table 3.119 Liebert® EXM—Controller with LCD HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Cabinets 8				
Battery Cabinet Over Temperature	10677	—	1	Active on Alarm
Battery String Open	10678	—	1	Active on Alarm

Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16
System Input RMS C-A	30387	—	1	—	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
System Input RMS A-N	30392	—	1	—	Units : VAC Uint16
System Input RMS B-N	30393	—	1	—	Units : VAC Uint16
System Input RMS C-N	30394	—	1	—	Units : VAC Uint16
System Input Power Factor Phs A	30395	—	1	100	Uint16
System Input Power Factor Phs B	30396	—	1	100	Uint16
System Input Power Factor Phs C	30397	—	1	100	Uint16
System Input Nominal Voltage	30398	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30399	—	1	10	Units : Hz Uint16
System Input Nominal Current	30400	—	1	—	Units : A AC Uint16
System Input Brown Out Count	30401	—	1	—	Uint16

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input Black Out Count	30402	—	1	—	Uint16
Input Breaker	30403	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-N	30414	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30415	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30416	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30417	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30418	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30419	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30420	—	1	—	Units : VAC Uint16
Bypass Nominal Voltage	30421	—	1	—	Units : VAC Uint16
External Bypass Breaker	30422	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery					
Battery Time Remaining	30433	—	1	—	Units : min Uint16
DC Bus Current	30434	—	1	—	Units : A DC Int16
Time Until Next Auto Battery Test	30435	—	2	—	Units : min Uint32
Battery Percentage Charge	30437	—	1	—	Units : % Uint16
Number of Discharge Cycles	30438	—	1	—	Uint16
Accumulated Discharge Time	30439	—	1	—	Units : hr Uint16
Low Battery Warning Time	30440	—	1	—	Units : min Uint16
UPS Battery Status	30441	—	1	—	1 = Unknown 2 = Normal 3 = Low

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					4 = Depleted
Battery charge status.	30442	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Automatic Battery Test	30443	—	1	—	0 = disabled 1 = enabled
Battery Self Test Cycle Time	30444	—	1	—	Units : day Uint16
DC Bus Voltage	30445	—	1	—	Units : VDC Uint16
Battery Temperature	30446	—	1	—	Units : deg C Int16
Battery Temperature	30447	—	1	—	Units : deg F Int16
Battery Cabinets 1					
Battery Temperature for Cabinet	30458	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30459	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30460	—	1	—	Units : VDC Uint16
Battery Cabinets 2					
Battery Temperature for Cabinet	30471	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30472	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30473	—	1	—	Units : VDC Uint16
Battery Cabinets 8					
Battery Temperature for Cabinet	30549	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30550	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30551	—	1	—	Units : VDC Uint16
Lithium-Ion Battery System					
Lithium-Ion Battery System Status	30557	—	1	—	0 = offline 1 = online

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Inverter					
Output Breaker	30562	—	1	—	0 = Open 1 = Close 2 = Not Installed
Inverter On/Off State	30563	—	1	—	0 = off 1 = on
Output					
System Output Voltage RMS A-N	30574	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30575	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30576	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30577	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30578	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30579	—	1	—	Units : A AC Uint16
System Output Frequency	30580	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30581	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30582	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30583	—	1	—	Units : VAC Uint16
System Output Power Factor Phs A	30584	—	1	100	Uint16
System Output Power Factor Phs B	30585	—	1	100	Uint16
System Output Power Factor Phs C	30586	—	1	100	Uint16
System Output Pct Power Phase A	30587	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30588	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30589	—	1	—	Units : % Uint16
MMS Output Apparent Power	30590	—	1	—	Units : kVA Uint16
MMS Output Power	30591	—	1	—	Units : kW Uint16

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Output Current Crest Factor Phs A	30592	—	1	10	Uint16
Output Current Crest Factor Phs B	30593	—	1	10	Uint16
Output Current Crest Factor Phs C	30594	—	1	10	Uint16
System Output Power Phase A	30595	—	1	—	Units : kW Uint16
System Output Power Phase B	30596	—	1	—	Units : kW Uint16
System Output Power Phase C	30597	—	1	—	Units : kW Uint16
System Output Apparent Power Phs A	30598	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs B	30599	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs C	30600	—	1	—	Units : kVA Uint16
System Output Power	30601	—	1	—	Units : kW Uint16
System Output Apparent Power	30602	—	1	—	Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30603	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30604	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs C	30605	—	1	—	Units : % Uint16
System Output Nominal Voltage	30606	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30607	—	1	10	Units : Hz Uint16
PowerModules 1					
Power Module Sleep Status	30618	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30619	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30620	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Power Module Charger State	30622	—	1	—	0 = off 1 = on

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
PowerModules 2					
Power Module Sleep Status	30631	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30632	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30633	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Power Module Charger State	30635	—	1	—	0 = off 1 = on
PowerModules 20					
Power Module Sleep Status	30865	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30866	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30867	—	1	—	0 = Inverter Inactive 1 = Inverter Active
Power Module Charger State	30869	—	1	—	0 = off 1 = on
BypassControlModule					
Power Module Bypass Input Frequency	30878	—	1	10	Units : Hz Uint16
Power Module Bypass Input Voltage RMS A-N	30879	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-N	30880	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-N	30881	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS A-B	30882	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-C	30883	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-A	30884	—	1	—	Units : VAC Uint16
System Status					
System Set To Operate With	30895	—	1	—	0 = No Redundancy 1 = Redundancy
Number Of Active Power Modules	30896	—	1	—	Uint16

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Number of Installed Power Modules	30897	—	1	—	Uint16
Inlet Air Temperature	30898	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30899	—	1	—	Units : deg F Uint16
Average system efficiency	30900	—	1	10	Units : % Uint16
Maintenance Bypass Breaker	30901	—	1	—	0 = Open 1 = Close 2 = Not Installed
ECO Mode Operation State	30902	—	1	—	0 = disabled 1 = enabled
UPS Application Mode	30903	—	1	—	0 = UPS Mode 1 = Frequency converter mode
MMS UPS Output Source	30904	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	30905	—	1	—	0 = disabled 1 = enabled
Application Mode For UPS	30906	—	1	—	0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo 4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode
System Configuration					
Total System Operating Time	30916	—	2	—	Units : hr Uint32
System Capacity	30918	—	1	—	Units : kVA Uint16
UPS Output Source	30919	—	1	—	1 = Other

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Table 3.120 Liebert® EXM—Controller with LCD HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30920	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
SystemConfiguration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary

Data Label	Data Description
(Deprecated) UPS Application Mode	(Deprecated) UPS application mode. This data point has been replaced and should no longer be used.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
All Chargers Shutdown	All chargers in system are shut down to avoid incompatibility in external charger application, or to avoid over-charging in Lithium-ion battery application.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker 5 Open Failure	Battery circuit breaker 5 failed to open
Battery Cabinet Over Temperature	Battery Cabinet Over Temperature
Battery Capacity Low	Battery capacity is low

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery String Open	Battery String Open
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
External Bypass Breaker	The status of the external bypass breaker.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Lithium-Ion Battery System Disconnect Request	A request to disconnect the Lithium-Ion battery system was received.
Lithium-Ion Battery System Status	Lithium-Ion Battery System Status
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Bypass Input Frequency	The bypass input frequency detected by power module
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral detected by power module
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Power Module Charger State	The status of charger in this power module in order to detect battery connection status.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.

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Table 3.121 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 3.122 Liebert® EXM—Controller with Touchscreen HMI—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Power Problem	10003	—	1	Active on Alarm
Input Source Backfeed	10004	—	1	Active on Alarm
Bypass				
Bypass Not Available	10015	—	1	Active on Alarm
Bypass Static Switch Unavailable	10016	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10017	—	1	Active on Alarm
UPS Output on Bypass	10018	—	1	Active on Alarm
Output Load on Maint. Bypass	10019	—	1	Active on Alarm
Bypass Input Voltage Fault	10020	—	1	Active on Alarm
Bypass Backfeed Detected	10021	—	1	Active on Alarm
Battery				
Main Battery Disconnect Open	10032	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10033	—	1	Active on Alarm
Battery Circuit Breaker 3 Open	10034	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10035	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10036	—	1	Active on Alarm
Battery Self Test	10037	—	1	Active on Alarm
Battery Charging Inhibited	10038	—	1	Active on Alarm
Battery Discharging	10039	—	1	Active on Alarm
Battery Manual Test In Progress	10040	—	1	Active on Alarm
Battery Auto Test In Progress	10041	—	1	Active on Alarm
Battery Test Passed	10042	—	1	Active on Alarm
Battery Test Failed	10043	—	1	Active on Alarm

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Table 3.122 Liebert® EXM—Controller with Touchscreen HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Over Temperature	10044	—	1	Active on Alarm
Battery Low	10045	—	1	Active on Alarm
Battery Ground Fault	10046	—	1	Active on Alarm
Battery Not Qualified	10047	—	1	Active on Alarm
Battery Terminals Reversed	10048	—	1	Active on Alarm
Battery Capacity Low	10049	—	1	Active on Alarm
Battery Converter Current Limit	10050	—	1	Active on Alarm
Battery Charge Equalization Timeout	10051	—	1	Active on Alarm
Battery Room Alarm	10052	—	1	Active on Alarm
Battery Breaker 1 Open Failure	10053	—	1	Active on Alarm
Battery Breaker 2 Open Failure	10054	—	1	Active on Alarm
Battery Breaker 3 Open Failure	10055	—	1	Active on Alarm
Battery Breaker 4 Open Failure	10056	—	1	Active on Alarm
Battery Equalize	10057	—	1	Active on Alarm
Lithium-Ion Battery System				
Lithium-Ion Battery System Abnormal	10062	—	1	Active on Alarm
Lithium-Ion Battery System Disconnect Request	10063	—	1	Active on Alarm
Inverter				
Loss of Synchronization	10068	—	1	Active on Alarm
Output				
Output Overload	10079	—	1	Active on Alarm
System Output Fault	10080	—	1	Active on Alarm
System Output Off	10081	—	1	Active on Alarm
PowerModules 1				
Power Module Input Current Abnormal	10091	—	1	Active on Alarm
Rectifier Failure	10092	—	1	Active on Alarm
Inverter Failure	10093	—	1	Active on Alarm
DC Bus Abnormal	10094	—	1	Active on Alarm
Load Sharing Fault	10095	—	1	Active on Alarm
Inverter Relay Fault	10096	—	1	Active on Alarm
Battery Charging Error	10097	—	1	Active on Alarm
Battery Converter Failure	10098	—	1	Active on Alarm

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Table 3.122 Liebert® EXM—Controller with Touchscreen HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Balancer of DC Bus Failure	10099	—	1	Active on Alarm
Inverter Shutdown - Overload	10100	—	1	Active on Alarm
Power Module Fuse Failure	10101	—	1	Active on Alarm
Power Module Power Supply Failure	10102	—	1	Active on Alarm
Power Module Fan Fault	10103	—	1	Active on Alarm
Power Module Over Temperature	10104	—	1	Active on Alarm
Power Module Lever Unlocked	10105	—	1	Active on Alarm
PowerModules 2				
Power Module Input Current Abnormal	10115	—	1	Active on Alarm
Rectifier Failure	10116	—	1	Active on Alarm
Inverter Failure	10117	—	1	Active on Alarm
DC Bus Abnormal	10118	—	1	Active on Alarm
Load Sharing Fault	10119	—	1	Active on Alarm
Inverter Relay Fault	10120	—	1	Active on Alarm
Battery Charging Error	10121	—	1	Active on Alarm
Battery Converter Failure	10122	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10123	—	1	Active on Alarm
Inverter Shutdown - Overload	10124	—	1	Active on Alarm
Power Module Fuse Failure	10125	—	1	Active on Alarm
Power Module Power Supply Failure	10126	—	1	Active on Alarm
Power Module Fan Fault	10127	—	1	Active on Alarm
Power Module Over Temperature	10128	—	1	Active on Alarm
Power Module Lever Unlocked	10129	—	1	Active on Alarm
. . .		—		
PowerModules 20				
Power Module Input Current Abnormal	10547	—	1	Active on Alarm
Rectifier Failure	10548	—	1	Active on Alarm
Inverter Failure	10549	—	1	Active on Alarm
DC Bus Abnormal	10550	—	1	Active on Alarm
Load Sharing Fault	10551	—	1	Active on Alarm
Inverter Relay Fault	10552	—	1	Active on Alarm
Battery Charging Error	10553	—	1	Active on Alarm

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Table 3.122 Liebert® EXM—Controller with Touchscreen HMI—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Converter Failure	10554	—	1	Active on Alarm
Power Module Balancer of DC Bus Failure	10555	—	1	Active on Alarm
Inverter Shutdown - Overload	10556	—	1	Active on Alarm
Power Module Fuse Failure	10557	—	1	Active on Alarm
Power Module Power Supply Failure	10558	—	1	Active on Alarm
Power Module Fan Fault	10559	—	1	Active on Alarm
Power Module Over Temperature	10560	—	1	Active on Alarm
Power Module Lever Unlocked	10561	—	1	Active on Alarm
System Status				
Loss of Redundancy	10571	—	1	Active on Alarm
Parallel Cable Failure	10572	—	1	Active on Alarm
LBS Cable Failure	10573	—	1	Active on Alarm
Transfer to Bypass - System Overload	10574	—	1	Active on Alarm
Excess ECO Suspends	10575	—	1	Active on Alarm
User Operation Invalid	10576	—	1	Active on Alarm
Load Impact Transfer	10577	—	1	Active on Alarm
Internal Communications Failure	10578	—	1	Active on Alarm
MMS Overload	10579	—	1	Active on Alarm
Parallel Comm Warning	10580	—	1	Active on Alarm
Equipment Over Temperature	10581	—	1	Active on Alarm
LBS Inhibited	10582	—	1	Active on Alarm
On Generator	10583	—	1	Active on Alarm
LBS Active	10584	—	1	Active on Alarm
System Shutdown - EPO	10585	—	1	Active on Alarm
Top Outlet Fan Fault	10586	—	1	Active on Alarm
Hardware Mismatch	10587	—	1	Active on Alarm
MMS Capacity Exceeded	10588	—	1	Active on Alarm

Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input RMS C-A	30387	—	1	—	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
System Input RMS A-N	30392	—	1	—	Units : VAC Uint16
System Input RMS B-N	30393	—	1	—	Units : VAC Uint16
System Input RMS C-N	30394	—	1	—	Units : VAC Uint16
System Input Power Factor Phs A	30395	—	1	100	Uint16
System Input Power Factor Phs B	30396	—	1	100	Uint16
System Input Power Factor Phs C	30397	—	1	100	Uint16
System Input Nominal Voltage	30398	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30399	—	1	10	Units : Hz Uint16
System Input Nominal Current	30400	—	1	—	Units : A AC Uint16
System Input Brown Out Count	30401	—	1	—	Uint16
System Input Black Out Count	30402	—	1	—	Uint16
Input Breaker	30403	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-N	30414	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30415	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30416	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30417	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30418	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30419	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30420	—	1	—	Units : VAC Uint16
Bypass Nominal Voltage	30421	—	1	—	Units : VAC Uint16
External Bypass Breaker	30422	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery					

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Time Remaining	30433	—	1	—	Units : min Uint16
DC Bus Current	30434	—	1	—	Units : A DC Int16
Time Until Next Auto Battery Test	30435	—	2	—	Units : min Uint32
Battery Percentage Charge	30437	—	1	—	Units : % Uint16
Number of Discharge Cycles	30438	—	1	—	Uint16
Accumulated Discharge Time	30439	—	1	—	Units : hr Uint16
Low Battery Warning Time	30440	—	1	—	Units : min Uint16
UPS Battery Status	30441	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery charge status.	30442	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Automatic Battery Test	30443	—	1	—	0 = disabled 1 = enabled
Battery Self Test Cycle Time	30444	—	1	—	Units : day Uint16
DC Bus Voltage	30445	—	1	—	Units : VDC Uint16
Battery Temperature	30446	—	1	—	Units : deg C Int16
Battery Temperature	30447	—	1	—	Units : deg F Int16
Battery Cabinets 1					
Battery Temperature for Cabinet	30458	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30459	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30460	—	1	—	Units : VDC Uint16
Battery Cabinets 2					
Battery Temperature for Cabinet					Units : deg C

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
	30471	—	1	—	Int16
Battery Temperature for Cabinet	30472	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30473	—	1	—	Units : VDC Uint16
. . .					
Battery Cabinets 8					
Battery Temperature for Cabinet	30549	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30550	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30551	—	1	—	Units : VDC Uint16
Lithium-Ion Battery System					
Lithium-Ion Battery System Status	30557	—	1	—	0 = offline 1 = online
Inverter					
Output Breaker	30562	—	1	—	0 = Open 1 = Close 2 = Not Installed
Inverter On/Off State	30563	—	1	—	0 = off 1 = on
Output					
System Output Voltage RMS A-N	30574	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30575	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30576	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30577	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30578	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30579	—	1	—	Units : A AC Uint16

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Frequency	30580	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30581	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30582	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30583	—	1	—	Units : VAC Uint16
System Output Power Factor Phs A	30584	—	1	100	Uint16
System Output Power Factor Phs B	30585	—	1	100	Uint16
System Output Power Factor Phs C	30586	—	1	100	Uint16
System Output Pct Power Phase A	30587	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30588	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30589	—	1	—	Units : % Uint16
MMS Output Apparent Power	30590	—	1	—	Units : kVA Uint16
MMS Output Power	30591	—	1	—	Units : kW Uint16
Output Current Crest Factor Phs A	30592	—	1	10	Uint16
Output Current Crest Factor Phs B	30593	—	1	10	Uint16
Output Current Crest Factor Phs C	30594	—	1	10	Uint16
System Output Power Phase A	30595	—	1	—	Units : kW Uint16
System Output Power Phase B	30596	—	1	—	Units : kW Uint16
System Output Power Phase C	30597	—	1	—	Units : kW Uint16
System Output Apparent Power Phs A	30598	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs B	30599	—	1	—	Units : kVA Uint16

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Apparent Power Phs C	30600	—	1	—	Units : kVA Uint16
System Output Power	30601	—	1	—	Units : kW Uint16
System Output Apparent Power	30602	—	1	—	Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30603	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30604	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs C	30605	—	1	—	Units : % Uint16
System Output Nominal Voltage	30606	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30607	—	1	10	Units : Hz Uint16
PowerModules 1					
Power Module Sleep Status	30618	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30619	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30620	—	1	—	0 = Inverter Inactive 1 = Inverter Active
PowerModules 2					
Power Module Sleep Status	30631	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30632	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30633	—	1	—	0 = Inverter Inactive 1 = Inverter Active
. . .					

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
PowerModules 20					
Power Module Sleep Status	30865	—	1	—	0 = Sleeping 1 = Not Sleeping
Module Operating Status	30866	—	1	—	0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30867	—	1	—	0 = Inverter Inactive 1 = Inverter Active
BypassControlModule					
Power Module Bypass Input Frequency	30878	—	1	10	Units : Hz Uint16
Power Module Bypass Input Voltage RMS A-N	30879	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-N	30880	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-N	30881	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS A-B	30882	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS B-C	30883	—	1	—	Units : VAC Uint16
Power Module Bypass Input Voltage RMS C-A	30884	—	1	—	Units : VAC Uint16
System Status					
System Set To Operate With	30895	—	1	—	0 = No Redundancy 1 = Redundancy
Number Of Active Power Modules	30896	—	1	—	Uint16
Number of Installed Power Modules	30897	—	1	—	Uint16
Inlet Air Temperature	30898	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30899	—	1	—	Units : deg F Uint16
Average system efficiency	30900	—	1	10	Units : % Uint16

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Maintenance Bypass Breaker	30901	—	1	—	0 = Open 1 = Close 2 = Not Installed
ECO Mode Operation State	30902	—	1	—	0 = disabled 1 = enabled
UPS Application Mode	30903	—	1	—	0 = UPS Mode 1 = Frequency converter mode
MMS UPS Output Source	30904	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	30905	—	1	—	0 = disabled 1 = enabled
Application Mode For UPS	30906	—	1	—	0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo 4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode
System Configuration					
Total System Operating Time	30916	—	2	—	Units : hr Uint32
System Capacity	30918	—	1	—	Units : kVA Uint16
UPS Output Source					1 = Other 2 = Off 3 = Normal

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Table 3.123 Liebert® EXM—Controller with Touchscreen HMI—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
	30919	—	1	—	4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30920	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
SystemConfiguration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary

Data Label	Data Description
(Deprecated) UPS Application Mode	(Deprecated) UPS application mode. This data point has been replaced and should no longer be used.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open.
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open.
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open.
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open.
Battery Capacity Low	Battery capacity is low.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Percentage Charge	The percentage of battery charge.
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature	The highest battery temperature among all Battery Cabinets.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected.
Bypass Input Frequency	The bypass input frequency.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between Phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between Phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between Phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between Phase C and Neutral.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load..
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air.
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active.
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery Sytem Abnormal.
Lithium-Ion Battery System Disconnect Request	A request to disconnect the Lithium-Ion battery system was received.
Lithium-Ion Battery System Status	Lithium-Ion Battery System Status.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Power	The sum total power of all system output modules.
MMS Overload	Multi-module system overload.
MMS UPS Output Source	Multi-module UPS output source.
Module Operating Status	The operating status for this Power Module.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system.
Output Breaker	Output breaker.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed.
Power Module Bypass Input Frequency	The bypass input frequency detected by power module.
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B detected by power module.
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between Phase A and Neutral detected by power module.
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C detected by power module.
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between Phase B and Neutral detected by power module.
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between Phases C and A detected by power module.
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between Phase C and Neutral detected by power module.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module.
Power Module Input Current Abnormal	Input current of the power module is abnormal.
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure.
Power Module Sleep Status	Sleep status of the Power Module.
Rectifier Failure	Rectifier failure - rectifier is off.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time.
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.
System Input Power Factor Phs B	The system input power factor for Phase B.
System Input Power Factor Phs C	The system input power factor for Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Off	The system output is off.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs A	The system output apparent power on Phase A as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs B	The system output apparent power on Phase B as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs C	The system output apparent power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on Phase A..
System Output Power Phase B	The system output power on Phase B..
System Output Power Phase C	The system output power on Phase C..
System Output Power	The sum total power of all system output Phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.

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Table 3.124 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between Phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit.
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation.

Table 3.125 Liebert® EXM2/APM Plus—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001		1	Active on Alarm
System Input Phs Rotation Error	10002		1	Active on Alarm
System Input Power Problem	10003		1	Active on Alarm
Input Source Backfeed	10004		1	Active on Alarm
Bypass				

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Table 3.125 Liebert® EXM2/APM Plus—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Bypass Not Available	10015		1	Active on Alarm
Bypass Static Switch Unavailable	10016		1	Active on Alarm
Bypass - Excess Auto Retransfers	10017		1	Active on Alarm
UPS Output on Bypass	10018		1	Active on Alarm
Output Load on Maint. Bypass	10019		1	Active on Alarm
Bypass Backfeed Detected	10020		1	Active on Alarm
Bypass Control Module Not Available	10021		1	Active on Alarm
Bypass Module Not Available	10022		1	Active on Alarm
Bypass controlling the SCR autonomously	10023		1	Active on Alarm
Bypass Unable to Trace	10024		1	Active on Alarm
Battery				
Battery Circuit Breaker 1 Open	10035		1	Active on Alarm
Battery Self Test	10036		1	Active on Alarm
Battery Charging Inhibited	10037		1	Active on Alarm
Battery Discharging	10038		1	Active on Alarm
Battery Manual Test In Progress	10039		1	Active on Alarm
Battery Auto Test In Progress	10040		1	Active on Alarm
Battery Test Failed	10041		1	Active on Alarm
Battery Over Temperature	10042		1	Active on Alarm
Battery Low	10043		1	Active on Alarm
Battery Ground Fault	10044		1	Active on Alarm
Battery Not Qualified	10045		1	Active on Alarm
Battery Terminals Reversed	10046		1	Active on Alarm
Battery Capacity Low	10047		1	Active on Alarm
Battery Converter Current Limit	10048		1	Active on Alarm
Battery Charge Equalization Timeout	10049		1	Active on Alarm
Battery Room Alarm	10050		1	Active on Alarm
Battery Breaker 1 Open Failure	10051		1	Active on Alarm
Battery Equalize	10052		1	Active on Alarm
Battery Over Voltage	10053		1	Active on Alarm
Battery Temp Abnormal	10054		1	Active on Alarm
Battery Management System Rack is Offline Warning	10055		1	Active on Alarm

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Table 3.125 Liebert® EXM2/APM Plus—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Management System General Warning	10056		1	Active on Alarm
Battery Management System Fault	10057		1	Active on Alarm
Battery System Communication Abnormal	10058		1	Active on Alarm
Battery System Warning	10059		1	Active on Alarm
Battery System Fault	10060		1	Active on Alarm
Inverter				
Loss of Synchronization	10068		1	Active on Alarm
Output				
Output Overload	10079		1	Active on Alarm
System Output Fault	10080		1	Active on Alarm
Output Breaker Open	10081		1	Active on Alarm
Power Modules 1				
Power Module Input Current Abnormal	10092		1	Active on Alarm
Power Module Input Current High	10093		1	Active on Alarm
Rectifier Failure	10094		1	Active on Alarm
Inverter Failure	10095		1	Active on Alarm
DC Bus Abnormal	10096		1	Active on Alarm
Load Sharing Fault	10097		1	Active on Alarm
Inverter Relay Fault	10098		1	Active on Alarm
Battery Charging Error	10099		1	Active on Alarm
Battery Converter Failure	10100		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10101		1	Active on Alarm
Inverter Shutdown - Overload	10102		1	Active on Alarm
Power Module Fuse Failure	10103		1	Active on Alarm
Power Module Power Supply Failure	10104		1	Active on Alarm
Power Module Fan Fault	10105		1	Active on Alarm
Power Module Over Temperature	10106		1	Active on Alarm
Power Module Communication status	10107		1	Active on Alarm
Power Module Lever Unlocked	10108		1	Active on Alarm
Discharger Shutdown	10109		1	Active on Alarm
Power Modules 2				
Power Module Input Current Abnormal	10120		1	Active on Alarm

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Table 3.125 Liebert® EXM2/APM Plus—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Input Current High	10121		1	Active on Alarm
Rectifier Failure	10122		1	Active on Alarm
Inverter Failure	10123		1	Active on Alarm
DC Bus Abnormal	10124		1	Active on Alarm
Load Sharing Fault	10125		1	Active on Alarm
Inverter Relay Fault	10126		1	Active on Alarm
Battery Charging Error	10127		1	Active on Alarm
Battery Converter Failure	10128		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10129		1	Active on Alarm
Inverter Shutdown - Overload	10130		1	Active on Alarm
Power Module Fuse Failure	10131		1	Active on Alarm
Power Module Power Supply Failure	10132		1	Active on Alarm
Power Module Fan Fault	10133		1	Active on Alarm
Power Module Over Temperature	10134		1	Active on Alarm
Power Module Communication status	10135		1	Active on Alarm
Power Module Lever Unlocked	10136		1	Active on Alarm
Discharger Shutdown	10137		1	Active on Alarm
Power Modules 20				
Power Module Input Current Abnormal	10624		1	Active on Alarm
Power Module Input Current High	10625		1	Active on Alarm
Rectifier Failure	10626		1	Active on Alarm
Inverter Failure	10627		1	Active on Alarm
DC Bus Abnormal	10628		1	Active on Alarm
Load Sharing Fault	10629		1	Active on Alarm
Inverter Relay Fault	10630		1	Active on Alarm
Battery Charging Error	10631		1	Active on Alarm
Battery Converter Failure	10632		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10633		1	Active on Alarm
Inverter Shutdown - Overload	10634		1	Active on Alarm
Power Module Fuse Failure	10635		1	Active on Alarm
Power Module Power Supply Failure	10636		1	Active on Alarm
Power Module Fan Fault	10637		1	Active on Alarm

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Table 3.125 Liebert® EXM2/APM Plus—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Over Temperature	10638		1	Active on Alarm
Power Module Communication status	10639		1	Active on Alarm
Power Module Lever Unlocked	10640		1	Active on Alarm
Discharger Shutdown	10641		1	Active on Alarm
System Status				
Loss of Redundancy	10652		1	Active on Alarm
Hardware Mismatch	10653		1	Active on Alarm
Parallel Cable Failure	10654		1	Active on Alarm
LBS Cable Failure	10655		1	Active on Alarm
Transfer to Bypass - System Overload	10656		1	Active on Alarm
Excess ECO Suspends	10657		1	Active on Alarm
User Operation Invalid	10658		1	Active on Alarm
Load Impact Transfer	10659		1	Active on Alarm
Internal Communications Failure	10660		1	Active on Alarm
Parallel Comm Warning	10661		1	Active on Alarm
Equipment Over Temperature	10662		1	Active on Alarm
LBS Inhibited	10663		1	Active on Alarm
On Generator	10664		1	Active on Alarm
LBS Active	10665		1	Active on Alarm
System Shutdown - EPO	10666		1	Active on Alarm
MMS Capacity Exceeded	10667		1	Active on Alarm
Fuse Failure	10668		1	Active on Alarm
Ground Fault	10669		1	Active on Alarm
System Fan Failure	10670		1	Active on Alarm
Parameter Configuration Failed	10671		1	Active on Alarm
System Output Off	10672		1	Active on Alarm
Output Disabled	10673		1	Active on Alarm
Top Outlet Fan Fault	10674		1	Active on Alarm
ECO mode Inhibited	10675		1	Active on Alarm
Inverter Transfer Inhibit - Ext	10676		1	Active on Alarm

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385		1		Units : VAC Uint16
System Input RMS B-C	30386		1		Units : VAC Uint16
System Input RMS C-A	30387		1		Units : VAC Uint16
System Input RMS Current Phase A	30388		1		Units : A AC Uint16
System Input RMS Current Phase B	30389		1		Units : A AC Uint16
System Input RMS Current Phase C	30390		1		Units : A AC Uint16
System Input Frequency	30391		1	10	Units : Hz Uint16
System Input RMS A-N	30392		1		Units : VAC Uint16
System Input RMS B-N	30393		1		Units : VAC Uint16
System Input RMS C-N	30394		1		Units : VAC Uint16
System Input Power Factor Phs A	30395		1	100	Uint16
System Input Power Factor Phs B	30396		1	100	Uint16
System Input Power Factor Phs C	30397		1	100	Uint16
System Input Power Phase A	30398		1	10	Units : kW Uint16
System Input Power Phase B	30399		1	10	Units : kW Uint16
System Input Power Phase C	30400		1	10	Units : kW Uint16
System Input Apparent Power Phs A	30401		1	10	Units : kVA Uint16
System Input Apparent Power Phs B	30402		1	10	Units : kVA Uint16
System Input Apparent Power Phs C	30403		1	10	Units : kVA Uint16
System Input Nominal Voltage	30404		1		Units : VAC Uint16
System Input Nominal Current	30405		1		Units : A AC Uint16

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input Brown Out Count	30406		1		Uint16
System Input Black Out Count	30407		1		Uint16
Input Breaker	30408		1		0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-N	30419		1		Units : VAC Uint16
Bypass Input Voltage RMS B-N	30420		1		Units : VAC Uint16
Bypass Input Voltage RMS C-N	30421		1		Units : VAC Uint16
Bypass Input Frequency	30422		1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30423		1		Units : VAC Uint16
Bypass Input Voltage RMS B-C	30424		1		Units : VAC Uint16
Bypass Input Voltage RMS C-A	30425		1		Units : VAC Uint16
Bypass Power Phase A	30426		1	10	Units : kW Uint16
Bypass Power Phase B	30427		1	10	Units : kW Uint16
Bypass Power Phase C	30428		1	10	Units : kW Uint16
Bypass Apparent Power Phase A	30429		1	10	Units : kVA Uint16
Bypass Apparent Power Phase B	30430		1	10	Units : kVA Uint16
Bypass Apparent Power Phase C	30431		1	10	Units : kVA Uint16
Bypass Nominal Voltage	30432		1		Units : VAC Uint16
Internal Bypass Breaker	30433		1		0 = Open 1 = Close 2 = Not Installed
Battery					
Battery Time Remaining	30444		1		Units : min Uint16

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
DC Bus Current	30445		1	10	Units : A DC Int16
Time Until Next Auto Battery Test	30446		2		Units : min Uint32
Battery Percentage Charge	30448		1		Units : % Uint16
Number of Discharge Cycles	30449		1		Uint16
Accumulated Discharge Time	30450		1	100	Units : hr Uint16
Low Battery Warning Time	30451		1		Units : min Uint16
Automatic Battery Test	30452		1		0 = disabled 1 = enabled
Battery Self Test Cycle Time	30453		1		Units : day Uint16
DC Bus Voltage	30454		1		Units : VDC Uint16
Battery Temperature	30455		1		Units : deg C Int16
Battery Temperature	30456		1		Units : deg F Int16
UPS Battery Status	30457		1		1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	30458		1		0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Positive DC Bus Voltage	30459		1		Units : VDC Uint16
Negative DC Bus Voltage	30460		1		Units : VDC Uint16
Battery Cabinets 1					
Battery Temperature for Cabinet	30469		1		Units : deg C Int16
Battery Temperature for Cabinet	30470		1		Units : deg F Int16
Battery Volts for Cabinet	30471		1		Units : VDC Uint16
Battery Cabinets 2					

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Temperature for Cabinet	30482		1		Units : deg C Int16
Battery Temperature for Cabinet	30483		1		Units : deg F Int16
Battery Volts for Cabinet	30484		1		Units : VDC Uint16
Battery Cabinets 8					
Battery Temperature for Cabinet	30560		1		Units : deg C Int16
Battery Temperature for Cabinet	30561		1		Units : deg F Int16
Battery Volts for Cabinet	30562		1		Units : VDC Uint16
Battery Cabinets 9					
Battery Temperature for Cabinet	30975		1		Units : deg C Int16
Battery Temperature for Cabinet	30976		1		Units : deg F Int16
Battery Volts for Cabinet	30977		1		Units : VDC Uint16
Battery Cabinets 10					
Battery Temperature for Cabinet	30988		1		Units : deg C Int16
Battery Temperature for Cabinet	30989		1		Units : deg F Int16
Battery Volts for Cabinet	30990		1		Units : VDC Uint16
Battery Cabinets 20					
Battery Temperature for Cabinet	31118		1		Units : deg C Int16
Battery Temperature for Cabinet	31119		1		Units : deg F Int16
Battery Volts for Cabinet	31120		1		Units : VDC Uint16
Inverter					
Output Breaker	30573		1		0 = Open 1 = Close 2 = Not Installed
Inverter On/Off State	30574		1		0 = off 1 = on

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Output					
System Output Voltage RMS A-N	30585		1		Units : VAC Uint16
System Output Voltage RMS B-N	30586		1		Units : VAC Uint16
System Output Voltage RMS C-N	30587		1		Units : VAC Uint16
System Output RMS Current Phs A	30588		1		Units : A AC Uint16
System Output RMS Current Phs B	30589		1		Units : A AC Uint16
System Output RMS Current Phs C	30590		1		Units : A AC Uint16
System Output Frequency	30591		1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30592		1		Units : VAC Uint16
System Output Voltage RMS B-C	30593		1		Units : VAC Uint16
System Output Voltage RMS C-A	30594		1		Units : VAC Uint16
System Output Power Factor Phs A	30595		1	100	Uint16
System Output Power Factor Phs B	30596		1	100	Uint16
System Output Power Factor Phs C	30597		1	100	Uint16
System Output Pct Power Phase A	30598		1		Units : % Uint16
System Output Pct Power Phase B	30599		1		Units : % Uint16
System Output Pct Power Phase C	30600		1		Units : % Uint16
MMS Output Apparent Power	30601		1		Units : kVA Uint16
MMS Output Power	30602		1		Units : kW Uint16
Output Current Crest Factor Phs A	30603		1	10	Uint16
Output Current Crest Factor Phs B	30604		1	10	Uint16
Output Current Crest Factor Phs C	30605		1	10	Uint16
System Output Power Phase A	30606		1	10	Units : kW Uint16

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Power Phase B	30607		1	10	Units : kW Uint16
System Output Power Phase C	30608		1	10	Units : kW Uint16
System Output Apparent Power Phs A	30609		1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30610		1	10	Units : kVA Uint16
System Output Apparent Power Phs C	30611		1	10	Units : kVA Uint16
System Output Power	30612		1		Units : kW Uint16
System Output Apparent Power	30613		1		Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30614		1	10	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30615		1	10	Units : % Uint16
System Output Pct Pwr (VA) Phs C	30616		1	10	Units : % Uint16
ECO Suspended Time Remaining	30617		1		Units : sec Uint16
System Output Nominal Voltage	30618		1		Units : VAC Uint16
System Output Nominal Frequency	30619		1	10	Units : Hz Uint16
Power Modules 1					
Power Module Sleep Status	30630		1		0 = Sleeping 1 = Not Sleeping
Power Module Ready Status	30631		1		0 = Not ready 1 = Ready
Module Operating Status	30632		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30633		1		0 = Inverter Inactive 1 = Inverter Active
Power Modules 2					
Power Module Sleep Status	30644		1		0 = Sleeping 1 = Not Sleeping

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Power Module Ready Status	30645		1		0 = Not ready 1 = Ready
Module Operating Status	30646		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30647		1		0 = Inverter Inactive 1 = Inverter Active
Power Modules 20					
Power Module Sleep Status	30896		1		0 = Sleeping 1 = Not Sleeping
Power Module Ready Status	30897		1		0 = Not ready 1 = Ready
Module Operating Status	30898		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Inverter Status	30899		1		0 = Inverter Inactive 1 = Inverter Active
System Status					
Application Mode For UPS	30910		1		0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo 4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode 10 = Frequency Converter Mode without Battery 11 = Dynamic Online Mode 12 = Dynamic Online Mode Demo
System Set To Operate With	30911		1		0 = No Redundancy 1 = Redundancy
Maintenance Bypass Breaker	30912		1		0 = Open 1 = Close 2 = Not Installed
MMS UPS Output Source	30913		1		1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Number Of Active Power Modules	30914		1		Uint16

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Table 3.126 Liebert® EXM2/APM Plus—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Number of Installed Power Modules	30915		1		Uint16
Inlet Air Temperature	30916		1		Units : deg C Uint16
Inlet Air Temperature	30917		1		Units : deg F Uint16
Average system efficiency	30918		1	10	Units : % Uint16
System Configuration					
Total System Operating Time	30931		2		Units : hr Uint32
System Capacity	30933		1		Units : kVA Uint16
UPS Output Source	30934		1		1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30935		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Date and Time	39998	49998	2		Units : Secs since Epoch(UTC)

Table 3.127 Liebert®EXM2/APM Plus—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charge Status	Battery charge status.
Battery Charging Error	The battery is not charging properly

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Management System Fault	The Battery Management System has reported a Fault
Battery Management System General Warning	The Battery Management System has reported a General Warning
Battery Management System Rack is Offline Warning	The Battery Management System has reported a rack-is-offline warning
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temp Abnormal	Battery temperature is abnormal.
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Control Module Not Available	The bypass control module is not available.
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Module Not Available	The bypass module is not available.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Unable to Trace	The voltage amplitude or frequency of bypass is out of the range of trace.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Discharger Shutdown	A condition is present that prevents the Battery Discharger from working.
ECO mode Inhibited	ECO mode is inhibited due to an external inhibit signal.

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
MMS Output Power	The sum total power of all system output modules
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker Open	UPS internal or external output breaker is open.
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Disabled	Output Disabled
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Ready Status	Status of the inverter. Active means the inverter is ready to power the load. Inactive means the inverter is not ready to power the load.
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status

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Table 3.127 Liebert®EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 3.128 Liebert® EXS Frame 2/3—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Power Problem	10003	—	1	Active on Alarm
Input Source Backfeed	10004	—	1	Active on Alarm
Bypass				
Bypass Not Available	10015	—	1	Active on Alarm
Bypass Static Switch Unavailable	10016	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10017	—	1	Active on Alarm
UPS Output on Bypass	10018	—	1	Active on Alarm
Output Load on Maint. Bypass	10019	—	1	Active on Alarm
Bypass Input Voltage Fault	10020	—	1	Active on Alarm
Bypass Backfeed Detected	10021	—	1	Active on Alarm
Battery				
Battery Circuit Breaker 1 Open	10032	—	1	Active on Alarm
Battery Self Test	10033	—	1	Active on Alarm
Battery Charging Inhibited	10034	—	1	Active on Alarm
Battery Discharging	10035	—	1	Active on Alarm
Battery Manual Test In Progress	10036	—	1	Active on Alarm
Battery Auto Test In Progress	10037	—	1	Active on Alarm
Battery Test Failed	10038	—	1	Active on Alarm
Battery Over Temperature	10039	—	1	Active on Alarm
Battery Low	10040	—	1	Active on Alarm
Battery Ground Fault	10041	—	1	Active on Alarm
Battery Not Qualified	10042	—	1	Active on Alarm
Battery Terminals Reversed	10043	—	1	Active on Alarm
Battery Capacity Low	10044	—	1	Active on Alarm

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Table 3.128 Liebert® EXS Frame 2/3—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Converter Current Limit	10045	—	1	Active on Alarm
Battery Charge Equalization Timeout	10046	—	1	Active on Alarm
Battery Breaker 1 Open Failure	10047	—	1	Active on Alarm
Battery Equalize	10048	—	1	Active on Alarm
Battery Deep Discharge	10049	—	1	Active on Alarm
Inverter				
Loss of Synchronization	10059	—	1	Active on Alarm
Output				
Output Overload	10070	—	1	Active on Alarm
System Output Fault	10071	—	1	Active on Alarm
System Output Off	10072	—	1	Active on Alarm
System Shutdown - Output Short	10073	—	1	Active on Alarm
PowerModules 1				
Power Module Input Current Abnormal	10082	—	1	Active on Alarm
Rectifier Failure	10083	—	1	Active on Alarm
Inverter Failure	10084	—	1	Active on Alarm
DC Bus Abnormal	10085	—	1	Active on Alarm
Load Sharing Fault	10086	—	1	Active on Alarm
Inverter Relay Fault	10087	—	1	Active on Alarm
Battery Charging Error	10088	—	1	Active on Alarm
Battery Converter Failure	10089	—	1	Active on Alarm
Inverter Shutdown - Overload	10090	—	1	Active on Alarm
Power Module Fuse Failure	10091	—	1	Active on Alarm
Power Module Power Supply Failure	10092	—	1	Active on Alarm
Power Module Fan Fault	10093	—	1	Active on Alarm
Power Module Over Temperature	10094	—	1	Active on Alarm
PowerModules 2				
Power Module Input Current Abnormal	10105	—	1	Active on Alarm
Rectifier Failure	10106	—	1	Active on Alarm
Inverter Failure	10107	—	1	Active on Alarm
DC Bus Abnormal	10108	—	1	Active on Alarm
Load Sharing Fault	10109	—	1	Active on Alarm

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Table 3.128 Liebert® EXS Frame 2/3—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Inverter Relay Fault	10110	—	1	Active on Alarm
Battery Charging Error	10111	—	1	Active on Alarm
Battery Converter Failure	10112	—	1	Active on Alarm
Inverter Shutdown - Overload	10113	—	1	Active on Alarm
Power Module Fuse Failure	10114	—	1	Active on Alarm
Power Module Power Supply Failure	10115	—	1	Active on Alarm
Power Module Fan Fault	10116	—	1	Active on Alarm
Power Module Over Temperature	10117	—	1	Active on Alarm
System Status				
Loss of Redundancy	10128	—	1	Active on Alarm
Hardware Mismatch	10129	—	1	Active on Alarm
Transfer to Bypass - System Overload	10130	—	1	Active on Alarm
Excess ECO Suspends	10131	—	1	Active on Alarm
User Operation Invalid	10132	—	1	Active on Alarm
Load Impact Transfer	10133	—	1	Active on Alarm
Internal Communications Failure	10134	—	1	Active on Alarm
MMS Overload	10135	—	1	Active on Alarm
Equipment Over Temperature	10136	—	1	Active on Alarm
LBS Inhibited	10137	—	1	Active on Alarm
On Generator	10138	—	1	Active on Alarm
LBS Active	10139	—	1	Active on Alarm
System Shutdown - EPO	10140	—	1	Active on Alarm
MMS Capacity Exceeded	10141	—	1	Active on Alarm
System Input Current Limit	10142	—	1	Active on Alarm
Ground Fault	10143	—	1	Active on Alarm
System Fan Failure	10144	—	1	Active on Alarm
Top Outlet Fan Fault	10145	—	1	Active on Alarm

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Table 3.129 Liebert® EXS Frame 2/3—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	—	Units : VAC Uint16
System Input RMS B-C	30386	—	1	—	Units : VAC Uint16
System Input RMS C-A	30387	—	1	—	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
System Input RMS A-N	30392	—	1	—	Units : VAC Uint16
System Input RMS B-N	30393	—	1	—	Units : VAC Uint16
System Input RMS C-N	30394	—	1	—	Units : VAC Uint16
System Input Power Factor Phs A	30395	—	1	100	Uint16
System Input Power Factor Phs B	30396	—	1	100	Uint16
System Input Power Factor Phs C	30397	—	1	100	Uint16
System Input Nominal Voltage	30398	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30399	—	1	10	Units : Hz Uint16
System Input Nominal Current	30400	—	1	—	Units : A AC Uint16
System Input Brown Out Count	30401	—	1	—	Uint16
System Input Black Out Count	30402	—	1	—	Uint16
Input Breaker	30403	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-N	30414	—	1	—	Units : VAC Uint16

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Table 3.129 Liebert® EXS Frame 2/3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Bypass Input Voltage RMS B-N	30415	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30416	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30417	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30418	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30419	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30420	—	1	—	Units : VAC Uint16
Bypass Nominal Voltage	30421	—	1	—	Units : VAC Uint16
Internal Bypass Breaker	30422	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery					
Battery Time Remaining	30433	—	1	—	Units : min Uint16
(Deprecated) DC Bus Current	30434	—	1	100	Units : A DC Int16
Time Until Next Auto Battery Test	30435	—	2	—	Units : min Uint32
Battery Percentage Charge	30437	—	1	—	Units : % Uint16
Number of Discharge Cycles	30438	—	1	—	Uint16
Accumulated Discharge Time	30439	—	1	—	Units : min Uint16
Low Battery Warning Time	30440	—	1	—	Units : min Uint16
UPS Battery Status	30441	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery charge status.	30442	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Automatic Battery Test	30443	—	1	—	0 = disabled 1 = enabled

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Table 3.129 Liebert® EXS Frame 2/3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Self Test Cycle Time	30444	—	1	—	Units : day Uint16
DC Bus Voltage	30445	—	1	—	Units : VDC Uint16
Battery Temperature	30446	—	1	—	Units : deg C Int16
Battery Temperature	30447	—	1	—	Units : deg F Int16
DC Bus Current	30448	—	1	10	Units : A DC Int16
Battery Cabinets 1					
Battery Temperature for Cabinet	30458	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30459	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30460	—	1	—	Units : VDC Uint16
Battery Cabinets 2					
Battery Temperature for Cabinet	30471	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30472	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30473	—	1	—	Units : VDC Uint16
. . .		—		—	
Battery Cabinets 4					
Battery Temperature for Cabinet	30497	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30498	—	1	—	Units : deg F Int16
Battery Volts for Cabinet	30499	—	1	—	Units : VDC Uint16
Inverter					
Output Breaker	30510	—	1	—	0 = Open 1 = Close 2 = Not Installed
Inverter On/Off State	30511	—	1	—	0 = off 1 = on
Output					

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Table 3.129 Liebert® EXS Frame 2/3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Voltage RMS A-N	30522	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-N	30523	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-N	30524	—	1	—	Units : VAC Uint16
System Output RMS Current Phs A	30525	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30526	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30527	—	1	—	Units : A AC Uint16
System Output Frequency	30528	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30529	—	1	—	Units : VAC Uint16
System Output Voltage RMS B-C	30530	—	1	—	Units : VAC Uint16
System Output Voltage RMS C-A	30531	—	1	—	Units : VAC Uint16
System Output Power Factor Phs A	30532	—	1	100	Uint16
System Output Power Factor Phs B	30533	—	1	100	Uint16
System Output Power Factor Phs C	30534	—	1	100	Uint16
System Output Pct Power Phase A	30535	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30536	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30537	—	1	—	Units : % Uint16
MMS Output Apparent Power	30538	—	1	—	Units : kVA Uint16
MMS Output Power	30539	—	1	—	Units : kW Uint16
Output Current Crest Factor Phs A	30540	—	1	10	Uint16
Output Current Crest Factor Phs B	30541	—	1	10	Uint16
Output Current Crest Factor Phs C	30542	—	1	10	Uint16
System Output Power Phase A	30543	—	1	10	Units : kW Uint16

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Table 3.129 Liebert® EXS Frame 2/3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Power Phase B	30544	—	1	10	Units : kW Uint16
System Output Power Phase C	30545	—	1	10	Units : kW Uint16
System Output Apparent Power Phs A	30546	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30547	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs C	30548	—	1	10	Units : kVA Uint16
System Output Power	30549	—	1	—	Units : kW Uint16
System Output Apparent Power	30550	—	1	—	Units : kVA Uint16
System Output Nominal Voltage	30551	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30552	—	1	10	Units : Hz Uint16
PowerModules 1					
Power Module Sleep Status	30563	—	1	—	0 = Sleeping 1 = Not Sleeping
PowerModules 2					
Power Module Sleep Status	30574	—	1	—	0 = Sleeping 1 = Not Sleeping
System Status					
System Set To Operate With	30585	—	1	—	0 = No Redundancy 1 = Redundancy
Number Of Active Power Modules	30586	—	1	—	Uint16
Number of Installed Power Modules	30587	—	1	—	Uint16
Average system efficiency	30588	—	1	10	Units : % Uint16
Maintenance Bypass Breaker	30589	—	1	—	0 = Open 1 = Close 2 = Not Installed
MMS UPS Output Source	30590	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer

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Table 3.129 Liebert® EXS Frame 2/3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Intelligent Parallel Operation State	30591	—	1	—	0 = disabled 1 = enabled
Application Mode For UPS	30592	—	1	—	0 = UPS Mode 1 = Frequency Converter Mode 2 = Intelligent Paralleling Mode 3 = Intelligent Paralleling Mode Demo 4 = ECO Mode 5 = Intelligent ECO Mode 6 = Intelligent ECO Mode Demo 7 = Testing Mode 8 = Regen Mode 9 = Power Conditioner Mode
System Configuration					
Total System Operating Time	30603	—	2	—	Units : hr Uint32
System Capacity	30605	—	1	—	Units : kVA Uint16
UPS Output Source	30606	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30607	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
SystemConfiguration					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

Table 3.130 Liebert® EXS Frame 2/3—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open

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Table 3.130 Liebert® EXS Frame 2/3—Glossary (continued)

Data Label	Data Description
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency

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Table 3.130 Liebert® EXS Frame 2/3—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.

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Table 3.130 Liebert® EXS Frame 2/3—Glossary (continued)

Data Label	Data Description
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
LBS Active	The Load Bus Sync option is active
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Power Module Fan Fault	The Power Module has detected a fan fault.

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Table 3.130 Liebert® EXS Frame 2/3—Glossary (continued)

Data Label	Data Description
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral

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Table 3.130 Liebert® EXS Frame 2/3—Glossary (continued)

Data Label	Data Description
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.

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Table 3.130 Liebert® EXS Frame 2/3—Glossary (continued)

Data Label	Data Description
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

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Table 3.131 Vertiv™ Liebert® GXE3—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
System Input Current Limit	10001		1	Active on Alarm
Input Wiring Fault	10002		1	Active on Alarm
DC Bus Abnormal	10003		1	Active on Alarm
Bypass				
Bypass Not Available	10014		1	Active on Alarm
Bypass Backfeed Detected	10015		1	Active on Alarm
Bypass disabled	10016		1	Active on Alarm
Bypass Abnormal In ECO Mode	10017		1	Active on Alarm
Battery				
Battery Self Test	10028		1	Active on Alarm
Battery Low	10029		1	Active on Alarm
Battery Test Failed	10030		1	Active on Alarm
Replace Battery	10031		1	Active on Alarm
Battery Not Qualified	10032		1	Active on Alarm
Battery Terminals Reversed	10033		1	Active on Alarm
Battery Over Temperature	10034		1	Active on Alarm
Battery Deep Discharge	10035		1	Active on Alarm
Output				
Output Overload	10046		1	Active on Alarm
System Output Off	10047		1	Active on Alarm
Turn on failed	10048		1	Active on Alarm
System				
UPS Output on Bypass	10059		1	Active on Alarm
Battery Discharging	10060		1	Active on Alarm
System Input Power Problem	10061		1	Active on Alarm
Equipment Over Temperature	10062		1	Active on Alarm
Shutdown Pending	10063		1	Active on Alarm
Charger Failure	10064		1	Active on Alarm
Rectifier Failure	10065		1	Active on Alarm
Inverter Failure	10066		1	Active on Alarm
System Fan Failure	10068		1	Active on Alarm

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Table 3.131 Vertiv™ Liebert® GXE3—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Emergency Power Off - Latched	10069		1	Active on Alarm
DC to DC Converter Fault	10070		1	Active on Alarm
Power Module Shutdown - Over Temperature	10071		1	Active on Alarm
Mains Input Neutral Lost	10072		1	Active on Alarm
System Shutdown - Output Short	10073		1	Active on Alarm
UPS Output on Inverter	10074		1	Active on Alarm
System Shutdown - Remote Shutdown	10075		1	Active on Alarm
Auxiliary power fault	10076		1	Active on Alarm
Output off due to abnormal bypass	10077		1	Active on Alarm
Output off voltage is not zero	10078		1	Active on Alarm
Manual Power On	10079		1	Active on Alarm
Remote Power On	10080		1	Active on Alarm
Battery to utility transition	10081		1	Active on Alarm
UPS was reset to factory defaults	10082		1	Active on Alarm
Device Faults were cleared as requested	10083		1	Active on Alarm
Inverter Relay Fault	10084		1	Active on Alarm
Internal Communications Failure	10085		1	Active on Alarm
General Fault	10086		1	Active on Alarm

Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385		1		1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Input					
System Input RMS L1-N	30396		1	10	Units : VAC Uint16
System Input RMS Current L1	30397		1	10	Units : A AC Uint16
System Input Frequency	30398		1	10	Units : Hz Uint16

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input Power Factor L1	30399		1	100	Uint16
System Input Max Voltage L1-N	30400		1	10	Units : VAC Uint16
System Input Min Voltage L1-N	30401		1	10	Units : VAC Uint16
System Input Nominal Voltage	30402		1		Units : VAC Uint16
System Input Nominal Current	30403		1		Units : A AC Uint16
System Input Nominal Frequency	30404		1		Units : Hz Uint16
System Input Phase Count	30405		1		Uint16
Input Energy	30406		2	10	Units : kWH Uint32
Bypass					
Bypass Input Voltage RMS L1-N	30418		1	10	Units : VAC Uint16
Bypass Input Frequency	30419		1	10	Units : Hz Uint16
Bypass Nominal Voltage	30420		1		Units : VAC Uint16
Battery					
UPS Battery Status	30431		1		1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	30432		1		0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Battery Test Result	30433		1		0 = Unknown 1 = Passed 2 = Failed 3 = In Progress 4 = System Failure

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					5 = Inhibited
Battery Time Remaining	30434		1	10	Units : min Uint16
Battery Percentage Charge	30435		1		Units : % Uint16
Battery Current	30436		1	10	Units : A DC Int16
DC Bus Voltage	30437		1		Units : VDC Uint16
DC Bus Nominal Voltage	30438		1		Units : VDC Uint16
Battery Rating	30439		1		Units : AH Uint16
Number of EBC Installed	30440		1		Uint16
Nominal Battery Capacity	30441		1		Units : min Uint16
Total Number of Battery Discharges	30442		1		Uint16
Battery State of Health	30443		1		Units : % Uint16
Battery Charger State	30444		1		0 = off 1 = on
Battery Float Voltage	30445		1	100	Units : VDC Uint16
Battery type	30446		1		0 = VRLA 1 = Lithium Battery
Battery Statistics					
Battery last replaced time	30459		2		Units : Secs since Epoch(UTC)
Battery Configuration					
Auto Battery Test Interval	30471	40471	1		0 = disabled 1 = 8 weeks 2 = 12 weeks 3 = 16 weeks 4 = 20 weeks 5 = 26 weeks

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery periodic test weekday	30472	40472	1		0 = Monday 1 = Tuesday 2 = Wednesday 3 = Thursday 4 = Friday 5 = Saturday 6 = Sunday
Battery periodic test time (hour)	30473	40473	1		Uint16
Battery periodic test time (minute)	30474	40474	1		Uint16
Low Battery Warning Time	30475	40475	1		Units : min Uint16
Battery reminder (months)	30476	40476	1		Uint16
Discharge protect time	30477	40477	1		Units : min Uint16
Equal charge	30478	40478	1		0 = disabled 1 = enabled
Temperature compensation	30479	40479	1		0 = disabled 1 = enabled
Set External Battery Cabinet Quantity	30480	40480	1		0 = 0 Cabinets 1 = 1 Cabinet 2 = 2 Cabinets 3 = 3 Cabinets 4 = 4 Cabinets
External Battery Cabinets Ah	30481	40481	1		Uint16
Max Charge Current	30482	40482	1	10	Units : A DC Uint16
Manual Battery Test		40483	1		1 = Start Test
Output					
System Output Voltage RMS L1-N	30494		1	10	Units : VAC Uint16
System Output RMS Current L1	30495		1	10	Units : A AC Uint16
System Output Frequency	30496		1	10	Units : Hz Uint16
System Output Power	30497		1		Units : W

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
System Output Power L1	30498		1		Units : W Uint16
System Output Pct Power	30499		1		Units : % Uint16
System Output Pct Power L1	30500		1		Units : % Uint16
System Output Apparent Power	30501		1		Units : VA Uint16
System Output Apparent Power L1	30502		1		Units : VA Uint16
System Output Power Factor L1	30503		1	100	Uint16
System Output Nominal Voltage	30504		1		Units : VAC Uint16
Output Energy	30505	40505	2	10	Units : kWH Uint32
Output Apparent Power Rating	30507		1		Units : VA Uint16
System Output Nominal Frequency	30508		1		Units : Hz Uint16
Output On Delay	30509	40509	1		Units : sec Uint16
Reboot With Delay	30510	40510	1		Units : sec Uint16
Shutdown After Delay	30511	40511	1		Units : sec Uint16
Nominal Power Factor	30512		1	100	Int16
UPS Output Source	30513		1		1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
ECO Mode					

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
ECO Mode Status	30524		1		0 = off 1 = on
ECO Mode Operation State	30525	40525	1		0 = disabled 1 = enabled
ECO voltage range	30526	40526	1		0 = +/- 5% 1 = +/- 10% 2 = +/- 15%
ECO frequency range	30527	40527	1		0 = +/- 1Hz 1 = +/- 2Hz 2 = +/- 3Hz
ECO requalification time	30528	40528	1		0 = 1 min 1 = 5 min 2 = 15 min 3 = 30 min
System					
System Status	30539		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Input Black Out Count	30540		1		Uint16
System Input Brown Out Count	30541		1		Uint16
Inverter On/Off State	30542		1		0 = off 1 = on
Inlet Air Temperature	30543		1		Units : deg C Int16
Inlet Air Temperature	30544		1		Units : deg F Int16
Shutdown Reason	30545		1		0 = None 1 = Over Temperature 2 = Overload 3 = DC Bus Overload 4 = Output Short 5 = Line Swap 6 = Low Battery 7 = Remote Command

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					8 = Input Under Voltage 9 = Power Factor Correction Fail 10 = External Signal Command
UPS Topology	30546		1		0 = unknown 1 = Offline 2 = Line Interactive 3 = Online
System Configuration					
Audible Alarm Control	30559	40559	1		0 = off 1 = on
Auto Restart	30560	40560	1		0 = disabled 1 = enabled
Auto Restart Delay	30561	40561	1		Units : sec Uint16
Guaranteed shutdown	30562	40562	1		0 = disabled 1 = enabled
IT system compatibility	30563	40563	1		0 = disabled 1 = enabled
Startup on bypass	30564	40564	1		0 = disabled 1 = enabled
Bypass voltage upper limit	30565	40565	1		0 = +10% 1 = +15% 2 = +20%
Bypass voltage lower limit	30566	40566	1		0 = -10% 1 = -15% 2 = -20%
Output Voltage Setting	30567		1		0 = AutoDetect 1 = 100 VAC 2 = 110 VAC 3 = 115 VAC 4 = 120 VAC 5 = 125 VAC 6 = 200 VAC 7 = 208 VAC 8 = 220 VAC 9 = 230 VAC

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Table 3.132 Vertiv™ Liebert® GXE3—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					10 = 240 VAC 11 = 100/173 VAC 12 = 100/173rvs VAC 13 = 100/200 VAC 14 = 110/190.5 VAC 15 = 110/190.5rvs VAC 16 = 110/220 VAC 17 = 115/199 VAC 18 = 115/199rvs VAC 19 = 115/230 VAC 20 = 120/208 VAC 21 = 120/208rvs VAC 22 = 120/240 VAC 23 = 125/216.5 VAC 24 = 125/216.5rvs VAC 25 = 125/250 VAC
Silence Audible Alarm		40568	1		1 = Silence Alarm
Clear UPS faults		40569	1		1 = Clear UPS faults
Turn to bypass		40570	1		0 = Turn To Bypass
SystemConfiguration					
System Date and Time	39998	49998	2		Units : Secs since Epoch(UTC)

Table 3.133 Vertiv™ Liebert® GXE3—Glossary

Data Label	Data Description
Audible Alarm Control	Audible Alarm Control
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Auxiliary power fault	Auxiliary power fault
Battery Charge Status	Battery charge status.
Battery Charger State	Current state of the battery charger
Battery Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage
Battery Discharging	The battery is discharging

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Table 3.133 Vertiv™ Liebert® GXE3—Glossary (continued)

Data Label	Data Description
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery last replaced time	The UPS battery last replaced time
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery periodic test time (hour)	Sets the hour to run the Battery periodic test.
Battery periodic test time (minute)	Sets the minute to run the Battery periodic test time.
Battery periodic test weekday	Sets the day of week to run the Battery periodic test.
Battery Rating	Total rating of all parallel strings in the battery.
Battery reminder (months)	Battery reminder (months)
Battery Self Test	Battery self test is in progress
Battery State of Health	The UPS battery State of Health
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery to utility transition	Battery to utility transition
Battery type	Battery type of the UPS system
Bypass Abnormal In ECO Mode	UPS will return to inverter from bypass due to ECO Mode bypass abnormal condition.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass disabled	Bypass disabled
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass voltage lower limit	Sets the percentage that the input voltage may be below the selected output voltage setting and remain in Bypass mode.
Bypass voltage upper limit	Sets the percentage that the input voltage may be above the selected output voltage setting and remain in Bypass mode.
Charger Failure	Charger Failure - Charger is off
Clear UPS faults	Clear UPS faults

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Table 3.133 Vertiv™ Liebert® GXE3—Glossary (continued)

Data Label	Data Description
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Device Faults were cleared as requested	Device Faults were cleared as requested
Discharge protect time	Sets the maximum discharge time when on battery.
ECO frequency range	Sets the amount that the input frequency may be above or below the selected frequency setting and remain in ECO mode.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
ECO requalification time	Length of time that the UPS requires the input voltage and frequency tolerances to be maintained before switching to ECO-mode.
ECO voltage range	Sets the percentage that the input voltage may be above or below the selected output voltage setting and remain in ECO mode.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equal charge	Equal charge
Equipment Over Temperature	Equipment over temperature summary event
External Battery Cabinets Ah	Sets the amp-hour rating of the external battery when using non-Vertiv external batteries. Calculated automatically for Vertiv EBCs.
General Fault	A general fault in the UPS has been detected.
Guaranteed shutdown	Forces a continued shutdown of the UPS once the Low Battery threshold is reached, even if input power is restored during this time.
Inlet Air Temperature	The temperature of the inlet air
Input Energy	Input energy consumption since the last reset of this value.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
IT system compatibility	Allows for compatibility with IT grounding system. When this option is enabled, the Input Phase Reversed and Input Ground Lost alarms are disabled.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Manual Battery Test	Command to initiate a manual battery test.

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Table 3.133 Vertiv™ Liebert® GXE3—Glossary (continued)

Data Label	Data Description
Manual Power On	Manual Power On
Max Charge Current	The maximum allowed current to be used for charging the batteries.
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Output Apparent Power Rating	Output apparent power rating
Output Energy	Total accumulated energy output, since last energy reset.
Output off due to abnormal bypass	Output off due to abnormal bypass
Output off voltage is not zero	Output off voltage is not zero
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Voltage Setting	Sets the nominal system voltage.
Power Module Shutdown - Over Temperature	Power Module has shutdown due to over temperature.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Remote Power On	Remote Power On
Replace Battery	The battery is due for replacement.
Server Class	The general classification for this system
Set External Battery Cabinet Quantity	Autodetect or manually enter number of External Battery Cabinets.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
Startup on bypass	Allows the UPS to start-up in bypass mode before transitioning to the inverter.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Current Limit	The RMS input current has reached the input current limit threshold

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Table 3.133 Vertiv™ Liebert® GXE3—Glossary (continued)

Data Label	Data Description
System Input Frequency	The system input frequency
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phase Count	The number of phases for the system input
System Input Power Factor L1	The system input power factor for Line 1
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Output Apparent Power L1	System output apparent power on Line 1
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1
System Output Power L1	The system output power on Line 1.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Shutdown - Remote Shutdown	Shutdown was due to a remote communications shutdown command.
System Status	The operating status for the system
Temperature compensation	When enabled, the UPS will adjust the battery charging voltage based on temperature to preserve battery life.
Total Number of Battery Discharges	The total number of battery discharges.
Turn on failed	Turn on failed

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Table 3.133 Vertiv™ Liebert® GXE3—Glossary (continued)

Data Label	Data Description
Turn to bypass	Turn to bypass
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output on Inverter	The output power is supplied by the inverter
UPS Output Source	UPS output source
UPS Topology	UPS Topology
UPS was reset to factory defaults	UPS was reset to factory defaults

Table 3.134 Liebert® GXT2 and Liebert® GXT3—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Audible Alarm Enabled	10002	2	1	—	—
Automatic Battery Test Enabled	10003	3	1	—	—
DC-to-DC Converter On	10042	—	1	—	—
Battery Charge Compensation	10046	—	1	—	—
Inverter Ready	10047	—	1	—	—
Power Factor Correction State	10050	—	1	—	—
Load Circuit 1 State	10057	—	1	—	—
Load Circuit 2 State	10058	—	1	—	—
Load Circuit 3 State	10059	—	1	—	—
Load Circuit 4 State	10060	—	1	—	—
Load Circuit 5 State	10061	—	1	—	—
Load Circuit 6 State	10062	—	1	—	—
Load Circuit 7 State	10063	—	1	—	—
Load Circuit 8 State	10064	—	1	—	—
Load Circuit 9 State	10065	—	1	—	—
Load Circuit 10 State	10066	—	1	—	—
Load Circuit 11 State	10067	—	1	—	—
Load Circuit 12 State	10068	—	1	—	—
Load Circuit 13 State	10069	—	1	—	—
Load Circuit 14 State	10070	—	1	—	—
Load Circuit 15 State	10071	—	1	—	—
Load Circuit 16 State	10072	—	1	—	—
Load On Inverter	10073	—	1	—	—

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Table 3.134 Liebert® GXT2 and Liebert® GXT3—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Bypass Active	10074	—	1	—	—
Replace Battery	10081	—	1	—	—
Battery Under Test	10082	—	1	—	—
Shutdown Reason - Over Temperature	10086	—	1	—	—
Shutdown Reason - Overload	10087	—	1	—	—
Shutdown Reason - Link Over Voltage	10088	—	1	—	—
Shutdown Reason - Output Short	10089	—	1	—	—
Shutdown Reason - Line Neutral Swap	10090	—	1	—	—
Shutdown Reason - Low Battery	10092	—	1	—	—
Shutdown Reason - Remote Shutdown	10093	—	1	—	—
Shutdown Reason - Input Under Voltage	10094	—	1	—	—
Shutdown Reason - PFC Startup	10095	—	1	—	—
Shutdown Reason - Hardware	10096	—	1	—	—
Load on Battery	10128	—	1	—	—
Output Off Pending	10151	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Overload	10154	—	1	—	—
Over Temperature Warning	10171	—	1	—	—
Battery Over Temperature CB Trip	10172	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Input Over Voltage	10187	—	1	—	—
Input Under Voltage	10188	—	1	—	—
Bad Input Frequency	10190	—	1	—	—
Bypass Input Voltage/Frequency Fault	10202	—	1	—	—
Output Under Voltage	10218	—	1	—	—
Output Over Voltage	10219	—	1	—	—

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

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Table 3.135 Liebert® GXT2 and Liebert® GXT3—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Number of SubModules	30009	40009	1	—	—
Load Circuit Present	30013	40013	1	—	There are 16 possible Load Circuits. Each bit represents 1 Load Circuit. Load Circuit 1 is bit 0, Load Circuit 2 is bit 1 and so on. If the bit is 1, then the Load Circuit is supported.
Battery Cabinet Type	30018	40018	2	—	—
Battery Cabinet Number	30019	40019	1	—	—
Battery AmpHour	30020	40020	1	—	AH
Nominal Power Rating	30021	40021	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Static Bypass Switch Voltage	30029	40029	1	—	V
Nominal Input Current	30030	40030	1	—	A
Nominal Input Frequency	30031	40031	1	10	Hz
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Nominal Battery Voltage	30034	40034	1	—	V
Auto Restart Delay	30051	40051	1	—	Seconds
Device Low Battery Time	30053	40053	1	—	Minutes
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W
Load / Capacity	30106	—	1	—	%
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Bypass Frequency	30109	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged 3 - Charging 4 - Discharging 5 - Float Charging 6 - Equalize Charging
Battery Voltage	30113	—	1	—	V

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Table 3.135 Liebert® GXT2 and Liebert® GXT3—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%
Ambient Temperature	30119	—	1	—	deg C
Battery Test Result	30130	—	1	—	1 - Unknown 2 - Passed 3 - Failed 4 - In Progress 5 - System Failure 6 - Inhibited
Input Voltage L1	30153	—	1	—	V
Bypass Voltage L1	30159	—	1	—	V
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Maximum Voltage L1	30180	—	1	—	V
Input Minimum Voltage L1	30181	—	1	—	V
Output Maximum Voltage L1	30182	—	1	—	V
Output Minimum Voltage L1	30183	—	1	—	V
Black Out Count	30301	—	1	—	—
Brown Out Count	30302	—	1	—	—

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

Table 3.136 Liebert® GXT3 and Liebert® GXT4—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Input Undervoltage	10001		1	Active on Alarm
Input Overvoltage	10002		1	Active on Alarm
Bypass				
Bypass Not Available	10013		1	Active on Alarm
Battery				
Battery Self Test	10024		1	Active on Alarm
Battery Low	10025		1	Active on Alarm
Battery Under Voltage	10026		1	Active on Alarm
Battery Over Voltage	10027		1	Active on Alarm
Battery Test Failed	10028		1	Active on Alarm
Replace Battery	10029		1	Active on Alarm

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Table 3.136 Liebert® GXT3 and Liebert® GXT4—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Output				
Output Overload	10040		1	Active on Alarm
Output Undervoltage	10041		1	Active on Alarm
Output Overvoltage	10042		1	Active on Alarm
System Output Off	10043		1	Active on Alarm
System				
UPS Output on Bypass	10054		1	Active on Alarm
Battery Discharging	10055		1	Active on Alarm
System Input Power Problem	10056		1	Active on Alarm
Equipment Over Temperature	10057		1	Active on Alarm
Input Frequency Deviation	10058		1	Active on Alarm
Shutdown Pending	10059		1	Active on Alarm
Unspecified General Event	10060		1	Active on Alarm
Parallel Comm Warning	10061		1	Active on Alarm
Loss of Redundancy	10062		1	Active on Alarm
Charger Failure	10063		1	Active on Alarm
Rectifier Failure	10064		1	Active on Alarm
Inverter Failure	10065		1	Active on Alarm
Maintenance Bypass Breaker Closed	10066		1	Active on Alarm
System Fan Failure	10067		1	Active on Alarm
Emergency Power Off - Latched	10068		1	Active on Alarm
Input Wiring Fault	10069		1	Active on Alarm
DC to DC Converter Fault	10070		1	Active on Alarm

Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385		1		1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Input					
System Input RMS L1-N	30396		1	10	Units : VAC

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Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
System Input RMS L2-N	30397		1	10	Units : VAC Uint16
System Input RMS L1-L2	30398		1	10	Units : VAC Uint16
System Input RMS Current L1	30399		1	10	Units : A AC Uint16
System Input RMS Current L2	30400		1	10	Units : A AC Uint16
System Input Frequency	30401		1	10	Units : Hz Uint16
System Input Max Voltage L1-N	30402		1	10	Units : VAC Uint16
System Input Min Voltage L1-N	30403		1	10	Units : VAC Uint16
System Input Max Voltage L2-N	30404		1	10	Units : VAC Uint16
System Input Min Voltage L2-N	30405		1	10	Units : VAC Uint16
System Input Nominal Voltage	30406		1		Units : VAC Uint16
System Input Nominal Current	30407		1		Units : A AC Uint16
System Input Nominal Frequency	30408		1		Units : Hz Uint16
Bypass					
Bypass Input Voltage RMS L1-N	30419		1	10	Units : VAC Uint16
Bypass Input Voltage RMS L1-L2	30420		1	10	Units : VAC Uint16
Bypass Input Voltage RMS L2-N	30421		1	10	Units : VAC Uint16
Bypass Input RMS Current	30422		1	10	Units : A AC Uint16
Bypass Input RMS Current Line 2	30423		1	10	Units : A AC

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Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Bypass Input Frequency	30424		1	10	Units : Hz Uint16
Bypass Nominal Voltage	30425		1		Units : VAC Uint16
Battery					
UPS Battery Status	30436		1		1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Time Remaining	30437		1		Units : min Uint16
Battery Percentage Charge	30438		1		Units : % Uint16
Battery Charge Status	30439		1		0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
DC Bus Voltage	30440		1		Units : VDC Uint16
DC Bus Nominal Voltage	30441		1		Units : VDC Uint16
Battery Cabinet Type	30442		1		0 = Internal 1 = External 2 = LRT
Battery Rating	30443		1		Units : AH Uint16
Low Battery Warning Time	30444	40444	1		Units : min Uint16
Number of EBC Installed	30445		1		Uint16
Battery Charge Compensating	30446		1		0 = false 1 = true
Battery Charger State	30447		1		0 = off 1 = on
Nominal Battery Capacity	30448		1		Units : min

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Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Battery Discharge Time	30449		1		Units : min Uint16
Battery Float Voltage	30450		1		Units : VDC Uint16
Battery Test Result	30451		1		0 = Unknown 1 = Passed 2 = Failed 3 = In Progress 4 = System Failure 5 = Inhibited
Automatic Battery Test	30452		1		0 = disabled 1 = enabled
Manual Battery Test		40453	1		1 = Start Test
Output					
System Output Voltage RMS L1-N	30464		1	10	Units : VAC Uint16
System Output Voltage RMS L1-L2	30465		1	10	Units : VAC Uint16
System Output RMS Current L1	30466		1	10	Units : A AC Uint16
System Output Voltage RMS L2-N	30467		1	10	Units : VAC Uint16
System Output RMS Current L2	30468		1	10	Units : A AC Uint16
System Output Frequency	30469		1	10	Units : Hz Uint16
System Output Max Voltage L1-N	30470		1	10	Units : VAC Uint16
System Output Min Voltage L1-N	30471		1	10	Units : VAC Uint16
System Output Max Voltage L2-N	30472		1	10	Units : VAC Uint16
System Output Min Voltage L2-N	30473		1	10	Units : VAC Uint16

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Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Power	30474		1		Units : W Uint16
System Output Power L1	30475		1		Units : W Uint16
System Output Power L2	30476		1		Units : W Uint16
System Output Pct Power	30477		1		Units : % Uint16
System Output Pct Power L1	30478		1		Units : % Uint16
System Output Pct Power L2	30479		1		Units : % Uint16
System Output Apparent Power	30480		1		Units : VA Uint16
System Output Apparent Power L1	30481		1		Units : VA Uint16
System Output Apparent Power L2	30482		1		Units : VA Uint16
System Output Nominal Voltage	30483		1		Units : VAC Uint16
Output Apparent Power Rating	30484		1		Units : VA Uint16
System Output Nominal Frequency	30485		1		Units : Hz Uint16
Output On Delay	30486	40486	1		Units : sec Uint16
Reboot With Delay	30487	40487	1		Units : sec Uint16
Shutdown After Delay	30488	40488	1		Units : sec Uint16
UPS Output Source	30489		1		1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster

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Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					7 = Reducer
Power Factor Correction	30490		1		0 = off 1 = on
Nominal Power Factor	30491		1	100	Int16
Outlet Group 1					
Outlet Group Identifier	30502		1		Uint16
Outlet Group Power Control	30503	40503	1		0 = Off 1 = On 2 = Cycle Power
Outlet Group 2					
Outlet Group Identifier	30514		1		Uint16
Outlet Group Power Control	30515	40515	1		0 = Off 1 = On 2 = Cycle Power
ECO Mode					
ECO Mode Status	30526		1		0 = off 1 = on
ECO Mode Operation State	30527	40527	1		0 = disabled 1 = enabled
System					
System Status	30538		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Input Black Out Count	30539		1		Uint16
System Input Brown Out Count	30540		1		Uint16
Auto Restart	30541	40541	1		0 = disabled 1 = enabled
Auto Restart Delay	30542	40542	1		Units : sec Uint16
Inverter On/Off State	30543		1		0 = off 1 = on
Inlet Air Temperature	30544		1		Units : deg C Int16

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Table 3.137 Liebert® GXT3 and Liebert® GXT4—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Inlet Air Temperature	30545		1		Units : deg F Int16
Shutdown Reason	30546		1		0 = None 1 = Over Temperature 2 = Overload 3 = DC Bus Overload 4 = Output Short 5 = Line Swap 6 = Low Battery 7 = Remote Command 8 = Input Under Voltage 9 = Power Factor Correction Fail 10 = External Signal Command
DC Converter Status	30547		1		0 = off 1 = on
UPS Topology	30548		1		0 = unknown 1 = Offline 2 = Line Interactive 3 = Online
Bypass/Inverter Input Config	30549		1		1 = Single/Combined Source 2 = Dual/Separate Sources
Audible Alarm Control	30550	40550	1		0 = off 1 = on
Abort Command		40551	1		1 = Issue Command
Reset Power Statistics		40552	1		1 = Reset
Silence Audible Alarm		40553	1		1 = Silence Alarm
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.138 Liebert® GXT3 and Liebert® GXT4—Glossary

Data Label	Data Description
Abort Command	Attempt to abort a previously issued command to the device that is still pending
Audible Alarm Control	Audible Alarm Control
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.

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Table 3.138 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
Battery Cabinet Type	Type of extended battery cabinets.
Battery Charge Compensating	Battery charge algorithm changed due to battery temperature
Battery Charge Status	Battery charge status.
Battery Charger State	Current state of the battery charger
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Rating	Total rating of all parallel strings in the battery.
Battery Self Test	Battery self test is in progress
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery Under Voltage	Battery voltage is too low.
Bypass Input Frequency	The bypass input frequency
Bypass Input RMS Current Line 2	The bypass input RMS current for Line 2
Bypass Input RMS Current	The bypass input RMS current.
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass/Inverter Input Config	Input source configuration for the bypass and inverter.
Charger Failure	Charger Failure - Charger is off
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC Converter Status	The operating state of the dc converter.

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Table 3.138 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equipment Over Temperature	Equipment over temperature summary event
Inlet Air Temperature	The temperature of the inlet air
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Manual Battery Test	Command to initiate a manual battery test.
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Outlet Group Identifier	A runtime assigned outlet group identification number
Outlet Group Power Control	Outlet Group Power Control (OFF, ON, Cycle, etc)
Output Apparent Power Rating	Output apparent power rating
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Overvoltage	One or more of the output phase voltages has exceeded the limit.
Output Undervoltage	One or more of the output phase voltages has dropped below the limit.
Parallel Comm Warning	Parallel communication bus warning
Power Factor Correction	The state of the power factor correction circuitry of the system
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.

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Table 3.138 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
Rectifier Failure	Rectifier failure - rectifier is off
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics
Server Class	The general classification for this system
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Max Voltage L2-N	The maximum system input voltage measurement for Line 2-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L2-N	The minimum system input voltage measurement for Line 2-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS Current L2	The system input RMS current for Line 2
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral

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Table 3.138 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
System Output Apparent Power L1	System output apparent power on Line 1
System Output Apparent Power L2	System output apparent power on Line 2
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Frequency	The system output frequency
System Output Max Voltage L1-N	The maximum system output voltage measurement for Line 1-N since the last reset.
System Output Max Voltage L2-N	The maximum system output voltage measurement for Line 2-N since the last reset.
System Output Min Voltage L1-N	The minimum system output voltage measurement for Line 1-N since the last reset.
System Output Min Voltage L2-N	The minimum system output voltage measurement for Line 2-N since the last reset.
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output RMS Current L2	The system output RMS current for Line 2
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral
System Status	The operating status for the system
Unspecified General Event	One or more unspecified events active. See local unit display for further details.

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Table 3.138 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS Topology	UPS Topology

Table 3.139 Liebert® GXT5—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Bypass				
Bypass Not Available	10001	—	1	Active on Alarm
Bypass Backfeed Detected	10002	—	1	Active on Alarm
Bypass disabled	10003	—	1	Active on Alarm
Battery				
Battery Self Test	10012	—	1	Active on Alarm
Battery Low	10013	—	1	Active on Alarm
Battery Test Failed	10014	—	1	Active on Alarm
Replace Battery	10015	—	1	Active on Alarm
Battery Not Qualified	10016	—	1	Active on Alarm
External Battery Cabinet Removed	10017	—	1	Active on Alarm
Battery Terminals Reversed	10018	—	1	Active on Alarm
Battery Over Temperature	10019	—	1	Active on Alarm
Battery cabinet connection abnormal	10020	—	1	Active on Alarm
Battery Deep Discharge	10021	—	1	Active on Alarm
Output				
Output Overload	10026	—	1	Active on Alarm
System Output Off	10027	—	1	Active on Alarm
System Output Fault	10028	—	1	Active on Alarm
Insufficient capacity to start	10029	—	1	Active on Alarm
Turn on failed	10030	—	1	Active on Alarm
System				
UPS Output on Bypass	10038	—	1	Active on Alarm
Battery Discharging	10039	—	1	Active on Alarm
System Input Power Problem	10040	—	1	Active on Alarm
Equipment Over Temperature	10041	—	1	Active on Alarm

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Table 3.139 Liebert® GXT5—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Shutdown Pending	10043	—	1	Active on Alarm
Unspecified General Event	10044	—	1	Active on Alarm
Charger Failure	10047	—	1	Active on Alarm
Rectifier Failure	10048	—	1	Active on Alarm
Inverter Failure	10049	—	1	Active on Alarm
Maintenance Bypass Breaker Closed	10050	—	1	Active on Alarm
System Fan Failure	10051	—	1	Active on Alarm
Emergency Power Off - Latched	10052	—	1	Active on Alarm
DC to DC Converter Fault	10054	—	1	Active on Alarm
Transformer Overtemperature	10055	—	1	Active on Alarm
Power Module Shutdown - Over Temperature	10056	—	1	Active on Alarm
System Shutdown - Transformer Over Temperature	10057	—	1	Active on Alarm
Mains Input Neutral Lost	10058	—	1	Active on Alarm
System Shutdown - Output Short	10059	—	1	Active on Alarm
UPS Output on Inverter	10060	—	1	Active on Alarm
System Shutdown - Remote Shutdown	10061	—	1	Active on Alarm
Auxiliary power fault	10062	—	1	Active on Alarm
Output off due to abnormal bypass	10063	—	1	Active on Alarm
Local output is disconnected	10064	—	1	Active on Alarm
Output off voltage is not zero	10065	—	1	Active on Alarm
Manual Power On	10066	—	1	Active on Alarm
Remote Power On	10067	—	1	Active on Alarm
Battery to utility transition	10068	—	1	Active on Alarm
UPS was reset to factory defaults	10069	—	1	Active on Alarm
Device Faults were cleared (as requested)	10070	—	1	Active on Alarm
Scheduled power on occurred	10071	—	1	Active on Alarm
Scheduled power off occurred	10072	—	1	Active on Alarm
Inverter Relay Fault	10073	—	1	Active on Alarm
Internal Communications Failure	10074	—	1	Active on Alarm
General Fault	10075	—	1	Active on Alarm
System output Inhibit - Ext	10076	—	1	Active on Alarm
Parallel Status				

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Table 3.139 Liebert® GXT5—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Parallel Comm Warning	10045	—	1	Active on Alarm
Loss of Redundancy	10046	—	1	Active on Alarm
Load Sharing Fault	10375	—	1	Active on Alarm
Parallel output frequency abnormal	10376	—	1	Active on Alarm
Parallel Cable Failure	10377	—	1	Active on Alarm
Input				
Input Wiring Fault	10053	—	1	Active on Alarm
System Input Current Imbalance	10086	—	1	Active on Alarm
System Input Current Limit	10087	—	1	Active on Alarm
DC Bus Abnormal	10088	—	1	Active on Alarm
Rectifier soft start failure	10089	—	1	Active on Alarm
Input Source Backfeed	10090	—	1	Active on Alarm
Lithium Battery Group 1				
Battery Voltage Abnormal	10100	—	1	Active on Alarm
Battery Temperature Abnormal	10101	—	1	Active on Alarm
Battery Current Abnormal	10102	—	1	Active on Alarm
Battery Cabinet Address Fault	10103	—	1	Active on Alarm
Battery Cabinet Connect Fault	10104	—	1	Active on Alarm
Battery Cabinet Parallel Failure	10105	—	1	Active on Alarm
Battery Cabinet Communication Fail	10106	—	1	Active on Alarm
Lithium Battery Cabinet Wait Charge	10107	—	1	Active on Alarm
Lithium-Ion Battery System Abnormal	10108	—	1	Active on Alarm
Battery Cabinet SOH Low	10109	—	1	Active on Alarm
Lithium Battery Group 2				
Battery Voltage Abnormal	10116		1	Active on Alarm
Battery Temperature Abnormal	10117		1	Active on Alarm
Battery Current Abnormal	10118		1	Active on Alarm
Battery Cabinet Address Fault	10119		1	Active on Alarm
Battery Cabinet Connect Fault	10120		1	Active on Alarm
Battery Cabinet Parallel Failure	10121		1	Active on Alarm
Battery Cabinet Communication Fail	10122		1	Active on Alarm
Lithium Battery Cabinet Wait Charge	10123		1	Active on Alarm

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Table 3.139 Liebert® GXT5—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Lithium-Ion Battery System Abnormal	10124		1	Active on Alarm
Battery Cabinet SOH Low	10125		1	Active on Alarm
Lithium Battery Group 16				
Battery Voltage Abnormal	10340		1	Active on Alarm
Battery Temperature Abnormal	10341		1	Active on Alarm
Battery Current Abnormal	10342		1	Active on Alarm
Battery Cabinet Address Fault	10343		1	Active on Alarm
Battery Cabinet Connect Fault	10344		1	Active on Alarm
Battery Cabinet Parallel Failure	10345		1	Active on Alarm
Battery Cabinet Communication Fail	10346		1	Active on Alarm
Lithium Battery Cabinet Wait Charge	10347		1	Active on Alarm
Lithium-Ion Battery System Abnormal	10348		1	Active on Alarm
Battery Cabinet SOH Low	10349		1	Active on Alarm
Lithium Battery System				
Battery Cabinet Serial Number Illegal Error	10356		1	Active on Alarm
Lithium Battery Cabinet Online Number Error	10357		1	Active on Alarm
Lithium Battery Cabinet Communication Failure	10358		1	Active on Alarm
Lithium Battery Cabinet mismatch the unit.	10359		1	Active on Alarm
Lithium Battery Cabinet Address Set Error	10360		1	Active on Alarm
Number of Lithium Battery Cabinets Over Limit	10361		1	Active on Alarm
Manual lithium battery wake up occurred.	10362		1	Active on Alarm
Lithium Battery Cabinet Check	10363		1	Active on Alarm

Table 3.140 Liebert® GXT5—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Input					
System Input RMS L1-N	30396	—	1	10	Units : VAC Uint16
System Input RMS L2-N	30397	—	1	10	Units : VAC Uint16

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input RMS L3-N	30398	—	1	10	Units : VAC Uint16
System Input RMS L1-L2	30399	—	1	10	Units : VAC Uint16
System Input RMS L2-L3	30400	—	1	10	Units : VAC Uint16
System Input RMS L3-L1	30401	—	1	10	Units : VAC Uint16
System Input RMS Current L1	30402	—	1	10	Units : A AC Uint16
System Input RMS Current L2	30403	—	1	10	Units : A AC Uint16
System Input RMS Current L3	30404	—	1	10	Units : A AC Uint16
System Input Frequency	30405	—	1	10	Units : Hz Uint16
System Input Power Factor L1	30406	—	1	100	Uint16
System Input Power Factor L2	30407	—	1	100	Uint16
System Input Power Factor L3	30408	—	1	100	Uint16
System Input Max Voltage L1-N	30409	—	1	10	Units : VAC Uint16
System Input Min Voltage L1-N	30410	—	1	10	Units : VAC Uint16
System Input Max Voltage L2-N	30411	—	1	10	Units : VAC Uint16
System Input Min Voltage L2-N	30412	—	1	10	Units : VAC Uint16
System Input Max Voltage L3-N	30413	—	1	10	Units : VAC Uint16
System Input Min Voltage L3-N	30414	—	1	10	Units : VAC Uint16
System Input Nominal Voltage	30415	—	1	—	Units : VAC Uint16
System Input Nominal Current	30416	—	1	—	Units : A AC Uint16
System Input Nominal Frequency	30417	—	1	—	Units : Hz Uint16
System Input Phase Count	30418	—	1	—	Uint16
Input Energy	30419	—	2	10	Units : kWH Uint32

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Bypass					
Bypass Input Voltage RMS L1-N	30431	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L2-N	30432	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L1-L2	30433	—	1	10	Units : VAC Uint16
Bypass Input Frequency	30434	—	1	10	Units : Hz Uint16
Bypass Nominal Voltage	30435	—	1	—	Units : VAC Uint16
Battery					
UPS Battery Status	30446	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	30447	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Battery Test Result	30450	—	1	—	0 = Unknown 1 = Passed 2 = Failed 3 = In Progress 4 = System Failure 5 = Inhibited
Battery Cabinet Type	30451	—	1	—	0 = Internal 1 = External 2 = LRT
Battery Time Remaining	30452	—	1	10	Units : min Uint16
Battery Percentage Charge	30453	—	1	—	Units : % Uint16
Battery Current	30454	—	1	10	Units : A DC Int16
DC Bus Voltage	30455	—	1	—	Units : VDC Uint16
DC Bus Nominal Voltage	30456	—	1	—	Units : VDC Uint16
Battery Temperature	30457	—	1	10	Units : deg C Int16
Battery Temperature	30458	—	1	10	Units : deg F Int16

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Rating	30459	—	1	—	Units : AH Uint16
Number of EBC Installed	30461	—	1	—	Uint16
Nominal Battery Capacity	30462	—	1	—	Units : min Uint16
Battery Discharge Time	30463	—	1	—	Units : min Uint16
Battery Total Discharge Time	30464	—	1	10	Units : hr Uint16
Total Number of Battery Discharges	30465	—	1	—	Uint16
The Highest Battery Temperature	30468	—	1	10	Units : deg C Int16
The Highest Battery Temperature	30469	—	1	10	Units : deg F Int16
Battery last replaced time	30470	—	2	—	Units : Secs since Epoch(UTC)
Battery State of Health	30472	—	1	—	Units : % Uint16
Battery Charger State	30474	—	1	—	0 = off 1 = on
Battery Float Voltage	30475	—	1	100	Units : VDC Uint16
Battery expiration date	30476	—	2	—	Units : Secs since Epoch(UTC)
Battery type	30478	—	1	—	0 = VRLA 1 = Lithium Battery
Battery average temperature	30442	—	1	10	Units : deg C Int16
Battery average temperature	30443	—	1	10	Units : deg F Int16
Battery lowest temperature	30444	—	1	10	Units : deg C Int16
Battery lowest temperature	30445	—	1	10	Units : deg F Int16
Battery Configuration					
Automatic Battery Test	30448	40448	1	—	0 = disabled 1 = enabled
Auto Battery Test Interval	30449	40449	1	—	0 = 8 weeks 1 = 12 weeks 2 = 16 weeks 3 = 20 weeks 4 = 26 weeks
Low Battery Warning Time	30460	40460	1	—	Units : min

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Max Charge Current	30466	40466	1	10	Units : A DC Uint16
Manual Battery Test	—	40467	1	—	1 = Start Test
Acknowledge External Battery Cabinet Removed	—	40473	1	—	1 = Acknowledge
Battery periodic test weekday	30813	40813	1	—	0 = Monday 1 = Tuesday 2 = Wednesday 3 = Thursday 4 = Friday 5 = Saturday 6 = Sunday
Battery periodic test time (hour)	30814	40814	1	—	Uint16
Battery periodic test time (minute)	30815	40815	1	—	Uint16
Battery reminder (months)	30816	40816	1	—	Uint16
Discharge protect time	30817	40817	1	—	Units : min Uint16
Equal charge	30818	40818	1	—	0 = disabled 1 = enabled
Temperature compensation	30819	40819	1	—	0 = disabled 1 = enabled
External Battery Cabinets Ah	30822	40822	1	—	Uint16
Set External Battery Cabinet Quantity	30823	40823	1	—	0 = AutoDetect 1 = 0 Cabinets 2 = 1 Cabinet 3 = 2 Cabinets 4 = 3 Cabinets 5 = 4 Cabinets 6 = 5 Cabinets 7 = 6 Cabinets 8 = 7 Cabinets 9 = 8 Cabinets 10 = 9 Cabinets 11 = 10 Cabinets
Output					
System Output Voltage RMS L1-N	30480	—	1	10	Units : VAC Uint16
System Output Voltage RMS L2-N	30481	—	1	10	Units : VAC Uint16
System Output Voltage RMS L1-L2	30482	—	1	10	Units : VAC Uint16
System Output RMS Current L1	30483	—	1	10	Units : A AC Uint16

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output RMS Current L2	30484	—	1	10	Units : A AC Uint16
System Output Frequency	30485	—	1	10	Units : Hz Uint16
System Output Power	30486	—	1	—	Units : W Uint16
System Output Power L1	30487	—	1	—	Units : W Uint16
System Output Power L2	30488	—	1	—	Units : W Uint16
System Output Pct Power	30489	—	1	—	Units : % Uint16
System Output Pct Power L1	30490	—	1	—	Units : % Uint16
System Output Pct Power L2	30491	—	1	—	Units : % Uint16
System Output Apparent Power	30492	—	1	—	Units : VA Uint16
System Output Apparent Power L1	30493	—	1	—	Units : VA Uint16
System Output Apparent Power L2	30494	—	1	—	Units : VA Uint16
System Output Power Factor L1	30495	—	1	100	Uint16
System Output Power Factor L2	30496	—	1	100	Uint16
System Output Nominal Voltage	30497	—	1	—	Units : VAC Uint16
Output Energy	30498	40498	2	10	Units : kWH Uint32
Output Apparent Power Rating	30500	—	1	—	Units : VA Uint16
System Output Nominal Frequency	30501	—	1	—	Units : Hz Uint16
Output On Delay	30502	40502	1	—	Units : sec Uint16
Reboot With Delay	30503	40503	1	—	Units : sec Uint16
Shutdown After Delay	30504	40504	1	—	Units : sec Uint16
Nominal Power Factor	30505	—	1	100	Int16
Parallel Output Power	30506	—	1	—	Units : W Uint16

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Parallel Output Apparent Power	30507	—	1	—	Units : VA Uint16
Parallel ID	30508	—	1	—	Uint16
Number of parallel units	30509	—	1	—	Uint16
UPS Output Source	30510	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Outlet Group 1					
Outlet Group Identifier	30521	—	1	—	Uint16
Outlet Group Power Control	30522	40522	1	—	0 = Off 1 = On 2 = Cycle Power
Outlet Group 2					
Outlet Group Identifier	30533	—	1	—	Uint16
Outlet Group Power Control	30534	40534	1	—	0 = Off 1 = On 2 = Cycle Power
Outlet Group 4					
Outlet Group Identifier	30557	—	1	—	Uint16
Outlet Group Power Control	30558	40558	1	—	0 = Off 1 = On 2 = Cycle Power
ECO Mode					
ECO Mode Status	30569	—	1	—	0 = off 1 = on
ECO Mode Operation State	30570	40570	1	—	0 = disabled 1 = enabled
ECO voltage range	30571	40571	1	—	0 = +/- 5% 1 = +/- 10% 2 = +/- 15%
ECO frequency range	30572	40572	1	—	0 = +/- 1Hz 1 = +/- 2Hz 2 = +/- 3Hz
ECO requalification time	30573	40573	1	—	0 = 1 min 1 = 5 min 2 = 15 min 3 = 30 min

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System					
System Status	30581	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Input Black Out Count	30582	—	1	—	Uint16
System Input Brown Out Count	30583	—	1	—	Uint16
Auto Restart	30584	40584	1	—	0 = disabled 1 = enabled
Inverter On/Off State	30586	—	1	—	0 = off 1 = on
Inlet Air Temperature	30587	—	1	—	Units : deg C Int16
Inlet Air Temperature	30588	—	1	—	Units : deg F Int16
Shutdown Reason	30589	—	1	—	0 = None 1 = Over Temperature 2 = Overload 3 = DC Bus Overload 4 = Output Short 5 = Line Swap 6 = Low Battery 7 = Remote Command 8 = Input Under Voltage 9 = Power Factor Correction Fail 10 = External Signal Command
UPS Topology	30590	—	1	—	0 = unknown 1 = Offline 2 = Line Interactive 3 = Online
Average system efficiency	30594	—	1	—	Units : % Uint16
System Configuration					
Auto Restart Delay	30585	40585	1	—	Units : sec Uint16
Audible Alarm Control	30591	40591	1	—	0 = off 1 = on
Reset Power Statistics	—	40592	1	—	1 = Reset
Silence Audible Alarm	—	40593	1	—	1 = Silence Alarm
Clear UPS faults	—	40866	1	—	1 = Clear UPS faults
Turn to bypass	—	40867	1	—	0 = Turn To Bypass
Guaranteed shutdown	30868	40868	1	—	0 = disabled

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = enabled
Start with no battery	30869	40869	1	—	0 = disabled 1 = enabled
Any mode shutdown auto restart	30870	40870	1	—	0 = disabled 1 = enabled
IT system compatibility	30871	40871	1	—	0 = disabled 1 = enabled
Model supports Transformer Distribution Unit	30872	40872	1	—	0 = disabled 1 = enabled
Startup on bypass	30873	40873	1	—	0 = disabled 1 = enabled
Frequency selection	30874	—	1	—	0 = Auto, Bypass enable 1 = Auto, Bypass disable 2 = 50Hz, Bypass disable 3 = 60Hz, Bypass disable
Bypass voltage upper limit	30875	40875	1	—	0 = +10% 1 = +15% 2 = +20%
Bypass voltage lower limit	30876	40876	1	—	0 = -10% 1 = -15% 2 = -20%
Output Voltage Setting	30877	—	1	—	0 = AutoDetect 1 = 100 VAC 2 = 110 VAC 3 = 115 VAC 4 = 120 VAC 5 = 125 VAC 6 = 200 VAC 7 = 208 VAC 8 = 220 VAC 9 = 230 VAC 10 = 240 VAC 11 = 100/173 VAC 12 = 100/173rvs VAC 13 = 100/200 VAC 14 = 110/190.5 VAC 15 = 110/190.5rvs VAC 16 = 110/220 VAC 17 = 115/199 VAC 18 = 115/199rvs VAC 19 = 115/230 VAC 20 = 120/208 VAC 21 = 120/208rvs VAC 22 = 120/240 VAC 23 = 125/216.5 VAC 24 = 125/216.5rvs VAC 25 = 125/250 VAC
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Lithium Battery Group 1					
Lithium Battery Cabinet State of Charge	30605	—	1	—	Units : % Uint16
Battery State of Health	30606	—	1	—	Units : % Uint16
Lithium Battery Status	30607	—	1	—	0 = Idle 1 = charging 2 = discharging 3 = Balance
Lithium Battery Group 2					
Lithium Battery Cabinet State of Charge	30618	—	1	—	Units : % Uint16
Battery State of Health	30619	—	1	—	Units : % Uint16
Lithium Battery Status	30620	—	1	—	0 = Idle 1 = charging 2 = discharging 3 = Balance
Lithium Battery Group 16					
Lithium Battery Cabinet State of Charge	30800	—	1	—	Units : % Uint16
Battery State of Health	30801	—	1	—	Units : % Uint16
Lithium Battery Status	30802	—	1	—	0 = Idle 1 = charging 2 = discharging 3 = Balance
Lithium Battery System					
Maximum Cell Voltage	30836	—	1	—	Units : mV DC Uint16
Minimum Cell Voltage	30837	—	1	—	Units : mV DC Uint16
Lithium Battery Manual Wake-up	—	40838	1	—	1 = Wake up the lithium battery manually
Parallel Status					
Master or slave	30850	—	1	—	0 = Master 1 = Slave
Sleep mode					

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Sleep mode	30888	40888	1	—	0 = disabled 1 = enabled
Sleep mode power on day of week	30889	40889	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Sleep mode power on time Hour	30890	40890	1	—	Uint16
Sleep mode power on time Minute	30891	40891	1	—	Uint16
Sleep mode power off day of week	30892	40892	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Sleep mode power off time Hour	30893	40893	1	—	Uint16
Sleep mode power off time Minute	30894	40894	1	—	Uint16
System Output DryContact Status Config					
Output dry contact	30905	40905	1	—	0 = NO 1 = NC
Dry contact 5 output	30906	40906	1	—	0 = Low battery 1 = On bypass 2 = On battery 3 = UPS fault
Dry contact 6 output	30907	40907	1	—	0 = Low battery 1 = On bypass 2 = On battery 3 = UPS fault
SystemDryContact					
Input dry contact	30918	40918	1	—	0 = NO 1 = NC
Dry contact 1 input	30919	40919	1	—	0 = disabled 1 = Battery mode shutdown 2 = Any mode shutdown 3 = Maintenance mode
Dry contact 2 input	30920	40920	1	—	0 = disabled 1 = Battery mode shutdown 2 = Any mode shutdown 3 = Maintenance mode

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Table 3.140 Liebert® GXT5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input DryContact for GXT5 work with Transformer Distribution Unit 1					
Dry contact action setting	30931	40931	1	—	0 = disabled 1 = Battery mode shutdown 2 = Any mode shutdown 3 = TDU Over temp signal
Input DryContact for GXT5 work with Transformer Distribution Unit 2					
Dry contact action setting	30942	40942	1	—	0 = disabled 1 = Battery mode shutdown 2 = Any mode shutdown 3 = TDU Over temp signal

Table 3.141 Liebert® GXT5—Glossary

Data Label	Data Description
Acknowledge External Battery Cabinet Removed	Acknowledge the detected removal of an external battery cabinet.
Any mode shutdown auto restart	Automatically restart the UPS after an Any Mode Shutdown signal is received and then cleared.
Audible Alarm Control	Audible Alarm Control
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Auxiliary power fault	Auxiliary power fault
Average system efficiency	Average system efficiency
Battery average temperature	Battery average temperature
Battery Cabinet Address Fault	Battery Cabinet Addresses are set incorrectly.
Battery Cabinet Communication Fail	Battery Cabinet Cable failure.
Battery Cabinet Connect Fault	Battery cabinet ports have reversed connections.
Battery cabinet connection abnormal	Battery cabinet connection abnormal
Battery Cabinet Parallel Failure	Battery Cabinet Parallel failure of the online lithium battery cabinet.
Battery Cabinet Serial Number Illegal Error	Serial Number of the battery cabinet is illegal.
Battery Cabinet SOH Low	Battery cabinet state of health is low.
Battery Cabinet Type	Type of extended battery cabinets.
Battery Charge Status	Battery charge status.
Battery Charger State	Current state of the battery charger
Battery Current Abnormal	Battery current out-of-range of the online lithium battery cabinet.

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
Battery Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery expiration date	Predicted data of expiration of the battery.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery last replaced time	The UPS battery last replaced time
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery lowest temperature	Battery lowest temperature
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery periodic test time (hour)	Sets the hour to run the Battery periodic test.
Battery periodic test time (minute)	Sets the minute to run the Battery periodic test time.
Battery periodic test weekday	Sets the day of week to run the Battery periodic test.
Battery Rating	Total rating of all parallel strings in the battery.
Battery reminder (months)	Battery reminder (months)
Battery Self Test	Battery self test is in progress
Battery State of Health	Battery State of Health
Battery State of Health	The UPS battery State of Health
Battery Temperature Abnormal	Battery Temperature out-of-range of the online Lithium Battery Cabinet.
Battery Temperature	The temperature of the batteries
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery to utility transition	Battery to utility transition
Battery Total Discharge Time	The cumulative battery discharge time
Battery type	Battery type of the UPS system
Battery Voltage Abnormal	Battery voltage out-of-range in the online lithium battery cabinet.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
Bypass disabled	Bypass disabled
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass voltage lower limit	Sets the percentage that the input voltage may be below the selected output voltage setting and remain in Bypass mode.
Bypass voltage upper limit	Sets the percentage that the input voltage may be above the selected output voltage setting and remain in Bypass mode.
Charger Failure	Charger Failure - Charger is off
Clear UPS faults	Clear UPS faults
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Device Faults were cleared, as requested	Device Faults were cleared, as requested
Discharge protect time	Sets the maximum discharge time when on battery.
Dry contact 1 input	Selects the action taken by the UPS when the input of dry-contact 1 is triggered
Dry contact 2 input	Selects the action taken by the UPS when the input of dry-contact 2 is triggered
Dry contact 5 output	Selects the output of dry-contact 5
Dry contact 6 output	Selects the output of dry-contact 6
ECO frequency range	Sets the amount that the input frequency may be above or below the selected frequency setting and remain in ECO mode.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
ECO requalification time	Length of time that the UPS requires the input voltage and frequency tolerances to be maintained before switching to ECO-mode.
ECO voltage range	Sets the percentage that the input voltage may be above or below the selected output voltage setting and remain in ECO mode.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equal charge	Equal charge
Equipment Over Temperature	Equipment over temperature summary event

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
External Battery Cabinet Removed	One or more external battery cabinets have been removed.
External Battery Cabinets Ah	Sets the amp-hour rating of the external battery when using non-Vertiv external batteries. Calculated automatically for Vertiv EBCs.
Frequency selection	Selects the frequency of the output.
General Fault	A general fault in the UPS has been detected.
Guaranteed shutdown	Forces a continued shutdown of the UPS once the Low Battery threshold is reached, even if input power is restored during this time.
Inlet Air Temperature	The temperature of the inlet air
Input Dry contact action setting	Selects the action taken by the UPS when the input of dry-contact is triggered when UPS work with Transformer distribution unit.
Input dry contact	Selects the states of the dry contact inputs
Input Energy	Input energy consumption since the last reset of this value.
Input Source Backfeed	The battery is backfeeding the input source.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Insufficient capacity to start	Insufficient capacity to start
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
IT system compatibility	Allows for compatibility with IT grounding system. When this option is enabled, the Input Phase Reversed and Input Ground Lost alarms are disabled.
Lithium Battery Cabinet Address Set Error	Lithium battery cabinet addresses have been set incorrectly.
Lithium Battery Cabinet Check	Check if the battery is present
Lithium Battery Cabinet Communication Failure	Battery cabinet communication has been disrupted.
Lithium Battery Cabinet mismatch the unit.	The warning is triggered when the online lithium battery cabinet can't be used by the UPS.
Lithium Battery Cabinet Online Number Error	The online battery cabinet number is different from the cofigured number.
Lithium Battery Cabinet State of Charge	State of charge of the online lithium battery cabinet.
Lithium Battery Cabinet Wait Charge	The battery is waiting for charge.
Lithium Battery Manual Wake-up	Wake up the lithium battery manually
Lithium Battery Status.	State of the selected Lithium Battery Cabinet.

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Local output is disconnected	Local output is disconnected
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Manual Battery Test	Command to initiate a manual battery test.
Manual lithium battery wake up occurred.	Manual Lithium Battery Wake Up Occurred
Manual Power On	Manual Power On
Master or slave	State of unit in a Parallel System, Master or slave.
Max Charge Current	The maximum allowed current to be used for charging the batteries.
Maximum Cell Voltage	The maximum cell voltage of the parallelled lithium battery cabinets.
Minimum Cell Voltage	The minimum cell voltage of the parallelled lithium battery cabinets.
Model supports Transformer Distribution Unit	Model supports Transformer Distribution Unit
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Number of Lithium Battery Cabinets Over Limit	The number of batteries connected to the system exceeds the maximum
Number of parallel units	The number of modules in a parallel system
Outlet Group Identifier	A runtime assigned outlet group identification number
Outlet Group Power Control	Outlet Group Power Control (OFF, ON, Cycle, etc)
Output Apparent Power Rating	Output apparent power rating
Output dry contact	Selects the states of the dry contact outputs
Output Energy	Total accumulated energy output, since last energy reset.
Output off due to abnormal bypass	Output off due to abnormal bypass
Output off voltage is not zero	Output off voltage is not zero
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
Output Voltage Setting	Sets the nominal system voltage.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parallel ID	Parallel Unit ID
Parallel Output Apparent Power	The sum total apparent power of a parallel system
Parallel output frequency abnormal	Parallel output frequency abnormal
Parallel Output Power	The sum total output power of a parallel system
Power Module Shutdown - Over Temperature	Power Module has shutdown due to over temperature.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier soft start failure	Rectifier soft start failure
Remote Power On	Remote Power On
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics
Scheduled power off occurred	Scheduled power off occurred
Scheduled power on occurred	Scheduled power on occurred
Server Class	The general classification for this system
Set External Battery Cabinet Quantity	Autodetect or manually enter number of External Battery Cabinets.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
Sleep mode power off day of week	Sets the day of week to turn off the UPS.
Sleep mode power off time Hour	Sets the hour to power off the UPS on the selected day
Sleep mode power off time Minute	Sets the minute to power off the UPS on the selected day
Sleep mode power on day of week	Sets the day of week to turn on the UPS.
Sleep mode power on time Hour	Sets the hour to power on the UPS on the selected day
Sleep mode power on time Minute	Sets the minute to power on the UPS on the selected day
Sleep mode	Allows the UPS to turn off the output on a weekly schedule
Start with no battery	Allows the system to turn on the output with no battery connected.

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
Startup on bypass	Allows the UPS to start-up in bypass mode before transitioning to the inverter.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Current Imbalance	System Input Currents are Imbalanced
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Max Voltage L2-N	The maximum system input voltage measurement for Line 2-N since the last reset
System Input Max Voltage L3-N	The maximum system input voltage measurement for Line 3-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L2-N	The minimum system input voltage measurement for Line 2-N since the last reset
System Input Min Voltage L3-N	The minimum system input voltage measurement for Line 3-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phase Count	The number of phases for the system input
System Input Power Factor L1	The system input power factor for Line 1
System Input Power Factor L2	The system input power factor for Line 2
System Input Power Factor L3	The system input power factor for Line 3
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS Current L2	The system input RMS current for Line 2
System Input RMS Current L3	The system input RMS current for Line 3
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Input RMS L2-L3	The System Input RMS Voltage between Line 2 and Line 3
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral
System Input RMS L3-L1	The System Input RMS Voltage between Line 3 and Line 1
System Input RMS L3-N	The System Input RMS Voltage between Line 3 and Neutral
System Output Apparent Power L1	System output apparent power on Line 1

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
System Output Apparent Power L2	System output apparent power on Line 2
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System output Inhibit - Ext	System output is inhibited by an external signal
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1
System Output Power Factor L2	The system output power factor of Line 2
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output RMS Current L2	The system output RMS current for Line 2
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Shutdown - Remote Shutdown	Shutdown was due to a remote communications shutdown command.
System Shutdown - Transformer Over Temperature	System shutdown due to transformer over temperature.
System Status	The operating status for the system
Temperature compensation	When enabled, the UPS will adjust the battery charging voltage based on temperature to preserve battery life.
The Highest Battery Temperature	The highest battery temperature among all installed Battery Modules.
Total Number of Battery Discharges	The total number of battery discharges.
Transformer Overtemperature	Transformer temperature has exceeded the limit
Turn on failed	Turn on failed
Turn to bypass	Turn to bypass

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Table 3.141 Liebert® GXT5—Glossary (continued)

Data Label	Data Description
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output on Inverter	The output power is supplied by the inverter
UPS Output Source	UPS output source
UPS Topology	UPS Topology
UPS was reset to factory defaults	UPS was reset to factory defaults

Table 3.142 Liebert® HiNet—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
DC-To-DC Converter On	10042	—	1	—	—
Load On Inverter	10073	—	1	—	—
Bypass Active	10074	—	1	—	—
Load On Battery	10128	—	1	—	—
Permanently On Bypass	10133	—	1	—	—
Bypass SCR Open Circuit	10149	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Overload	10154	—	1	—	—
Inverter Unsynchronized	10160	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Bypass Input Voltage/Frequency Fault	10202	—	1	—	—

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

Table 3.143 Liebert® HiNet—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Number of SubModules	30009	40009	1	—	-
Number of Battery Cells	30012	40012	1	—	-
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W

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Table 3.143 Liebert® HiNet—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Battery Voltage	30113	—	1	—	V
Battery Current (Charge/Discharge)	30114	—	1	—	A
Battery Charge Percentage	30116	—	1	—	%
Ambient Temperature	30119	—	1	—	deg C
Input Voltage L1	30153	—	1	—	V
Input Current L1	30154	—	1	—	A
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Voltage L2	30203	—	1	—	V
Input Current L2	30204	—	1	—	A
Input Voltage L3	30253	—	1	—	V
Input Current L3	30254	—	1	—	A
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.144 Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM

Controller	Multi Module Series - SMM				
Liebert Products	Liebert HiPulse Liebert SICE 7200				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Output Voltage L1-L2	—	40001	1	—	V
Output Voltage L2-L3	—	40002	1	—	V
Output Voltage L3-L1	—	40003	1	—	V
Output Amps L1	—	40004	1	—	A
Output Amps L2	—	40005	1	—	A
Output Amps L3	—	40006	1	—	A
Power L1	—	40007	1	—	kW
Power L2	—	40008	1	—	kW
Power L3	—	40009	1	—	kW

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Table 3.144 Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM (continued)

Controller	Multi Module Series - SMM				
Liebert Products	Liebert HiPulse Liebert SICE 7200				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Bypass Frequency	—	40010	1	10	Hz
Inverter Frequency	—	40011	1	10	Hz
Battery Voltage	—	40012	1	—	V
Battery Amperage	—	40013	1	—	A
Apparent Power L1	—	40014	1	—	kVA
Apparent Power L2	—	40015	1	—	kVA
Apparent Power L3	—	40016	1	—	kVA
% Load L1	—	40017	1	—	%
% Load L2	—	40018	1	—	%
% Load L3	—	40019	1	—	%
% Battery Charge	—	40020	1	—	—
Battery Temperature	—	40021	1	—	deg C
Battery Time Remaining	—	40022	1	—	Minutes
Alarm Points					
Communications	—	40289	1	—	Bit 0
Bypass Switch Open	—	40289	1	—	Bit 1
Output Switch Open	—	40289	1	—	Bit 2
Rectifier Switch Open	—	40289	1	—	Bit 3
Battery CB Open	—	40289	1	—	Bit 4
Manual Bypass Closed	—	40289	1	—	Bit 5
Bypass Absent	—	40289	1	—	Bit 6
Bypass Overvoltage	—	40289	1	—	Bit 7
Bypass Undervoltage	—	40289	1	—	Bit 8
Bypass Frequency Error	—	40289	1	—	Bit 9
Byp Phase Rotation Error	—	40289	1	—	Bit 10
Bypass SCR Failure	—	40290	1	—	Bit 0
Bypass Off	—	40290	1	—	Bit 1

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Table 3.144 Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM (continued)

Controller	Multi Module Series - SMM				
Liebert Products	Liebert HiPulse Liebert SICE 7200				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Bypass Off	—	40290	1	—	Bit 2
Load On Bypass	—	40290	1	—	Bit 3
Bypass Overtemperature	—	40290	1	—	Bit 4
Rectifier Under Voltage	—	40290	1	—	Bit 5
Rectifier Block	—	40290	1	—	Bit 6
Rectifier Block	—	40290	1	—	Bit 7
Rectifier Current Limit	—	40290	1	—	Bit 8
Rectifier Overtemperature	—	40290	1	—	Bit 9
Rectifier Fuse Failure	—	40290	1	—	Bit 10
Inverter Voltage Fault	—	40291	1	—	Bit 0
Inverter Disable	—	40291	1	—	Bit 1
Inverter Disable	—	40291	1	—	Bit 2
Inverter Current Limit	—	40291	1	—	Bit 3
Inverter Overtemperature	—	40291	1	—	Bit 4
Inverter Non Sync	—	40291	1	—	Bit 5
Inverter Overvoltage	—	40291	1	—	Bit 6
Inverter Undervoltage	—	40291	1	—	Bit 7
Inverter Fuse Failure	—	40291	1	—	Bit 8
Output Overvoltage	—	40291	1	—	Bit 9
Output Undervoltage	—	40291	1	—	Bit 10
Output Undervoltage	—	40292	1	—	Bit 0
Output Waveform Error	—	40292	1	—	Bit 1
Inverter Frequency Error	—	40292	1	—	Bit 2
Inverter Parallel Error	—	40292	1	—	Bit 3
Contactor Failure	—	40292	1	—	Bit 4
Battery Test	—	40292	1	—	Bit 5
Battery Test Failed	—	40292	1	—	Bit 6

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Table 3.144 Liebert® HiPulse and Liebert® SICE 7200—Input and Holding—SMM/SSM (continued)

Controller	Multi Module Series - SMM				
Liebert Products	Liebert HiPulse Liebert SICE 7200				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery On Load	—	40292	1	—	Bit 7
Battery End of Discharge	—	40292	1	—	Bit 8
Boost Time Expired	—	40292	1	—	Bit 9
DC Overvoltage	—	40292	1	—	Bit 10
DC Undervoltage	—	40293	1	—	Bit 0
Battery Fuse Failure	—	40293	1	—	Bit 1
DC Overvoltage	—	40293	1	—	Bit 2
Transfer Count Block	—	40293	1	—	Bit 3
Overload Shutdown	—	40293	1	—	Bit 4
Overtemperature SD	—	40293	1	—	Bit 5
Emergency Stop	—	40293	1	—	Bit 6
Overload Present	—	40293	1	—	Bit 7
Overload Shutdown TO	—	40293	1	—	Bit 8
Display Error	—	40293	1	—	Bit 9
Display Error	—	40293	1	—	Bit 10
Inverter Over Capacity	—	40293	1	—	Bit 11
Bypass ECO Mode	—	40293	1	—	Bit 12
Fan Failure	—	40293	1	—	Bit 13
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.145 Liebert® SICE 7200—Input and Holding—SSC

Controller	System Control Cabinet - SSC				
Liebert Products	Liebert SICE 7200				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Voltage L1-L2	—	40001	1	—	V
Output Voltage L2-L3	—	40002	1	—	V
Output Voltage L3-L1	—	40003	1	—	V
Output Amps L1	—	40004	1	—	A
Output Amps L2	—	40005	1	—	A
Output Amps L3	—	40006	1	—	A
Power L1	—	40007	1	—	kW
Power L2	—	40008	1	—	kW
Power L3	—	40009	1	—	kW
Bypass Frequency	—	40010	1	10	Hz
Battery Voltage	—	40012	1	—	V
Battery Amperage	—	40013	1	—	A
Apparent Power L1	—	40014	1	—	kVA
Apparent Power L2	—	40015	1	—	kVA
Apparent Power L3	—	40016	1	—	kVA
% Load L1	—	40017	1	—	%
% Load L2	—	40018	1	—	%
% Load L3	—	40019	1	—	%
% Battery Charge	—	40020	1	—	%
Battery Temperature	—	40021	1	—	deg C
Battery Time Remaining	—	40022	1	—	Minutes
Communications	—	40289	1	—	Bit 0
Bypass Switch Open	—	40289	1	—	Bit 1
Output Switch Open	—	40289	1	—	Bit 2
Battery CB Open	—	40289	1	—	Bit 3
Manual Bypass Closed	—	40289	1	—	Bit 4
Bypass Absent	—	40289	1	—	Bit 5
Bypass Overvoltage	—	40289	1	—	Bit 6

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Table 3.145 Liebert® SICE 7200—Input and Holding—SSC (continued)

Controller	System Control Cabinet - SSC				
Liebert Products	Liebert SICE 7200				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Bypass Undervoltage	—	40289	1	—	Bit 7
Bypass Frequency Error	—	40289	1	—	Bit 8
Bypass Ph Rotation Error	—	40289	1	—	Bit 9
Bypass SCR Failure	—	40289	1	—	Bit 10
Bypass Off	—	40290	1	—	Bit 0
Bypass Off	—	40290	1	—	Bit 1
Load On Bypass	—	40290	1	—	Bit 2
Bypass Overtemperature	—	40290	1	—	Bit 3
Inverter Non Sync	—	40290	1	—	Bit 4
Output Overvoltage	—	40290	1	—	Bit 5
Output Undervoltage	—	40290	1	—	Bit 6
Output Undervoltage	—	40290	1	—	Bit 7
Output Waveform Error	—	40290	1	—	Bit 8
Transfer Count Block	—	40290	1	—	Bit 9
Overload Shutdown	—	40290	1	—	Bit 10
Overtemperature Shutdown	—	40291	1	—	Bit 0
Emergency Stop	—	40291	1	—	Bit 1
Overload Present	—	40291	1	—	Bit 2
Overload Shutdown TO	—	40291	1	—	Bit 3
Display Error	—	40291	1	—	Bit 4
Display Error	—	40291	1	—	Bit 5
Invewrter Over Capacity	—	40291	1	—	Bit 6
Parallel Bus Open	—	40291	1	—	Bit 7
Battery Ground Fault	—	40291	1	—	Bit 8
Bypass Backfeed	—	40291	1	—	Bit 9
Bypass Sync Inhibited	—	40291	1	—	Bit 10
Bypass ECO Mode	—	40291	1	—	Bit 11
Fan Failure	—	40291	1	—	Bit 12
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.146 Liebert® EXS and Liebert® ITA2—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Bypass				
Bypass Not Available	10001	—	1	Active on Alarm
Bypass Input Voltage Fault	10002	—	1	Active on Alarm
Bypass Backfeed Detected	10003	—	1	Active on Alarm
Bypass Abnormal In ECO Mode	10004	—	1	Active on Alarm
Shutdown Due To Bypass Overcurrent Timeout	10005	—	1	Active on Alarm
Shutdown Due To Bypass Backfeed Fault	10006	—	1	Active on Alarm
ECO Bypass Mode	10007	—	1	Active on Alarm
Parallel Bypass Cable Connection Abnormal	10008	—	1	Active on Alarm
Battery				
Battery Self Test	10012	—	1	Active on Alarm
Battery Low	10013	—	1	Active on Alarm
Battery Test Failed	10014	—	1	Active on Alarm
Replace Battery	10015	—	1	Active on Alarm
Battery Not Qualified	10016	—	1	Active on Alarm
Battery Terminals Reversed	10017	—	1	Active on Alarm
Battery Deep Discharge	10018	—	1	Active on Alarm
Battery Over Temperature	10019	—	1	Active on Alarm
Battery Ground Fault	10020	—	1	Active on Alarm
Output				
Output Overload	10026	—	1	Active on Alarm
System Output Off	10027	—	1	Active on Alarm
System Output Fault	10028	—	1	Active on Alarm
System Shutdown - Output Short	10029	—	1	Active on Alarm
System output Inhibit - Ext	10030	—	1	Active on Alarm
System				
UPS Output on Bypass	10038	—	1	Active on Alarm
Battery Discharging	10039	—	1	Active on Alarm
System Input Power Problem	10040	—	1	Active on Alarm
Equipment Over Temperature	10041	—	1	Active on Alarm
Input Frequency Deviation	10042	—	1	Active on Alarm
Shutdown Pending	10043	—	1	Active on Alarm

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Table 3.146 Liebert® EXS and Liebert® ITA2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Unspecified General Event	10044	—	1	Active on Alarm
Parallel Comm Warning	10045	—	1	Active on Alarm
Loss of Redundancy	10046	—	1	Active on Alarm
Charger Failure	10047	—	1	Active on Alarm
Rectifier Failure	10048	—	1	Active on Alarm
Inverter Failure	10049	—	1	Active on Alarm
Maintenance Bypass Breaker Closed	10050	—	1	Active on Alarm
System Fan Failure	10051	—	1	Active on Alarm
Emergency Power Off - Latched	10052	—	1	Active on Alarm
Input Wiring Fault	10053	—	1	Active on Alarm
DC to DC Converter Fault	10054	—	1	Active on Alarm
DC Bus Abnormal	10055	—	1	Active on Alarm
Load Sharing Fault	10056	—	1	Active on Alarm
Inverter Relay Fault	10057	—	1	Active on Alarm
Internal Communications Failure	10058	—	1	Active on Alarm
System Input Current Limit	10059	—	1	Active on Alarm
Fan Replacement Required	10060	—	1	Active on Alarm
Load Off Due To Shutdown On Battery	10061	—	1	Active on Alarm
System Redundant Overload	10062	—	1	Active on Alarm
DSP Fault Condition	10063	—	1	Active on Alarm
On Intelligent Sleep Mode	10064	—	1	Active on Alarm
Fan Replaced	10065	—	1	Active on Alarm
Power Module Shutdown - Over Temperature	10066	—	1	Active on Alarm
System Input Current Imbalance	10067	—	1	Active on Alarm
Output Off	10068	—	1	Active on Alarm
UPS Output on Inverter	10069	—	1	Active on Alarm
Auxiliary power fault	10070	—	1	Active on Alarm
Battery cabinet connection abnormal	10071	—	1	Active on Alarm
General Fault	10072	—	1	Active on Alarm
Parallel Cable Failure	10073	—	1	Active on Alarm
Bypass disabled	10074	—	1	Active on Alarm
Battery to utility transition	10075	—	1	Active on Alarm

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Table 3.146 Liebert® EXS and Liebert® ITA2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Manual Power On	10076	—	1	Active on Alarm
Remote Power On	10077	—	1	Active on Alarm
System Shutdown - Remote Shutdown	10078	—	1	Active on Alarm
UPS was reset to factory defaults	10079	—	1	Active on Alarm
Device Faults were cleared as requested	10080	—	1	Active on Alarm
Output off due to abnormal bypass	10081	—	1	Active on Alarm
Local output is disconnected	10082	—	1	Active on Alarm
Output off voltage is not zero	10083	—	1	Active on Alarm
LBS Cable Failure	10084	—	1	Active on Alarm
System Shutdown - Low Battery	10085	—	1	Active on Alarm
Parallel output frequency abnormal	10086	—	1	Active on Alarm
Output Breaker Open	10087	—	1	Active on Alarm
UPS is in Service Mode	10088	—	1	Active on Alarm
Input				
Input Source Backfeed	10101	—	1	Active on Alarm
Shutdown Due To System Input Backfeed Fault	10102	—	1	Active on Alarm
Input Neutral Ground Abnormall	10103	—	1	Active on Alarm
Lithium Battery Group 1				
Battery Voltage Abnormal	10142	—	1	Active on Alarm
Battery Temperature Abnormal	10143	—	1	Active on Alarm
Battery Current Abnormal	10144	—	1	Active on Alarm
Battery Cabinet Address Fault	10145	—	1	Active on Alarm
Battery Cabinet Connect Fault	10146	—	1	Active on Alarm
Battery Cabinet Parallel Failure	10147	—	1	Active on Alarm
Battery Cabinet Communication Fail	10148	—	1	Active on Alarm
Lithium Battery Cabinet Wait Charge	10149	—	1	Active on Alarm
Lithium-Ion Battery System Abnormal	10150	—	1	Active on Alarm
Battery Cabinet SOH Low	10151	—	1	Active on Alarm
Incompatible Battery Management System version	10152	—	1	Active on Alarm
Lithium Battery EOL	10153	—	1	Active on Alarm
Lithium Battery Sampling Circuit Failure	10154	—	1	Active on Alarm
Lithium Battery Hardware Circuit Protection Active	10155	—	1	Active on Alarm

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Table 3.146 Liebert® EXS and Liebert® ITA2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Lithium Battery Cell Capacity Low	10156	—	1	Active on Alarm
Lithium Battery Group 2				
Battery Voltage Abnormal	10162	—	1	Active on Alarm
Battery Temperature Abnormal	10163	—	1	Active on Alarm
Battery Current Abnormal	10164	—	1	Active on Alarm
Battery Cabinet Address Fault	10165	—	1	Active on Alarm
Battery Cabinet Connect Fault	10166	—	1	Active on Alarm
Battery Cabinet Parallel Failure	10167	—	1	Active on Alarm
Battery Cabinet Communication Fail	10168	—	1	Active on Alarm
Lithium Batterty Cabinet Wait Charge	10169	—	1	Active on Alarm
Lithium-Ion Battery System Abnormal	10170	—	1	Active on Alarm
Battery Cabinet SOH Low	10171	—	1	Active on Alarm
Incompatible Battery Management System version	10172	—	1	Active on Alarm
Lithium Battery EOL	10173	—	1	Active on Alarm
Lithium Battery Sampling Circuit Failure	10174	—	1	Active on Alarm
Lithium Battery Hardware Circuit Protection Active	10175	—	1	Active on Alarm
Lithium Battery Cell Capacity Low	10176	—	1	Active on Alarm
Lithium Battery Group 16				
Battery Voltage Abnormal	10442	—	1	Active on Alarm
Battery Temperature Abnormal	10443	—	1	Active on Alarm
Battery Current Abnormal	10444	—	1	Active on Alarm
Battery Cabinet Address Fault	10445	—	1	Active on Alarm
Battery Cabinet Connect Fault	10446	—	1	Active on Alarm
Battery Cabinet Parallel Failure	10447	—	1	Active on Alarm
Battery Cabinet Communication Fail	10448	—	1	Active on Alarm
Lithium Batterty Cabinet Wait Charge	10449	—	1	Active on Alarm
Lithium-Ion Battery System Abnormal	10450	—	1	Active on Alarm
Battery Cabinet SOH Low	10451	—	1	Active on Alarm
Incompatible Battery Management System version	10452	—	1	Active on Alarm
Lithium Battery EOL	10453	—	1	Active on Alarm
Lithium Battery Sampling Circuit Failure	10454	—	1	Active on Alarm
Lithium Battery Hardware Circuit Protection Active	10455	—	1	Active on Alarm

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Table 3.146 Liebert® EXS and Liebert® ITA2—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Lithium Battery Cell Capacity Low	10456	—	1	Active on Alarm
Lithium Battery System				
Battery Cabinet Serial Number Illegal Error	10462	—	1	Active on Alarm
Lithium Battery Cabinet Online Number Error	10463	—	1	Active on Alarm
Lithium Battery Cabinet Communication Failure	10464	—	1	Active on Alarm
Lithium Battery Cabinet mismatch the unit.	10465	—	1	Active on Alarm
Lithium Battery Cabinet Address Set Error	10466	—	1	Active on Alarm
Number of Lithium Battery Cabinets Over Limit	10467	—	1	Active on Alarm
Lithium Battery Manual Wake up Event	10468	—	1	Active on Alarm
Lithium Battery Cabinet Check	10469	—	1	Active on Alarm
Lithium Battery Cable Connection Issue	10470	—	1	Active on Alarm
Dischargeable Battery Count Less Than Configured Number	10471	—	1	Active on Alarm
Ambient temperature lower than recommended	10472	—	1	Active on Alarm
Ambient temperature higher than recommended	10473	—	1	Active on Alarm
Ambient temperature low pre-alarm	10474	—	1	Active on Alarm
Ambient temperature high pre-alarm	10475	—	1	Active on Alarm

Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Input					
System Input RMS L1-N	30396	—	1	10	Units : VAC Uint16
System Input RMS L2-N	30397	—	1	10	Units : VAC Uint16
System Input RMS L3-N	30398	—	1	10	Units : VAC Uint16
System Input RMS L1-L2	30399	—	1	10	Units : VAC Uint16
System Input RMS L2-L3	30400	—	1	10	Units : VAC Uint16

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input RMS L3-L1	30401	—	1	10	Units : VAC Uint16
System Input RMS Current L1	30402	—	1	10	Units : A AC Uint16
System Input RMS Current L2	30403	—	1	10	Units : A AC Uint16
System Input RMS Current L3	30404	—	1	10	Units : A AC Uint16
System Input Frequency	30405	—	1	10	Units : Hz Uint16
System Input Power Factor L1	30406	—	1	100	Uint16
System Input Power Factor L2	30407	—	1	100	Uint16
System Input Power Factor L3	30408	—	1	100	Uint16
System Input Max Voltage L1-N	30409	—	1	10	Units : VAC Uint16
System Input Min Voltage L1-N	30410	—	1	10	Units : VAC Uint16
System Input Max Voltage L2-N	30411	—	1	10	Units : VAC Uint16
System Input Min Voltage L2-N	30412	—	1	10	Units : VAC Uint16
System Input Max Voltage L3-N	30413	—	1	10	Units : VAC Uint16
System Input Min Voltage L3-N	30414	—	1	10	Units : VAC Uint16
System Input Nominal Voltage	30415	—	1	—	Units : VAC Uint16
System Input Nominal Current	30416	—	1	—	Units : A AC Uint16
System Input Nominal Frequency	30417	—	1	—	Units : Hz Uint16
System Input Phase Count	30418	—	1	—	Uint16
Input Energy	30419	—	2	10	Units : kWH Uint32
System Input Power Phase A	30421	—	1	10	Units : kW Uint16
System Input Power Phase B	30422	—	1	10	Units : kW Uint16
System Input Power Phase C	30423	—	1	10	Units : kW Uint16

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Positive DC Bus Voltage	30424	—	1	—	Units : VDC Int16
Negative DC Bus Voltage	30425	—	1	—	Units : VDC Int16
Bypass					
Bypass Input Voltage RMS L1-N	30431	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L2-N	30432	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L3-N	30433	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L1-L2	30434	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L2-L3	30435	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS L3-L1	30436	—	1	10	Units : VAC Uint16
Bypass Input Frequency	30437	—	1	10	Units : VAC Uint16
Bypass Nominal Voltage	30438	—	1	—	Units : VAC Uint16
Battery					
UPS Battery Status	30449	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	30450	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Automatic Battery Test	30451	40451	1	—	0 = disabled 1 = enabled
Auto Battery Test Interval	30452	40452	1	—	0 = 8 weeks 1 = 12 weeks 2 = 16 weeks 3 = 20 weeks 4 = 26 weeks
Battery Test Result	30453	—	1	—	0 = Unknown 1 = Passed 2 = Failed 3 = In Progress 4 = System Failure 5 = Inhibited

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cabinet Type	30454	—	1	—	0 = Internal 1 = External 2 = LRT
Battery Time Remaining	30455	—	1	—	Units : min Uint16
Battery Percentage Charge	30456	—	1	—	Units : % Uint16
Battery Current	30457	—	1	10	Units : A DC Int16
DC Bus Voltage	30458	—	1	—	Units : VDC Uint16
DC Bus Nominal Voltage	30459	—	1	—	Units : VDC Uint16
Battery Temperature	30460	—	1	10	Units : deg C Int16
Battery Temperature	30461	—	1	10	Units : deg F Int16
Battery Rating	30462	—	1	—	Units : AH Uint16
Low Battery Warning Time	30463	40463	1	—	Units : min Uint16
Number of EBC Installed	30464	—	1	—	Uint16
Nominal Battery Capacity	30465	—	1	—	Units : min Uint16
Battery Discharge Time	30466	—	1	—	Units : min Uint16
Battery Total Discharge Time	30467	—	1	10	Units : hr Uint16
Total Number of Battery Discharges	30468	—	1	—	Uint16
Manual Battery Test	—	40469	1	—	1 = Start Test
Battery type	30470	—	1	—	0 = VRLA 1 = Lithium Battery
Battery Run Time	30471	—	1	—	Units : % Int16
Relative Humidity	30472	—	1	—	Units : Secs since Epoch(UTC)
Battery Commission Date	30473	—	2	—	Units : % Uint16
Battery State of Health	30475	—	1	—	Units : %

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Output					
System Output Voltage RMS L1-N	30480	—	1	10	Units : VAC Uint16
System Output Voltage RMS L2-N	30481	—	1	10	Units : VAC Uint16
System Output Voltage RMS L3-N	30482	—	1	10	Units : VAC Uint16
System Output Voltage RMS L1-L2	30483	—	1	10	Units : VAC Uint16
System Output Voltage RMS L2-L3	30484	—	1	10	Units : VAC Uint16
System Output Voltage RMS L3-L1	30485	—	1	10	Units : VAC Uint16
System Output RMS Current L1	30486	—	1	10	Units : A AC Uint16
System Output RMS Current L2	30487	—	1	10	Units : A AC Uint16
System Output RMS Current L3	30488	—	1	10	Units : A AC Uint16
System Output Frequency	30489	—	1	10	Units : Hz Uint16
System Output Power	30490	—	1	—	Units : W Uint16
System Output Power L1	30491	—	1	—	Units : W Uint16
System Output Power L2	30492	—	1	—	Units : W Uint16
System Output Power L3	30493	—	1	—	Units : W Uint16
System Output Pct Power	30494	—	1	—	Units : % Uint16
System Output Pct Power L1	30495	—	1	—	Units : % Uint16
System Output Pct Power L2	30496	—	1	—	Units : % Uint16
System Output Pct Power L3	30497	—	1	—	Units : % Uint16
System Output Apparent Power	30498	—	1	—	Units : VA Uint16

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Apparent Power L1	30499	—	1	—	Units : VA Uint16
System Output Apparent Power L2	30500	—	1	—	Units : VA Uint16
System Output Apparent Power L3	30501	—	1	—	Units : VA Uint16
Output Current Crest Factor L1	30502	—	1	100	Uint16
Output Current Crest Factor L2	30503	—	1	100	Uint16
Output Current Crest Factor L3	30504	—	1	100	Uint16
System Output Power Factor L1	30505	—	1	100	Uint16
System Output Power Factor L2	30506	—	1	100	Uint16
System Output Power Factor L3	30507	—	1	100	Uint16
System Output Nominal Voltage	30508	—	1	—	Units : VAC Uint16
Output Energy	30509	40509	2	10	Units : kWH Uint32
Output Apparent Power Rating	30511	—	1	—	Units : VA Uint16
System Output Nominal Frequency	30512	—	1	—	Units : Hz Uint16
Output On Delay	30513	40513	1	—	Units : sec Uint16
Reboot With Delay	30514	40514	1	—	Units : sec Uint16
Shutdown After Delay	30515	40515	1	—	Units : sec Uint16
Nominal Power Factor	30516	—	1	100	Int16
Parallel Output Power	30517	—	1	—	Units : W Uint16
Parallel Output Apparent Power	30518	—	1	—	Units : VA Uint16
Parallel ID	30519	—	1	—	Uint16
Number of parallel units	30520	—	1	—	Uint16
UPS Output Source	30521	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Outlet Group					
Outlet Group Identifier	30532	—	1	—	Uint16
Outlet Group Power Control	30533	40533	1	—	0 = Off 1 = On 2 = Cycle Power
ECO Mode					
ECO Mode Status	30544	—	1	—	0 = off 1 = on
ECO Mode Operation State	30545	40545	1	—	0 = disabled 1 = enabled
System					
System Status	30556	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
System Input Black Out Count	30557	—	1	—	Uint16
System Input Brown Out Count	30558	—	1	—	Uint16
Auto Restart	30559	40559	1	—	0 = disabled 1 = enabled
Auto Restart Delay	30560	40560	1	—	Units : sec Uint16
Inverter On/Off State	30561	—	1	—	0 = off 1 = on
Inlet Air Temperature	30562	—	1	—	Units : deg C Int16
Inlet Air Temperature	30563	—	1	—	Units : deg F Int16
Shutdown Reason	30564	—	1	—	0 = None 1 = Over Temperature 2 = Overload 3 = DC Bus Overload 4 = Output Short 5 = Line Swap 6 = Low Battery 7 = Remote Command 8 = Input Under Voltage 9 = Power Factor Correction Fail 10 = External Signal Command
UPS Topology	30565	—	1	—	0 = unknown 1 = Offline 2 = Line Interactive 3 = Online

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Audible Alarm Control	30566	40566	1	—	0 = off 1 = on
Reset Power Statistics	—	40567	1	—	1 = Reset
Silence Audible Alarm	—	40568	1	—	1 = Silence Alarm
Total System Operating Time	30569	—	2	—	Units : hr Uint32
System Capacity	30571	—	1	—	Units : kVA Uint16
Lithium Battery Group 1					
State of Charge	30580	—	1	—	Units : % Uint16
Battery State of Health	30581	—	1	—	Units : % Uint16
Lithium Battery Status.	30582	—	1	—	0 = Idle 1 = charging 2 = discharging 3 = Balance
Lithium Battery Group 2					
State of Charge	30593	—	1	—	Units : % Uint16
Battery State of Health	30594	—	1	—	Units : % Uint16
Lithium Battery Status.	30595	—	1	—	0 = Idle 1 = charging 2 = discharging 3 = Balance
Lithium Battery Group 16					
State of Charge	30775	—	1	—	Units : % Uint16
Battery State of Health	30776	—	1	—	Units : % Uint16
Lithium Battery Status.	30777	—	1	—	0 = Idle 1 = charging 2 = discharging 3 = Balance

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Table 3.147 Liebert® EXS and Liebert® ITA2—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Lithium Battery System					
Maximum Cell Voltage	30802	—	1	—	Units : mV DC Uint16
Minimum Cell Voltage	30803	—	1	—	Units : mV DC Uint16
Lithium Battery Manual Wake-up		40804	1		1 = Wake up the lithium battery manually

Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary

Data Label	Data Description
Glossary	
Ambient temperature high pre-alarm	The ambient temperature is close to the upper limit of the operating temperature.
Ambient temperature higher than recommended	The ambient temperature is higher than the upper limit of the recommended temperature.
Ambient temperature low pre-alarm	The ambient temperature is close to the lower limit of the operating temperature.
Ambient temperature lower than recommended	The ambient temperature is lower than the lower limit of the recommended temperature.
Audible Alarm Control	Audible Alarm Control
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Cabinet Address Fault	Battery Cabinet Addresses are set incorrectly.
Battery Cabinet Communication Fail	Battery Cabinet Cable failure.
Battery Cabinet Connect Fault	Battery cabinet ports have reversed connections.
Battery Cabinet Parallel Failure	Battery Cabinet Parallel failure of the online lithium battery cabinet.
Battery Cabinet Serial Number Illegal Error	Serial Number of the battery cabinet is illegal.
Battery Cabinet SOH Low	Battery cabinet state of health is low.
Battery Cabinet Type	Type of extended battery cabinets.
Battery Charge Status	Battery charge status.
Battery Current Abnormal	Battery current out-of-range of the online lithium battery cabinet.
Battery Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage

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Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Percentage Charge	The percentage of battery charge
Battery Rating	Total rating of all parallel strings in the battery.
Battery Self Test	Battery self test is in progress
Battery State of Health	Battery State of Health
Battery Temperature Abnormal	Battery Temperature out-of-range of the online Lithium Battery Cabinet.
Battery Temperature	The temperature of the batteries
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery Total Discharge Time	The cumulative battery discharge time
Battery type	Battery type of the UPS system
Battery Voltage Abnormal	Battery voltage out-of-range in the online lithium battery cabinet.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Input Voltage RMS L2-L3	The bypass input RMS voltage between Lines 2 and 3
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral
Bypass Input Voltage RMS L3-L1	The bypass input RMS voltage between Lines 3 and 1
Bypass Input Voltage RMS L3-N	The bypass input RMS voltage between Line 3 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Charger Failure	Charger Failure - Charger is off
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input

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Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Device Faults were cleared as requested	Device Faults were cleared as requested
Dischargeable Battery Count Less Than Configured Number	The number of connected battery cabinets is less than the configured number. Prevent Discharge.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equipment Over Temperature	Equipment over temperature summary event
Fan Replaced	Fan has been replaced.
Fan Replacement Required	Fan replacement required.
General Fault	A general fault in the UPS has been detected.
Incompatible Battery Management System version	The Battery Management System software version is incompatible.
Inlet Air Temperature	The temperature of the inlet air
Input Energy	Input energy consumption since the last reset of this value.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Source Backfeed	The battery is backfeeding the input source.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Lithium Battery Cabinet Address Set Error	Lithium battery cabinet addresses have been set incorrectly.
Lithium Battery Cabinet Check	Check if the battery is present
Lithium Battery Cabinet Communication Failure	Battery cabinet communication has been disrupted.
Lithium Battery Cabinet mismatch the unit.	The warning is triggered when the online lithium battery cabinet can't be used by the UPS.
Lithium Battery Cabinet Online Number Error	The online battery cabinet number is different from the cofigured number.
Lithium Battery Cabinet State of Charge	State of charge of the online lithium battery cabinet.
Lithium Battery Cabinet Wait Charge	The battery is waiting for charge.
Lithium Battery Cable Connection Issue	Check the Lithium Battery cable connections.

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Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Lithium Battery Cell Capacity Low	Lithium battery cell capacity is very low.
Lithium Battery EOL	Lithium battery is at the end of its life.
Lithium Battery Hardware Circuit Protection Active	Lithium battery has activated hardware circuit protection.
Lithium Battery Manual Wake up Event	The event of Wake up lithium battery manually
Lithium Battery Manual Wake-up	Wake up the lithium battery manually
Lithium Battery Sampling Circuit Failure	Lithium battery has sampling circuit failure.
Lithium Battery Status.	State of the selected Lithium Battery Cabinet.
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Manual Battery Test	Command to initiate a manual battery test.
Maximum Cell Voltage	The maximum cell voltage of the parallelled lithium battery cabinets.
Minimum Cell Voltage	The minimum cell voltage of the parallelled lithium battery cabinets.
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Number of Lithium Battery Cabinets Over Limit	The number of batteries connected to the system exceeds the maximum
Number of parallel units	The number of modules in a parallel system
Outlet Group Identifier	A runtime assigned outlet group identification number
Outlet Group Power Control	Outlet Group Power Control (OFF, ON, Cycle, etc)
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	UPS internal or external output breaker is open.
Output Current Crest Factor L1	Output current crest factor of Line 1
Output Current Crest Factor L2	Output current crest factor of Line 2
Output Current Crest Factor L3	Output current crest factor of Line 3
Output Energy	Total accumulated energy output, since last energy reset.
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Parallel Comm Warning	Parallel communication bus warning

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Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Parallel ID	Parallel Unit ID
Parallel Output Apparent Power	The sum total apparent power of a parallel system
Parallel Output Power	The sum total output power of a parallel system
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics
Server Class	The general classification for this system
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
System Capacity	System capacity supported by the installed power modules.
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Max Voltage L2-N	The maximum system input voltage measurement for Line 2-N since the last reset
System Input Max Voltage L3-N	The maximum system input voltage measurement for Line 3-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L2-N	The minimum system input voltage measurement for Line 2-N since the last reset
System Input Min Voltage L3-N	The minimum system input voltage measurement for Line 3-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phase Count	The number of phases for the system input
System Input Power Factor L1	The system input power factor for Line 1
System Input Power Factor L2	The system input power factor for Line 2

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Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
System Input Power Factor L3	The system input power factor for Line 3
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS Current L2	The system input RMS current for Line 2
System Input RMS Current L3	The system input RMS current for Line 3
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Input RMS L2-L3	The System Input RMS Voltage between Line 2 and Line 3
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral
System Input RMS L3-L1	The System Input RMS Voltage between Line 3 and Line 1
System Input RMS L3-N	The System Input RMS Voltage between Line 3 and Neutral
System Output Apparent Power L1	System output apparent power on Line 1
System Output Apparent Power L2	System output apparent power on Line 2
System Output Apparent Power L3	System output apparent power on Line 3
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System output Inhibit - Ext	System output is inhibited by an external signal
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity
System Output Pct Power L3	The system output power on Line 3 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1
System Output Power Factor L2	The system output power factor of Line 2
System Output Power Factor L3	The system output power factor of Line 3
System Output Power L1	The system output power on Line 1.

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Table 3.148 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
System Output Power L2	The system output power on Line 2.
System Output Power L3	The system output power on Line 3.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output RMS Current L2	The system output RMS current for Line 2
System Output RMS Current L3	The system output RMS current for Line 3
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Output Voltage RMS L2-L3	The system output RMS voltage between Lines 2 and 3
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral
System Output Voltage RMS L3-L1	The system output RMS voltage between Lines 3 and 1
System Output Voltage RMS L3-N	The system output RMS voltage between Line 3 and Neutral
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system
Total Number of Battery Discharges	The total number of battery discharges.
Total System Operating Time	The cumulative operation time of the unit
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status
UPS is in Service Mode	UPS is in Service Mode
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS Topology	UPS Topology
UPS was reset to factory defaults	UPS was reset to factory defaults

Table 3.149 Liebert® MTP—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
System Input Power Problem	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
Input Undervoltage	10003	—	1	Active on Alarm
Input Overvoltage	10004	—	1	Active on Alarm
Input Frequency Deviation	10005	—	1	Active on Alarm
Bypass				

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Table 3.149 Liebert® MTP—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Bypass Not Available	10016	—	1	Active on Alarm
Bypass - Excess Auto Retransfers	10017	—	1	Active on Alarm
UPS Output on Bypass	10018	—	1	Active on Alarm
Output Load on Maint. Bypass	10019	—	1	Active on Alarm
Bypass SCR Open	10020	—	1	Active on Alarm
Bypass SCR Short	10021	—	1	Active on Alarm
Battery				
Battery Discharging	10032	—	1	Active on Alarm
Charger Failure	10033	—	1	Active on Alarm
Battery Low	10034	—	1	Active on Alarm
Battery Fault	10035	—	1	Active on Alarm
Replace Battery	10036	—	1	Active on Alarm
Precharge Circuit Failed	10037	—	1	Active on Alarm
Rectifier Overcurrent Warning	10038	—	1	Active on Alarm
Rectifier Over Temperature	10039	—	1	Active on Alarm
Rectifier Communications Failure	10040	—	1	Active on Alarm
Rectifier Failure	10041	—	1	Active on Alarm
Battery Self Test	10042	—	1	Active on Alarm
Battery Test Failed	10043	—	1	Active on Alarm
Inverter				
DC Bus Low Fault	10054	—	1	Active on Alarm
Inverter Overload	10055	—	1	Active on Alarm
Inverter Over Temperature	10056	—	1	Active on Alarm
Inverter Communications Failure	10057	—	1	Active on Alarm
Inverter Failure	10058	—	1	Active on Alarm
Output				
Output Undervoltage	10069	—	1	Active on Alarm
Output Overvoltage	10070	—	1	Active on Alarm
Output Overload	10071	—	1	Active on Alarm
System Status				
Equipment Over Temperature	10082	—	1	Active on Alarm

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Table 3.149 Liebert® MTP—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
System Output Off	10083	—	1	Active on Alarm
Shutdown Pending	10084	—	1	Active on Alarm
Unspecified General Event	10085	—	1	Active on Alarm

Table 3.150 Liebert® MTP—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-N	30385	—	1	10	Units : VAC Uint16
System Input RMS B-N	30386	—	1	10	Units : VAC Uint16
System Input RMS C-N	30387	—	1	10	Units : VAC Uint16
System Input Frequency	30388	—	1	10	Units : Hz Uint16
System Input RMS A-B	30389	—	1	10	Units : VAC Uint16
System Input RMS B-C	30390	—	1	10	Units : VAC Uint16
System Input RMS C-A	30391	—	1	10	Units : VAC Uint16
System Input RMS Current Phase A	30392	—	1	10	Units : A AC Uint16
System Input RMS Current Phase B	30393	—	1	10	Units : A AC Uint16
System Input RMS Current Phase C	30394	—	1	10	Units : A AC Uint16
System Input Nominal Voltage	30395	—	1	10	Units : VAC Uint16
System Input Nominal Frequency	30396	—	1	10	Units : Hz Uint16
System Input Nominal Current	30397	—	1	10	Units : A AC Uint16
Bypass					
Bypass Input Voltage RMS A-N	30408	—	1	10	Units : VAC Uint16

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Table 3.150 Liebert® MTP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Bypass Input Voltage RMS B-N	30409	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30410	—	1	10	Units : VAC Uint16
Bypass Input Frequency	30411	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-B	30412	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30413	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30414	—	1	10	Units : VAC Uint16
Bypass Input RMS Current Phase A	30415	—	1	10	Units : A AC Int16
Bypass Input RMS Current Phase B	30416	—	1	10	Units : A AC Int16
Bypass Input RMS Current Phase C	30417	—	1	10	Units : A AC Int16
Battery					
UPS Battery Status	30428	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	30429	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
Battery Percentage Charge	30430	—	1	—	Units : % Uint16
DC Bus Voltage	30431	—	1	10	Units : VDC Int16
PFC Temperature	30432	—	1	10	Units : deg C Int16
PFC Temperature	30433	—	1	10	Units : deg F Int16

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Table 3.150 Liebert® MTP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Temperature for Cabinet	30434	—	1	10	Units : deg C Int16
Battery Temperature for Cabinet	30435	—	1	10	Units : deg F Int16
Battery Time Remaining	30436	—	1	—	Units : min Uint16
Battery Discharge Time	30437	—	1	—	Units : min Int16
DC Bus Nominal Voltage	30438	—	1	10	Units : VDC Int16
Battery Float Voltage	30439	—	1	10	Units : VDC Int16
Battery Test Result	30440	—	1	—	0 = Unknown 1 = Passed 2 = Failed 3 = In Progress 4 = System Failure 5 = Inhibited
Battery EoD Voltage	30441	40441	1	10	Units : VDC Uint16
Manual Battery Test	—	40442	1	—	1 = Start Test
Inverter					
Inverter On/Off State	30452	—	1	—	0 = off 1 = on
Inverter Temperature	30453	—	1	10	Units : deg C Int16
Inverter Temperature	30454	—	1	10	Units : deg F Int16
Output					
System Output Voltage RMS A-N	30465	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-N	30466	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-N	30467	—	1	10	Units : VAC Uint16

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Table 3.150 Liebert® MTP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Frequency	30468	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-B	30469	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-C	30470	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-A	30471	—	1	10	Units : VAC Uint16
System Output RMS Current Phs A	30472	—	1	10	Units : A AC Uint16
System Output RMS Current Phs B	30473	—	1	10	Units : A AC Uint16
System Output RMS Current Phs C	30474	—	1	10	Units : A AC Uint16
System Output Pct Power	30475	—	1	—	Units : % Uint16
System Output Pct Power Phase A	30476	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30477	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30478	—	1	—	Units : % Uint16
System Output Power	30479	—	1	10	Units : kW Uint16
System Output Power Phase A	30480	—	1	10	Units : kW Uint16
System Output Power Phase B	30481	—	1	10	Units : kW Uint16
System Output Power Phase C	30482	—	1	10	Units : kW Uint16
System Output Apparent Power	30483	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs A	30484	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30485	—	1	10	Units : kVA

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Table 3.150 Liebert® MTP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
System Output Apparent Power Phs C	30486	—	1	10	Units : kVA Uint16
System Output Nominal Voltage	30487	—	1	10	Units : VAC Uint16
System Output Nominal Frequency	30488	—	1	10	Units : Hz Uint16
Output Apparent Power Rating	30489	—	1	—	Units : kVA Int16
Nominal Power Factor	30490	—	1	100	Int16
ECO Mode					
ECO Mode Status	30501	—	1	—	0 = off 1 = on
ECO Mode Operation State	30502	—	1	—	0 = disabled 1 = enabled
System Status					
System Status	30513	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
UPS Output Source	30514	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Power Factor Correction	30515	—	1	—	0 = off 1 = on
DC Converter Status	30516	—	1	—	0 = off 1 = on
Shutdown Reason	30517	—	1	—	0 = None 1 = Over Temperature 2 = Overload

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Table 3.150 Liebert® MTP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					3 = DC Bus Overload 4 = Output Short 5 = Line Swap 6 = Low Battery 7 = Remote Command 8 = Input Under Voltage 9 = Power Factor Correction Fail 10 = External Signal Command
Outside Air Temperature	30518	—	1	—	Units : deg C Int16
Outside Air Temperature	30519	—	1	—	Units : deg F Int16
System Configuration					
UPS Topology	30530	—	1	—	0 = unknown 1 = Offline 2 = Line Interactive 3 = Online
Auto Restart	30531	40531	1	—	0 = disabled 1 = enabled
Audible Alarm Control	30533	40533	1	—	0 = off 1 = on
Emergency Power Off (EPO) Logic	30534	40534	1	—	1 = Active Open 2 = Active Close
Silence Audible Alarm	—	40537	1	—	1 = Silence Alarm

Table 3.151 Liebert® MTP—Glossary

Data Label	Data Description
Audible Alarm Control	Audible Alarm Control
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Battery Charge Status	Battery charge status.
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery EoD Voltage	When the battery voltage falls to or below this value, the battery becomes unqualified (it can't support the load).
Battery Fault	A short circuit exists in the battery system.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery Low	The calculated battery time remaining has reached the low battery threshold

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Table 3.151 Liebert® MTP—Glossary (continued)

Data Label	Data Description
Battery Percentage Charge	The percentage of battery charge
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Input Frequency	The bypass input frequency
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Not Available	A problem associated with the bypass has been detected
Bypass SCR Open	The bypass SCR is in an open circuit condition.
Bypass SCR Short	The bypass SCR is in short circuit condition.
Charger Failure	Charger Failure - Charger is off
DC Bus Low Fault	The DC Bus voltage has reached a critical low level.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC Converter Status	The operating state of the dc converter.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
Emergency Power Off (EPO) Logic	Emergency Power Off (EPO) Logic
Equipment Over Temperature	Equipment over temperature summary event
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.

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Table 3.151 Liebert® MTP—Glossary (continued)

Data Label	Data Description
Inverter Communications Failure	Communication between internal monitor and Inverter has failed.
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Over Temperature	Inverter temperature is too high to keep inverter running.
Inverter Overload	Inverter in overload fault
Inverter Temperature	Temperature measured at the inverter.
Manual Battery Test	Command to initiate a manual battery test.
Nominal Power Factor	The nominal (or rated) system power factor.
Output Apparent Power Rating	Output apparent power rating
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Output Overvoltage	One or more of the output phase voltages has exceeded the limit.
Output Undervoltage	One or more of the output phase voltages has dropped below the limit.
Outside Air Temperature	Ambient outside air temperature.
PFC Temperature	Temperature measured at the Power Factor Correction circuit.
Power Factor Correction	The state of the power factor correction circuitry of the system
Precharge Circuit Failed	DC Bus precharge/discharge didn't reach specified level within a specified time.
Rectifier Communications Failure	Communication between internal monitor and Rectifier has failed.
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Over Temperature	Rectifier temperature is too high to keep rectifier running.
Rectifier Overcurrent Warning	The rectifier stopped for overcurrent
Replace Battery	The battery is due for replacement.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B

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Table 3.151 Liebert® MTP—Glossary (continued)

Data Label	Data Description
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral

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Table 3.151 Liebert® MTP—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Status	The operating status for the system
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS Topology	UPS Topology

Table 3.152 Liebert® Nfinity—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Automatic Battery Test Enabled	10003	3	1	—	—
Battery Charger On	10044	—	1	—	—
Inverter Ready	10047	—	1	—	—
Power Factor Correction State	10050	—	1	—	—
Load on Inverter	10073	—	1	—	—
Bypass Active	10074	—	1	—	—
Replace Battery	10081	—	1	—	—
Battery Under Test	10082	—	1	—	—
Load on Battery	10128	—	1	—	—
Load on Bypass	10129	—	1	—	—
Load on Manual Bypass	10132	—	1	—	—
Load Transferred to Bypass Due to UPS Fault	10134	—	1	—	—
Transfer Inhibit	10146	—	1	—	—
Output Off Pending	10151	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Overload	10154	—	1	—	—
UPS Overload	10155	—	1	—	—
Output Off	10158	—	1	—	—
Check Air Filter - Replace	10170	—	1	—	—
Transformer Over Temperature	10178	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Internal Device Communication Failure	10284	—	1	—	—

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Table 3.152 Liebert® Nfinity—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Device Active Alarm	10290	—	1	—	—
Main Control Warning	10291	—	1	—	—
Redundant Control Warning	10292	—	1	—	—
Control Module Failure	10293	—	1	—	—
Redundant Control Module Failed	10294	—	1	—	—
User Interface Module Failed	10295	—	1	—	—
UPS Power Not Redundant	10296	—	1	—	—
Power Module Failure	10298	—	1	—	—
Battery Module Failure	10299	—	1	—	—
Power Module Warning	10300	—	1	—	—
Battery Module Warning	10301	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.153 Liebert® Nfinity—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Number of Power Mod.	30010	40010	1	—	—
Number of Battery Modules Installed	30011	40011	1	—	—
Device Maximum Frame Capacity	30023	40023	2	—	—
Device System Capacity	30025	40025	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Static Bypass Switch Voltage	30029	40029	1	—	V
Nominal Input Frequency	30031	40031	1	10	Hz
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Nominal Battery Voltage	30034	40034	1	—	V
Auto Restart Delay	30051	40051	1	—	Seconds
Device Auto Restart Percent Setpt	30052	40052	1	—	%
Device Low Battery Time	30053	40053	1	—	Minutes

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Table 3.153 Liebert® Nfinity—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Next Battery Auto Test Time	30057	40057	1	—	Minutes
Overload Alarm Limit	30067	40067	2	—	VA
Minimum Redundant Power Modules	30074	40074	1	—	—
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W
Load / Capacity	30106	—	1	—	%
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Bypass Frequency	30109	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged 3 - Charging 4 - Discharging 5 - Float Charging 6 - Equalize Charging
Battery Voltage	30113	—	1	—	V
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%
Battery Temperature	30117	—	1	—	deg C
Transformer Temperature	30121	—	1	—	deg C
Redundant Power Modules	30124	—	1	—	—
Active Power Module Count	30126	—	1	—	—
Battery Module Active Count	30127	—	1	—	—
Battery Test Result	30130	—	1	—	—
Input Voltage L1	30153	—	1	—	V
Input Current L1	30154	—	1	—	A
Bypass Voltage L1	30159	—	1	—	V
Bypass Current L1	30160	—	1	—	A
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Power Module Failure Count	30304	—	1	—	—
Battery Module Failure Count	30305	—	1	—	—
Power Module Warning Count	30306	—	1	—	—
Battery Module Warning Count	30307	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.154 Liebert® Npower—Input and Holding—IMP

Controller	Single Module Series - SMS				
Liebert Products	Liebert Npower - SMS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Status Points (View)					
Input Voltage A-B	—	40001	1	—	V
Input Voltage B-C	—	40002	1	—	V
Input Voltage C-A	—	40003	1	—	V
Bypass Voltage A-B	—	40004	1	—	V
Bypass Voltage B-C	—	40005	1	—	V
Bypass Voltage C-A	—	40006	1	—	V
Battery Voltage	—	40007	1	—	V
Battery Current	—	40008	1	10	A
Battery Temperature	—	40009	1	—	deg C
Output Voltage A-B	—	40010	1	—	V
Output Voltage B-C	—	40011	1	—	V
Output Voltage C-A	—	40012	1	—	V
Output Current A	—	40013	1	10	A
Output Current B	—	40014	1	10	A
Output Current C	—	40015	1	10	A
Output kVA A	—	40016	1	—	kVA
Output kVA B	—	40017	1	—	kVA
Output kVA C	—	40018	1	—	kVA
Output kW A	—	40019	1	—	kW
Output kW B	—	40020	1	—	kW
Output kW C	—	40021	1	—	kW
Output Frequency	—	40022	1	10	Hz
Rated kVA Percentage	—	40023	1	—	%
Rated kW Percentage	—	40024	1	—	%
Alarm Points					
Communications Loss	—	40289	1	—	Bit 0
Battery Fuse Fail	—	40289	1	—	Bit 1

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Table 3.154 Liebert® Npower—Input and Holding—IMP (continued)

Controller	Single Module Series - SMS				
Liebert Products	Liebert Npower - SMS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Low Transfer	—	40289	1	—	Bit 2
DC Over Voltage Transient	—	40289	1	—	Bit 3
Input Phase Rotation Error	—	40289	1	—	Bit 4
Rectifier/Trap Fuse Fail	—	40289	1	—	Bit 5 Any of Rectifier / Trap Fuse
Bypass Frequency Error	—	40289	1	—	Bit 6
Bypass Overload Shutdown	—	40289	1	—	Bit 7
Bypass Phase Rotation Error	—	40289	1	—	Bit 8
Inverter Over Voltage Transfer	—	40289	1	—	Bit 9
Inverter Fuse Fail	—	40289	1	—	Bit 10
Output Over Voltage Transfer	—	40289	1	—	Bit 11
Output Under Voltage Transfer	—	40289	1	—	Bit 12
SBS SCR Open	—	40289	1	—	Bit 13
SBS SCR Short	—	40289	1	—	Bit 14
Inverter Over Current Transfer	—	40289	1	—	Bit 15
Equipment Over Temperature	—	40290	1	—	Bit 0 Any of Battery / Heatsink / Ambient / Timeout Shutdown
Battery Ground Fault CB Trip	—	40290	1	—	Bit 1
Power Supply Fail	—	40290	1	—	Bit 2 Any of Input / Bypass / Output / F1 / SWGR / MM / Option / AuEPO / LBS Power Fail
EPO Shutdown	—	40290	1	—	Bit 3
Rectifier Fail	—	40290	1	—	Bit 4
Inverter Fail	—	40290	1	—	Bit 5
Hardware Shutdown	—	40290	1	—	Bit 6

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Table 3.154 Liebert® Npower—Input and Holding—IMP (continued)

Controller	Single Module Series - SMS				
Liebert Products	Liebert Npower - SMS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Discharge	—	40290	1	—	Bit 7
Input Current Imbalance	—	40290	1	—	Bit 8
Input Line fail	—	40290	1	—	Bit 9
Input Under Voltage	—	40290	1	—	Bit 10
Input Over Voltage	—	40290	1	—	Bit 11
Input Over Current	—	40290	1	—	Bit 12
Battery CB Open	—	40290	1	—	Bit 13
Bypass Sync Error	—	40290	1	—	Bit 14
Bypass Voltage Out of Tolerance	—	40290	1	—	Bit 15
Bypass Line Fail	—	40291	1	—	Bit 0
Inverter Over Current	—	40291	1	—	Bit 1
Output OF/UF	—	40291	1	—	Bit 2
Inverter Overload	—	40291	1	—	Bit 3 Any of Inverter Phase A / B / C Overload
Excessive Auto Retransfer	—	40291	1	—	Bit 4
Equipment Over Temperature Warning	—	40291	1	—	Bit 5 Any of AuBattery / Ambient / Heatsink / Inlet Over Temp Warning
Fan Fail	—	40291	1	—	Bit 6 Any of Power Pole Fan 1 / 2 / 3, Master Fan 1 / 2 / 3 and System Fan Fail
SBS Unable	—	40291	1	—	Bit 7
Inverter Off By User	—	40291	1	—	Bit 8
Battery low Warning	—	40291	1	—	Bit 9
Battery Test Fail	—	40291	1	—	Bit 10
User Shutdown	—	40291	1	—	Bit 11
Load On Bypass	—	40291	1	—	Bit 12

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Table 3.154 Liebert® Npower—Input and Holding—IMP (continued)

Controller	Single Module Series - SMS				
Liebert Products	Liebert Npower - SMS				
Available Points					
Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Input Contact Alarms	—	40291	1	—	Bit 13 Any of Input Contact 1-8 Alarms
Generic Alarms	—	40291	1	—	Bit 14 Any other alarm conditions that are not mapped
Bypass Overload	—	40291	1	—	Bit 15 Any of Bypass A / B / C Overload
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.155 Liebert® NX—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Economode	10005	5	—	—	—
DC-To-DC Converter On	10042	—	—	—	—
Battery Charge Compensation	10046	—	—	—	—
Inverter Ready	10047	—	—	—	—
Power Factor Correction State	10050	—	—	—	—
Battery Charge Mode	10051	—	—	—	—
Load On Inverter	10073	—	—	—	—
Bypass Active	10074	—	—	—	—
Battery Under Test	10082	—	—	—	—
Load On Battery	10128	—	—	—	—
Overload Transfer To Bypass	10131	—	—	—	—
Input Switch Open	10137	—	—	—	—
Generator Disconnected	10141	—	—	—	—
Bypass Transfer Count Block	10147	—	—	—	—
Static Bypass Switch Disabled	10148	—	—	—	—
Low Battery - Shutdown Imminent	10152	—	—	—	—
Output Overload	10154	—	—	—	—
UPS Load Joint Mode	10156	—	—	—	—
Output Off	10158	—	—	—	—

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Table 3.155 Liebert® NX—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Inverter Unsynchronized	10160	—	—	—	—
Main Neutral Lost	10161	—	—	—	—
Fan Failure	10169	—	—	—	—
Ambient Over Temperature	10173	—	—	—	—
Rectifier Over Temperature	10174	—	—	—	—
Rectifier Inductor Over Temperature	10175	—	—	—	—
Inverter Over Temperature	10176	—	—	—	—
Inverter Inductor Over Temperature	10177	—	—	—	—
Battery Converter Over Temperature	10179	—	—	—	—
DC Bus Balancer Over Temperature	10180	—	—	—	—
Input Power Supply Fail	10186	—	—	—	—
Input BrownOut	10189	—	—	—	—
Bad Input Frequency	10190	—	—	—	—
Bypass Phase Rotation Error	10191	—	—	—	—
Bypass Phase Loss	10201	—	—	—	—
Bypass Input Voltage/Frequency Fault	10202	—	—	—	—
Output Fuse Blown	10217	—	—	—	—
Output Over Voltage	10219	—	—	—	—
Charger Failed	10234	—	—	—	—
Battery Fault	10235	—	—	—	—
Battery Contact Fail	10236	—	—	—	—
Battery Converter Over Current	10237	—	—	—	—
Battery Converter Fail	10238	—	—	—	—
DC Bus Balancer Over Current	10239	—	—	—	—
DC Bus Balancer Fault	10240	—	—	—	—
DC Bus 1 Power Supply Fail	10251	—	—	—	—
Rectifier Fuse Fail	10257	—	—	—	—
Rectifier Startup Failure	10258	—	—	—	—
Rectifier Fault	10259	—	—	—	—
Rectifier Current Limit	10260	—	—	—	—
Inverter DC Voltage Low Shutdown	10262	—	—	—	—
Inverter Fault	10263	—	—	—	—

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Table 3.155 Liebert® NX—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Inverter DC Offset Overload	10264	—	—	—	—
Inverter Contactor Fail	10265	—	—	—	—
Inverter Current Limit	10266	—	—	—	—
Parallel Low Battery Warning	10267	—	—	—	—
Load Share Fault	10268	—	—	—	—
Parallel System Fault	10269	—	—	—	—
Parallel Connection Error	10270	—	—	—	—
Parallel System Overload	10271	—	—	—	—
Parallel Transfer To Static Bypass Switch	10272	—	—	—	—
Inverter Communication Fail	10281	—	—	—	—
Rectifier Communication Failure	10282	—	—	—	—
Parallel Communication Fault	10283	—	—	—	—
Operation Fault	10289	—	—	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.156 Liebert® NX—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Number of SubModules	30009	40009	1	—	—
Module Number	30014	40014	1	—	—
Device Module Count	30015	40015	1	—	—
Device Redundant Count	30016	40016	1	—	—
Device Module Mode	30017	40017	1	—	—
Nominal Power Rating	30021	40021	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Static Bypass Switch Voltage	30029	40029	1	—	V
Nominal Input Frequency	30031	40031	1	10	Hz
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—

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Table 3.156 Liebert® NX—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Nominal DC Bus #1 Voltage	30035	40035	1	—	V
Nominal DC Bus #2 Voltage	30036	40036	1	—	—
Nominal Battery Float Voltage	30038	40038	1	—	V
Load Bus Sync Mode	30040	40040	1	—	—
Auto Restart Delay	30051	40051	1	—	Seconds
Device Low Battery Time	30053	40053	1	—	Minutes
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Bypass Frequency	30109	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged 3 - Charging 4 - Discharging 5 - Float Charging 6 - Equalize Charging
Battery Voltage	30113	—	1	—	V
Battery Current (Charge/Discharge)	30114	—	1	—	A
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%
Battery Temperature	30117	—	1	—	C
Ambient Temperature	30119	—	1	—	C
Parallel Load Source	30128	—	1	—	—
Rotary Breaker	30129	—	1	—	—
Battery Test Result	30130	—	1	—	1 - Unknown 2 - Passed 3 - Failed 4 - In Progress 5 - System Failure 6 - Inhibited
Input Voltage L1-L2	30151	—	1	—	V
Input Voltage L1	30153	—	1	—	V
Input Current L1	30154	—	1	—	A
Input Power Factor L1	30155	—	1	100	—
Bypass Voltage L1	30159	—	1	—	V
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A

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Table 3.156 Liebert® NX—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Load L1	30165	—	1	—	—
Output Power Factor L1	30166	—	1	100	%
Apparent Output Power L1	30168	—	2	—	VA
Reactive Output Power L1	30170	—	2	—	VAR
Output Power L1	30172	—	2	—	W
Output Current Crest Factor L1	30186	—	1	—	%
Input Voltage L2-L3	30201	—	1	—	V
Input Voltage L2	30203	—	1	—	V
Input Current L2	30204	—	1	—	A
Input Power Factor L2	30205	—	1	100	—
Bypass Voltage L2	30209	—	1	—	V
Output Voltage L2	30213	—	1	—	V
Output Current L2	30214	—	1	—	A
Output Load L2	30215	—	1	—	%
Output Power Factor L2	30216	—	1	100	—
Apparent Output Power L2	30218	—	2	—	VA
Reactive Output Power L2	30220	—	2	—	VAR
Output Power L2	30222	—	2	—	W
Output Current Crest Factor L2	30236	—	1	—	%
Input Voltage L3-L1	30251	—	1	—	V
Input Voltage L3	30253	—	1	—	V
Input Current L3	30254	—	1	—	A
Input Power Factor L3	30255	—	1	100	—
Bypass Voltage L3	30259	—	1	—	V
Output Voltage L3	30263	—	1	—	V
Output Current L3	30264	—	1	—	A
Output Load L3	30265	—	1	—	%
Output Power Factor L3	30266	—	1	100	—
Apparent Output Power L3	30268	—	2	—	VA
Reactive Output Power L3	30270	—	2	—	VAR
Output Power L3	30272	—	2	—	W
Output Current Crest Factor L3	30286	—	1	—	%

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

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Table 3.157 Liebert® NX 225-600kVA UPS—Chloride ManageUPS—Input and Holding[3]

Data Description	Input	Holding Register	# of Reg	Scale	Notes/Units
Identification					
Modbus Protocol Version	—	40002	1	—	XX.YY
Manufacturer	—	40003	1	—	0 = Chloride
Model	—	40004	1	—	8 = 80Net
UPS Software 1 Version	—	40005	1	—	HH Major – LL Minor
UPS Software 1 Date Year	—	40006	1	—	—
UPS Software 1 Date Month	—	40007	1	—	—
UPS Software 1 Date Day	—	40008	1	—	—
UPS Software 1 Code	—	40009	1	—	10HXXXXX code
UPS Software 2 Version	—	40010	1	—	HH Major – LL Minor
UPS Software 2 Date Year	—	40011	1	—	—
UPS Software 2 Date Month	—	40012	1	—	—
UPS Software 2 Date Day	—	40013	1	—	—
UPS Software 2 Code	—	40014	1	—	10HXXXXX code
Battery					
Battery Status	—	40020	1	—	1 = Unknown 2 = Battery Normal 3 = Battery Low 4 = Battery Depleted
Seconds On Battery	—	40021	1	—	Units: Seconds
Estimated Seconds Remaining	—	40022	1	—	Units: Seconds
Estimated Charge Remaining	—	40023	1	—	Units: %
Battery Voltage	—	40024	1	10	Units: V
Battery Current	—	40025	1	10	Units: A
Battery Temperature	—	40026	1	—	Units: Deg C
Input					
Line Bads	—	40032	1	—	—
Frequency	—	40033	1	10	Units: Hz
Number Lines	—	40034	1	—	—
Voltage L1	—	40035	1	—	Units: V
Voltage L2	—	40036	1	—	Units: V
Voltage L3	—	40037	1	—	Units: V
Current L1	—	40038	1	10	Units: Amps

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Table 3.157 Liebert® NX 225-600kVA UPS—Chloride ManageUPS—Input and Holding3 (continued)

Data Description	Input	Holding Register	# of Reg	Scale	Notes/Units
Current L2	—	40039	1	10	Units: A
Current L3	—	40040	1	10	Units: A
Real Power L1	—	40041	1	10	Units: kW
Real Power L2	—	40042	1	10	Units: kW
Real Power L3	—	40043	1	10	Units: kW
DC Voltage	—	40044	1	—	Units: V
Output					
Source	—	40050	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Frequency	—	40051	1	10	Units: Hz
Number Lines	—	40052	1	—	—
Voltage L1	—	40053	1	—	Units: V
Voltage L2	—	40054	1	—	Units: V
Voltage L3	—	40055	1	—	Units: V
Current L1	—	40056	1	10	Units: A
Current L2	—	40057	1	10	Units: A
Current L3	—	40058	1	10	Units: A
Real Power L1	—	40059	1	10	Units: kW
Real Power L2	—	40060	1	10	Units: kW
Real Power L3	—	40061	1	10	Units: kW
Percent Load L1	—	40062	1	—	Units: %
Percent Load L2	—	40063	1	—	Units: %
Percent Load L3	—	40064	1	—	Units: %
Bypass					
Line Bads	—	40070	1	—	—
Frequency	—	40071	1	10	Units: Hz
Number Lines	—	40072	1	—	—
Voltage L1	—	40073	1	—	Units: V
Voltage L2	—	40074	1	—	Units: V

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Table 3.157 Liebert® NX 225-600kVA UPS—Chloride ManageUPS—Input and Holding3 (continued)

Data Description	Input	Holding Register	# of Reg	Scale	Notes/Units
Voltage L3	—	40075	1	—	Units: V
Current L1	—	40076	1	10	Units: A
Current L2	—	40077	1	10	Units: A
Current L3	—	40078	1	10	Units: A
Alarms					
Alarms Present	—	40087	1	—	Bit 0
On Battery	—	40087	1	—	Bit 2
Low Battery	—	40087	1	—	Bit 3
Depleted Battery	—	40087	1	—	Bit 4
Temperature Bad	—	40087	1	—	Bit 5
Input Bad	—	40087	1	—	Bit 6
Output Overload	—	40088	1	—	Bit 0
On Bypass	—	40088	1	—	Bit 1
Bypass Bad	—	40088	1	—	Bit 2
Charger Failed	—	40088	1	—	Bit 5
Fan Failure	—	40089	1	—	Bit 0
General Fault	—	40089	1	—	Bit 2
Diagnostic Test Failed	—	40089	1	—	Bit 3
Communications Lost	—	40089	1	—	Bit 4
Shutdown Pending	—	40089	1	—	Bit 6
Test In Progress	—	40090	1	—	Bit 0
General Warning	—	40090	1	—	Bit 2
Condition					
Bypass	—	40091	1	—	0 = Bypass not present 1 = Bypass on 2 = Bypass off 3 = Bypass fault 4 = Bypass not prepared
Inverter	—	40092	1	—	0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter fault 4 = Inverter turning off

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Table 3.157 Liebert® NX 225-600kVA UPS—Chloride ManageUPS—Input and Holding3 (continued)

Data Description	Input	Holding Register	# of Reg	Scale	Notes/Units
Rectifier	—	40093	1	—	0 = Rectifier Off 1 = Rectifier Turning On 2 = Rectifier On 3 = Rectifier Fault
Battery Connected	—	40094	1	—	—
NonSynchronism	—	40095	1	—	—
Parallel Condition					
In Parallel Set	—	40101	1	—	0 = UPS is Single 1 = UPS is part of parallel set
Customer-Dedicated Information	—			—	—
Customer Info 1	—	40108	1	—	—
Customer Info 2	—	40109	1	—	—
Customer Info 3	—	40110	1	—	—
Customer Info 4	—	40111	1	—	—
Customer Info 5	—	40112	1	—	—

1. If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

2. The Modbus mapping in this table assumes the default Modbus offset is 1. This value is configurable via the Web interface. If the Modbus offset is changed you will need to adjust the above Holding registers accordingly.

3. This mapping table defines Liebert NX 225-600kVA UPS support using the Chloride ManageUPS Net Adapter +B communication card.

Table 3.158 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Rectifier Failure	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Current Limit	10003	—	1	Active on Alarm
System Input Power Problem	10004	—	1	Active on Alarm
Bypass				
Bypass Static Switch Unavailable	10015	—	1	Active on Alarm
Bypass Input Voltage Fault	10016	—	1	Active on Alarm
Bypass Not Available	10017	—	1	Active on Alarm
Bypass Overload	10018	—	1	Active on Alarm
Battery				
Battery Test Failed	10029	—	1	Active on Alarm
Battery Test Passed	10030	—	1	Active on Alarm

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Table 3.158 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Terminals Reversed	10031	—	1	Active on Alarm
Battery Over Voltage	10032	—	1	Active on Alarm
Battery Temperature Out of Range	10033	—	1	Active on Alarm
Battery Low	10034	—	1	Active on Alarm
Battery Over Temperature	10035	—	1	Active on Alarm
Battery Discharging	10036	—	1	Active on Alarm
Battery Auto Test In Progress	10037	—	1	Active on Alarm
Battery Manual Test In Progress	10038	—	1	Active on Alarm
Battery Ground Fault	10039	—	1	Active on Alarm
DC Bus Abnormal	10040	—	1	Active on Alarm
Output				
System Output Off	10051	—	1	Active on Alarm
Output Load on Maint. Bypass	10052	—	1	Active on Alarm
UPS Output on Bypass	10053	—	1	Active on Alarm
Inverter				
Inverter Failure	10065	—	1	Active on Alarm
Inverter Overload	10066	—	1	Active on Alarm
System Output Fault	10067	—	1	Active on Alarm
Output Of/Uf	10068	—	1	Active on Alarm
System Shutdown - Output Short	10069	—	1	Active on Alarm
Inverter Desaturation	10070	—	1	Active on Alarm
Booster-Charger				
Booster Failure	10081	—	1	Active on Alarm
Charger Failure	10082	—	1	Active on Alarm
System Status				
System Shutdown - EPO	10093	—	1	Active on Alarm
Generic DIC Fault	10094	—	1	Active on Alarm
Inlet Air Over Temperature	10095	—	1	Active on Alarm
Generic Test Event	10096	—	1	Active on Alarm
Fan Hours Exceeded	10097	—	1	Active on Alarm
Unit Shutdown	10098	—	1	Active on Alarm
Main Controller Fault	10099	—	1	Active on Alarm

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Table 3.158 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Equipment Over Temperature	10100	—	1	Active on Alarm
Maximum Load Alarm	10101	—	1	Active on Alarm
Ground Fault	10102	—	1	Active on Alarm
Switch Gear				
Backfeed Breaker Open	10113	—	1	Active on Alarm
Input Breaker Open	10114	—	1	Active on Alarm
Output Breaker Open	10115	—	1	Active on Alarm
Maintenance Bypass Breaker Closed	10116	—	1	Active on Alarm
Battery Breaker Open	10117	—	1	Active on Alarm

Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	10	Units : VAC Uint16
System Input RMS B-C	30386	—	1	10	Units : VAC Uint16
System Input RMS C-A	30387	—	1	10	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	10	Units : A AC Uint16
System Input RMS Current Phase B	30389	—	1	10	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	10	Units : A AC Uint16
System Input Frequency	30391	—	1	10	Units : Hz Uint16
Rectifier Status	30392	—	1	—	0 = off 1 = on
Rectifier Module Temperatures 1					
Rectifier Phase A Temperature sensor	30403	—	1	—	Units : deg C Uint16
Rectifier Phase A Temperature sensor	30404	—	1	—	Units : deg F Uint16
Rectifier Phase B Temperature sensor	30405	—	1	—	Units : deg C

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Rectifier Phase B Temperature sensor	30406	—	1	—	Units : deg F Uint16
Rectifier Phase C Temperature sensor	30407	—	1	—	Units : deg C Uint16
Rectifier Phase C Temperature sensor	30408	—	1	—	Units : deg F Uint16
Rectifier Module Temperatures 2					
Rectifier Phase A Temperature sensor	30419	—	1	—	Units : deg C Uint16
Rectifier Phase A Temperature sensor	30420	—	1	—	Units : deg F Uint16
Rectifier Phase B Temperature sensor	30421	—	1	—	Units : deg C Uint16
Rectifier Phase B Temperature sensor	30422	—	1	—	Units : deg F Uint16
Rectifier Phase C Temperature sensor	30423	—	1	—	Units : deg C Uint16
Rectifier Phase C Temperature sensor	30424	—	1	—	Units : deg F Uint16
Rectifier Module Temperatures 4					
Rectifier Phase A Temperature sensor	30451	—	1	—	Units : deg C Uint16
Rectifier Phase A Temperature sensor	30452	—	1	—	Units : deg F Uint16
Rectifier Phase B Temperature sensor	30453	—	1	—	Units : deg C Uint16
Rectifier Phase B Temperature sensor	30454	—	1	—	Units : deg F Uint16
Rectifier Phase C Temperature sensor	30455	—	1	—	Units : deg C Uint16
Rectifier Phase C Temperature sensor	30456	—	1	—	Units : deg F Uint16
Bypass					
Bypass Input Voltage RMS A-B	30467	—	1	—	Units : VAC

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Bypass Input Voltage RMS B-C	30468	—	1	—	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30469	—	1	—	Units : VAC Uint16
Bypass Input Frequency	30470	—	1	—	Units : Hz Uint16
Static Bypass Switch	30471	—	1	—	0 = off 1 = on
Bypass Qualification Status	30472	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Battery					
DC Bus Voltage	30483	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet	30484	—	1	—	Units : VDC Uint16
DC Bus Current	30485	—	1	—	Units : A DC Uint16
Battery Time Remaining	30486	—	1	—	Units : min Uint16
Battery Percentage Charge	30487	—	1	—	Units : % Uint16
Battery Temperature for Cabinet	30488	—	1	—	Units : deg C Uint16
Battery Temperature for Cabinet	30489	—	1	—	Units : deg F Uint16
DC Bus Qualification Status	30490	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
UPS battery1 status	30491	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Output					
System Output Voltage RMS A-B	30502	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-C	30503	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-A	30504	—	1	10	Units : VAC Uint16
System Output RMS Current Phs A	30505	—	1	10	Units : A AC Uint16
System Output RMS Current Phs B	30506	—	1	10	Units : A AC Uint16
System Output RMS Current Phs C	30507	—	1	10	Units : A AC Uint16
System Output Frequency	30508	—	1	10	Units : Hz Uint16
System Output Apparent Power	30509	—	1	—	Units : kVA Uint16
System Output Power	30510	—	1	—	Units : kW Uint16
System Output Apparent Power Phs A	30511	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs B	30512	—	1	—	Units : kVA Uint16
System Output Apparent Power Phs C	30513	—	1	—	Units : kVA Uint16
System Output Power Phase A	30514	—	1	—	Units : kW Uint16
System Output Power Phase B	30515	—	1	—	Units : kW Uint16
System Output Power Phase C	30516	—	1	—	Units : kW Uint16
System Output Pct Power Phase A	30517	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30518	—	1	—	Units : % Uint16

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Pct Power Phase C	30519	—	1	—	Units : % Uint16
Output Percent Load	30520	—	1	—	Units : % Uint16
Temperature	30521	—	1	—	Units : deg C Uint16
Temperature	30522	—	1	—	Units : deg F Uint16
UPS Output Source	30523	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Load Power Source	30524	—	1	—	0 = Load Off 1 = UPS 2 = Maintenance Bypass
Inverter					
Inverter Overload Time Remaining	30535	—	1	—	Units : sec Int16
Inverter On/Off State	30536	—	1	—	0 = off 1 = on
Inverter Synchronization Source	30537	—	1	—	0 = External 1 = Self clock (internal) 2 = Output 3 = Bypass
Inverter Module Temperatures 1					
Inverter Phase A Temperature sensor	30548	—	1	—	Units : deg C Uint16
Inverter Phase A Temperature sensor	30549	—	1	—	Units : deg F Uint16
Inverter Phase B Temperature sensor	30550	—	1	—	Units : deg C Uint16
Inverter Phase B Temperature sensor	30551	—	1	—	Units : deg F

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Inverter Phase C temperature sensor	30552	—	1	—	Units : deg C Uint16
Inverter Phase C temperature sensor	30553	—	1	—	Units : deg F Uint16
Inverter Module Temperatures 2					
Inverter Phase A Temperature sensor	30564	—	1	—	Units : deg C Uint16
Inverter Phase A Temperature sensor	30565	—	1	—	Units : deg F Uint16
Inverter Phase B Temperature sensor	30566	—	1	—	Units : deg C Uint16
Inverter Phase B Temperature sensor	30567	—	1	—	Units : deg F Uint16
Inverter Phase C temperature sensor	30568	—	1	—	Units : deg C Uint16
Inverter Phase C temperature sensor	30569	—	1	—	Units : deg F Uint16
Inverter Module Temperatures 4					
Inverter Phase A Temperature sensor	30596	—	1	—	Units : deg C Uint16
Inverter Phase A Temperature sensor	30597	—	1	—	Units : deg F Uint16
Inverter Phase B Temperature sensor	30598	—	1	—	Units : deg C Uint16
Inverter Phase B Temperature sensor	30599	—	1	—	Units : deg F Uint16
Inverter Phase C temperature sensor	30600	—	1	—	Units : deg C Uint16
Inverter Phase C temperature sensor	30601	—	1	—	Units : deg F Uint16
Booster-Charger					
Battery Recharge Voltage	30612	—	1	100	Units : VDC Uint16
Max Charge Current	30613	—	1	—	Units : A DC

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Booster On/Off State	30614	—	1	—	0 = off 1 = on
Charger On/Off State	30615	—	1	—	0 = off 1 = on
Booster Charger Module Temperatures 1					
Booster-Charger Temperature	30626	—	1	—	Units : deg C Uint16
Booster-Charger Temperature	30627	—	1	—	Units : deg F Uint16
Booster Charger Module Temperatures 2					
Booster-Charger Temperature	30638	—	1	—	Units : deg C Uint16
Booster-Charger Temperature	30639	—	1	—	Units : deg F Uint16
Booster Charger Module Temperatures 4					
Booster-Charger Temperature	30662	—	1	—	Units : deg F Uint16
Booster-Charger Temperature	30663	—	1	—	Units : deg C Uint16
System Status					
System Status	30674	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
UPS Operating Mode	30675	—	1	—	0 = Idle 1 = Double Conversion Mode (VFI) 2 = Interactive Mode (VI) 3 = Stand-By Mode (VFD) 4 = CR Mode (CR) 5 = ECO Mode (DIM)
ECO Mode Operation State	30676	—	1	—	0 = disabled 1 = enabled
Ratings					

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Table 3.159 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Output Apparent Power Rating	30687	—	1	—	Units : kVA Uint16
System Input Nominal Voltage	30688	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30689	—	1	—	Units : Hz Uint16

Table 3.160 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Glossary

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker Open	The battery circuit is open.
Battery Discharging	The battery is discharging
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Recharge Voltage	The recharge cell voltage for the battery.
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature Out of Range	Battery temperature is outside of acceptable range.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Booster Failure	Booster failure - boost is off
Booster On/Off State	Booster on/off state
Booster-Charger Temperature	Temperature measured at the charger stage

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Table 3.160 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Glossary (continued)

Data Label	Data Description
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Qualification Status	bypass qualification status
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Charger Failure	Charger Failure - Charger is off
Charger On/Off State	Charger on/off state
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Qualification Status	dc bus qualification status
DC Bus Voltage	The voltage between the postivie and negative terminals of the internal DC Bus.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Generic DIC Fault	The control board reports a fault - Service required.
Generic Test Event	A generic test event designed to evaluate system handling of events
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold
Input Breaker Open	The main input breaker is open.
Inverter Desaturation	Inverter Desaturation
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown
Inverter Overload	Inverter in overload fault
Inverter Phase A Temperature sensor	Inverter temperature sensor reading for Phase A.

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Table 3.160 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Glossary (continued)

Data Label	Data Description
Inverter Phase B Temperature sensor	Inverter temperature sensor reading for Phase B.
Inverter Phase C temperature sensor	Inverter temperature sensor reading for Phase C.
Inverter Synchronization Source	The reference source for inverter synchronization
Load Power Source	Load power source
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Max Charge Current	The maximum allowed current to be used for charging the batteries.
Maximum Load Alarm	Maximum load alarm indicating load setting has been exceeded.
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	The output breaker is open.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Percent Load	The percentage of the system's total rated output current that is flowing from the system.
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Phase A Temperature sensor	Rectifier temperature sensor reading for Phase A.
Rectifier Phase B Temperature sensor	Rectifier temperature sensor reading for Phase B.
Rectifier Phase C Temperature sensor	Rectifier temperature sensor reading for Phase C.
Rectifier Status	rectifier status
Static Bypass Switch	Static Bypass Switch state - On/Off
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B

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Table 3.160 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Glossary (continued)

Data Label	Data Description
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B

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Table 3.160 Liebert® NX 225-600kVA UPS—IS-UNITY-DP—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system
Temperature	Temperature measured at the temperature sensor
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
UPS battery1 status	UPS battery status
UPS Operating Mode	UPS Operating Mode
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source

Table 3.161 Liebert® NXL—60Hz, UL version (Model 40)—Status and Coil

Data Label	Status	Coil	# of Bits	Notes	NXL Type
Battery Self Test	10082	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Low Shutdown	10092	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
System Shutdown - REPO	10093	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
UPS Output on Bypass	10129	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Output Load on Maint. Bypass	10132	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Main Battery Disconnect Open	10136	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Bypass - Excess Auto Retransfers	10147	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Battery Low	10152	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
System Shutdown - EPO	10157	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
System Output Off	10158	—	1	Active on Alarm	Deprecated
Battery Over Temperature	10172	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inlet Air Over Temperature	10173	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
System Input Current Imbalance	10185	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
System Input Phs Rotation Error	10191	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Rectifier Failure	10259	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inverter Failure	10263	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Main Controller Fault	10293	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1

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Table 3.161 Liebert® NXL—60Hz, UL version (Model 40)—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes	NXL Type
Bypass Not Available	10321	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Overload Phase A	10322	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Overload Phase B	10323	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Overload Phase C	10324	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Auto Retransfer Failed	10325	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Static Switch Unavailable	10326	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Static Switch Overload	10327	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Excessive Pulse Parallel	10328	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Auto Transfer Failed	10329	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Frequency Error	10330	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass - Manual Rexfr Inhibited	10331	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass - Manual Xfr Inhibited	10332	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Bypass Static Switch Off Extrnl	10333	—	1	Active on Alarm	CE models only
Battery Charging Reduced-Extrnl	10334	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Capacity Low	10335	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Discharging	10336	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Temperature Imbalance	10337	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Temperature Sensor Fault	10338	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Charging Inhibited	10339	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 1 Open	10340	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 2 Open	10341	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 3 Open	10342	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 4 Open	10343	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 5 Open	10344	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 6 Open	10345	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 7 Open	10346	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Circuit Breaker 8 Open	10347	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery - External Monitor 1	10348	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery - External Monitor 2	10349	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Over Temperature	10350	—	1	Active on Warning	SMS, 1+N, N+1, 1+1
DC Bus Ground Fault - Positive	10351	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
DC Bus Ground Fault - Negative	10352	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1

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Table 3.161 Liebert® NXL—60Hz, UL version (Model 40)—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes	NXL Type
System Output Low Power Factor	10353	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Leading Power Factor	10354	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Output Amp Over User Limit-Phs A	10355	—	1	Active on Alarm	SMS, 1+N, 1+1
Output Amp Over User Limit-Phs B	10356	—	1	Active on Alarm	SMS, 1+N, 1+1
Output Amp Over User Limit-Phs C	10357	—	1	Active on Alarm	SMS, 1+N, 1+1
System Output Fault	10358	—	1	Active on Alarm	SMS, 1+N, 1+1
Inverter Overload Phase A	10359	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inverter Overload Phase B	10360	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inverter Overload Phase C	10361	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inverter Inhibit - External	10362	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inverter Shutdown - Overload	10363	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Inverter Off - External	10364	—	1	Active on Alarm	CE models only
Inverter Static Switch SCR Short	10365	—	1	Active on Alarm	CE models only
Equipment Over Temperature	10366	—	1	Active on Warning	SMS, 1+N, N+1, SCC, 1+1
Equipment Over Temperature	10367	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Equipment Temperature Sensor Fail	10368	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 01	10369	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 02	10370	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 03	10371	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 04	10372	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 05	10373	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 06	10374	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 07	10375	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 08	10376	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 09	10377	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 10	10378	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 11	10379	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 12	10380	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 13	10381	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 14	10382	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 15	10383	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Contact 16	10384	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1

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Table 3.161 Liebert® NXL—60Hz, UL version (Model 40)—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes	NXL Type
Rectifier Operation Inhibit-Ext	10385	—	1	Active on Alarm	CE models only
Fan Redundancy Warn	10386	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Slave Fan Warning	10387	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Auto Restart In Progress	10388	—	1	Active on Alarm	SMS
Automatic Restart Failed	10389	—	1	Active on Alarm	SMS
Fuse Failure	10390	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
System Breaker(s) Open Failure	10391	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
System Breaker(s) Close Failure	10392	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Input Filter Cycle Lock	10393	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Service Code Active	10394	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
LBS Inhibited	10396	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
Controls Reset Required	10397	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Battery Test Failed	10398	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Auto Restart Inhibited - Ext	10399	—	1	Active on Alarm	SMS
Battery Test Inhibited	10400	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Equalize	10401	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Backfeed Breaker Open	10402	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
On Generator	10403	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Power Supply Failure	10404	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Battery Ground Fault	10405	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Battery Charging Error	10406	—	1	Active on Alarm	Deprecated
System Input Power Problem	10407	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
System Input Current Limit	10408	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Internal Communications Failure	10409	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
System Controller Error	10410	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
Output					
Output Of/Uf	10510	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
MultiModule					
Parallel Comm Warning	10521	—	1	Active on Alarm	1+N, N+1, SCC, 1+1
System Comm Fail	10522	—	1	Active on Alarm	1+N, N+1, SCC, 1+1
Loss of Redundancy	10523	—	1	Active on Alarm	1+N, SCC, 1+1
BPSS Startup Inhibit	10524	—	1	Active on Alarm	Deprecated

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Table 3.161 Liebert® NXL—60Hz, UL version (Model 40)—Status and Coil (continued)

Data Label	Status	Coil	# of Bits	Notes	NXL Type
MMS Transfer Inhibit	10525	—	1	Active on Alarm	1+N, SCC, 1+1
MMS Retransfer Inhibit	10526	—	1	Active on Alarm	1+N, SCC, 1+1
MMS Loss of Sync Pulse	10527	—	1	Active on Alarm	Deprecated
MMS Overload	10528	—	1	Active on Alarm	SCC
MMS On Battery	10529	—	1	Active on Alarm	1+N, SCC, 1+1
MMS Low Battery Warning	10530	—	1	Active on Alarm	1+N, SCC, 1+1
MMS Module Alarm Active	10531	—	1	Active on Alarm	SCC
MMS Power Sharing	10532	—	1	Active on Alarm	SCC
Intelligent Paralleling					
Module In Standby - Intelligent Paralleling	10543	—	1	Active on Alarm	1+N, N+1, 1+1
ECO Mode					
ECO Mode Active	10554	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
ECO Mode Suspended	10555	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Excess ECO Suspends	10556	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
System					
LBS Active - Master	10567	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
LBS Active - Slave	10568	—	1	Active on Alarm	SMS, 1+N, SCC, 1+1
EMO Shutdown	10575	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Cont Tie Active	10576	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
User kWh Reset	10577	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Peak kW Reset	10578	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Thermal Margin Warning	10579	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Environment		—			
Outlet Air Overtemperature Limit	10580	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1
ServiceReminder		—			
Service Required	10590	—	1	Active on Alarm	SMS, 1+N, N+1, SCC, 1+1
Battery					
Battery Charging	10600	—	1	Active on Alarm	SMS, 1+N, N+1, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
System Date and Time	30005	-	2	-	Masks: Year 0xFFFF 0000 Mon 0x0000 FF00 Day 0x0000 00FF	SMS, 1+N, N+1, SCC, 1+1
System Date and Time	30007	-	2	-	Masks: Hour 0xFF00 0000 Min 0x00FF 0000 Sec 0x0000 FF00	SMS, 1+N, N+1, SCC, 1+1
Output Apparent Power Rating	30021	-	2	-	kVA Uint16	SMS, 1+N, N+1, 1+1
System Input Nominal Voltage	30027	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Output Nominal Voltage	30028	-	1	-	VAC Uint16	SMS, 1+N, N+1, SCC, 1+1
Bypass Nominal Voltage	30029	-	1	-	VAC Uint16	SMS, 1+N, SCC, 1+1
System Input Nominal Frequency	30031	-	1	10	Hz Uint16	SMS, 1+N, N+1, 1+1
System Output Nominal Frequency	30032	-	1	10	Hz Uint16	SMS, 1+N, N+1, SCC, 1+1
System Output Apparent Power	30102	-	2	-	kVA Uint16	SMS, 1+N, N+1, 1+1
System Output Power	30104	-	2	-	kW Uint16	SMS, 1+N, N+1, 1+1
System Input Frequency	30107	-	1	10	Hz Uint16	SMS, 1+N, N+1, 1+1
System Output Frequency	30108	-	1	10	Hz Uint16	SMS, 1+N, N+1, 1+1
Bypass Input Frequency	30109	-	1	10	Hz Uint16	SMS, 1+N, SCC, 1+1
Battery Volts at Main Disconnect	30113	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Time Remaining	30115	-	1	-	min Uint16	SMS, 1+N, N+1, 1+1
Battery Percentage Charge	30116	-	1	-	Uint16	SMS, 1+N, N+1, 1+1
Inlet Air Temperature	30119	-	1	-	deg C Int16	SMS, 1+N, N+1, SCC, 1+1
System Input RMS A-B	30151	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
System Input RMS Current Phase A	30154	-	1	-	A AC Uint16	SMS, 1+N, N+1, 1+1
Bypass Input Voltage RMS A-B	30157	-	1	-	VAC Uint16	SMS, 1+N, SCC, 1+1
System Output Voltage RMS A-B	30161	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Output Voltage RMS A-N	30162	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Output RMS Current Phs A	30164	-	1	-	A AC Uint16	SMS, 1+N, N+1, 1+1
System Output Pct Power Phase A	30165	-	1	-	% Uint16	SMS, 1+N, N+1, 1+1
System Output Power Factor Phs A	30166	-	1	100	Int16	SMS, 1+N, N+1, 1+1
System Input RMS B-C	30201	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Input RMS Current Phase B	30204	-	1	-	A AC Uint16	SMS, 1+N, N+1, 1+1
Bypass Input Voltage RMS B-C	30207	-	1	-	VAC Uint16	SMS, 1+N, SCC, 1+1
System Output Voltage RMS B-C	30211	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Output Voltage RMS B-N	30212	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Output RMS Current Phs B	30214	-	1	-	A AC Uint16	SMS, 1+N, N+1, 1+1
System Output Pct Power Phase B	30215	-	1	-	% Uint16	SMS, 1+N, N+1, 1+1
System Output Power Factor Phs B	30216	-	1	100	Int16	SMS, 1+N, N+1, 1+1
System Input RMS C-A	30251	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Input RMS Current Phase C	30254	-	1	-	A AC Uint16	SMS, 1+N, N+1, 1+1
Bypass Input Voltage RMS C-A	30257	-	1	-	VAC Uint16	SMS, 1+N, SCC, 1+1
System Output Voltage RMS C-A	30261	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1
System Output Voltage RMS C-N	30262	-	1	-	VAC Uint16	SMS, 1+N, N+1, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
System Output RMS Current Phs C	30264	-	1	-	A AC Uint16	SMS, 1+N, N+1, 1+1
System Output Pct Power Phase C	30265	-	1	-	% Uint16	SMS, 1+N, N+1, 1+1
System Output Power Factor Phs C	30266	-	1	100	Int16	SMS, 1+N, N+1, 1+1
Battery Discharge Time	30309	-	1	-	sec Uint16	SMS, 1+N, N+1, 1+1
Battery Amp-Hours Consumed This Discharge	30310	-	1	-	AH Uint16	SMS, 1+N, N+1, 1+1
Input Qualification Status	30312	-	1	-	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	SMS, 1+N, N+1, 1+1
Bypass Sync Phase Difference	30313	-	1	-	deg Int16	SMS, 1+N, SCC, 1+1
Bypass SS Overload Time Remain	30314	-	1	-	sec Uint16	SMS, 1+N, SCC, 1+1
Bypass Qualification Status	30315	-	1	-	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	SMS, 1+N, SCC, 1+1
Battery Total Discharge Time	30316	-	1	-	hr Uint16	SMS, 1+N, N+1, 1+1
Battery Discharge Power	30317	-	1	-	W Uint16	SMS, 1+N, N+1, 1+1
Battery Last Discharge Date	30318	-	2	-	Masks: Year 0xFFFF 0000 Mon 0x0000 FF00 Day 0x0000 00FF	SMS, 1+N, N+1, 1+1
Battery Last Discharge Date	30320	-	2	-	Masks: Hour 0xFF00 0000 Min 0x00FF 0000 Sec 0x0000 FF00	SMS, 1+N, N+1, 1+1
Battery Commission Date	30322	-	2	-	Masks: Year 0xFFFF 0000 Mon 0x0000 FF00 Day 0x0000 00FF	SMS, 1+N, N+1, 1+1
Battery Commission Date	30324	-	2	-	Masks: Hour 0xFF00 0000 Min 0x00FF 0000 Sec 0x0000 FF00	SMS, 1+N, N+1, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
DC Bus Voltage	30326	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
DC Bus Current	30327	-	1	-	A DC Int16	SMS, 1+N, N+1, 1+1
DC Bus Qualification Status	30328	-	1	-	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	SMS, 1+N, N+1, 1+1
System Output Pct Pwr (VA) Phs A	30329	-	1	-	% Uint16	SMS, 1+N, N+1, 1+1
System Output Pct Pwr (VA) Phs B	30330	-	1	-	% Uint16	SMS, 1+N, N+1, 1+1
System Output Pct Pwr (VA) Phs C	30331	-	1	-	% Uint16	SMS, 1+N, N+1, 1+1
Output Qualification Status	30332	-	1	-	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	SMS, 1+N, N+1, 1+1
Inverter Overload Time Remaining	30333	-	1	-	sec Uint16	SMS, 1+N, N+1, 1+1
Inverter Output Qualification Status	30334	-	1	-	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	SMS, 1+N, N+1, 1+1
Total System Operating Time	30335	-	2	-	hr Uint32	SMS, 1+N, N+1, SCC, 1+1
Rectifier Pulse Count	30337	-	1	-	0 = 6 Pulse 1 = 12 Pulse 2 = 18 Pulse 3 = 24 Pulse	SMS, 1+N, N+1, 1+1
Rectifier Input Passive Filter	30338	-	1	-	0 = Not Installed 1 = Installed	SMS, 1+N, N+1, 1+1
Rectifier Passive Filter Switch	30339	-	1	-	0 = Not Installed 1 = Installed	SMS, 1+N, N+1, 1+1
Rectifier Active Filter	30340	-	1	-	0 = Not Installed 1 = Installed	SMS, 1+N, N+1, 1+1
Rectifier Status	30341	-	1	-	0 = off 1 = on	SMS, 1+N, N+1, 1+1
System Status	30342	-	1	-	1 = Normal Operation 2 = StartUp 8 = Normal with warning 16 = Normal with Alarm 32 = Abnormal Operation	SMS, 1+N, N+1, SCC, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
UPS Module Type	30343	-	1	-	0 = Single Module System 1 = Module (1 + 1) 2 = Module (1 + N) 3 = Module (N + 1) 4 = System Control Cabinet 5 = Main Static Switch	SMS, 1+N, N+1, SCC, 1+1
Static Switch Type	30344	-	1	-	0 = Not Applicable 1 = Continuous Duty 2 = Momentary Duty	SMS, 1+N, SCC, 1+1
System Input Power Source	30345	-	1	-	0 = None 1 = Utility (mains) 2 = Generator	SMS, 1+N, N+1, SCC, 1+1
Output Real Power Rating	30346	-	2	-	kW Uint16	SMS, 1+N, N+1, 1+1
Input Isolation Transformer	30348	-	1	-	0 = Not Installed 1 = Installed	SMS, 1+N, N+1, 1+1
System Output Maximum Amp Rating	30350	-	1	-	A AC Uint16	1+N, SCC, 1+1
Output Wire Configuration	30353	-	1	-	0 = Two Wire (single phase + return) 1 = Two Wire (2 phase, no neutral) 2 = Three Wire (2 phase + neutral) 3 = Three Wire (3 phase, no neutral) 4 = Four Wire (3 phases + neutral)	SMS, 1+N, N+1, SCC, 1+1
Battery Cell Count - Lead Acid	30354	-	1	-	Uint16	SMS, 1+N, N+1, 1+1
Battery Cell Count-Nickel Cadmium	30355	-	1	-	Uint16	SMS, 1+N, N+1, 1+1
UPS System Output Source	30356	-	1	-	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass	SMS, 1+N, SCC, 1+1
Static Bypass Switch	30357	-	1	-	0 = off 1 = on	SMS, 1+N, SCC, 1+1
Battery Volts for Cabinet 1	30358	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Volts for Cabinet 2	30359	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Volts for Cabinet 3	30360	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
Battery Volts for Cabinet 4	30361	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Volts for Cabinet 5	30362	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Volts for Cabinet 6	30363	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Volts for Cabinet 7	30364	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Volts for Cabinet 8	30365	-	1	-	VDC Uint16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 1	30366	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 2	30367	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 3	30368	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 4	30369	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 5	30370	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 6	30371	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 7	30372	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Battery Temperature for Cabinet 8	30373	-	1	-	deg C Int16	SMS, 1+N, N+1, 1+1
Backfeed Breaker	30374	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, SCC, 1+1
SBS Load Disconnect	30375	-	1	-	0 = Open 1 = Close 2 = Not Installed	Deprecated
Input Breaker (CB1/RIB)	30376	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, N+1, 1+1
Trap Filter Disconnect	30377	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, N+1, 1+1
Output Breaker (CB2/IOB)	30378	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, N+1, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
Internal Bypass Breaker	30379	-	1	-	0 = Open 1 = Close 2 = Not Installed	Deprecated
Bypass Isolation Breaker	30380	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, 1+1
Rectifier Feed Breaker (RFB)	30381	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS
Maintenance Bypass Breaker	30382	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, SCC, 1+1
Maintenance Isolation Breaker	30383	-	1	-	0 = Open 1 = Close 2 = Not Installed	SMS, 1+N, SCC, 1+1
Output Series Static Switch	30384	-	1	-	0 = Open 1 = Close 2 = Not Installed	LEU/LAP only
Module Output Breaker	30385	-	1	-	0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Battery Amp-Hours Consumed	30386	-	2	-	AH Uint32	SMS, 1+N, N+1, 1+1
Auto Retransfer Time Remaining	30388	-	1	-	sec Uint16	SMS, 1+N, SCC, 1+1
Inverter On/Off State	30389	-	1	-	0 = off 1 = on	SMS, 1+N, N+1, 1+1
UPS Battery Status	30390	-	1	-	1 = Unknown 2 = Normal 3 = Low 4 = Depleted	SMS, 1+N, N+1, 1+1
UPS Output Source	30391	-	1	-	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer	SMS, 1+N, N+1, SCC, 1+1
System Date and Time	39998	49998	2	-	Secs since Epoch(UTC)	SMS, 1+N, N+1, SCC, 1+1
Environment						
Total kW Hours Saved	30491		2		Units : kWH Uint32	SMS, 1+N, N+1, SCC, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
System						
Bypass Input Wire Configuration	30496		1		0 = Two Wire (single phase + return) 1 = Two Wire (2 phase, no neutral) 2 = Three Wire (2 phase + neutral) 3 = Three Wire (3 phase, no neutral) 4 = Four Wire (3 phases + neutral)	SMS, 1+N, SCC, 1+1
Configuration Description	30497		1		0 = Single Module System 33 1 = Single Module System 34 2 = Single Module System 44 3 = 1+1 33 4 = 1+1 34 5 = 1+1 44 6 = 1+N 33 7 = 1+N 34 8 = 1+N 44 9 = N+1 33 10 = N+1 34 11 = N+1 44 12 = SCC w/Continuous Duty SS 33 13 = SCC w/Continuous Duty SS 44 14 = SCC w/Momentary Duty SS 15 = Main Static Switch	SMS, 1+N, N+1, SCC, 1+1
System Accumulated Energy	30810	40810	2	10	Units : kWH Uint32	SMS, 1+N, N+1, SCC, 1+1
Module Accumulated Energy	30812	40812	2	10	Units : kWH Uint32	Deprecated
Output kWh Reset Timestamp	30814		2		Units : Secs since Epoch (UTC)	SMS, 1+N, N+1, SCC, 1+1
Output Peak kW Demand	30816		1		Units : kW Uint16	SMS, 1+N, N+1, SCC, 1+1
Output Peak kW Demand Hist	30817		1		Units : kW Uint16	SMS, 1+N, N+1, SCC, 1+1
Peak kW Demand Period	30818		1		1 = Hourly 2 = Daily 3 = Weekly 4 = Monthly 5 = Yearly	SMS, 1+N, N+1, SCC, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
Peak kW Demand Timestamp	30819		2		Units : Secs since Epoch (UTC)	SMS, 1+N, N+1, SCC, 1+1
Ratings						
System UPS Module Count	30501		1		Uint16	SMS, 1+N, SCC, 1+1
MultiModule						
Multi-module System Output Voltage RMS A-B	30505		1		Units : VAC Uint16	1+N, SCC, 1+1
Multi-module System Output Voltage RMS B-C	30506		1		Units : VAC Uint16	1+N, SCC, 1+1
Multi-module System Output Voltage RMS C-A	30507		1		Units : VAC Uint16	1+N, SCC, 1+1
Multi-module System Output Voltage RMS A-N	30508		1		Units : VAC Uint16	1+N, SCC, 1+1
Multi-module System Output Voltage RMS B-N	30509		1		Units : VAC Uint16	1+N, SCC, 1+1
Multi-module System Output Voltage RMS C-N	30510		1		Units : VAC Uint16	1+N, SCC, 1+1
Sum of MMS Output RMS Currents for Phase A	30511		1		Units : A AC Uint16	1+N, SCC, 1+1
Sum of MMS Output RMS Currents for Phase B	30512		1		Units : A AC Uint16	1+N, SCC, 1+1
Sum of MMS Output RMS Currents for Phase C	30513		1		Units : A AC Uint16	1+N, SCC, 1+1
MMS Output Frequency	30514		1	10	Units : Hz Uint16	1+N, SCC, 1+1
MMS Output Power	30515		1		Units : kW Uint16	1+N, SCC, 1+1
MMS Output Apparent Power	30516		1		Units : kVA Uint16	1+N, SCC, 1+1
MMS Output Power Factor Phase A	30517		1	100	Int16	1+N, SCC, 1+1
MMS Output Power Factor Phase B	30518		1	100	Int16	1+N, SCC, 1+1
MMS Output Power Factor Phase C	30519		1	100	Int16	1+N, SCC, 1+1
MMS Output Pct Power Phase A	30520		1		Units : % Int16	SCC
MMS Output Pct Power Phase B	30521		1		Units : % Int16	SCC
MMS Output Pct Power Phase C	30522		1		Units : % Int16	SCC

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
MMS Output Pct Apparent Pwr (kVA) Phase A	30523		1		Units : % Int16	SCC
MMS Output Pct Apparent Pwr (kVA) Phase B	30524		1		Units : % Int16	SCC
MMS Output Pct Apparent Pwr (kVA) Phase C	30525		1		Units : % Int16	SCC
Number of Redundant Modules	30526		1		Uint16	1+N, SCC, 1+1
MMS Module Number	30527		1		Int16	1+N, N+1, 1+1
Number of Modules in a MMS	30528		1		Uint16	1+N, SCC, 1+1
Module Output Breaker for Module 1 (MOB1)	30529		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 2 (MOB2)	30530		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 3 (MOB3)	30531		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 4 (MOB4)	30532		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 5 (MOB5)	30533		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 6 (MOB6)	30534		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 7 (MOB7)	30535		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Module Output Breaker for Module 8 (MOB8)	30536		1		0 = Open 1 = Close 2 = Not Installed	1+N, SCC, 1+1
Bypass Isolation Breaker for Module 1 (BIB1)	30537		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
Bypass Isolation Breaker for Module 2 (BIB2)	30538		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
Bypass Isolation Breaker for Module 3 (BIB3)	30539		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
Bypass Isolation Breaker for Module 4 (BIB4)	30540		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
Bypass Isolation Breaker for Module 5 (BIB5)	30541		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
Bypass Isolation Breaker for Module 6 (BIB6)	30542		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
Bypass Isolation Breaker for Module 7 (BIB7)	30543		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
Bypass Isolation Breaker for Module 8 (BIB8)	30544		1		0 = Open 1 = Close 2 = Not Installed	1+N, 1+1
System Output Breaker (UOB)	30545		1		0 = Open 1 = Close 2 = Not Installed	SCC
System Load Bank Breaker (LBB)	30546		1		0 = Open 1 = Close 2 = Not Installed	SCC
System Isolation Output Breaker (IOB)	30547		1		0 = Open 1 = Close 2 = Not Installed	SCC
SCC Event Summary	30548		1		0 = None 1 = Alarm 2 = Fault	SCC
MMS UPS Battery Status	30549		1		1 = Unknown 2 = Normal 3 = Low 4 = Depleted	1+N, N+1, 1+1
MMS UPS Output Source	30550		1		1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer	1+N, SCC, 1+1
ModuleList 1						
MMS Inter-Module Comm Status	30554		1		0 = Failed 1 = Normal	1+N, SCC, 1+1
MMS Event Summary	30555		1		0 = None 1 = Alarm 2 = Fault	1+N, SCC, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
MMS Module Inverter Status	30556		1		0 = off 1 = on	1+N, 1+1
MMS Module Output Voltage Status	30557		1		0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	1+N, SCC, 1+1
MMS Module Output Source	30558		1		0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass	1+N, SCC, 1+1
MMS Module Total kW Output	30559		1		Units : kW Uint16	SCC
MMS Module Total kVA Output	30560		1		Units : kVA Uint16	SCC
MMS Module DC Bus Voltage	30561		1		Units : VDC Uint16	SCC
MMS Module Battery Current	30562		1		Units : A DC Int16	SCC
MMS Module Battery Time Remaining	30563		1		Units : min Uint16	SCC
ModuleList 2						
MMS Inter-Module Comm Status	30567		1		0 = Failed 1 = Normal	1+N, SCC, 1+1
MMS Event Summary	30568		1		0 = None 1 = Alarm 2 = Fault	1+N, SCC, 1+1
MMS Module Inverter Status	30569		1		0 = off 1 = on	1+N, 1+1
MMS Module Output Voltage Status	30570		1		0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	1+N, SCC, 1+1
MMS Module Output Source	30571		1		0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass	1+N, SCC, 1+1
MMS Module Total kW Output	30572		1		Units : kW Uint16	SCC
MMS Module Total kVA Output	30573		1		Units : kVA Uint16	SCC
MMS Module DC Bus Voltage	30574		1		Units : VDC Uint16	SCC

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
MMS Module Battery Current	30575		1		Units : A DC Int16	SCC
MMS Module Battery Time Remaining	30576		1		Units : min Uint16	SCC
. . .						
ModuleList 8						
MMS Inter-Module Comm Status	30645		1		0 = Failed 1 = Normal	1+N, SCC, 1+1
MMS Event Summary	30646		1		0 = None 1 = Alarm 2 = Fault	1+N, SCC, 1+1
MMS Module Inverter Status	30647		1		0 = off 1 = on	1+N, 1+1
MMS Module Output Voltage Status	30648		1		0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High	1+N, SCC, 1+1
MMS Module Output Source	30649		1		0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass	1+N, SCC, 1+1
MMS Module Total kW Output	30650		1		Units : kW Uint16	SCC
MMS Module Total kVA Output	30651		1		Units : kVA Uint16	SCC
MMS Module DC Bus Voltage	30652		1		Units : VDC Uint16	SCC
MMS Module Battery Current	30653		1		Units : A DC Int16	SCC
MMS Module Battery Time Remaining	30654		1		Units : min Uint16	SCC
Intelligent Paralleling						
Intelligent Parallel Operation State	30658		1		0 = disabled 1 = enabled	1+N, N+1, SCC, 1+1
Intelligent Parallel Mode	30659		1		1 = Disconnect (More Efficient)	1+N, N+1, SCC, 1+1
Intelligent Paralleling Shutdown Delay	30660		1		Units : min Uint16	1+N, N+1, SCC, 1+1
Intelligent Parallel Minimum Redundancy	30661		1		Uint16	1+N, N+1, SCC, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
Intelligent Parallel Maximum Time in Standby	30662		1		Units : day Uint16	1+N, N+1, SCC, 1+1
ECO Mode						
ECO Mode Operation State	30666	40666	1		0 = disabled 1 = enabled	SMS, 1+N, SCC, 1+1
Continuous Operation - ECO Mode	30667		1		0 = disabled 1 = enabled	SMS, 1+N, SCC, 1+1
Maximum Auto Suspensions - ECO Mode	30668		1		Uint16	SMS, 1+N, SCC, 1+1
Restart Delay - ECO Mode	30669		1		Units : min Uint16	SMS, 1+N, SCC, 1+1
Time Remaining - ECO Mode	30670		1		Units : min Uint16	SMS, 1+N, SCC, 1+1
EcoModeSchedule 1						
Schedule Operation State - ECO Mode	30674		1		0 = disabled 1 = enabled	SMS, 1+N, SCC, 1+1
Schedule Action - ECO Mode	30675		1		0 = stop 1 = start	SMS, 1+N, SCC, 1+1
Schedule Day of Week - ECO Mode	30676		1		0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday	SMS, 1+N, SCC, 1+1
Schedule Hour - ECO Mode	30677		1		Units : hr Uint16	SMS, 1+N, SCC, 1+1
Schedule Minute - ECO Mode	30678		1		Units : min Uint16	SMS, 1+N, SCC, 1+1
EcoModeSchedule 2						
Schedule Operation State - ECO Mode	30682		1		0 = disabled 1 = enabled	SMS, 1+N, SCC, 1+1
Schedule Action - ECO Mode	30683		1		0 = stop 1 = start	SMS, 1+N, SCC, 1+1
Schedule Day of Week - ECO Mode	30684		1		0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday	SMS, 1+N, SCC, 1+1

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Table 3.162 Liebert® NXL—60Hz, UL version (Model 40)—Input and Holding (continued)

Data Label	Input Register	Holding Register	# of Regs	Scale	Units / Notes	NXL Types
Schedule Hour - ECO Mode	30685		1		Units : hr Uint16	SMS, 1+N, SCC, 1+1
Schedule Minute - ECO Mode	30686		1		Units : min Uint16	SMS, 1+N, SCC, 1+1
. . .						
EcoModeSchedule 16						
Schedule Operation State - ECO Mode	30794		1		0 = disabled 1 = enabled	SMS, 1+N, SCC, 1+1
Schedule Action - ECO Mode	30795		1		0 = stop 1 = start	SMS, 1+N, SCC, 1+1
Schedule Day of Week - ECO Mode	30796		1		0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday	SMS, 1+N, SCC, 1+1
Schedule Hour - ECO Mode	30797		1		Units : hr Uint16	SMS, 1+N, SCC, 1+1
Schedule Minute - ECO Mode	30798		1		Units : min Uint16	SMS, 1+N, SCC, 1+1
Battery						
Total Number of Battery Discharges	30821		1		Uint16	SMS, 1+N, N+1, 1+1
Bypass						
Total Bypass Operating Time	30830		2		Units : hr Uint32	SMS, 1+N, SCC, 1+1
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.						

Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary

Data Label	Data Description
Auto Restart In Progress	Auto restart is in progress
Auto Restart Inhibited - Ext	Auto restart inhibited due to an external signal
Auto Retransfer Time Remaining	Time remaining before an inverter overload or inverter fault can be cleared and auto retransfer from the bypass to the inverter can take place
Automatic Restart Failed	Automatic restart failed
Backfeed Breaker Open	The backfeed breaker is in the open position
Backfeed Breaker	Backfeed breaker

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Battery - External Monitor 1	External battery monitor 1 - battery maintenance required
Battery - External Monitor 2	External battery monitor 2 - battery maintenance required
Battery Amp-Hours Consumed This Discharge	Battery amp-hours withdrawn this discharge.
Battery Amp-Hours Consumed	Cumulative battery amp-hours withdrawn over the life of the battery
Battery Capacity Low	Battery capacity is low
Battery Cell Count - Lead Acid	Battery cell count - lead acid
Battery Cell Count-Nickel Cadmium	Battery cell count - nickel cadmium
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98)
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Charging Reduced-Extrnl	Using a reduced battery charging algorithm due to an external signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open
Battery Commission Date	Date and time when battery placed into service
Battery Discharge Power	Instantaneous battery power while discharging
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Last Discharge Date	The date and time of the last battery discharge
Battery Low Shutdown	Battery disconnect due to end-of-discharge.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected
Battery Test Failed	Battery test failed
Battery Test Inhibited	Automatic (scheduled) battery tests are inhibited
Battery Time Remaining	The calculated available time on battery
Battery Total Discharge Time	The cumulative battery discharge time
Battery Volts at Main Disconnect	The voltage between the positive and the negative battery terminals of the common battery disconnect
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass - Manual Rexfr Inhibited	Manual transfer from bypass to inverter is inhibited.
Bypass - Manual Xfr Inhibited	Manual transfer from inverter to bypass is inhibited.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed
Bypass Auto Transfer Failed	An automatic transfer to static bypass failed
Bypass Excessive Pulse Parallel	The system has performed too many pulse parallel operations within a specified time interval
Bypass Frequency Error	The bypass frequency is outside the inverter synchronization limits
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Isolation Breaker (BIB)	Bypass isolation breaker (BIB)
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Overload Phase A	An overload exists on output phase A while operating on the bypass
Bypass Overload Phase B	An overload exists on output phase B while operating on the bypass
Bypass Overload Phase C	An overload exists on output phase C while operating on the bypass
Bypass Qualification Status	bypass qualification status
Bypass SS Overload Time Remain	The calculated time remaining before bypass static switch shutdown due to the present overload condition
Bypass Static Switch Off Extrnl	Bypass static switch is off due to the state of an external signal
Bypass Static Switch Overload	Bypass off due to static switch overload
Bypass Static Switch Unavailable	The static bypass switch is off, and unable to operate
Bypass Sync Phase Difference	The phase angle difference between the inverter output and bypass source
Controls Reset Required	A controls reset is required due to one or more critical settings changing
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
	mode, the current will be a negative value
DC Bus Ground Fault - Negative	A ground fault has been detected on the negative DC Bus link
DC Bus Ground Fault - Positive	A ground fault has been detected on the positive DC Bus link
DC Bus Qualification Status	DC bus qualification status
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Equipment Over Temperature	Equipment over temperature summary event
Equipment Temperature Sensor Fail	One or more temperature sensors report a temperature outside of the range of expected operation.
Fuse Failure	A summary event indicating one or more fuse failures
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold
Inlet Air Temperature	The temperature of the inlet air
Input Breaker (CB1/RIB)	Input breaker (CB1/RIB)
Input Contact 01	The external input contact 1
Input Contact 02	The external input contact 2
Input Contact 03	The external input contact 3
Input Contact 04	The external input contact 4
Input Contact 05	The external input contact 5
Input Contact 06	The external input contact 6
Input Contact 07	The external input contact 7
Input Contact 08	The external input contact 8
Input Contact 09	The external input contact 9
Input Contact 10	The external input contact 10
Input Contact 11	The external input contact 11
Input Contact 12	The external input contact 12
Input Contact 13	The external input contact 13
Input Contact 14	The external input contact 14
Input Contact 15	The external input contact 15
Input Contact 16	The external input contact 16
Input Filter Cycle Lock	The input filter disconnect is open due to exceeding the maximum number of cycles.
Input Isolation Transformer	Input isolation transformer
Input Qualification Status	input qualification status
Internal Bypass Breaker (CB3)	Internal bypass breaker (CB3)
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Inverter Failure	Inverter failure - inverter output is off
Inverter Inhibit - External	Restart of the inverter is inhibited by an external signal
Inverter Off - External	Inverter is off (operation is inhibited) due to external signal state
Inverter On/Off State	inverter on/off state
Inverter Output Qualification Status	inverter output qualification status
Inverter Overload Phase A	Inverter is operating with an overload on phase A
Inverter Overload Phase B	Inverter is operating with an overload on phase B
Inverter Overload Phase C	Inverter is operating with an overload on phase C
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Static Switch SCR Short	The system has detected a short across one or more inverter static switch Silicon Controlled Rectifiers (SCR)
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Leading Power Factor	The leading output Power Factor has fallen below a specified value
Main Battery Disconnect Open	Main battery disconnect is open
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker (MBB)	Maintenance bypass breaker (MBB)
Maintenance Isolation Breaker (MIB)	Maintenance isolation breaker (MIB)
Module Output Breaker (MOB)	Module output breaker (MOB)
Multiple Fan Failure	Multiple fan failure
On Generator	A generator is supplying the power to the system
Output Amp Over User Limit-Phs A	The phase A output has exceeded the user amperage threshold
Output Amp Over User Limit-Phs B	The phase B output has exceeded the user amperage threshold
Output Amp Over User Limit-Phs C	The phase C output has exceeded the user amperage threshold
Output Apparent Power Rating	Output apparent power rating
Output Breaker (CB2/IOB)	Output breaker (CB2/IOB)
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Qualification Status	output qualification status
Output Real Power Rating	Output real power rating
Output Series Static Switch	output series static switch
Output Wire Configuration	Output wire configuration
Power Supply Failure	Power supply failure

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Rectifier Active Filter	Rectifier input active filter configuration
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Feed Breaker (RFB)	Rectifier feed breaker (RFB)
Rectifier Input Passive Filter	Rectifier input passive filter configuration
Rectifier Operation Inhibit-Ext	The operation of the rectifier is inhibited by an external signal
Rectifier Passive Filter Switch	Rectifier input passive filter switch configuration
Rectifier Pulse Count	Rectifier pulse count per cycle configuration
Rectifier Status	rectifier status
SBS Load Disconnect	SBS load disconnect
Service Code Active	Service code is running
Static Bypass Switch	Static Bypass Switch state - On/Off
Static Switch Type	Static switch type configuration
System Breaker(s) Close Failure	One or more breakers in the system failed to close
System Breaker(s) Open Failure	One or more breakers in the system failed to open
System Controller Error	System controller internal error
System Date and Time	The system date and time
System Fan Failure - Redundant	Redundant system fan failure
System Input Current Imbalance	System Input Currents are Imbalanced
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Problem	The input is not qualified to provide power to the system
System Input Power Source	System input power source
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power	The sum total apparent power of all system output phases

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Low Power Factor	The system output power factor is low, resulting in reduced output capacity
System Output Maximum Amp Rating	System output maximum amperage rating
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Shutdown - REPO	System shutdown due to Remote Emergency Power Off (REPO)
System Status	The operating status for the system
Thermal Margin Warning	The thermal margin has dropped below the threshold value
Total Bypass Operating Time	The cumulative bypass time of the unit.
Total System Operating Time	The cumulative operation time of the unit

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Table 3.163 Liebert® NXL—60Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Trap Filter Disconnect	Trap filter disconnect
UPS Battery Status	UPS battery status
UPS Module Type	UPS module type
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS System Output Source	The UPS system's output power source

Table 3.164 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Status and Coil

Data Description	Status	Coil	Number of Bits	Notes / Units
Input				
System Input Power Problem	10001	—	1	Active on Alarm
System Input Phs Rotation Error	10002	—	1	Active on Alarm
System Input Current Limit	10003	—	1	Active on Alarm
System Input Current Imbalance	10004	—	1	Active on Alarm
Bypass				
Bypass Not Available	10015	—	1	Active on Alarm
Bypass Overload Phase A	10016	—	1	Active on Alarm
Bypass Overload Phase B	10017	—	1	Active on Alarm
Bypass Overload Phase C	10018	—	1	Active on Alarm
Bypass Auto Retransfer Failed	10019	—	1	Active on Alarm
Bypass Static Switch Overload	10020	—	1	Active on Alarm
Bypass Static Switch Unavailable	10021	—	1	Active on Alarm
Bypass Auto Transfer Failed	10022	—	1	Active on Alarm
Bypass Frequency Error	10023	—	1	Active on Alarm
Bypass - Manual Rexfr Inhibited	10024	—	1	Active on Alarm
Bypass - Manual Xfr Inhibited	10025	—	1	Active on Alarm
Battery				
Battery Automatic Test Inhibited	10036	—	1	Active on Alarm
Battery Capacity Low	10037	—	1	Active on Alarm
Battery Discharging	10038	—	1	Active on Alarm
Battery Temperature Imbalance	10039	—	1	Active on Alarm
Battery Equalize	10040	—	1	Active on Alarm

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Table 3.164 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Notes / Units
Battery Auto Test In Progress	10041	—	1	Active on Alarm
Main Battery Disconnect Open	10042	—	1	Active on Alarm
Battery Low	10043	—	1	Active on Alarm
Battery Temperature Sensor Fault	10044	—	1	Active on Alarm
Battery Circuit Breaker 1 Open	10045	—	1	Active on Alarm
Battery Circuit Breaker 2 Open	10046	—	1	Active on Alarm
Battery Circuit Breaker 3 Open	10047	—	1	Active on Alarm
Battery Circuit Breaker 4 Open	10048	—	1	Active on Alarm
Battery Circuit Breaker 5 Open	10049	—	1	Active on Alarm
Battery Circuit Breaker 6 Open	10050	—	1	Active on Alarm
Battery - External Monitor 1	10051	—	1	Active on Alarm
Battery - External Monitor 2	10052	—	1	Active on Alarm
Battery Ground Fault	10053	—	1	Active on Alarm
Battery Over Temperature Limit	10054	—	1	Active on Alarm
Battery Low Shutdown	10055	—	1	Active on Alarm
Battery Over Temperature	10056	—	1	Active on Alarm
Battery Test Failed	10057	—	1	Active on Alarm
Unexpected Main Battery Disconnect Closure	10058	—	1	Active on Alarm
Battery Over Voltage	10059	—	1	Active on Alarm
Battery Fuse Fault	10060	—	1	Active on Alarm
Main Battery Disconnect Forced To Unlock	10061	—	1	Active on Alarm
Battery Test Manually Stopped	10062	—	1	Active on Alarm
Battery Test Passed	10063	—	1	Active on Alarm
BatteryCharging	10600	—	1	Active on Alarm
DC Bus				
DC Bus Low Fault	10074	—	1	Active on Alarm
Output				
System Shutdown - EPO	10085	—	1	Active on Alarm
System Shutdown - REPO	10086	—	1	Active on Alarm
System Output Low Power Factor	10088	—	1	Active on Alarm
Output Amp Over User Limit-Phs A	10089	—	1	Active on Alarm
Output Amp Over User Limit-Phs B	10090	—	1	Active on Alarm

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Table 3.164 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Notes / Units
Output Amp Over User Limit-Phs C	10091	—	1	Active on Alarm
System Output Fault	10092	—	1	Active on Alarm
Output Of/Uf	10093	—	1	Active on Alarm
Inverter				
Inverter Failure	10104	—	1	Active on Alarm
Inverter Overload Phase A	10105	—	1	Active on Alarm
Inverter Overload Phase B	10106	—	1	Active on Alarm
Inverter Overload Phase C	10107	—	1	Active on Alarm
Inverter Inhibit - External	10108	—	1	Active on Alarm
Inverter Shutdown - Overload	10109	—	1	Active on Alarm
Inverter Static Switch SCR Short	10110	—	1	Active on Alarm
Environment				
Inlet Air Over Temperature	10121	—	1	Active on Alarm
Outlet Air Overtemperature Limit	10122	—	1	Active on Alarm
Equipment Temperature Sensor Fail	10123	—	1	Active on Alarm
External Input Signals				
Input Contact 01	10134	—	1	Active on Alarm
Input Contact 02	10135	—	1	Active on Alarm
Input Contact 03	10136	—	1	Active on Alarm
Input Contact 04	10137	—	1	Active on Alarm
Input Contact 05	10138	—	1	Active on Alarm
Input Contact 06	10139	—	1	Active on Alarm
Input Contact 07	10140	—	1	Active on Alarm
Input Contact 08	10141	—	1	Active on Alarm
Input Contact 09	10142	—	1	Active on Alarm
Input Contact 10	10143	—	1	Active on Alarm
Input Contact 11	10144	—	1	Active on Alarm
Input Contact 12	10145	—	1	Active on Alarm
Input Contact 13	10146	—	1	Active on Alarm
Input Contact 14	10147	—	1	Active on Alarm
Input Contact 15	10148	—	1	Active on Alarm
Input Contact 16	10149	—	1	Active on Alarm

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Table 3.164 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Notes / Units
Rectifier				
Rectifier Failure	10160	—	1	Active on Alarm
Vdc Backfeed	10162	—	1	Active on Alarm
Rectifier Configuration Change Request	10163	—	1	Active on Alarm
System				
System Fan Failure - Redundant	10174	—	1	Active on Alarm
Multiple Fan Failure	10175	—	1	Active on Alarm
Internal Communications Failure	10176	—	1	Active on Alarm
UPS Output on Bypass	10177	—	1	Active on Alarm
Output Load on Maint. Bypass	10178	—	1	Active on Alarm
Backfeed Breaker Open	10179	—	1	Active on Alarm
Auto Restart In Progress	10180	—	1	Active on Alarm
Power Supply Failure	10181	—	1	Active on Alarm
Auto Restart Inhibited - Ext	10183	—	1	Active on Alarm
Automatic Restart Failed	10184	—	1	Active on Alarm
Main Controller Fault	10185	—	1	Active on Alarm
Fuse Failure	10186	—	1	Active on Alarm
System Controller Error	10187	—	1	Active on Alarm
System Breaker(s) Open Failure	10188	—	1	Active on Alarm
System Breaker(s) Close Failure	10189	—	1	Active on Alarm
Input Filter Cycle Lock	10190	—	1	Active on Alarm
EMO Shutdown	10191	—	1	Active on Alarm
Service Code Active	10192	—	1	Active on Alarm
LBS Active	10193	—	1	Active on Alarm
LBS Inhibited	10194	—	1	Active on Alarm
Regeneration Active	10195	—	1	Active on Alarm
Regeneration Operation Terminated	10196	—	1	Active on Alarm
Regeneration Operation Failure	10197	—	1	Active on Alarm
Leading Power Factor	10198	—	1	Active on Alarm
Controls Reset Required	10199	—	1	Active on Alarm
MultiModule				
Loss of Redundancy	10212	—	1	Active on Alarm

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Table 3.164 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Notes / Units
MMS Overload	10215	—	1	Active on Alarm
MMS On Battery	10216	—	1	Active on Alarm
MMS Module Alarm Active	10218	—	1	Active on Alarm
Program Input Signals				
Program Input Contact 01	10229	—	1	Active on Alarm
Program Input Contact 02	10230	—	1	Active on Alarm
Program Input Contact 03	10231	—	1	Active on Alarm
Program Input Contact 04	10232	—	1	Active on Alarm
Program Input Contact 05	10233	—	1	Active on Alarm
Program Input Contact 06	10234	—	1	Active on Alarm
Program Input Contact 07	10235	—	1	Active on Alarm
Program Input Contact 08	10236	—	1	Active on Alarm
Program Input Contact 09	10237	—	1	Active on Alarm
Program Input Contact 10	10238	—	1	Active on Alarm
Program Input Contact 11	10239	—	1	Active on Alarm
Program Input Contact 12	10240	—	1	Active on Alarm
Intelligent Paralleling				
IP Inhibit	10251	—	1	Active on Alarm
ECO Mode				
ECO Mode Active	10262	—	1	Active on Alarm
ECO Mode Suspended	10263	—	1	Active on Alarm
Excess ECO Suspends	10264	—	1	Active on Alarm

Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30385	—	1	10	Units : VAC Uint16
System Input RMS B-C	30386	—	1	10	Units : VAC Uint16
System Input RMS C-A	30387	—	1	10	Units : VAC Uint16
System Input RMS Current Phase A	30388	—	1	—	Units : A AC Uint16

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input RMS Current Phase B	30389	—	1	—	Units : A AC Uint16
System Input RMS Current Phase C	30390	—	1	—	Units : A AC Uint16
System Input Frequency	30391	—	1	100	Units : Hz Uint16
Input Qualification Status	30392	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Bypass					
Bypass Input Voltage RMS A-B	30403	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30404	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30405	—	1	10	Units : VAC Uint16
Bypass Input Frequency	30406	—	1	100	Units : Hz Uint16
Bypass Sync Phase Difference	30407	—	1	—	Units : deg Uint16
Bypass SS Overload Time Remain	30408	—	1	—	Units : sec Uint16
Static Bypass Switch	30409	—	1	—	0 = off 1 = on
Bypass Qualification Status	30410	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Auto Retransfer Time Remaining	30411	—	1	—	Units : sec Uint16
Total Bypass Operating Time	30830	—	2	—	Units : hr
Battery					
Battery Total Discharge Time	30422	—	1	—	Units : hr Uint16

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Percentage Charge	30423	—	1	—	Uint16
Battery Volts at Main Disconnect	30424	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 1	30425	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 2	30426	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 3	30427	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 4	30428	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 5	30429	—	1	—	Units : VDC Uint16
Battery Volts for Cabinet 6	30430	—	1	—	Units : VDC Uint16
Battery Temperature for Cabinet	30431	—	1	10	Units : deg C Uint16
Battery Temperature for Cabinet 1	30432	—	1	10	Units : deg F Uint16
Battery Temperature for Cabinet 2	30433	—	1	10	Units : deg C Uint16
Battery Temperature for Cabinet 2	30434	—	1	10	Units : deg F Uint16
Battery Temperature for Cabinet 3	30435	—	1	10	Units : deg C Uint16
Battery Temperature for Cabinet 3	30436	—	1	10	Units : deg F Uint16
Battery Temperature for Cabinet 4	30437	—	1	10	Units : deg C Uint16
Battery Temperature for Cabinet 4	30438	—	1	10	Units : deg F Uint16
Battery Temperature for Cabinet 5	30439	—	1	10	Units : deg C Uint16
Battery Temperature for Cabinet 5	30440	—	1	10	Units : deg F Uint16

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Temperature for Cabinet 6	30441	—	1	10	Units : deg C Uint16
Battery Temperature for Cabinet 6	30442	—	1	10	Units : deg F Uint16
Battery Amp-Hours Consumed This Discharge	30443	—	1	—	Units : AH Uint16
Battery Time Remaining	30444	—	1	—	Units : min Uint16
Battery Discharge Time	30445	—	1	—	Units : sec Uint16
Battery Discharge Power	30446	—	1	—	Units : W Uint16
Battery Last Discharge Date	30447	—	2	—	Secs since Epoch(UTC)
Battery Amp-Hours Consumed	30449	—	2	—	Units : AH Uint32
UPS Battery Status	30451	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
The main battery disconnect status.	30452	—	1	—	0 = Open 1 = Closed 2 = Disabled
Battery SCR Status	30453	—	1	—	0 = OK 1 = Fault 2 = unknown
Main Battery Disconnect Switch Lock Status	30454	—	1	—	0 = Locked 1 = Unlocked 2 = unknown
DC Bus					
DC Bus Voltage	30465	—	1	—	Units : VDC Uint16
DC Bus Current	30466	—	1	—	Units : A DC Uint16
DC Bus Qualification Status	30467	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					3 = Marginal High
Output					
System Output Voltage RMS A-B	30478	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-C	30479	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-A	30480	—	1	10	Units : VAC Uint16
System Output Voltage RMS A-N	30481	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-N	30482	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-N	30483	—	1	10	Units : VAC Uint16
System Output RMS Current Phs A	30484	—	1	—	Units : A AC Uint16
System Output RMS Current Phs B	30485	—	1	—	Units : A AC Uint16
System Output RMS Current Phs C	30486	—	1	—	Units : A AC Uint16
System Output Frequency	30487	—	1	100	Units : Hz Uint16
System Output Power	30488	—	1	—	Units : kW Uint16
System Output Apparent Power	30489	—	1	—	Units : kVA Uint16
System Output Power Factor Phs A	30490	—	1	100	Uint16
System Output Power Factor Phs B	30491	—	1	100	Uint16
System Output Power Factor Phs C	30492	—	1	100	Uint16
System Output Pct Power Phase A	30493	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30494	—	1	—	Units : % Uint16
System Output Pct Power Phase C	30495	—	1	—	Units : % Uint16

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Pct Pwr (VA) Phs A	30496	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30497	—	1	—	Units : % Uint16
System Output Pct Pwr (VA) Phs C	30498	—	1	—	Units : % Uint16
Output Qualification Status	30499	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Inverter					
Inverter Overload Time Remaining	30510	—	1	—	Units : sec Uint16
Inverter Output Qualification Status	30511	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Inverter On/Off State	30512	—	1	—	0 = off 1 = on
Environment					
Inlet Air Temperature	30523	—	1	—	Units : deg C Uint16
Inlet Air Temperature	30524	—	1	—	Units : deg F Uint16
Total System Operating Time	30525	—	2	—	Units : hr Uint32
System Date and Time	30527	40527	2	—	Secs since Epoch(UTC)
System Date and Time	39998	49998	2	—	Secs since Epoch(UTC)
Rectifier					
Rectifier Pulse Count	30539	—	1	—	0 = 6 Pulse 1 = 12 Pulse 2 = 18 Pulse 3 = 24 Pulse
Rectifier Input Passive Filter	30540	—	1	—	0 = Not Installed 1 = Installed

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Rectifier Passive Filter Switch	30541	—	1	—	0 = Not Installed 1 = Installed
Rectifier Active Filter	30542	—	1	—	0 = Not Installed 1 = Installed
Rectifier Status	30543	—	1	—	0 = off 1 = on
System					
UPS Module Type	30554	—	1	—	0 = Single Module System 1 = Module (1 + 1) 2 = Module (1 + N) 3 = Module (N + 1) 4 = System Control Cabinet 5 = Main Static Switch
Bypass Input Wire Configuration	30555	—	1	—	0 = Two Wire (single phase + return) 1 = Two Wire (2 phase, no neutral) 2 = Three Wire (2 phase + neutral) 3 = Three Wire (3 phase, no neutral) 4 = Four Wire (3 phases + neutral)
Output Wire Configuration	30556	—	1	—	0 = Two Wire (single phase + return) 1 = Two Wire (2 phase, no neutral) 2 = Three Wire (2 phase + neutral) 3 = Three Wire (3 phase, no neutral) 4 = Four Wire (3 phases + neutral)
Static Switch Type	30557	—	1	—	0 = Not Applicable 1 = Continuous Duty 2 = Momentary Duty
Configuration Description	30558	—	1	—	0 = Single Module System 33 1 = Single Module System 34 2 = Single Module System 44 3 = 1+1 33

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					4 = 1+1 34 5 = 1+1 44 6 = 1+N 33 7 = 1+N 34 8 = 1+N 44 9 = N+1 33 10 = N+1 34 11 = N+1 44 12 = SCC w/Continuous Duty SS 33 13 = SCC w/Continuous Duty SS 44 14 = SCC w/Momentary Duty SS 15 = Main Static Switch
UPS System Output Source	30559	—	1	—	0 = None 1 = Inverter 2 = Bypass
System Input Power Source	30560	—	1	—	0 = None 1 = Utility (mains) 2 = Generator
System Status	30561	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
UPS Output Source	30562	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Fan Status	30563	—	1	—	0 = Unknown 1 = Normal 2 = Failure
System Fan Redundant Status	30564	—	1	—	0 = Unknown

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = Redundancy Available 2 = Loss of Redundancy
System Fan Capacity Status	30565	—	1	—	0 = Unknown 1 = Normal 2 = Failure
Ratings					
Bypass Nominal Voltage	30576	—	1	—	Units : VAC Uint16
System Input Nominal Voltage	30577	—	1	—	Units : VAC Uint16
System Input Nominal Frequency	30578	—	1	10	Units : Hz Uint16
System Output Nominal Voltage	30579	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30580	—	1	10	Units : Hz Uint16
Battery Cell Count - Lead Acid	30581	—	1	—	Uint16
Battery Cell Count-Nickel Cadmium	30582	—	1	—	Uint16
Output Apparent Power Rating	30583	—	1	—	Units : kVa Uint16
Output Real Power Rating	30584	—	1	—	Units : kW Uint16
Input Isolation Transformer	30585	—	1	—	0 = Not Installed 1 = Installed
System UPS Module Count	30586	—	1	—	Uint16
System Output Maximum Amp Rating	30587	—	1	—	Units : A AC Uint16
System Redundant UPS Modules	30588	—	1	—	Uint16
Device Status					
Backfeed Breaker	30599	—	1	—	0 = Open 1 = Close 2 = Not Installed
SBS Load Disconnect	30600	—	1	—	0 = Open 1 = Close 2 = Not Installed

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input Breaker	30601	—	1	—	0 = Open 1 = Close 2 = Not Installed
Trap Filter Disconnect	30602	—	1	—	0 = Open 1 = Close 2 = Not Installed
Output Breaker	30603	—	1	—	0 = Open 1 = Close 2 = Not Installed
Internal Bypass Breaker	30604	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker	30605	—	1	—	0 = Open 1 = Close 2 = Not Installed
Maintenance Bypass Breaker	30606	—	1	—	0 = Open 1 = Close 2 = Not Installed
Maintenance Isolation Breaker	30607	—	1	—	0 = Open 1 = Close 2 = Not Installed
Output Series Static Switch	30608	—	1	—	0 = On 1 = Off 2 = Not Installed
Module Output Breaker	30609	—	1	—	0 = Open 1 = Close 2 = Not Installed
MultiModule					
Multi-module System Output Voltage RMS A-B	30620	—	1	10	Units : VAC Uint16
Multi-module System Output Voltage RMS B-C	30621	—	1	10	Units : VAC Uint16
Multi-module System Output Voltage RMS C-A	30622	—	1	10	Units : VAC Uint16
Multi-module System Output Voltage RMS A-N	30623	—	1	10	Units : VAC

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Multi-module System Output Voltage RMS B-N	30624	—	1	10	Units : VAC Uint16
Multi-module System Output Voltage RMS C-N	30625	—	1	10	Units : VAC Uint16
Sum of MMS Output RMS Currents for Phase A	30626	—	1	—	Units : A AC Uint16
Sum of MMS Output RMS Currents for Phase B	30627	—	1	—	Units : A AC Uint16
Sum of MMS Output RMS Currents for Phase C	30628	—	1	—	Units : A AC Uint16
MMS Output Frequency	30629	—	1	10	Units : Hz Uint16
MMS Output Power	30630	—	1	—	Units : kW Uint16
MMS Output Apparent Power	30631	—	1	—	Units : kVA Uint16
MMS Output Power Factor Phase A	30632	—	1	100	Int16
MMS Output Power Factor Phase B	30633	—	1	100	Int16
MMS Output Power Factor Phase C	30634	—	1	100	Int16
MMS Output Pct Power Phase A	30635	—	1	—	Units : % Uint16
MMS Output Pct Power Phase B	30636	—	1	—	Units : % Uint16
MMS Output Pct Power Phase C	30637	—	1	—	Units : % Uint16
MMS Output Pct Apparent Pwr (kVA) Phase A	30638	—	1	—	Units : % Uint16
MMS Output Pct Apparent Pwr (kVA) Phase B	30639	—	1	—	Units : % Uint16
MMS Output Pct Apparent Pwr (kVA) Phase C	30640	—	1	—	Units : % Uint16
Number of Redundant Modules	30641	—	1	—	Uint16
MMS Module Number	30642	—	1	—	Int16

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Number of Modules in a MMS	30643	—	1	—	Uint16
Module Output Breaker for Module 1	30644	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 2	30645	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 3	30646	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 4	30647	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 5	30648	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 6	30649	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 7	30650	—	1	—	0 = Open 1 = Close 2 = Not Installed
Module Output Breaker for Module 8	30651	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 1	30652	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 2	30653	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 3	30654	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 4	30655	—	1	—	0 = Open 1 = Close

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					2 = Not Installed
Bypass Isolation Breaker for Module 5	30656	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 6	30657	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 7	30658	—	1	—	0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker for Module 8	30659	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Output Breaker	30660	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Load Bank Breaker	30661	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Isolation Output Breaker	30662	—	1	—	0 = Open 1 = Close 2 = Not Installed
SCC Event Summary	30663	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS UPS Output Source	30665	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
ModuleList 1					
MMS Inter-Module Comm Status	30676	—	1	—	0 = Failed 1 = Normal
MMS Event Summary	30677	—	1	—	0 = None

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = Alarm 2 = Fault
MMS Module Inverter Status	30678	—	1	—	0 = off 1 = on
MMS Module Output Voltage Status	30679	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
MMS Module Output Source	30680	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass
ModuleList 2					
MMS Inter-Module Comm Status	30691	—	1	—	0 = Failed 1 = Normal
MMS Event Summary	30692	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS Module Inverter Status	30693	—	1	—	0 = off 1 = on
MMS Module Output Voltage Status	30694	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
MMS Module Output Source	30695	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass
ModuleList 8					
MMS Inter-Module Comm Status	30781	—	1	—	0 = Failed 1 = Normal
MMS Event Summary	30782	—	1	—	0 = None 1 = Alarm 2 = Fault
MMS Module Inverter Status	30783	—	1	—	0 = off

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = on
MMS Module Output Voltage Status	30784	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
MMS Module Output Source	30785	—	1	—	0 = Off 1 = Normal 2 = Bypass 3 = Maintenance Bypass
Intelligent Paralleling					
Intelligent Parallel Operation State	30796	—	1	—	0 = disabled 1 = enabled
Intelligent Parallel Minimum Redundancy	30797	—	1	—	Uint16
Intelligent Parallel Maximum Time in Standby	30798	—	1	—	Units : day Uint16
ECO Mode					
ECO Mode Operation State	30809	40809	1	—	0 = disabled 1 = enabled
Continuous Operation - ECO Mode	30810	—	1	—	0 = disabled 1 = enabled
Maximum Auto Suspensions - ECO Mode	30811	—	1	—	Uint16
Restart Delay - ECO Mode	30812	—	1	—	Units : min Uint16
Time Remaining - ECO Mode	30813	—	1	—	Units : min Uint16
EcoModeSchedule 1					
Schedule Operation State - ECO Mode	30824	—	1	—	0 = disabled 1 = enabled
Schedule Action - ECO Mode	30825	—	1	—	0 = stop 1 = start
Schedule Day of Week - ECO Mode	30826	—	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Schedule Hour - ECO Mode	30827	—	1	—	Units : hr Uint16
Schedule Minute - ECO Mode	30828	—	1	—	Units : min Uint16
EcoModeSchedule 2					
Schedule Operation State - ECO Mode	30839	—	1	—	0 = disabled 1 = enabled
Schedule Action - ECO Mode	30840	—	1	—	0 = stop 1 = start
Schedule Day of Week - ECO Mode	30841	—	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Schedule Hour - ECO Mode	30842	—	1	—	Units : hr Uint16
Schedule Minute - ECO Mode	30843	—	1	—	Units : min Uint16
EcoModeSchedule 14					
Schedule Operation State - ECO Mode	31019	—	1	—	0 = enabled 1 = disabled
Schedule Action - ECO Mode	31020	—	1	—	0 = stop 1 = start
Schedule Day of Week - ECO Mode	31021	—	1	—	0 = Unknown 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday

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Table 3.165 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					6 = Saturday 7 = Sunday
Schedule Hour - ECO Mode	31022	—	1	—	Units : hr Uint16
Schedule Minute - ECO Mode	31023	—	1	—	Units : min Uint16
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary

Data Label	Data Description
Auto Restart In Progress	Auto restart is in progress
Auto Restart Inhibited - Ext	Auto restart inhibited due to an external signal
Auto Retransfer Time Remaining	Time remaining before an inverter overload or inverter fault can be cleared and auto retransfer from the bypass to the inverter can take place
Automatic Restart Failed	Automatic restart failed
Backfeed Breaker Open	The backfeed breaker is in the open position
Backfeed Breaker	Backfeed breaker
Battery - External Monitor 1	External battery monitor 1 - battery maintenance required
Battery - External Monitor 2	External battery monitor 2 - battery maintenance required
Battery Amp-Hours Consumed This Discharge	Battery amp-hours withdrawn this discharge.
Battery Amp-Hours Consumed	Cumulative battery amp-hours withdrawn over the life of the battery
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Automatic Test Inhibited	Automatic (scheduled) battery tests are inhibited
Battery Capacity Low	Battery capacity is low
Battery Cell Count - Lead Acid	Battery cell count - lead acid
Battery Cell Count-Nickel Cadmium	Battery cell count - nickel cadmium
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98)
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open
Battery Discharge Power	Instantaneous battery power while discharging
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Fuse Fault	One or more battery fuse faults has occurred.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Last Discharge Date	The date and time of the last battery discharge
Battery Low Shutdown	The battery voltage has dropped to the End of Discharge value.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Over Temperature Limit	A battery temperature sensor is reporting a value above a predetermined limit.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery SCR Status	The status of the battery SCR.
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected
Battery Test Failed	Battery test failed
Battery Test Manually Stopped	The battery test was manually stopped prior to completion
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Total Discharge Time	The cumulative battery discharge time
Battery Volts at Main Disconnect	The voltage between the positive and the negative battery terminals of the common battery disconnect
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Manual Rexfr Inhibited	Manual transfer from bypass to inverter is inhibited.
Bypass - Manual Xfr Inhibited	Manual transfer from inverter to bypass is inhibited.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed
Bypass Auto Transfer Failed	An automatic transfer to static bypass failed

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Bypass Frequency Error	The bypass frequency is outside the inverter synchronization limits
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Wire Configuration	Bypass input wire configuration
Bypass Isolation Breaker for Module 1	Bypass isolation breaker for module 1
Bypass Isolation Breaker for Module 2	Bypass isolation breaker for module 2
Bypass Isolation Breaker for Module 3	Bypass isolation breaker for module 3
Bypass Isolation Breaker for Module 4	Bypass isolation breaker for module 4
Bypass Isolation Breaker for Module 5	Bypass isolation breaker for module 5
Bypass Isolation Breaker for Module 6	Bypass isolation breaker for module 6
Bypass Isolation Breaker for Module 7	Bypass isolation breaker for module 7
Bypass Isolation Breaker for Module 8	Bypass isolation breaker for module 8
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Overload Phase A	An overload exists on output phase A while operating on the bypass
Bypass Overload Phase B	An overload exists on output phase B while operating on the bypass
Bypass Overload Phase C	An overload exists on output phase C while operating on the bypass
Bypass Qualification Status	bypass qualification status
Bypass SS Overload Time Remain	The calculated time remaining before bypass static switch shutdown due to the present overload condition
Bypass Static Switch Overload	Bypass off due to static switch overload
Bypass Static Switch Unavailable	The static bypass switch is off, and unable to operate
Bypass Sync Phase Difference	The phase angle difference between the inverter output and bypass source
Configuration Description	Configuration description

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Continuous Operation - ECO Mode	This setting gives the user the ability to Enable/Disable ECO Mode continuous operation.
Controls Reset Required	A controls reset is required due to one or more critical settings changing
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Low Fault	The DC Bus voltage has reached a critical low level.
DC Bus Qualification Status	dc bus qualification status
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Active	Conditions for Activation or Automatic Reactivation have been satisfied.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Suspended	ECO Mode session is suspended.
EMO Shutdown	An Emergency Module Off command has been detected.
Equipment Temperature Sensor Fail	One or more temperature sensors report a temperature outside of the range of expected operation.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Contact 01	The external input contact 1
Input Contact 02	The external input contact 2
Input Contact 03	The external input contact 3
Input Contact 04	The external input contact 4
Input Contact 05	The external input contact 5
Input Contact 06	The external input contact 6
Input Contact 07	The external input contact 7
Input Contact 08	The external input contact 8
Input Contact 09	The external input contact 9
Input Contact 10	The external input contact 10
Input Contact 11	The external input contact 11
Input Contact 12	The external input contact 12
Input Contact 13	The external input contact 13
Input Contact 14	The external input contact 14
Input Contact 15	The external input contact 15

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Input Contact 16	The external input contact 16
Input Filter Cycle Lock	The input filter disconnect is open due to exceeding the maximum number of cycles.
Input Isolation Transformer	Input isolation transformer
Input Qualification Status	input qualification status
Intelligent Parallel Maximum Time in Standby	The maximum time a module can be in standby mode due to Intelligent Paralleling.
Intelligent Parallel Minimum Redundancy	This is the minimum Number of Redundant Modules that the system will allow before bringing one or more modules back to normal operation and terminating Intelligent Paralleling.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter Inhibit - External	Restart of the inverter is inhibited by an external signal
Inverter On/Off State	inverter on/off state
Inverter Output Qualification Status	inverter output qualification status
Inverter Overload Phase A	Inverter is operating with an overload on phase A
Inverter Overload Phase B	Inverter is operating with an overload on phase B
Inverter Overload Phase C	Inverter is operating with an overload on phase C
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Static Switch SCR Short	The system has detected a short across one or more inverter static switch Silicon Controlled Rectifiers (SCR)
IP Inhibit	The intelligent paralleling operation is inhibited.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Leading Power Factor	The leading output Power Factor has fallen below a specified value
Loss of Redundancy	The multi-module collection doesn't have enough modules to redundantly support the load.
Main Battery Disconnect Forced To Unlock	The main battery disconnect is forced to the unlocked state.
Main Battery Disconnect Open	Main battery disconnect is open
Main Battery Disconnect Switch Lock Status	The main battery disconnect switch lock status.
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker	Maintenance bypass breaker

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Maintenance Isolation Breaker	Maintenance isolation breaker
Maximum Auto Suspensions - ECO Mode	This setting sets the maximum number of automatic ECO Mode suspensions in a session.
MMS Event Summary	Summary of any active user alarm or fault of this module in a multi-module system
MMS Inter-Module Comm Status	Inter-module communication status of this module in a multi-module system
MMS Module Alarm Active	Active alarm or fault of any module in a multi-module system
MMS Module Inverter Status	Multi-module inverter status of this module (on/off)
MMS Module Number	MMS module number
MMS Module Output Source	Module output source in a multi-module system (normal/bypass/maintenance bypass/off)
MMS Module Output Voltage Status	Output voltage status of this module in multi-module system
MMS On Battery	The multi-module system is on battery
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Frequency	The multi-module system output frequency
MMS Output Pct Apparent Pwr (kVA) Phase A	The multi-module system output apparent power on phase A as a percentage of the rated capacity
MMS Output Pct Apparent Pwr (kVA) Phase B	The multi-module system output apparent power on phase B as a percentage of the rated capacity
MMS Output Pct Apparent Pwr (kVA) Phase C	The multi-module system output apparent power on phase C as a percentage of the rated capacity
MMS Output Pct Power Phase A	The multi-module system output power on phase A as a percentage of the rated capacity
MMS Output Pct Power Phase B	The multi-module system output power on phase B as a percentage of the rated capacity
MMS Output Pct Power Phase C	The multi-module system output power on phase C as a percentage of the rated capacity
MMS Output Power Factor Phase A	The multi-module system output power factor for phase A
MMS Output Power Factor Phase B	The multi-module system output power factor for phase B
MMS Output Power Factor Phase C	The multi-module system output power factor for phase C
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Module Output Breaker for Module 1	Module output breaker for module 1

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Module Output Breaker for Module 2	Module output breaker for module 2
Module Output Breaker for Module 3	Module output breaker for module 3
Module Output Breaker for Module 4	Module output breaker for module 4
Module Output Breaker for Module 5	Module output breaker for module 5
Module Output Breaker for Module 6	Module output breaker for module 6
Module Output Breaker for Module 7	Module output breaker for module 7
Module Output Breaker for Module 8	Module output breaker for module 8
Module Output Breaker	Module output breaker
Multi-module System Output Voltage RMS A-B	Multi-module system output RMS voltage between phases A and B
Multi-module System Output Voltage RMS A-N	Multi-module system output RMS voltage between phase A and Neutral
Multi-module System Output Voltage RMS B-C	Multi-module system output RMS voltage between phases B and C
Multi-module System Output Voltage RMS B-N	Multi-module system output RMS voltage between phase B and Neutral
Multi-module System Output Voltage RMS C-A	Multi-module system output RMS voltage between phases C and A
Multi-module System Output Voltage RMS C-N	Multi-module system output RMS voltage between phase C and Neutral
Multiple Fan Failure	Multiple fan failure
Number of Modules in a MMS	The number of modules in a multi-module system
Number of Redundant Modules	The number of redundant modules in a multi-module collective.
Outlet Air Overtemperature Limit	The difference between the outlet air temperature and inlet air temperature exceeds a specified maximum temperature.
Output Amp Over User Limit-Phs A	The phase A output has exceeded the user amperage threshold
Output Amp Over User Limit-Phs B	The phase B output has exceeded the user amperage threshold
Output Amp Over User Limit-Phs C	The phase C output has exceeded the user amperage threshold
Output Apparent Power Rating	Output apparent power rating

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Output Breaker	Output breaker
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Qualification Status	output qualification status
Output Real Power Rating	Output real power rating
Output Series Static Switch	output series static switch
Output Wire Configuration	Output wire configuration
Power Supply Failure	Power supply failure
Program Input Contact 01	When the signal from [Program Input Contact 01] is active the function assigned to this contact is executed.
Program Input Contact 02	When the signal from [Program Input Contact 02] is active the function assigned to this contact is executed.
Program Input Contact 03	When the signal from [Program Input Contact 03] is active the function assigned to this contact is executed.
Program Input Contact 04	When the signal from [Program Input Contact 04] is active the function assigned to this contact is executed.
Program Input Contact 05	When the signal from [Program Input Contact 05] is active the function assigned to this contact is executed.
Program Input Contact 06	When the signal from [Program Input Contact 06] is active the function assigned to this contact is executed.
Program Input Contact 07	When the signal from [Program Input Contact 07] is active the function assigned to this contact is executed.
Program Input Contact 08	When the signal from [Program Input Contact 08] is active the function assigned to this contact is executed.
Program Input Contact 09	When the signal from [Program Input Contact 09] is active the function assigned to this contact is executed.
Program Input Contact 10	When the signal from [Program Input Contact 10] is active the function assigned to this contact is executed.
Program Input Contact 11	When the signal from [Program Input Contact 11] is active the function assigned to this contact is executed.
Program Input Contact 12	When the signal from [Program Input Contact 12] is active the function assigned to this contact is executed.
Rectifier Active Filter	Rectifier input active filter configuration
Rectifier Configuration Change Request	This event indicates that the battery is not configured and PFC is not enabled.
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Input Passive Filter	Rectifier input passive filter configuration
Rectifier Passive Filter Switch	Rectifier input passive filter switch configuration
Rectifier Pulse Count	Rectifier pulse count per cycle configuration
Rectifier Status	rectifier status
Regeneration Active	Regeneration operation is active.
Regeneration Operation Failure	Regeneration operation has been terminated due to bypass source instability or unit misoperation.
Regeneration Operation Terminated	Regeneration operation is not active.
Restart Delay - ECO Mode	The time delay that the conditions to activate ECO Mode must be satisfied before ECO Mode can be reactivated during

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
	an active session.
SCC Event Summary	Summary of any active user alarms or faults on the SCC
Schedule Action - ECO Mode	This setting gives the user the ability to choose the action of a schedule entry to be either stop or start.
Schedule Day of Week - ECO Mode	This setting represents the day of the week when an associated ECO Mode schedule entry action will take effect.
Schedule Hour - ECO Mode	This setting represents the hour of the day when an associated schedule entry action will take effect.
Schedule Minute - ECO Mode	This setting represents the minute of the hour when an associated schedule entry action will take effect.
Schedule Operation State - ECO Mode	This setting gives the user the ability to either enable or disable a schedule entry if the action is Start.
Service Code Active	Service code is running
Static Bypass Switch	Static Bypass Switch state - On/Off
Static Switch Type	Static switch type configuration
Sum of MMS Output RMS Currents for Phase A	The sum of the multi-module system output RMS currents for phase A
Sum of MMS Output RMS Currents for Phase B	The sum of the multi-module system output RMS currents for phase B
Sum of MMS Output RMS Currents for Phase C	The sum of the multi-module system output RMS currents for phase C
System Breaker(s) Close Failure	One or more breakers in the system failed to close
System Breaker(s) Open Failure	One or more breakers in the system failed to open
System Controller Error	System controller internal error
System Date and Time	The system date and time
System Fan Capacity Status	System fan capacity status
System Fan Failure - Redundant	Redundant system fan failure
System Fan Redundant Status	System fan redundant status
System Fan Status	System fan status
System Input Current Imbalance	System Input Currents are Imbalanced
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Error	
System Input Power Problem	The input is not qualified to provide power to the system
System Input Power Source	System input power source
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Isolation Output Breaker	System isolation output breaker
System Load Bank Breaker	System load bank breaker
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Breaker	System output breaker
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Low Power Factor	The system output power factor is low, resulting in reduced output capacity
System Output Maximum Amp Rating	System output maximum amperage rating
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA)	The system output apparent power on phase C as a percentage of the rated capacity

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Phs C	
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Redundant UPS Modules	Number of redundant UPS modules in the system
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Shutdown - REPO	System shutdown due to Remote Emergency Power Off (REPO)
System Status	The operating status for the system
System UPS Module Count	Number of UPS modules in the system
The main battery disconnect status.	Main Battery Disconnect Status
Time Remaining - ECO Mode	Time remaining before current active ECO Mode session stops.
Total Bypass Operating Time	The cumulative bypass time of the unit.
Total System Operating Time	The cumulative operation time of the unit
Trap Filter Disconnect	Trap filter disconnect
Unexpected Main Battery	The main battery disconnect has closed unexpectedly.

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Table 3.166 Liebert® NXL—50Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Disconnect Closure	
UPS Battery Status	UPS battery status
UPS Module Type	UPS module type
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS System Output Source	The UPS system's output power source
VDC Backfeed	The voltage between battery and DC bus measurements is out of tolerance.

Table 3.167 Liebert® PowerSure Interactive (before July 2008)—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Audible Alarm Enabled	10002	2	1	—	—
Automatic Battery Test Enabled	10003	3	1	—	—
Battery Charge Compensation	10046		1	—	—
Inverter Ready	10047	—	1	—	—
Load Circuit 1 State	10057	—	1	—	—
Load Circuit 2 State	10058	—	1	—	—
Load Circuit 3 State	10059	—	1	—	—
Load Circuit 4 State	10060	—	1	—	—
Load Circuit 5 State	10061	—	1	—	—
Load Circuit 6 State	10062	—	1	—	—
Load Circuit 7 State	10063	—	1	—	—
Load Circuit 8 State	10064	—	1	—	—
Load Circuit 9 State	10065	—	1	—	—
Load Circuit 10 State	10066	—	1	—	—
Load Circuit 11 State	10067	—	1	—	—
Load Circuit 12 State	10068	—	1	—	—
Load Circuit 13 State	10069	—	1	—	—
Load Circuit 14 State	10070	—	1	—	—
Load Circuit 15 State	10071	—	1	—	—
Load Circuit 16 State	10072	—	1	—	—
Load On Inverter	10073	—	1	—	—
Boost Mode On	10075	—	1	—	—
Buck Mode On	10076	—	1	—	—

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Table 3.167 Liebert® PowerSure Interactive (before July 2008)—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Battery Under Test	10082	—	1	—	—
Shutdown Reason - Over Temperature	10086	—	1	—	—
Shutdown Reason - Overload	10087	—	1	—	—
Shutdown - Output Short	10089	—	1	—	—
Shutdown Reason - Remote Shutdown	10093	—	1	—	—
Load On Battery	10128	—	1	—	—
Output Off Pending	10151	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Overload	10154	—	1	—	—
Over Temperature Warning	10171	—	1	—	—
Battery Over Temperature CB Trip	10172	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Input Over Voltage	10187	—	1	—	—
Input Under Voltage	10188	—	1	—	—
Bad Input Frequency	10190	—	1	—	—
Output Under Voltage	10218	—	1	—	—
Output Over Voltage	10219	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.168 Liebert® PowerSure Interactive (before July 2008)—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Number of SubModules	30009	40009	1	—	-
Load Circuit Present	30013	40013	1	—	There are 16 possible Load Circuits. Each bit represents 1 load circuit. Load Circuit 1 is bit 0, Load Circuit 2 is bit 1 and so on. If the bit is 1, then the Load Circuit is supported.
Nominal Power Rating	30021	40021	2	—	VA

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Table 3.168 Liebert® PowerSure Interactive (before July 2008)—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Input Current	30030	40030	1	—	A
Nominal Input Frequency	30031	40031	1	10	Hz
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Nominal Battery Voltage	30034	40034	1	—	V
Auto Restart Delay	30051	40051	1	—	Seconds
Device Low Battery Time	30053	40053	1	—	Minutes
Load (Apparent Power)	30102	—	2	—	VA
Load / Capacity	30106	—	1	—	%
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged 3 - Charging 4 - Discharging 5 - Float Charging 6 - Equalize Charging
Battery Voltage	30113	—	1	—	V
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%
Battery Test Result	30130	—	1	—	1 - Unknown 2 - Passed 3 - Failed 4 - In Progress 5 - System Failure 7 - Inhibited
Input Voltage L1	30153	—	1	—	V
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Maximum Voltage L1	30180	—	1	—	V

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Table 3.168 Liebert® PowerSure Interactive (before July 2008)—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Input Minimum Voltage L1	30181	—	1	—	V
Output Maximum Voltage L1	30182	—	1	—	V
Output Minimum Voltage L1	30183	—	1	—	V
Black Out Count	30301	—	1	—	—
Brown Out Count	30302	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.169 Liebert® PowerSure Interactive 2—Status and Coil; Applies only to Liebert® PSI units manufactured before June 1, 2008 (Julian date 08153)

Data Description	Status	Coil	Number of Bits	Scale	Notes/Units
Audible Alarm Enabled	10002	2	1	—	—
Automatic Battery Test Enabled	10003	3	1	—	—
DC-To-DC Converter On	10042	—	1	—	—
Battery Charger On	10044	—	1	—	—
Load Circuit 1 State	10057	—	1	—	—
Load Circuit 2 State	10058	—	1	—	—
Load Circuit 3 State	10059	—	1	—	—
Load Circuit 4 State	10060	—	1	—	—
Load Circuit 5 State	10061	—	1	—	—
Load Circuit 6 State	10062	—	1	—	—
Load Circuit 7 State	10063	—	1	—	—
Load Circuit 9 State	10065	—	1	—	—
Load Circuit 10 State	10066	—	1	—	—
Load Circuit 11 State	10067	—	1	—	—
Load Circuit 12 State	10068	—	1	—	—
Load Circuit 13 State	10069	—	1	—	—
Load Circuit 14 State	10070	—	1	—	—
Load Circuit 15 State	10071	—	1	—	—
Load Circuit 16 State	10072	—	1	—	—
Load On Inverter	10073	—	1	—	—

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Table 3.169 Liebert® PowerSure Interactive 2—Status and Coil; Applies only to Liebert® PSI units manufactured before June 1, 2008 (Julian date 08153) (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes/Units
Boost Mode On	10075	—	1	—	—
Buck Mode On	10076	—	1	—	—
Replace Battery	10081	—	1	—	—
Battery Under Test	10082	—	1	—	—
Shutdown Reason - Over Temperature	10086	—	1	—	—
Shutdown Reason - Overload	10087	—	1	—	—
Shutdown Reason - Output Short	10089	—	1	—	—
Shutdown Reason - Line Neutral Swap	10090	—	1	—	—
Shutdown Reason - Low Battery	10092	—	1	—	—
Shutdown Reason - Remote Shutdown	10093	—	1	—	—
Shutdown Reason - Input Under Voltage	10094	—	1	—	—
Shutdown Reason - Hardware	10096	—	1	—	—
Load On Battery	10128	—	1	—	—
Output Off Pending	10151	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Overload	10154	—	1	—	—
Over Temperature Warning	10171	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Input Over Voltage	10187	—	1	—	—
Input Under Voltage	10188	—	1	—	—
Input BrownOut	10189	—	1	—	—
Bad Input Frequency	10190	—	1	—	—
Output Under Voltage	10218	—	1	—	—
Output Over Voltage	10219	—	1	—	—
Charger Failed	10234	—	1	—	—
Battery Under Voltage	10241	—	1	—	—
Battery Over Voltage	10242	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

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Table 3.170 Liebert® PowerSure Interactive 2—Input and Holding; Applies only to Liebert® PSI units manufactured before June 1, 2008 (Julian date 08153)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Number of SubModules	30009	40009	1	—	—
Load Circuit Present	30013	40013	1	—	There are 16 possible Load Circuits. Each bit represents 1 load circuit. Load Circuit 1 is bit 0, Load Circuit 2 is bit 1 and so on. If the bit is 1, then the Load Circuit is supported.
Nominal Power Rating	30021	40021	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Input Current	30030	40030	1	—	A
Nominal Input Frequency	30031	40031	1	10	Hz
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Nominal Battery Voltage	30034	40034	1	—	V
Nominal Battery Capacity	30037	40037	1	—	Minutes
Nominal Battery Float Voltage	30038	40038	1	—	V
Auto Restart Delay	30051	40051	1	—	Seconds
Device Low Battery Time	30053	40053	1	—	Minutes
Ambient Temperature Warning Point	30069	40069	1	—	deg C
Over Temperature Limit Point	30072	40072	1	—	deg C
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W
Load / Capacity	30106	—	1	—	%
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged 3 - Charging 4 - Discharging 5 - Float Charging 6 - Equalize Charging

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Table 3.170 Liebert® PowerSure Interactive 2—Input and Holding; Applies only to Liebert® PSI units manufactured before June 1, 2008 (Julian date 08153) (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Voltage	30113	—	1	—	V
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%
Ambient Temperature	30119	—	1	—	deg C
Battery Test Result	30130	—	1	—	—
Input Voltage L1	30153	—	1	—	V
Input Current L1	30154	—	1	—	A
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Maximum Voltage L1	30180	—	1	—	V
Input Minimum Voltage L1	30181	—	1	—	V
Output Maximum Voltage L1	30182	—	1	—	V
Output Minimum Voltage L1	30183	—	1	—	V
Black Out Count	30301	—	1	—	—
Brown Out Count	30302	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM

Data Label	Status	Coil	Number of Bits	Notes
Input				
Mains Input Neutral Lost	10001		1	Active on Alarm
System Input Phs Rotation Error	10002		1	Active on Alarm
System Input Power Problem	10003		1	Active on Alarm
Input Under Voltage	10004		1	Active on Alarm
Input Source Backfeed	10005		1	Active on Alarm
Input Surge Protection Device Alarm	10006		1	Active on Alarm
Bypass				
Bypass out of sync	10007		1	Active on Alarm
Bypass Input Voltage Fault	10008		1	Active on Alarm
Backfeed Breaker Open	10009		1	Active on Alarm
Maintenance Bypass Breaker Closed	10010		1	Active on Alarm
System Bypass Phase Rotation Error	10011		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Bypass Surge Protection Device Alarm	10012		1	Active on Alarm
Output				
Output Overload	10013		1	Active on Alarm
System Output Fault	10014		1	Active on Alarm
Module Output Breaker Open	10015		1	Active on Alarm
System Control Card 1				
System Control Card Not Ready	10016		1	Active on Alarm
System Control Card Power Supply Failure	10017		1	Active on Alarm
System Control Card Communication Fail	10018		1	Active on Alarm
System Control Card 2				
System Control Card Not Ready	10019		1	Active on Alarm
System Control Card Power Supply Failure	10020		1	Active on Alarm
System Control Card Communication Fail	10021		1	Active on Alarm
Bypass Module				
Bypass Module Not Ready	10022		1	Active on Alarm
Bypass Module Power Supply Failure	10023		1	Active on Alarm
Bypass Module Communication Fault	10024		1	Active on Alarm
Bypass Static Switch Unavailable	10025		1	Active on Alarm
Bypass Backfeed Detected	10026		1	Active on Alarm
Bypass controlling the SCR autonomously	10027		1	Active on Alarm
Bypass - Excess Auto Retransfers	10028		1	Active on Alarm
Bypass Module Over Temperature	10029		1	Active on Alarm
Bypass Module Fan Fault	10030		1	Active on Alarm
Power Module 1				
Power Module Not Ready	10031		1	Active on Alarm
Power Module Power Supply Failure	10032		1	Active on Alarm
Power Module Communication status	10033		1	Active on Alarm
Power Module Fuse Failure	10034		1	Active on Alarm
Power Module Fan Fault	10035		1	Active on Alarm
Power Module Over Temperature	10036		1	Active on Alarm
Power Module 2				
Power Module Not Ready	10037		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Power Supply Failure	10038		1	Active on Alarm
Power Module Communication status	10039		1	Active on Alarm
Power Module Fuse Failure	10040		1	Active on Alarm
Power Module Fan Fault	10041		1	Active on Alarm
Power Module Over Temperature	10042		1	Active on Alarm
Power Module 10				
Power Module Not Ready	10085		1	Active on Alarm
Power Module Power Supply Failure	10086		1	Active on Alarm
Power Module Communication status	10087		1	Active on Alarm
Power Module Fuse Failure	10088		1	Active on Alarm
Power Module Fan Fault	10089		1	Active on Alarm
Power Module Over Temperature	10090		1	Active on Alarm
Rectifier 1				
Power Module Input Current Abnormal	10091		1	Active on Alarm
Power Module Input Current High	10092		1	Active on Alarm
Rectifier Failure	10093		1	Active on Alarm
Rectifier 2				
Power Module Input Current Abnormal	10094		1	Active on Alarm
Power Module Input Current High	10095		1	Active on Alarm
Rectifier Failure	10096		1	Active on Alarm
Rectifier 10				
Power Module Input Current Abnormal	10118		1	Active on Alarm
Power Module Input Current High	10119		1	Active on Alarm
Rectifier Failure	10120		1	Active on Alarm
DC Bus 1				
DC Bus Abnormal	10121		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10122		1	Active on Alarm
DC Bus 2				
DC Bus Abnormal	10123		1	Active on Alarm
Power Module Balancer of DC Bus Failure	10124		1	Active on Alarm
DC Bus 10				
DC Bus Abnormal	10139		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Power Module Balancer of DC Bus Failure	10140		1	Active on Alarm
Inverter 1				
Load Sharing Fault	10141		1	Active on Alarm
Inverter Relay Fault	10142		1	Active on Alarm
Inverter Shutdown - Overload	10143		1	Active on Alarm
Loss of Synchronization	10144		1	Active on Alarm
Inverter Failure	10145		1	Active on Alarm
Inverter Transfer Inhibit - Ext	10146		1	Active on Alarm
Inverter 2				
Load Sharing Fault	10147		1	Active on Alarm
Inverter Relay Fault	10148		1	Active on Alarm
Inverter Shutdown - Overload	10149		1	Active on Alarm
Loss of Synchronization	10150		1	Active on Alarm
Inverter Failure	10151		1	Active on Alarm
Inverter Transfer Inhibit - Ext	10152		1	Active on Alarm
Inverter 10				
Load Sharing Fault	10195		1	Active on Alarm
Inverter Relay Fault	10196		1	Active on Alarm
Inverter Shutdown - Overload	10197		1	Active on Alarm
Loss of Synchronization	10198		1	Active on Alarm
Inverter Failure	10199		1	Active on Alarm
Inverter Transfer Inhibit - Ext	10200		1	Active on Alarm
Charger 1				
Charger Failure	10201		1	Active on Alarm
Charger 2				
Charger Failure	10202		1	Active on Alarm
Charger 10				
Charger Failure	10210		1	Active on Alarm
Discharger 1				
Discharger Failure	10211		1	Active on Alarm
Discharger Shutdown	10212		1	Active on Alarm
Battery Converter Current Limit	10213		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Discharger 2				
Discharger Failure	10214		1	Active on Alarm
Discharger Shutdown	10215		1	Active on Alarm
Battery Converter Current Limit	10216		1	Active on Alarm
Discharger 10				
Discharger Failure	10238		1	Active on Alarm
Discharger Shutdown	10239		1	Active on Alarm
Battery Converter Current Limit	10240		1	Active on Alarm
Multi Module				
Parallel Cable Failure	10241		1	Active on Alarm
Parallel Comm Warning	10242		1	Active on Alarm
MMS Capacity Exceeded	10243		1	Active on Alarm
Loss of Redundancy	10244		1	Active on Alarm
System Status				
Hardware Mismatch	10245		1	Active on Alarm
LBS Cable Failure	10246		1	Active on Alarm
Transfer to Bypass - System Overload	10247		1	Active on Alarm
Excess ECO Suspends	10248		1	Active on Alarm
User Operation Invalid	10249		1	Active on Alarm
Load Impact Transfer	10250		1	Active on Alarm
Internal Communications Failure	10251		1	Active on Alarm
Equipment Over Temperature	10252		1	Active on Alarm
LBS Inhibited	10253		1	Active on Alarm
On Generator	10254		1	Active on Alarm
LBS Active	10255		1	Active on Alarm
System Shutdown - EPO	10256		1	Active on Alarm
Fuse Failure	10257		1	Active on Alarm
Ground Fault	10258		1	Active on Alarm
System Fan Failure	10259		1	Active on Alarm
Parameter Configuration Failed	10260		1	Active on Alarm
System Output Off	10261		1	Active on Alarm
Output Disabled	10262		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Top Outlet Fan Fault	10263		1	Active on Alarm
ECO mode Inhibited	10264		1	Active on Alarm
Inverter Transfer Inhibit - Ext	10265		1	Active on Alarm
UPS Output on Bypass	10266		1	Active on Alarm
Output Load on Maint. Bypass	10267		1	Active on Alarm
Transformer Overtemperature	10268		1	Active on Alarm
System Control Cards Missing	10269		1	Active on Alarm
Loss of Control Redundancy	10270		1	Active on Alarm
Battery System				
Battery Self Test	10271		1	Active on Alarm
Battery Charging Inhibited	10272		1	Active on Alarm
Battery Discharging	10273		1	Active on Alarm
Battery Manual Test In Progress	10274		1	Active on Alarm
Battery Auto Test In Progress	10275		1	Active on Alarm
Battery Test Failed	10276		1	Active on Alarm
Battery Low	10277		1	Active on Alarm
Battery Ground Fault	10278		1	Active on Alarm
Battery Not Qualified	10279		1	Active on Alarm
Battery Terminals Reversed	10280		1	Active on Alarm
Replace Battery	10281		1	Active on Alarm
Battery Charge Equalization Timeout	10282		1	Active on Alarm
Battery Room Alarm	10283		1	Active on Alarm
Battery Equalize	10284		1	Active on Alarm
Battery Terminal Abnormal	10285		1	Active on Alarm
Battery System Communication Abnormal	10286		1	Active on Alarm
Battery System Warning	10287		1	Active on Alarm
Battery System Fault	10288		1	Active on Alarm
Main Battery Circuit Breaker is Open	10289		1	Active on Alarm
Battery Circuit Breaker 1 Open	10290		1	Active on Alarm
Battery Circuit Breaker 2 Open	10291		1	Active on Alarm
Battery Circuit Breaker 3 Open	10292		1	Active on Alarm
Battery Circuit Breaker 4 Open	10293		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Circuit Breaker 5 Open	10294		1	Active on Alarm
Battery Circuit Breaker 6 Open	10295		1	Active on Alarm
Battery Circuit Breaker 7 Open	10296		1	Active on Alarm
Battery Circuit Breaker 8 Open	10297		1	Active on Alarm
Battery Circuit Breaker 9 Open	10298		1	Active on Alarm
Battery Circuit Breaker 10 Open	10299		1	Active on Alarm
Battery Circuit Breaker 11 Open	10300		1	Active on Alarm
Battery Circuit Breaker 12 Open	10301		1	Active on Alarm
Main Battery Breaker Open Failure	10302		1	Active on Alarm
Battery Breaker 1 Open Failure	10303		1	Active on Alarm
Battery Breaker 2 Open Failure	10304		1	Active on Alarm
Battery Breaker 3 Open Failure	10305		1	Active on Alarm
Battery Breaker 4 Open Failure	10306		1	Active on Alarm
Battery Breaker 5 Open Failure	10307		1	Active on Alarm
Battery Breaker 6 Open Failure	10308		1	Active on Alarm
Battery Breaker 7 Open Failure	10309		1	Active on Alarm
Battery Breaker 8 Open Failure	10310		1	Active on Alarm
Battery Breaker 9 Open Failure	10311		1	Active on Alarm
Battery Breaker 10 Open Failure	10312		1	Active on Alarm
Battery Breaker 11 Open Failure	10313		1	Active on Alarm
Battery Breaker 12 Open Failure	10314		1	Active on Alarm
Battery Cabinet 1				
Battery Cabinet High Overall Voltage	10315		1	Active on Alarm
Battery Cabinet Low Overall Voltage	10316		1	Active on Alarm
Battery Cabinet High Cell Voltage	10317		1	Active on Alarm
Battery Cabinet Low Cell Voltage	10318		1	Active on Alarm
Battery Cabinet Over Overall Voltage	10319		1	Active on Alarm
Battery Cabinet Under Overall Voltage	10320		1	Active on Alarm
Battery Cabinet Over Cell Voltage	10321		1	Active on Alarm
Battery Cabinet Under Cell Voltage	10322		1	Active on Alarm
Battery Cabinet Charge Over Current	10323		1	Active on Alarm
Battery Cabinet Discharge Over Current	10324		1	Active on Alarm

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Table 3.171 Vertiv™ PowerUPS 9000—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Battery Cabinet Over Temperature	10325		1	Active on Alarm
Battery Cabinet Under Temperature	10326		1	Active on Alarm
Battery Temperature Sensor Fault	10327		1	Active on Alarm
Battery Cabinet 2				
Battery Cabinet High Overall Voltage	10328		1	Active on Alarm
Battery Cabinet Low Overall Voltage	10329		1	Active on Alarm
Battery Cabinet High Cell Voltage	10330		1	Active on Alarm
Battery Cabinet Low Cell Voltage	10331		1	Active on Alarm
Battery Cabinet Over Overall Voltage	10332		1	Active on Alarm
Battery Cabinet Under Overall Voltage	10333		1	Active on Alarm
Battery Cabinet Over Cell Voltage	10334		1	Active on Alarm
Battery Cabinet Under Cell Voltage	10335		1	Active on Alarm
Battery Cabinet Charge Over Current	10336		1	Active on Alarm
Battery Cabinet Discharge Over Current	10337		1	Active on Alarm
Battery Cabinet Over Temperature	10338		1	Active on Alarm
Battery Cabinet Under Temperature	10339		1	Active on Alarm
Battery Temperature Sensor Fault	10340		1	Active on Alarm
Battery Cabinet 12				
Battery Cabinet High Overall Voltage	10458		1	Active on Alarm
Battery Cabinet Low Overall Voltage	10459		1	Active on Alarm
Battery Cabinet High Cell Voltage	10460		1	Active on Alarm
Battery Cabinet Low Cell Voltage	10461		1	Active on Alarm
Battery Cabinet Over Overall Voltage	10462		1	Active on Alarm
Battery Cabinet Under Overall Voltage	10463		1	Active on Alarm
Battery Cabinet Over Cell Voltage	10464		1	Active on Alarm
Battery Cabinet Under Cell Voltage	10465		1	Active on Alarm
Battery Cabinet Charge Over Current	10466		1	Active on Alarm
Battery Cabinet Discharge Over Current	10467		1	Active on Alarm
Battery Cabinet Over Temperature	10468		1	Active on Alarm
Battery Cabinet Under Temperature	10469		1	Active on Alarm
Battery Temperature Sensor Fault	10470		1	Active on Alarm

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Input					
System Input RMS A-B	30001		1		Units : VAC Uint16
System Input RMS B-C	30002		1		Units : VAC Uint16
System Input RMS C-A	30003		1		Units : VAC Uint16
System Input RMS A-N	30004		1		Units : VAC Uint16
System Input RMS B-N	30005		1		Units : VAC Uint16
System Input RMS C-N	30006		1		Units : VAC Uint16
System Input RMS Current Phase A	30007		1		Units : A AC Uint16
System Input RMS Current Phase B	30008		1		Units : A AC Uint16
System Input RMS Current Phase C	30009		1		Units : A AC Uint16
System Input Frequency	30010		1	10	Units : Hz Uint16
System Input Power Factor Phs A	30011		1	100	Uint16
System Input Power Factor Phs B	30012		1	100	Uint16
System Input Power Factor Phs C	30013		1	100	Uint16
System Input Power Phase A	30014		1	10	Units : kW Uint16
System Input Power Phase B	30015		1	10	Units : kW Uint16
System Input Power Phase C	30016		1	10	Units : kW Uint16
System Input Apparent Power Phs A	30017		1	10	Units : kVA Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input Apparent Power Phs B	30018		1	10	Units : kVA Uint16
System Input Apparent Power Phs C	30019		1	10	Units : kVA Uint16
System Input Brown Out Count	30020		1		Uint16
System Input Black Out Count	30021		1		Uint16
Rectifier Isolation Breaker	30022		1		0 = Open 1 = Close 2 = Not Installed
Bypass					
Bypass Input Voltage RMS A-B	30023		1		Units : VAC Uint16
Bypass Input Voltage RMS B-C	30024		1		Units : VAC Uint16
Bypass Input Voltage RMS C-A	30025		1		Units : VAC Uint16
Bypass Input Voltage RMS A-N	30026		1		Units : VAC Uint16
Bypass Input Voltage RMS B-N	30027		1		Units : VAC Uint16
Bypass Input Voltage RMS C-N	30028		1		Units : VAC Uint16
Bypass Input Frequency	30029		1	10	Units : Hz Uint16
Bypass Power Phase A	30030		1	10	Units : kW Uint16
Bypass Power Phase B	30031		1	10	Units : kW Uint16
Bypass Power Phase C	30032		1	10	Units : kW Uint16
Bypass Apparent Power Phase A	30033		1	10	Units : kVA Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Bypass Apparent Power Phase B	30034		1	10	Units : kVA
					Uint16
Bypass Apparent Power Phase C	30035		1	10	Units : kVA
					Uint16
Bypass Isolation Breaker	30036		1		0 = Open
					1 = Close
					2 = Not Installed
Maintenance Bypass Breaker	30037		1		0 = Open
					1 = Close
					2 = Not Installed
Output					
System Output Voltage RMS A-B	30038		1		Units : VAC
					Uint16
System Output Voltage RMS B-C	30039		1		Units : VAC
					Uint16
System Output Voltage RMS C-A	30040		1		Units : VAC
					Uint16
System Output Voltage RMS A-N	30041		1		Units : VAC
					Uint16
System Output Voltage RMS B-N	30042		1		Units : VAC
					Uint16
System Output Voltage RMS C-N	30043		1		Units : VAC
					Uint16
System Output RMS Current Phs A	30044		1		Units : A AC
					Uint16
System Output RMS Current Phs B	30045		1		Units : A AC
					Uint16
System Output RMS Current Phs C	30046		1		Units : A AC
					Uint16
Output Current Crest Factor Phs A	30047		1	10	Uint16
Output Current Crest Factor Phs B	30048		1	10	Uint16
Output Current Crest Factor Phs C	30049		1	10	Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Frequency	30050		1	10	Units : Hz Uint16
System Output Power Factor Phs A	30051		1	100	Uint16
System Output Power Factor Phs B	30052		1	100	Uint16
System Output Power Factor Phs C	30053		1	100	Uint16
System Output Power Phase A	30054		1	10	Units : kW Uint16
System Output Power Phase B	30055		1	10	Units : kW Uint16
System Output Power Phase C	30056		1	10	Units : kW Uint16
System Output Apparent Power Phs A	30057		1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30058		1	10	Units : kVA Uint16
System Output Apparent Power Phs C	30059		1	10	Units : kVA Uint16
System Output Power	30060		1		Units : kW Uint16
System Output Apparent Power	30061		1		Units : kVA Uint16
System Output Pct Pwr (VA) Phs A	30062		1	10	Units : % Uint16
System Output Pct Pwr (VA) Phs B	30063		1	10	Units : % Uint16
System Output Pct Pwr (VA) Phs C	30064		1	10	Units : % Uint16
System Output Pct Power Phase A	30065		1		Units : % Uint16
System Output Pct Power Phase B	30066		1		Units : % Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Pct Power Phase C	30067		1		Units : % Uint16
Module Output Breaker	30068		1		0 = Open 1 = Close 2 = Not Installed
Maintenance Isolation Breaker	30069		1		0 = Open 1 = Close 2 = Not Installed
System Control Card 1					
System Control Card Operating Status	30070		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
System Control Card 2					
System Control Card Operating Status	30071		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Bypass Module					
Bypass Module Operating Status	30072		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Static Bypass Switch	30073		1		0 = off 1 = on
Power Module 1					
Module Operating Status	30074		1		0 = Normal 1 = Warning 2 = Alarm 4 = Fault
Power Module Sleep Status	30075		1		0 = Sleeping 1 = Not Sleeping

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Power Module 2					
Module Operating Status	30076		1		0 = Normal
					1 = Warning
					2 = Alarm
					4 = Fault
Power Module Sleep Status	30077		1		0 = Sleeping
					1 = Not Sleeping
Power Module 10					
Module Operating Status	30092		1		0 = Normal
					1 = Warning
					2 = Alarm
					4 = Fault
Power Module Sleep Status	30093		1		0 = Sleeping
					1 = Not Sleeping
Rectifier 1					
Rectifier Status	30094		1		0 = off
					1 = on
Rectifier 2					
Rectifier Status	30095		1		0 = off
					1 = on
Rectifier 10					
Rectifier Status	30103		1		0 = off
					1 = on
DC Bus 1					
Positive DC Bus Voltage	30104		1		Units : VDC
					Uint16
Negative DC Bus Voltage	30105		1		Units : VDC
					Uint16
DC Bus 2					
Positive DC Bus Voltage	30106		1		Units : VDC
					Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Negative DC Bus Voltage	30107		1		Units : VDC Uint16
DC Bus 10					
Positive DC Bus Voltage	30122		1		Units : VDC Uint16
Negative DC Bus Voltage	30123		1		Units : VDC Uint16
Inverter 1					
Inverter Status	30124		1		0 = Inverter Inactive 1 = Inverter Active
Inverter 2					
Inverter Status	30125		1		0 = Inverter Inactive 1 = Inverter Active
Inverter 10					
Inverter Status	30133		1		0 = Inverter Inactive 1 = Inverter Active
Charger 1					
Charger On/Off State	30134		1		0 = off 1 = on
Charger 2					
Charger On/Off State	30135		1		0 = off 1 = on
Charger 10					
Charger On/Off State	30143		1		0 = off 1 = on
Discharger 1					
Discharger On/Off Status	30144		1		0 = off 1 = on
Discharger 2					
Discharger On/Off Status	30145		1		0 = off 1 = on
Discharger 10					

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Discharger On/Off Status	30153		1		0 = off
					1 = on
Multi Module					
MMS Output Power	30154		1		Units : kW
					Uint16
MMS Output Apparent Power	30155		1		Units : kVA
					Uint16
MMS UPS Loading Status	30156		1		1 = Load on Other Module
					2 = Load Off
					3 = Load on Inverter
					4 = Load on Bypass
					5 = Load on Maintenance Bypass
					6 = Load on Battery
					7 = Load on Shared Source
System Status					
Number Of Active Power Modules	30157		1		Uint16
Number of Installed Power Modules	30158		1		Uint16
Redundant Count of Power Module	30159		1		Uint16
Inlet Air Temperature	30160		1		Units : deg C
					Uint16
Inlet Air Temperature	30161		1		Units : deg F
					Uint16
Average system efficiency	30162		1	10	Units : %
					Uint16
ECO Suspended Time Remaining	30163		1		Units : sec
					Uint16
Total System Operating Time	30164		2		Units : hr
					Uint32

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Application Mode For UPS	30166		1		0 = UPS Mode
					1 = Frequency Converter Mode
					2 = Intelligent Paralleling Mode
					3 = Intelligent Paralleling Mode Demo
					4 = ECO Mode
					5 = Intelligent ECO Mode
					6 = Intelligent ECO Mode Demo
					7 = Testing Mode
					8 = Regen Mode
					9 = Power Conditioner Mode
					10 = Frequency Converter Mode without Battery
					11 = Dynamic Online Mode
					12 = Dynamic Online Mode Demo
UPS Loading Status	30167		1		1 = Load on Other Module
					2 = Load Off
					3 = Load on Inverter
					4 = Load on Bypass
					5 = Load on Maintenance Bypass
					6 = Load on Battery
					7 = Load on Shared Source
UPS Output Source	30168		1		1 = Other
					2 = Off
					3 = Normal
					4 = Bypass
					5 = Battery
					6 = Booster
					7 = Reducer
System Status	30169		1		1 = Normal Operation
					2 = StartUp
					8 = Normal with Warning
					16 = Normal with Alarm
					32 = Abnormal Operation

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Inverter On/Off State	30170		1		0 = off
					1 = on
System Configuration					
System Capacity	30171		1		Units : kVA
					Uint16
System Input Nominal Voltage	30172		1		Units : VAC
					Uint16
System Input Nominal Current	30173		1		Units : A AC
					Uint16
Bypass Nominal Voltage	30174		1		Units : VAC
					Uint16
System Output Nominal Voltage	30175		1		Units : VAC
					Uint16
System Output Nominal Frequency	30176		1	10	Units : Hz
					Uint16
Battery System					
Battery type	30177		1		0 = VRLA
					1 = Lithium Battery
Lithium-Ion Battery Connected	30178		1		0 = Connected
					1 = Not Connected
Flywheel Connected	30179		1		0 = Connected
					1 = Not Connected
Ultra Capacitor Connected	30180		1		0 = Connected
					1 = Not Connected
Main Battery Circuit Breaker	30181		1		0 = Open
					1 = Close
					2 = Not Installed
External Battery Cabinet Count	30182		1		Uint16
Battery String Count	30183		1		Uint16
DC Bus Voltage	30184		1		Units : VDC
					Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
DC Bus Current	30185		1	10	Units : A DC
					Int16
Battery Temperature	30186		1	10	Units : deg C
					Int16
Battery Temperature	30187		1	10	Units : deg F
					Int16
Battery Percentage Charge	30188		1		Units : %
					Uint16
Battery Time Remaining	30189		1		Units : min
					Uint16
Number of Discharge Cycles	30190		1		Uint16
Accumulated Discharge Time	30191		1	100	Units : hr
					Uint16
UPS Battery Status	30192		1		1 = Unknown
					2 = Normal
					3 = Low
					4 = Depleted
Battery is	30193		1		0 = fully charged
					1 = charging
					2 = discharging
					3 = not charging (charger off)
Automatic Battery Test	30194		1		0 = disabled
					1 = enabled
Battery Self Test Cycle Time	30195		1		Units : day
					Uint16
Time Until Next Auto Battery Test	30196		2		Units : min
					Uint32
Low Battery Warning Time	30198		1		Units : min
					Uint16
Battery Cabinet 1					
Battery Cabinet Type	30199		1		0 = Internal
					1 = External

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Volts for Cabinet	30200		1	10	Units : VDC
					Uint16
Battery Current for Cabinet	30201		1	10	Units : A DC
					Int16
Battery Temperature for Cabinet	30202		1	10	Units : deg C
					Int16
Battery Temperature for Cabinet	30203		1	10	Units : deg F
					Int16
Battery Cabinet Capacity	30204		1		Units : %
					Uint16
Battery Cabinet Max Cell Voltage	30205		1	1000	Units : VDC
					Uint16
Battery Cabinet Min Cell Voltage	30206		1	1000	Units : VDC
					Uint16
Battery Cabinet Highest Cell Temperature	30207		1	10	Units : deg C
					Int16
Battery Cabinet Highest Cell Temperature	30208		1	10	Units : deg F
					Int16
Battery Cabinet Lowest Cell Temperature	30209		1	10	Units : deg C
					Int16
Battery Cabinet Lowest Cell Temperature	30210		1	10	Units : deg F
					Int16
Battery Cabinet Operating Status	30211		1		0 = Normal
					1 = Warning
					2 = Alarm
					4 = Fault
Battery Cabinet Circuit Breaker Status	30212		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet Charge Disconnect Status	30213		1		0 = Open
					1 = Close
					2 = Not Installed

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cabinet Discharge Disconnect Status	30214		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet 2					
Battery Cabinet Type	30215		1		0 = Internal
					1 = External
Battery Volts for Cabinet	30216		1	10	Units : VDC
					Uint16
Battery Current for Cabinet	30217		1	10	Units : A DC
					Int16
Battery Temperature for Cabinet	30218		1	10	Units : deg C
					Int16
Battery Temperature for Cabinet	30219		1	10	Units : deg F
					Int16
Battery Cabinet Capacity	30220		1		Units : %
					Uint16
Battery Cabinet Max Cell Voltage	30221		1	1000	Units : VDC
					Uint16
Battery Cabinet Min Cell Voltage	30222		1	1000	Units : VDC
					Uint16
Battery Cabinet Highest Cell Temperature	30223		1	10	Units : deg C
					Int16
Battery Cabinet Highest Cell Temperature	30224		1	10	Units : deg F
					Int16
Battery Cabinet Lowest Cell Temperature	30225		1	10	Units : deg C
					Int16
Battery Cabinet Lowest Cell Temperature	30226		1	10	Units : deg F
					Int16
Battery Cabinet Operating Status	30227		1		0 = Normal
					1 = Warning
					2 = Alarm
					4 = Fault

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cabinet Circuit Breaker Status	30228		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet Charge Disconnect Status	30229		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet Discharge Disconnect Status	30230		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet 12					
Battery Cabinet Type	30375		1		0 = Internal
					1 = External
Battery Volts for Cabinet	30376		1	10	Units : VDC
					Uint16
Battery Current for Cabinet	30377		1	10	Units : A DC
					Int16
Battery Temperature for Cabinet	30378		1	10	Units : deg C
					Int16
Battery Temperature for Cabinet	30379		1	10	Units : deg F
					Int16
Battery Cabinet Capacity	30380		1		Units : %
					Uint16
Battery Cabinet Max Cell Voltage	30381		1	1000	Units : VDC
					Uint16
Battery Cabinet Min Cell Voltage	30382		1	1000	Units : VDC
					Uint16
Battery Cabinet Highest Cell Temperature	30383		1	10	Units : deg C
					Int16
Battery Cabinet Highest Cell Temperature	30384		1	10	Units : deg F
					Int16
Battery Cabinet Lowest Cell Temperature	30385		1	10	Units : deg C
					Int16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Battery Cabinet Lowest Cell Temperature	30386		1	10	Units : deg F
					Int16
Battery Cabinet Operating Status	30387		1		0 = Normal
					1 = Warning
					2 = Alarm
					4 = Fault
Battery Cabinet Circuit Breaker Status	30388		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet Charge Disconnect Status	30389		1		0 = Open
					1 = Close
					2 = Not Installed
Battery Cabinet Discharge Disconnect Status	30390		1		0 = Open
					1 = Close
					2 = Not Installed
1 Battery Cell In Cabinet 1					
Cell Voltage	30391		1	1000	Units : VDC
					Uint16
Cell Temperature	30392		1	10	Units : deg C
					Int16
Cell Temperature	30393		1	10	Units : deg F
					Int16
Internal Resistance Value	30394		1	1000	Units : milli Ohm
					Uint16
1 Battery Cell In Cabinet 2					
Cell Voltage	30395		1	1000	Units : VDC
					Uint16
Cell Temperature	30396		1	10	Units : deg C
					Int16
Cell Temperature	30397		1	10	Units : deg F
					Int16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Internal Resistance Value	30398		1	1000	Units : milli Ohm Uint16
1 Battery Cell In Cabinet 200					
Cell Voltage	31187		1	1000	Units : VDC Uint16
Cell Temperature	31188		1	10	Units : deg C Int16
Cell Temperature	31189		1	10	Units : deg F Int16
Internal Resistance Value	31190		1	1000	Units : milli Ohm Uint16
2 Battery Cell In Cabinet 1					
Cell Voltage	31191		1	1000	Units : VDC Uint16
Cell Temperature	31192		1	10	Units : deg C Int16
Cell Temperature	31193		1	10	Units : deg F Int16
Internal Resistance Value	31194		1	1000	Units : milli Ohm Uint16
2 Battery Cell In Cabinet 2					
Cell Voltage	31195		1	1000	Units : VDC Uint16
Cell Temperature	31196		1	10	Units : deg C Int16
Cell Temperature	31197		1	10	Units : deg F Int16
Internal Resistance Value	31198		1	1000	Units : milli Ohm Uint16
2 Battery Cell In Cabinet 200					
Cell Voltage	31987		1	1000	Units : VDC Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Cell Temperature	31988		1	10	Units : deg C Int16
Cell Temperature	31989		1	10	Units : deg F Int16
Internal Resistance Value	31990		1	1000	Units : milli Ohm Uint16
3 Battery Cell In Cabinet 1					
Cell Voltage	31991		1	1000	Units : VDC Uint16
Cell Temperature	31992		1	10	Units : deg C Int16
Cell Temperature	31993		1	10	Units : deg F Int16
Internal Resistance Value	31994		1	1000	Units : milli Ohm Uint16
3 Battery Cell In Cabinet 2					
Cell Voltage	31995		1	1000	Units : VDC Uint16
Cell Temperature	31996		1	10	Units : deg C Int16
Cell Temperature	31997		1	10	Units : deg F Int16
Internal Resistance Value	31998		1	1000	Units : milli Ohm Uint16
3 Battery Cell In Cabinet 200					
Cell Voltage	32787		1	1000	Units : VDC Uint16
Cell Temperature	32788		1	10	Units : deg C Int16
Cell Temperature	32789		1	10	Units : deg F Int16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Internal Resistance Value	32790		1	1000	Units : milli Ohm Uint16
4 Battery Cell In Cabinet 1					
Cell Voltage	32791		1	1000	Units : VDC Uint16
Cell Temperature	32792		1	10	Units : deg C Int16
Cell Temperature	32793		1	10	Units : deg F Int16
Internal Resistance Value	32794		1	1000	Units : milli Ohm Uint16
4 Battery Cell In Cabinet 2					
Cell Voltage	32795		1	1000	Units : VDC Uint16
Cell Temperature	32796		1	10	Units : deg C Int16
Cell Temperature	32797		1	10	Units : deg F Int16
Internal Resistance Value	32798		1	1000	Units : milli Ohm Uint16
4 Battery Cell In Cabinet 200					
Cell Voltage	33587		1	1000	Units : VDC Uint16
Cell Temperature	33588		1	10	Units : deg C Int16
Cell Temperature	33589		1	10	Units : deg F Int16
Internal Resistance Value	33590		1	1000	Units : milli Ohm Uint16
5 Battery Cell In Cabinet 1					
Cell Voltage	33591		1	1000	Units : VDC Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Cell Temperature	33592		1	10	Units : deg C Int16
Cell Temperature	33593		1	10	Units : deg F Int16
Internal Resistance Value	33594		1	1000	Units : milli Ohm Uint16
5 Battery Cell In Cabinet 2					
Cell Voltage	33595		1	1000	Units : VDC Uint16
Cell Temperature	33596		1	10	Units : deg C Int16
Cell Temperature	33597		1	10	Units : deg F Int16
Internal Resistance Value	33598		1	1000	Units : milli Ohm Uint16
5 Battery Cell In Cabinet 200					
Cell Voltage	34387		1	1000	Units : VDC Uint16
Cell Temperature	34388		1	10	Units : deg C Int16
Cell Temperature	34389		1	10	Units : deg F Int16
Internal Resistance Value	34390		1	1000	Units : milli Ohm Uint16
6 Battery Cell In Cabinet 1					
Cell Voltage	34391		1	1000	Units : VDC Uint16
Cell Temperature	34392		1	10	Units : deg C Int16
Cell Temperature	34393		1	10	Units : deg F Int16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Internal Resistance Value	34394		1	1000	Units : milli Ohm Uint16
6 Battery Cell In Cabinet 2					
Cell Voltage	34395		1	1000	Units : VDC Uint16
Cell Temperature	34396		1	10	Units : deg C Int16
Cell Temperature	34397		1	10	Units : deg F Int16
Internal Resistance Value	34398		1	1000	Units : milli Ohm Uint16
6 Battery Cell In Cabinet 200					
Cell Voltage	35187		1	1000	Units : VDC Uint16
Cell Temperature	35188		1	10	Units : deg C Int16
Cell Temperature	35189		1	10	Units : deg F Int16
Internal Resistance Value	35190		1	1000	Units : milli Ohm Uint16
7 Battery Cell In Cabinet 1					
Cell Voltage	35191		1	1000	Units : VDC Uint16
Cell Temperature	35192		1	10	Units : deg C Int16
Cell Temperature	35193		1	10	Units : deg F Int16
Internal Resistance Value	35194		1	1000	Units : milli Ohm Uint16
7 Battery Cell In Cabinet 2					
Cell Voltage	35195		1	1000	Units : VDC Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Cell Temperature	35196		1	10	Units : deg C Int16
Cell Temperature	35197		1	10	Units : deg F Int16
Internal Resistance Value	35198		1	1000	Units : milli Ohm Uint16
7 Battery Cell In Cabinet 200					
Cell Voltage	35987		1	1000	Units : VDC Uint16
Cell Temperature	35988		1	10	Units : deg C Int16
Cell Temperature	35989		1	10	Units : deg F Int16
Internal Resistance Value	35990		1	1000	Units : milli Ohm Uint16
8 Battery Cell In Cabinet 1					
Cell Voltage	35991		1	1000	Units : VDC Uint16
Cell Temperature	35992		1	10	Units : deg C Int16
Cell Temperature	35993		1	10	Units : deg F Int16
Internal Resistance Value	35994		1	1000	Units : milli Ohm Uint16
8 Battery Cell In Cabinet 2					
Cell Voltage	35995		1	1000	Units : VDC Uint16
Cell Temperature	35996		1	10	Units : deg C Int16
Cell Temperature	35997		1	10	Units : deg F Int16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Internal Resistance Value	35998		1	1000	Units : milli Ohm Uint16
8 Battery Cell In Cabinet 200					
Cell Voltage	36787		1	1000	Units : VDC Uint16
Cell Temperature	36788		1	10	Units : deg C Int16
Cell Temperature	36789		1	10	Units : deg F Int16
Internal Resistance Value	36790		1	1000	Units : milli Ohm Uint16
9 Battery Cell In Cabinet 1					
Cell Voltage	36791		1	1000	Units : VDC Uint16
Cell Temperature	36792		1	10	Units : deg C Int16
Cell Temperature	36793		1	10	Units : deg F Int16
Internal Resistance Value	36794		1	1000	Units : milli Ohm Uint16
9 Battery Cell In Cabinet 2					
Cell Voltage	36795		1	1000	Units : VDC Uint16
Cell Temperature	36796		1	10	Units : deg C Int16
Cell Temperature	36797		1	10	Units : deg F Int16
Internal Resistance Value	36798		1	1000	Units : milli Ohm Uint16
9 Battery Cell In Cabinet 200					
Cell Voltage	37587		1	1000	Units : VDC Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Cell Temperature	37588		1	10	Units : deg C Int16
Cell Temperature	37589		1	10	Units : deg F Int16
Internal Resistance Value	37590		1	1000	Units : milli Ohm Uint16
10 Battery Cell In Cabinet 1					
Cell Voltage	37591		1	1000	Units : VDC Uint16
Cell Temperature	37592		1	10	Units : deg C Int16
Cell Temperature	37593		1	10	Units : deg F Int16
Internal Resistance Value	37594		1	1000	Units : milli Ohm Uint16
10 Battery Cell In Cabinet 2					
Cell Voltage	37595		1	1000	Units : VDC Uint16
Cell Temperature	37596		1	10	Units : deg C Int16
Cell Temperature	37597		1	10	Units : deg F Int16
Internal Resistance Value	37598		1	1000	Units : milli Ohm Uint16
10 Battery Cell In Cabinet 200					
Cell Voltage	38387		1	1000	Units : VDC Uint16
Cell Temperature	38388		1	10	Units : deg C Int16
Cell Temperature	38389		1	10	Units : deg F Int16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Internal Resistance Value	38390		1	1000	Units : milli Ohm Uint16
11 Battery Cell In Cabinet 1					
Cell Voltage	38391		1	1000	Units : VDC Uint16
Cell Temperature	38392		1	10	Units : deg C Int16
Cell Temperature	38393		1	10	Units : deg F Int16
Internal Resistance Value	38394		1	1000	Units : milli Ohm Uint16
11 Battery Cell In Cabinet 2					
Cell Voltage	38395		1	1000	Units : VDC Uint16
Cell Temperature	38396		1	10	Units : deg C Int16
Cell Temperature	38397		1	10	Units : deg F Int16
Internal Resistance Value	38398		1	1000	Units : milli Ohm Uint16
11 Battery Cell In Cabinet 200					
Cell Voltage	39187		1	1000	Units : VDC Uint16
Cell Temperature	39188		1	10	Units : deg C Int16
Cell Temperature	39189		1	10	Units : deg F Int16
Internal Resistance Value	39190		1	1000	Units : milli Ohm Uint16
12 Battery Cell In Cabinet 1					
Cell Voltage	39191		1	1000	Units : VDC Uint16

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Table 3.172 Vertiv™ PowerUPS 9000—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Cell Temperature	39192		1	10	Units : deg C Int16
Cell Temperature	39193		1	10	Units : deg F Int16
Internal Resistance Value	39194		1	1000	Units : milli Ohm Uint16
12 Battery Cell In Cabinet 2					
Cell Voltage	39195		1	1000	Units : VDC Uint16
Cell Temperature	39196		1	10	Units : deg C Int16
Cell Temperature	39197		1	10	Units : deg F Int16
Internal Resistance Value	39198		1	1000	Units : milli Ohm Uint16
12 Battery Cell In Cabinet 200					
Cell Voltage	39987		1	1000	Units : VDC Uint16
Cell Temperature	39988		1	10	Units : deg C Int16
Cell Temperature	39989		1	10	Units : deg F Int16
Internal Resistance Value	39990		1	1000	Units : milli Ohm Uint16
System Configuration					
System Date and Time	39998	49998	2		Units : Secs since Epoch(UTC)

Table 3.173 Vertiv™ PowerUPS 9000—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 10 Open Failure	Battery circuit breaker 10 failed to open
Battery Breaker 11 Open Failure	Battery circuit breaker 11 failed to open
Battery Breaker 12 Open Failure	Battery circuit breaker 12 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker 5 Open Failure	Battery circuit breaker 5 failed to open
Battery Breaker 6 Open Failure	Battery circuit breaker 6 failed to open
Battery Breaker 7 Open Failure	Battery circuit breaker 7 failed to open
Battery Breaker 8 Open Failure	Battery circuit breaker 8 failed to open
Battery Breaker 9 Open Failure	Battery circuit breaker 9 failed to open
Battery Cabinet Capacity	The percentage of battery charge of a battery cabinet
Battery Cabinet Charge Disconnect Status	The charge disconnected status of a battery cabinet
Battery Cabinet Charge Over Current	Battery Cabinet Charge over current
Battery Cabinet Circuit Breaker Status	Battery cabinet circuit breaker status
Battery Cabinet Discharge Disconnect Status	The discharge disconnected status of a battery cabinet
Battery Cabinet Discharge Over Current	Battery Cabinet Discharge over current
Battery Cabinet High Cell Voltage	The system has detected a high cell voltage condition.
Battery Cabinet High Overall Voltage	The system has detected a high battery cabinet overall voltage condition.
Battery Cabinet Highest Cell Temperature	Battery cabinet highest cell temperature
Battery Cabinet Low Cell Voltage	The system has detected a low cell voltage condition.
Battery Cabinet Low Overall Voltage	The system has detected a low battery cabinet overall voltage condition.
Battery Cabinet Lowest Cell Temperature	Battery cabinet lowest cell temperature
Battery Cabinet Max Cell Voltage	Battery cabinet max cell voltage
Battery Cabinet Min Cell Voltage	Battery cabinet min cell voltage
Battery Cabinet Operating Status	The operating status for this Battery Cabinet.
Battery Cabinet Over Cell Voltage	The system has detected a battery cabinet over cell voltage condition.
Battery Cabinet Over Overall Voltage	The system has detected a battery cabinet over overall voltage condition.
Battery Cabinet Over Temperature	The system has detected a battery cabinet over temperature condition.

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Battery Cabinet Type	The type of Battery Cabinet: Internal or External
Battery Cabinet Under Cell Voltage	The system has detected a battery cabinet under cell voltage condition.
Battery Cabinet Under Overall Voltage	The system has detected a battery cabinet under overall voltage condition.
Battery Cabinet Under Temperature	The system has detected a battery cabinet under temperature condition.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 10 Open	Battery circuit breaker 10 is open
Battery Circuit Breaker 11 Open	Battery circuit breaker 11 is open
Battery Circuit Breaker 12 Open	Battery circuit breaker 12 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open
Battery Circuit Breaker 9 Open	Battery circuit breaker 9 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Current for Cabinet	The current between the positive and negative battery terminals of a battery cabinet
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery is	Battery charge status.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery String Count	The battery string count

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected
Battery Temperature	Battery Temperature
Battery Terminal Abnormal	Battery Terminal Abnormal
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Battery type	Battery type of the UPS system
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Module Communication Fault	The bypass module communication failure.
Bypass Module Fan Fault	The Bypass Module has detected a fan fault.
Bypass Module Not Ready	Bypass Module is not ready
Bypass Module Operating Status	The operating status for this Bypass Module.
Bypass Module Over Temperature	The Bypass Module has detected an over temperature condition.

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Bypass Module Power Supply Failure	Bypass module power supply failure
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Surge Protection Device Alarm	Bypass Surge Protection Device alarm
Cell Temperature	Temperature reading of a Cell within a BAM device.
Cell Voltage	Voltage reading of a Cell within a BAM device.
Charger Failure	Charger Failure - Charger is off
Charger On/Off State	Charger on/off state
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Discharger Failure	Discharger failure
Discharger On/Off Status	Discharger on/off status
Discharger Shutdown	A condition is present that prevents the Battery Discharger from working.
ECO mode Inhibited	ECO mode is inhibited due to an external inhibit signal.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Battery Cabinet Count	The battery cabinet count
Flywheel Connected	Flywheel is connected
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Source Backfeed	The battery is backfeeding the input source.
Input Surge Protection Device Alarm	Input Surge Protection Device alarm
Input Under Voltage	Input under voltage.

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Internal Resistance Value	The measured internal resistance of a cell.
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal to this module
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery Connected	Lithium-Ion battery is connected
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Control Redundancy	Loss of control redundancy
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Breaker Open Failure	Main battery circuit breaker failed to open
Main Battery Circuit Breaker is Open	Main battery circuit is open
Main Battery Circuit Breaker	Main battery circuit breaker
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Bypass Breaker	Maintenance bypass breaker
Maintenance Isolation Breaker	Maintenance isolation breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS UPS Loading Status	Multi-module UPS loading status
Module Operating Status	The operating status for this Power Module.

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Module Output Breaker Open	The module output breaker is open.
Module Output Breaker	Module output breaker
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Disabled	Output Disabled
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Not Ready	Power module not ready
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Isolation Breaker	Rectifier isolation breaker
Rectifier Status	rectifier status
Redundant Count of Power Module	The redundant count of power module
Replace Battery	The battery is due for replacement.

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Static Bypass Switch	Static Bypass Switch state - On/Off
System Bypass Phase Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the bypass (A-B-C)
System Capacity	System capacity supported by the installed power modules.
System Control Card Communication Fail	System control card communication fail
System Control Card Not Ready	System control card is not ready
System Control Card Operating Status	The operating status for this system control card
System Control Card Power Supply Failure	System control card power supply failure
System Control Cards Missing	System control cards missing
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral

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Table 3.173 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
Transformer Overtemperature	Indicates a unit transformer overtemperature condition.
Ultra Capacitor Connected	Ultra capacitor is connected
UPS Battery Status	UPS battery status
UPS Loading Status	UPS loading status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 3.174 Liebert® PSI5—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Input				
Input Undervoltage	10001	—	1	Active on Alarm
Input Overvoltage	10002	—	1	Active on Alarm
Battery				
Battery Self Test	10013	—	1	Active on Alarm
Battery Low	10014	—	1	Active on Alarm
Battery Under Voltage	10015	—	1	Active on Alarm
Battery Over Voltage	10016	—	1	Active on Alarm
Battery Test Failed	10017	—	1	Active on Alarm
Replace Battery	10018	—	1	Active on Alarm
Output				
Output Overload	10029	—	1	Active on Alarm
Output Undervoltage	10030	—	1	Active on Alarm

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Table 3.174 Liebert® PSI5—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Output Overvoltage	10031	—	1	Active on Alarm
System Output Off	10032	—	1	Active on Alarm
System				
Battery Discharging	10043	—	1	Active on Alarm
System Input Power Problem	10044	—	1	Active on Alarm
Equipment Over Temperature	10045	—	1	Active on Alarm
Input Frequency Deviation	10046	—	1	Active on Alarm
Shutdown Pending	10047	—	1	Active on Alarm
Unspecified General Event	10048	—	1	Active on Alarm
Parallel Comm Warning	10049	—	1	Active on Alarm
Charger Failure	10050	—	1	Active on Alarm
Rectifier Failure	10051	—	1	Active on Alarm
Inverter Failure	10052	—	1	Active on Alarm
System Fan Failure	10053	—	1	Active on Alarm
Emergency Power Off - Latched	10054	—	1	Active on Alarm
Input Wiring Fault	10055		1	Active on Alarm
DC to DC Converter Fault	10056		1	Active on Alarm

Table 3.175 Liebert® PSI5—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385	—	1	—	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Input					
System Input RMS L1-N	30396	—	1	10	Units : VAC Uint16
System Input RMS Current L1	30397	—	1	10	Units : A AC Uint16
System Input Frequency	30398	—	1	10	Units : Hz Uint16
System Input Nominal Voltage	30399	—	1	—	Units : VAC Uint16

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Table 3.175 Liebert® PSI5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Input Nominal Current	30400	—	1	—	Units : A AC Uint16
System Input Nominal Frequency	30401	—	1	—	Units : Hz Uint16
Battery					
UPS Battery Status	30412	—	1	—	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Time Remaining	30413	—	1	—	Units : min Uint16
Battery Percentage Charge	30414	—	1	—	Units : % Uint16
Battery Charge Status	30415	—	1	—	0 = fully charged 1 = charging 2 = discharging 3 = not charging (charger off)
DC Bus Voltage	30416	—	1	—	Units : VDC Uint16
DC Bus Nominal Voltage	30417	—	1	—	Units : VDC Uint16
Low Battery Warning Time	30418	40418	1	—	Units : min Uint16
Number of EBC Installed	30419	40419	1	—	Uint16
Battery Discharge Time	30420	—	1	—	Units : min Uint16
Battery Test Result	30421	—	1	—	0 = Unknown 1 = Passed 2 = Failed 3 = In Progress 4 = System Failure 5 = Inhibited
Automatic Battery Test	30422		1	—	0 = disabled 1 = enabled
Manual Battery Test		40423	1	—	1 = Start Test
Output					
System Output Voltage RMS L1-N	30434	—	1	10	Units : VAC Uint16
System Output RMS Current L1	30435	—	1	10	Units : A AC Uint16
System Output Frequency	30436	—	1	10	Units : Hz Uint16

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Table 3.175 Liebert® PSI5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Power	30437	—	1	—	Units : W Uint16
System Output Pct Power	30438	—	1	—	Units : % Uint16
System Output Apparent Power	30439	—	1	—	Units : VA Uint16
System Output Nominal Voltage	30440	—	1	—	Units : VAC Uint16
Output Apparent Power Rating	30441	—	1	—	Units : VA Uint16
System Output Nominal Frequency	30442	—	1	—	Units : Hz Uint16
Output On Delay	30443	40443	1	—	Units : sec Uint16
Reboot With Delay	30444	40444	1	—	Units : sec Uint16
Shutdown After Delay	30445	40445	1	—	Units : sec Uint16
UPS Output Source	30446	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Nominal Power Factor	30447	—	1	100	Int16
Outlet Group 1					
Outlet Group Identifier	30458		1	—	Uint16
Outlet Group Power Control	30459	40459	1	—	0 = off 1 = on
Outlet Group 2					
Outlet Group Identifier	30470		1	—	Uint16
Outlet Group Power Control	30471	40471	1	—	0 = off 1 = on
System					
System Status	30482	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation

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Table 3.175 Liebert® PSI5—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Auto Restart	30483	40483	1	—	0 = disabled 1 = enabled
Auto Restart Delay	30484	40484	1	—	Units : sec Uint16
Inlet Air Temperature	30485	—	1	—	Units : deg C Int16
Inlet Air Temperature	30486	—	1	—	Units : deg F Int16
DC Converter Status	30487	—	1	—	0 = off 1 = on
UPS Topology	30488	—	1	—	0 = unknown 1 = Offline 2 = Line Interactive 3 = Online
Audible Alarm Control	30489	40489	1	—	0 = off 1 = on
Enable/Disable programmable outlets	30490	40490	1	—	1 = enabled 2 = disabled
Programmable outlet time limit	30491	40491	1	—	Units : min Uint16
Enable/Disable non-programmable outlets	30492	40492	1	—	1 = enabled 2 = disabled
Non-Programmable outlet time limit	30493	40493	1	—	Units : min Uint16
Enable/Disable site fault detection	30494	40494	1	—	1 = enabled 2 = disabled
Enable/Disable neutral grounding in battery mode	30495	40495	1	—	1 = enabled 2 = disabled
Emergency Power Off (EPO) Logic	30496	40496	1	—	1 = Active Open 2 = Active Close
Input Waveform Sensitivity	30497	40497	1	—	1 = High Sensitivity 2 = Middle Sensitivity 3 = Low Sensitivity
Abort Command	—	40498	1	—	1 = Issue Command
Reset Power Statistics	—	40499	1	—	1 = Reset
Silence Audible Alarm	—	40500	1	—	1 = Silence Alarm

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Table 3.176 Liebert® PSI5—Glossary

Data Label	Data Description
Abort Command	Attempt to abort a previously issued command to the device that is still pending
Audible Alarm Control	Audible Alarm Control
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Charge Status	Battery charge status.
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Self Test	Battery self test is in progress
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery Under Voltage	Battery voltage is too low.
Charger Failure	Charger Failure - Charger is off
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC Converter Status	The operating state of the dc converter.
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Emergency Power Off (EPO) Logic	Emergency Power Off (EPO) Logic
Enable/Disable neutral grounding in battery mode	Enable/Disable neutral grounding in battery mode.
Enable/Disable non-programmable outlets	Enable/Disable non-programmable outlets
Enable/Disable programmable outlets	Enable/Disable programmable outlets.
Enable/Disable site fault detection	Enable/Disable site fault detection.
Equipment Over Temperature	Equipment over temperature summary event
Inlet Air Temperature	The temperature of the inlet air
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.

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Table 3.176 Liebert® PSI5—Glossary (continued)

Data Label	Data Description
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Input Waveform Sensitivity	Set the sensitivity of acceptable input voltage quality.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Inverter Failure	Inverter failure - inverter output is off
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Manual Battery Test	Command to initiate a manual battery test.
Nominal Power Factor	The nominal (or rated) system power factor.
Non-Programmable outlet time limit	Maximum time non-programmable outlets will be powered while running on battery.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Outlet Group Identifier	A runtime assigned outlet group identification number
Outlet Group Power Control	Outlet Group Power Control
Output Apparent Power Rating	Output apparent power rating
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Overvoltage	One or more of the output phase voltages has exceeded the limit.
Output Undervoltage	One or more of the output phase voltages has dropped below the limit.
Parallel Comm Warning	Parallel communication bus warning
Programmable outlet time limit	Maximum time programmable outlets will be powered while running on battery.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics
Server Class	The general classification for this system
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Silence Audible Alarm	Silence Audible Alarm
System Fan Failure	System fan failure - one or more fans have failed
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage

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Table 3.176 Liebert® PSI5—Glossary (continued)

Data Label	Data Description
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Status	The operating status for the system
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status
UPS Output Source	UPS output source
UPS Topology	UPS Topology

Table 3.177 Liebert® Series 300 UPS—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Automatic Restart Enabled	10001	1	1	—	—
Battery Charge Compensation	10046	—	1	—	—
Inverter Ready	10047	—	1	—	—
Load Circuit 1 State	10057	—	1	—	—
Load Circuit 2 State	10058	—	1	—	—
Load Circuit 3 State	10059	—	1	—	—
Load Circuit 4 State	10060	—	1	—	—
Load Circuit 5 State	10061	—	1	—	—
Load Circuit 6 State	10062	—	1	—	—
Load Circuit 7 State	10063	—	1	—	—
Load Circuit 8 State	10064	—	1	—	—
Load Circuit 9 State	10065	—	1	—	—
Load Circuit 10 State	10066	—	1	—	—

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Table 3.177 Liebert® Series 300 UPS—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Load Circuit 11 State	10067	—	1	—	—
Load Circuit 12 State	10068	—	1	—	—
Load Circuit 13 State	10069	—	1	—	—
Load Circuit 14 State	10070	—	1	—	—
Load Circuit 15 State	10071	—	1	—	—
Load Circuit 16 State	10072	—	1	—	—
Load On Inverter	10073	—	1	—	—
Bypass Active	10074	—	1	—	—
Buck On	10076	—	1	—	—
Replace Battery	10081	—	1	—	—
Battery Under Test	10082	—	1	—	—
Load On Battery	10128	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Overload	10154	—	1	—	—
Over Temperature Warning	10171	—	1	—	—
Battery Over Temperature CB Trip	10172	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Input Over Voltage	10187	—	1	—	—
Input Under Voltage	10188	—	1	—	—
Bad Input Frequency	10190	—	1	—	—
Bypass Input Voltage/Frequency Fault	10202	—	1	—	—
Output Under Voltage	10218	—	1	—	—
Output Over Voltage	10219	—	1	—	—
Battery Charger Fail	10234	—	1	—	—

If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.

Table 3.178 Liebert® Series 300 UPS—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output	30004	40004	1	—	Bits 8 - 11

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Table 3.178 Liebert® Series 300 UPS—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Lines					
Number of SubModules	30009	40009	1	—	—
Load Circuit Present	30013	40013	1	—	There are 16 possible Load Circuits. Each bit represents 1 Load Circuit. Load Circuit 1 is bit 0, Load Circuit 2 is bit 1 and so on. If the bit is 1, then the Load Circuit is supported.
Nominal Power Rating	30021	40021	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Static Bypass Switch Voltage	30029	40029	1	—	V
Nominal Input Current	30030	40030	1	—	A
Nominal Input Frequency	30031	40031	1	10	Hz
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Nominal Battery Voltage	30034	40034	1	—	V
Device Low Battery Time	30053	40053	1	—	Minutes
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W
Load / Capacity	30106	—	1	—	%
Input Frequency	30107	—	1	10	Hz
Output Frequency	30108	—	1	10	Hz
Bypass Frequency	30109	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged
Battery Voltage	30113	—	1	—	V
Battery Current	30114	—	1	—	A
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%

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Table 3.178 Liebert® Series 300 UPS—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Test Result	30130	—	1	—	1 - Unknown 2 - Passed 3 - Failed 4 - In Progress 5 - System Failure 6 - Inhibited
Input Voltage L1	30153	—	1	—	V
Input Current	30154	—	1	—	A
Bypass Voltage L1	30159	—	1	—	V
Bypass Current L1	30160	—	1	—	A
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Voltage L2	30203	—	1	—	V
Input Current L2	30204	—	1	—	A
Bypass Voltage L2	30209	—	1	—	V
Bypass Current L2	30210	—	1	—	A
Output Voltage L2	30213	—	1	—	V
Output Current L2	30214	—	1	—	A
Input Voltage L3	30253	—	1	—	V
Input Current L3	30254	—	1	—	A
Bypass Voltage L3	30259	—	1	—	V
Bypass Current L3	30260	—	1	—	A
Output Voltage L3	30263	—	1	—	V
Output Current L3	30264	—	1	—	A
Black Out Count	30301	—	1	—	—
Brown Out Count	30302	—	1	—	—
Transient Count	30301	—	1	—	—
Silent Audible Alarm	—	40101	—	—	Any value
Battery Start	—	40102	1	—	1=Start, 0=Abort
Open UPS Output Switch	—	40104	—	—	Delay time in Seconds, last digit will be ignored
Reboot UPS Output Switch	—	40105	1	—	Delay time in Seconds, last digit will be ignored
Close UPS Output Switch	—	40106	—	—	Delay time in Seconds, last digit will be ignored

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Table 3.178 Liebert® Series 300 UPS—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Transfer Load to Bypass	—	40107	1	—	Any value
Transfer Load to Inverter	—	40108	—	—	Any value
Reset UPS Statistic data	—	40111	1	—	Any value
Turn UPS Outlets On	—	40112	1	—	Bitmap mask for Outlet 1-16. All bits set to 1 will be turned On
Turn UPS Outlets Off	—	40113	1	—	Bitmap mask for Outlet 1-16. All bits set to 1 will be turned Off
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.179 Liebert® Series 600 UPS—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Auto Retransfer Primed	10049	—	1	—	—
Load On Inverter	10073	—	1	—	—
Load On Bypass	10074	—	1	—	—
Battery data Buffer Full	10084	—	1	—	—
Shutdown Reason - Hardware	10096	—	1	—	—
Load On Battery	10128	—	1	—	—
Load On Bypass	10129	—	1	—	—
Manual Reset Transfer	10130	—	1	—	—
Emergency Transfer	10134	—	1	—	—
Battery Switch Open	10136	—	1	—	—
Input Switch Open	10137	—	1	—	—
Output Switch open	10138	—	1	—	—
SBS Unable	10148	—	1	—	—
Low Battery - Shutdown Imminent	10152	—	1	—	—
Output Frequency Off	10153	—	1	—	—
Output Overload	10154	—	1	—	—
System Emergency Off	10157	—	1	—	—
Reverse Power	10159	—	1	—	—
Fan Fail	10169	—	1	—	—

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Table 3.179 Liebert® Series 600 UPS—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Over Temperature Warning	10171	—	1	—	—
Ambient Over Temperature	10173	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Input Phase Rotation Error	10191	—	1	—	—
Bypass Input Voltage Fail	10202	—	1	—	—
Output Under Voltage	10218	—	1	—	—
Output Over Voltage	10219	—	1	—	—
DC Ground Fault	10233	—	1	—	—
DC Cap Fuse Blown	10252	—	1	—	—
Rectifier Fuse Blown	10257	—	1	—	—
Inverter Fuse Blown	10261	—	1	—	—
Customer Alarm 1	10313	—	1	—	—
Customer Alarm 2	10314	—	1	—	—
Customer Alarm 3	10315	—	1	—	—
Customer Alarm 4	10316	—	1	—	—
Customer Alarm 5	10317	—	1	—	—
Customer Alarm 6	10318	—	1	—	—
Customer Alarm 7	10319	—	1	—	—
Customer Alarm 8	10320	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.180 Liebert® Series 600 UPS—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Nominal Power Rating	30021	40021	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Static Bypass Switch Voltage	30029	40029	1	—	V
Nominal Input Current	30030	40030	1	—	A

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Table 3.180 Liebert® Series 600 UPS—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Nominal Battery Voltage	30034	40034	1	—	V
Silence Alarm	—	40101	1	—	—
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W
Load / Capacity	30106	—	1	—	%
Output Frequency	30108	—	1	10	Hz
Bypass Frequency	30109	—	1	10	Hz
Battery Charge Status	30112	—	1	—	1 - 100% Charged 2 - Less than 100% Charged
Battery Voltage	30113	—	1	—	V
Battery Current	30114	—	1	—	A
Battery Time Remaining	30115	—	1	—	Minutes
Battery Charge Percentage	30116	—	1	—	%
Input Voltage L1	30153	—	1	—	V
Input Current L1	30154	—	1	—	A
Bypass Voltage L1	30159	—	1	—	V
Bypass Current L1	30160	—	1	—	A
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Voltage L2	30203	—	1	—	V
Input Current L2	30204	—	1	—	A
Bypass Voltage L2	30209	—	1	—	V
Bypass Current L2	30210	—	1	—	A
Output Voltage L2	30213	—	1	—	V
Output Current L2	30214	—	1	—	A
Input Voltage L3	30253	—	1	—	V
Input Current L3	30254	—	1	—	A
Bypass Voltage L3	30259	—	1	—	V
Bypass Current L3	30260	—	1	—	A
Output Voltage L3	30263	—	1	—	V

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Table 3.180 Liebert® Series 600 UPS—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Current L3	30264	—	1	—	A
Battery Discharge Count	30308	—	1	—	—
Battery Discharge duration	30309	—	1	—	Seconds
Battery Amp-Hour	30310	—	1	—	AH
Battery Watt-Hour	30311	—	2	—	WH
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.181 Liebert® Series 610 SCC UPS—Status and Coil

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Auto Retransfer Primed	10049	—	1	—	—
Load On Inverter	10073	—	1	—	—
Load On Bypass	10074	—	1	—	—
Load On Bypass	10129	—	1	—	—
Manual Reset Transfer	10130	—	1	—	—
Emergency Transfer	10134	—	1	—	—
Output Switch open	10138	—	1	—	—
SBS Unable	10148	—	1	—	—
Output Frequency Off	10153	—	1	—	—
Output Overload	10154	—	1	—	—
System Emergency Off	10157	—	1	—	—
Input Power Supply Fail	10186	—	1	—	—
Input Phase Rotation Error	10191	—	1	—	—
Bypass Input Voltage Fail	10202	—	1	—	—
Output Under Voltage	10218	—	1	—	—
Output Over Voltage	10219	—	1	—	—
Module Alarm Active	10304	—	1	—	—
Customer Alarm 1	10313	—	1	—	—
Customer Alarm 2	10314	—	1	—	—
Customer Alarm 3	10315	—	1	—	—
Customer Alarm 4	10316	—	1	—	—
Customer Alarm 5	10317	—	1	—	—

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Table 3.181 Liebert® Series 610 SCC UPS—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Scale	Notes / Units
Customer Alarm 6	10318	—	1	—	—
Customer Alarm 7	10319	—	1	—	—
Customer Alarm 8	10320	—	1	—	—
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.182 Liebert® Series 610 SCC UPS—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Number of Input Lines	30004	40004	1	—	Bits 12 - 15
Number of Bypass Lines	30004	40004	1	—	Bits 4 - 7
Number of Output Lines	30004	40004	1	—	Bits 8 - 11
Nominal Power Rating	30021	40021	2	—	VA
Nominal Input Voltage	30027	40027	1	—	V
Nominal Output Voltage	30028	40028	1	—	V
Nominal Static Bypass Switch Voltage	30029	40029	1	—	V
Nominal Output Frequency	30032	40032	1	10	Hz
Nominal Power Factor	30033	40033	1	100	—
Silence Alarm	—	40101	1	—	—
Load (Apparent Power)	30102	—	2	—	VA
Load (Real Power)	30104	—	2	—	W
Load / Capacity	30106	—	1	—	%
Output Frequency	30108	—	1	10	Hz
Bypass Frequency	30109	—	1	10	Hz
Input Voltage L1	30153	—	1	—	V
Bypass Voltage L1	30159	—	1	—	V
Bypass Current L1	30160	—	1	—	A
Output Voltage L1	30163	—	1	—	V
Output Current L1	30164	—	1	—	A
Input Voltage L2	30203	—	1	—	V
Bypass Voltage L2	30209	—	1	—	V
Bypass Current L2	30210	—	1	—	A
Output Voltage L2	30213	—	1	—	V

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Table 3.182 Liebert® Series 610 SCC UPS—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Output Current L2	30214	—	1	—	A
Input Voltage L3	30253	—	1	—	V
Bypass Voltage L3	30259	—	1	—	V
Bypass Current L3	30260	—	1	—	A
Output Voltage L3	30263	—	1	—	V
Output Current L3	30264	—	1	—	A
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.183 Liebert® Trinergy™ Cube—Status and Coil

Data Label	Status	Coil	Number of Bits	Notes
Switch Gear				
Backfeed Breaker Open	10001	—	1	Active on Alarm
Input Breaker Open	10002	—	1	Active on Alarm
Output Breaker Open	10003	—	1	Active on Alarm
Battery Breaker Open	10004	—	1	Active on Alarm
Maintenance Bypass Breaker Closed	10005	—	1	Active on Alarm
Bypass Breaker Closed	10014	—	1	Active on Alarm
Bypass Breaker (SBB) Open	10015	—	1	Active on Alarm
System Events				
General Fault	10016	—	1	Active on Alarm
General Warning	10 017	—	1	Active on Alarm
System Output Off	10018	—	1	Active on Alarm
UPS Output on Bypass	10019	—	1	Active on Alarm
Output Off Pending	10020	—	1	Active on Alarm
System Restart Pending	10021	—	1	Active on Alarm
Bypass out of sync	10022	—	1	Active on Alarm
System Output Fault	10023	—	1	Active on Alarm
System Shutdown - EPO	10024	—	1	Active on Alarm
Ground Fault	10026	—	1	Active on Alarm
System Input Power Problem	10027	—	1	Active on Alarm
Bypass Input Voltage Fault	10028	—	1	Active on Alarm
Bypass Overload	10029	—	1	Active on Alarm

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Table 3.183 Liebert® Trinergy™ Cube—Status and Coil (continued)

Data Label	Status	Coil	Number of Bits	Notes
Inverter Overload	10030	—	1	Active on Alarm
Bypass Not Available	10032	—	1	Active on Alarm
Bypass Static Switch Unavailable	10033	—	1	Active on Alarm
Rectifier Failure	10034	—	1	Active on Alarm
Inverter Failure	10035	—	1	Active on Alarm
Charger Failure	10036	—	1	Active on Alarm
Booster Failure	10037	—	1	Active on Alarm
DC Bus Abnormal	10038	—	1	Active on Alarm
Battery Ground Fault	10039	—	1	Active on Alarm
Battery Discharging	10040	—	1	Active on Alarm
Battery Charging	10041	—	1	Active on Alarm
Battery Low	10042	—	1	Active on Alarm
Battery Test Passed	10043	—	1	Active on Alarm
Battery Test Failed	10044	—	1	Active on Alarm
Battery Auto Test In Progress	10045	—	1	Active on Alarm
Battery Manual Test In Progress	10046	—	1	Active on Alarm
System Fan Failure	10047	—	1	Active on Alarm
Fuse Failure	10048	—	1	Active on Alarm
Equipment Over Temperature	10049	—	1	Active on Alarm
Battery Under Voltage	10050	—	1	Active on Alarm
Battery Circuit Open	10053	—	1	Active on Alarm
On Generator	10054	—	1	Active on Alarm

Table 3.184 Liebert® Trinergy™ Cube—Input and Holding

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
System Information					
UPS manufacturer	30385	—	1	—	0 = Chloride 1 = Masterguard 2 = Oneac 4 = Vertiv 5 = Other
UPS Module Type	30386	—	1	—	0 = Single Module System 1 = Module (1 + 1) 2 = Module (1 + N) 3 = Module (N + 1) 4 = System Control Cabinet

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Table 3.184 Liebert® Trinergy™ Cube—Input and Holding (continued)

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
					5 = Main Static Switch
Ratings					
Output Apparent Power Rating	30397	—	1	—	Units : kVA Uint16
System Input Nominal Frequency	30398	—	1	—	Units : Hz Uint16
System Input Nominal Voltage	30399	—	1	—	Units : VAC Uint16
System Output Nominal Frequency	30400	—	1	—	Units : Hz Uint16
System Output Nominal Voltage	30401	—	1	—	Units : VAC Uint16
System Input Nominal Current	30402	—	1	—	Units : A AC Uint16
Input					
System Input Frequency	30413	—	1	10	Units : Hz Uint16
System Input RMS A-N	30414	—	1	10	Units : VAC Uint16
System Input RMS B-N	30415	—	1	10	Units : VAC Uint16
System Input RMS C-N	30416	—	1	10	Units : VAC Uint16
System Input RMS A-B	30417	—	1	10	Units : VAC Uint16
System Input RMS B-C	30418	—	1	10	Units : VAC Uint16
System Input RMS C-A	30419	—	1	10	Units : VAC Uint16
System Input RMS Current Phase A	30420	—	1	10	Units : A AC Uint16
System Input RMS Current Phase B	30421	—	1	10	Units : A AC Uint16
System Input RMS Current Phase C	30422	—	1	10	Units : A AC Uint16
System Input Power Phase A	30423	—	1	10	Units : kW Uint16
System Input Power Phase B	30424	—	1	10	Units : kW Uint16
System Input Power Phase C	30425	—	1	10	Units : kW Uint16

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Table 3.184 Liebert® Trinergy™ Cube—Input and Holding (continued)

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
UPS DC input voltage	30426	—	1	—	Units : VDC Uint16
UPS input real power	30427	—	1	—	Units : kW Uint16
UPS input apparent power	30428	—	1	—	Units : kVA Uint16
Bypass					
Bypass Input Frequency	30501	—	1	10	Units : Hz Uint16
Bypass Input Voltage RMS A-N	30502	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS B-N	30503	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS C-N	30504	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS A-B	30505	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS B-C	30506	—	1	10	Units : VAC Uint16
Bypass Input Voltage RMS C-A	30507	—	1	10	Units : VAC Uint16
Bypass Input RMS Current Phase A	30508	—	1	10	Units : A AC Uint16
Bypass Input RMS Current Phase B	30509	—	1	10	Units : A AC Uint16
Bypass Input RMS Current Phase C	30510	—	1	10	Units : A AC Uint16
Bypass Input Power Factor Phase A	30511	—	1	100	Uint16
Bypass Input Power Factor Phase B	30512	—	1	100	Uint16
Bypass Input Power Factor Phase C	30513	—	1	100	Uint16
Bypass Power Phase A	30514	—	1	—	Units : kW Uint16
Bypass Power Phase B	30515	—	1	—	Units : kW Uint16
Bypass Power Phase C	30516	—	1	—	Units : kW Uint16
Battery					
Battery Volts for Cabinet	30518	—	1	—	Units : VDC Int16

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Table 3.184 Liebert® Trinergy™ Cube—Input and Holding (continued)

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
DC Bus Current	30519	—	1	—	Units : A DC Int16
Battery Discharge Time	30520	—	1	—	Units : sec Uint16
Battery Time Remaining	30521	—	1	—	Units : min Uint16
Battery Percentage Charge	30522	—	1	—	Units : % Uint16
Battery Temperature for Cabinet	30523	—	1	—	Units : deg C Int16
Battery Temperature for Cabinet	30524	—	1	—	Units : deg F Int16
Output					
System Output Frequency	30631	—	1	10	Units : Hz Uint16
System Output Voltage RMS A-N	30632	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-N	30633	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-N	30634	—	1	10	Units : VAC Uint16
System Output Voltage RMS A-B	30635	—	1	10	Units : VAC Uint16
System Output Voltage RMS B-C	30636	—	1	10	Units : VAC Uint16
System Output Voltage RMS C-A	30637	—	1	10	Units : VAC Uint16
System Output RMS Current Phs A	30638	—	1	10	Units : A AC Uint16
System Output RMS Current Phs B	30639	—	1	10	Units : A AC Uint16
System Output RMS Current Phs C	30640	—	1	10	Units : A AC Uint16
System Output Power Phase A	30641	—	1	10	Units : kW Uint16
System Output Power Phase B	30642	—	1	10	Units : kW Uint16
System Output Power Phase C	30643	—	1	10	Units : kW Uint16
System Output Pct Power Phase A	30644	—	1	—	Units : % Uint16
System Output Pct Power Phase B	30645	—	1	—	Units : %

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Table 3.184 Liebert® Trinergy™ Cube—Input and Holding (continued)

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
					Uint16
System Output Pct Power Phase C	30646	—	1	—	Units : % Uint16
System Output Apparent Power Phs A	30647	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30648	—	1	10	Units : kVA Uint16
System Output Apparent Power Phs C	30649	—	1	10	Units : kVA Uint16
Outside Air Temperature	30650	—	1	—	Units : deg C Int16
Outside Air Temperature	30651	—	1	—	Units : deg F Int16
System Output Power Factor Phs A	30653	—	1	100	Uint16
System Output Power Factor Phs B	30654	—	1	100	Uint16
System Output Power Factor Phs C	30655	—	1	100	Uint16
System Status					
UPS Output Source	30727	—	1	—	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	30728	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
UPS Operating Mode	30730	—	1	—	0 = Idle 1 = Double Conversion Mode (VFI) 2 = Interactive Mode (VI) 3 = Stand-By Mode (VFD) 4 = CR Mode (CR) 5 = ECO Mode (DIM)
ECO Mode Operation State	30731	—	1	—	0 = disabled 1 = enabled
Static Bypass Switch	30733	—	1	—	0 = off 1 = on
Bypass Qualification Status	30734	—	1	—	0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Charger On/Off State	30735	—	1	—	0 = off

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Table 3.184 Liebert® Trinergy™ Cube—Input and Holding (continued)

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
					1 = on
Booster On/Off State	30736	—	1	—	0 = off 1 = on
Bypass Status	30738	—	1	—	0 = Bypass not present 1 = Bypass on 2 = Bypass off 3 = Bypass fault 4 = Bypass not ready
Inverter Status	30739	—	1	—	0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter stopped due to Fault 4 = Inverter in Stand By 5 = Inverter Ready and Sync 6 = Inverter Not Ready
Charger Status	30740	—	1	—	0 = Charger in standby 1 = Charger on 2 = Charger switched off 3 = Charger forced on 4 = Charger stopped due to a fault
Rectifier Status	30741	—	1	—	0 = Rectifier off 1 = Rectifier turning on 2 = Rectifier on 3 = Rectifier fault
Switch Gear					
Maintenance Isolation Breaker	30744	—	1	—	0 = Open 1 = Close 2 = Not Installed
System Load Bank Breaker	30745	—	1	—	0 = Open 1 = Close 2 = Not Installed
Static Switch Input Breaker	30746	—	1	—	0 = Open 1 = Close 2 = Not Installed
Core Breakers 1					
QS1 Breaker	30757	—	1	—	0 = Open 1 = Close 2 = Not Installed
QS4 Breaker	30758	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Circuit Breaker	30759	—	1	—	0 = Open 1 = Close 2 = Not Installed
Core Breakers 2					

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Table 3.184 Liebert® Trinergy™ Cube—Input and Holding (continued)

Data Label	Input	Holding	Number of Reg	Scale	Notes/Units
QS1 Breaker	30760	—	1	—	0 = Open 1 = Close 2 = Not Installed
QS4 Breaker	30761	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Circuit Breaker	30762	—	1	—	0 = Open 1 = Close 2 = Not Installed
. . .					
Core Breakers 5					
QS1 Breaker	30769	—	1	—	0 = Open 1 = Close 2 = Not Installed
QS4 Breaker	30770	—	1	—	0 = Open 1 = Close 2 = Not Installed
Battery Circuit Breaker	30771	—	1	—	0 = Open 1 = Close 2 = Not Installed
SystemInfo					
System Date and Time	39998	49998	2	—	Units : Secs since Epoch(UTC)

Table 3.185 Liebert® Trinergy™ Cube—Glossary

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker Open	The battery circuit is open.
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98)
Battery Circuit Breaker	Battery Circuit Breaker
Battery Circuit Open	Battery Circuit Open
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Percentage Charge	The percentage of battery charge

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Table 3.185 Liebert® Trinergy™ Cube—Glossary (continued)

Data Label	Data Description
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Under Voltage	Battery voltage is too low.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Booster Failure	Booster failure - boost is off
Booster On/Off State	Booster on/off state
Bypass Breaker (SBB) Open	The bypass circuit breaker (SBB) indicates that it is in the open position.
Bypass Breaker Closed	The bypass breaker is closed
Bypass Input Frequency	The bypass input frequency
Bypass Input Power Factor Phase A	The bypass input Power Factor for Phase A.
Bypass Input Power Factor Phase B	The bypass input Power Factor for Phase B.
Bypass Input Power Factor Phase C	The bypass input Power Factor for Phase C.
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Not Available	A problem associated with the bypass has been detected

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Table 3.185 Liebert® Trinergy™ Cube—Glossary (continued)

Data Label	Data Description
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Qualification	Status bypass qualification status
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Status	Bypass Status
Charger Failure	Charger Failure - Charger is off
Charger On/Off State	Charger on/off state
Charger Status	Charger Status
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event
Fuse Failure	A summary event indicating one or more fuse failures
General Fault	A general fault in the UPS has been detected.
General Warning	A warning in the UPS has been detected.
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Input Breaker Open	The main input breaker is open.
Inverter Failure	Inverter failure - inverter output is off
Inverter Overload	Inverter in overload fault
Inverter Status	Inverter Status
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Isolation Breaker	Maintenance isolation breaker
On Generator	A generator is supplying the power to the system
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	The output breaker is open.
Output Off Pending	Output off pending - shutdown imminent.
Outside Air Temperature	Ambient outside air temperature.

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Table 3.185 Liebert® Trinergy™ Cube—Glossary (continued)

Data Label	Data Description
QS1 Breaker	QS1 Breaker
QS4 Breaker	QS4 Breaker
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Status	Rectifier Status
Static Bypass Switch	Static Bypass Switch state - On/Off
Static Switch Input Breaker	Static Switch Input Breaker
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Load Bank Breaker	System load bank breaker
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C

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Table 3.185 Liebert® Trinergy™ Cube—Glossary (continued)

Data Label	Data Description
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A

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Table 3.185 Liebert® Trinergy™ Cube—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Restart Pending	A request for UPS restart has been received
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
UPS DC input voltage	The voltage between the positive and negative terminals of the DC bus.
UPS input apparent power	The magnitude of the present input apparent power (calculated on the 3 phases).
UPS input real power	The magnitude of the present input true power (calculated on the 3 phases).
UPS manufacturer	The company manufacturing this specific UPS
UPS Module Type	UPS module type
UPS Operating Mode	UPS Operating Mode
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source

Table 3.186 Vertiv™ Liebert® Trinergy™—Status and Coil FDM

Data Label	Status	Coil	Number of Bits	Notes
System Events				
General Warning	10001		1	Active on Alarm
General Fault	10002		1	Active on Alarm
Inverter Failure	10003		1	Active on Alarm
Rectifier Failure	10004		1	Active on Alarm
Charger Failure	10005		1	Active on Alarm
Booster Failure	10006		1	Active on Alarm
Battery Low	10007		1	Active on Alarm
Battery Discharging	10008		1	Active on Alarm
System Fan Failure	10009		1	Active on Alarm
Bypass Not Available	10010		1	Active on Alarm
System Shutdown - EPO	10011		1	Active on Alarm
Input Breaker Open	10012		1	Active on Alarm
Output Breaker Open	10013		1	Active on Alarm
Internal Communications Failure	10014		1	Active on Alarm
UPS Output on Bypass	10015		1	Active on Alarm
Equipment Over Temperature	10016		1	Active on Alarm
System Output Off	10017		1	Active on Alarm

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Table 3.186 Vertiv™ Liebert® Trinergy™—Status and Coil FDM (continued)

Data Label	Status	Coil	Number of Bits	Notes
Output Off Pending	10018		1	Active on Alarm
Bypass out of sync	10019		1	Active on Alarm
System Input Power Problem	10020		1	Active on Alarm
Bypass Input Voltage Fault	10021		1	Active on Alarm
Bypass Overload	10022		1	Active on Alarm
Battery Charging	10023		1	Active on Alarm
Fuse Failure	10024		1	Active on Alarm
Battery Over Temperature Limit	10025		1	Active on Alarm
System Output Fault	10026		1	Active on Alarm
Battery Test Passed	10027		1	Active on Alarm
Battery Test Failed	10028		1	Active on Alarm
Battery Ground Fault	10029		1	Active on Alarm

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Protocol					
Server Class	30385		1		1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System Information					
Output Apparent Power Rating	30396		1		Units : kVA Uint16
System Input Nominal Frequency	30397		1		Units : Hz Uint16
System Input Nominal Voltage	30398		1		Units : VAC Uint16
System Output Nominal Frequency	30399		1		Units : Hz Uint16
System Output Nominal Voltage	30400		1		Units : VAC Uint16
System Input Nominal Current	30401		1		Units : A AC Uint16
Input					
System Rectifier Mains Voltage Phase A	30412		1	10	Units : VAC Uint16
System Rectifier Mains Voltage Phase B	30413		1	10	Units : VAC Uint16
System Rectifier Mains Voltage Phase C	30414		1	10	Units : VAC Uint16
System Input RMS Current Phase A	30415		1	10	Units : A AC Uint16
System Input RMS Current Phase B	30416		1	10	Units : A AC Uint16
System Input RMS Current Phase C	30417		1	10	Units : A AC Uint16
System Input Frequency	30418		1	10	Units : Hz Uint16
DC Bus Voltage	30419		1	10	Units : VDC

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
System Input Apparent Power Phs A	30420		1	10	Units : kVA Uint16
System Input Apparent Power Phs B	30421		1	10	Units : kVA Uint16
System Input Apparent Power Phs C	30422		1	10	Units : kVA Uint16
System Input Power Phase A	30423		1	10	Units : kW Uint16
System Input Power Phase B	30424		1	10	Units : kW Uint16
System Input Power Phase C	30425		1	10	Units : kW Uint16
Bypass					
Bypass Input Voltage Phase A	30436		1	10	Units : VAC Uint16
Bypass Input Voltage Phase B	30437		1	10	Units : VAC Uint16
Bypass Input Voltage Phase C	30438		1	10	Units : VAC Uint16
Bypass Input RMS Current Phase A	30439		1	10	Units : A AC Uint16
Bypass Input RMS Current Phase B	30440		1	10	Units : A AC Uint16
Bypass Input RMS Current Phase C	30441		1	10	Units : A AC Uint16
Bypass Input Frequency	30442		1	10	Units : Hz Uint16
Bypass Power Phase A	30443		1	10	Units : kW Uint16
Bypass Power Phase B	30444		1	10	Units : kW Uint16
Bypass Power Phase C	30445		1	10	Units : kW Uint16
Bypass Apparent Power Phase A	30446		1	10	Units : kVA

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Uint16
Bypass Apparent Power Phase B	30447		1	10	Units : kVA Uint16
Bypass Apparent Power Phase C	30448		1	10	Units : kVA Uint16
Outside Air Temperature	30449		1		Units : deg C Int16
Outside Air Temperature	30450		1		Units : deg F Int16
Battery					
Battery Volts for Cabinet	30459		1		Units : VDC Int16
System Battery Cells Number	30460		1		Uint16
System Battery Voltage Per Cell	30461		1	100	Units : VDC Int16
System Battery Minimum Voltage Last Discharge	30462		1	10	Units : VDC Int16
DC Bus Current	30463		1		Units : A DC Int16
Battery Temperature for Cabinet	30464		1		Units : deg C Int16
Battery Temperature for Cabinet	30465		1		Units : deg F Int16
Battery Time Remaining	30466		1		Units : min Uint16
System Battery Voltage Reference	30467		1	10	Units : VDC Int16
System Battery Current Reference	30468		1	10	Units : A DC Int16
Battery State of Health	30469		1		Uint16
Battery Percentage Charge	30470		1		Uint16
Output Measurements					
System Load Voltage Phase A	30481		1	10	Units : VAC Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Load Voltage Phase B	30482		1	10	Units : VAC Uint16
System Load Voltage Phase C	30483		1	10	Units : VAC Uint16
System Output RMS Current Phs A	30484		1	10	Units : A AC Uint16
System Output RMS Current Phs B	30485		1	10	Units : A AC Uint16
System Output RMS Current Phs C	30486		1	10	Units : A AC Uint16
System Output Frequency	30487		1	10	Units : Hz Uint16
System Output Power Phase A	30488		1	10	Units : kW Uint16
System Output Power Phase B	30489		1	10	Units : kW Uint16
System Output Power Phase C	30490		1	10	Units : kW Uint16
System Load Real Power Total	30491		1	10	Units : kW Uint16
System Output Apparent Power Phs A	30492		1	10	Units : kVA Uint16
System Output Apparent Power Phs B	30493		1	10	Units : kVA Uint16
System Output Apparent Power Phs C	30494		1	10	Units : kVA Uint16
System Load Apparent Power Total	30495		1	10	Units : kVA Uint16
System Output Pct Power Phase A	30496		1		Units : % Uint16
System Output Pct Power Phase B	30497		1		Units : % Uint16
System Output Pct Power Phase C	30498		1		Units : % Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
System Output Power Factor Phs A	30499		1	100	Int16
System Output Power Factor Phs B	30500		1	100	Int16
System Output Power Factor Phs C	30501		1	100	Int16
System Status					
Rectifier Status	30512		1		0 = Rectifier off 1 = Rectifier turning on 2 = Rectifier on 3 = Rectifier fault
Bypass Status	30513		1		0 = Bypass not present 1 = Bypass on 2 = Bypass off 3 = Bypass fault 4 = Bypass not read
Inverter Status	30514		1		0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter stopped due to Fault 4 = Inverter in Stand B 5 = Inverter Ready and Sync 6 = Inverter Not Ready
Charger Status	30515		1		0 = Charger in standby 1 = Charger on 2 = Charger switched off 3 = Charger forced on 4 = Charger stopped due to a fault
Booster Status	30516		1		0 = Booster off 1 = Booster turning on 2 = Booster on 3 = Booster stopped due to a fault
Load Status	30517		1		0 = Init 1 = Load secured by Inverter 2 = Load on Battery 3 = Load supplied by Bypass 4 = Load suppliedby Maintenance bypass 5 = Load not supplied
Battery Status	30518		1		0 = Idle

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					1 = Charging 2 = Discharging 3 = Not connected 4 = Fault
QS1 Breaker	30519		1		0 = Open 1 = Close 2 = Not Installed
QS4 Breaker	30520		1		0 = Open 1 = Close 2 = Not Installed
System Backfeed Disconnect Breaker Status	30521		1		0 = Open 1 = Close 2 = Not Installed
System Rectifier Input Breaker Status	30522		1		0 = Open 1 = Close 2 = Not Installed
System Rectifier Backfeed Breaker Status	30523		1		0 = Open 1 = Close 2 = Not Installed
System Maintenance Bypass Breaker Status	30524		1		0 = Open 1 = Close 2 = Not Installed
UPS Operating Mode	30525		1		0 = Idle 1 = Double Conversion Mode (VFI) 2 = Interactive Mode (VI) 3 = Stand-By Mode (VFD) 4 = CR Mode (CR) 5 = ECO Mode (DIM)
ECO Mode Operation State	30526		1		0 = disabled 1 = enabled
Total System Operating Time	30527		2		Units : hr Uint32
System Status	30529		1		1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					32 = Abnormal Operation
Inverter Synchronization Source	30530		1		0 = External 1 = Self clock (internal) 2 = Output 3 = Bypass
Bypass Qualification Status	30531		1		0 = Fail 1 = Marginal Low 2 = Normal 3 = Marginal High
Internal Bypass Breaker	30532		1		0 = Open 1 = Close 2 = Not Installed
Bypass Isolation Breaker	30533		1		0 = Open 1 = Close 2 = Not Installed
Maintenance Bypass Breaker	30534		1		0 = Open 1 = Close 2 = Not Installed
Maintenance Isolation Breaker	30535		1		0 = Open 1 = Close 2 = Not Installed
System Load Bank Breaker	30536		1		0 = Open 1 = Close 2 = Not Installed
Core Information 1					
Core Rectifier Status	30547		1		0 = Rectifier off 1 = Rectifier turning on 2 = Rectifier on 3 = Rectifier fault
Core Inverter Status	30548		1		0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter stopped due to Fault 4 = Inverter in Stand By 5 = Inverter Ready and Sync 6 = Inverter Not Ready

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Charger Status	30549		1		0 = Charger in standby 1 = Charger on 2 = Charger switched off 3 = Charger forced on 4 = Charger stopped due to a fault
Core Booster Status	30550		1		0 = Booster off 1 = Booster turning on 2 = Booster on 3 = Booster stopped due to a fault
Core Load Status	30551		1		0 = Init 1 = Load secured by Inverter 2 = Load on Battery 3 = Load supplied by Bypass 4 = Load suppliedby Maintenance bypass 5 = Load not supplied
Core Battery Status	30552		1		0 = Idle 1 = Charging 2 = Discharging 3 = Not connected 4 = Fault
Core KM1 Breaker Status	30553		1		0 = Open 1 = Close 2 = Not Installed
Core KM4 Breaker Status	30554		1		0 = Open 1 = Close 2 = Not Installed
Core Information 2					
Core Rectifier Status	30565		1		0 = Rectifier off 1 = Rectifier turning on 2 = Rectifier on 3 = Rectifier fault
Core Inverter Status	30566		1		0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter stopped due to Fault 4 = Inverter in Stand By

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					5 = Inverter Ready and Sync 6 = Inverter Not Ready
Core Charger Status	30567		1		0 = Charger in standby 1 = Charger on 2 = Charger switched off 3 = Charger forced on 4 = Charger stopped due to a fault
Core Booster Status	30568		1		0 = Booster off 1 = Booster turning on 2 = Booster on 3 = Booster stopped due to a fault
Core Load Status	30569		1		0 = Init 1 = Load secured by Inverter 2 = Load on Battery 3 = Load supplied by Bypass 4 = Load suppliedby Maintenance bypass 5 = Load not supplied
Core Battery Status	30570		1		0 = Idle 1 = Charging 2 = Discharging 3 = Not connected 4 = Fault
Core KM1 Breaker Status	30571		1		0 = Open 1 = Close 2 = Not Installed
Core KM4 Breaker Status	30572		1		0 = Open 1 = Close 2 = Not Installed
Core Information 10					
Core Rectifier Status	30709		1		0 = Rectifier off 1 = Rectifier turning on 2 = Rectifier on 3 = Rectifier fault
Core Inverter Status	30710		1		0 = Inverter off 1 = Inverter turning on 2 = Inverter on 3 = Inverter stopped due to Fault 4 = Inverter in Stand By

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					5 = Inverter Ready and Sync 6 = Inverter Not Ready
Core Charger Status	30711		1		0 = Charger in standby 1 = Charger on 2 = Charger switched off 3 = Charger forced on 4 = Charger stopped due to a fault
Core Booster Status	30712		1		0 = Booster off 1 = Booster turning on 2 = Booster on 3 = Booster stopped due to a fault
Core Load Status	30713		1		0 = Init 1 = Load secured by Inverter 2 = Load on Battery 3 = Load supplied by Bypass 4 = Load suppliedby Maintenance bypass 5 = Load not supplied
Core Battery Status	30714		1		0 = Idle 1 = Charging 2 = Discharging 3 = Not connected 4 = Fault
Core KM1 Breaker Status	30715		1		0 = Open 1 = Close 2 = Not Installed
Core KM4 Breaker Status	30716		1		0 = Open 1 = Close 2 = Not Installed
Core Input 1					
Core Rectifier Mains Voltage Phase A	30727		1	10	Units : VAC Uint16
Core Rectifier Mains Voltage Phase B	30728		1	10	Units : VAC Uint16
Core Rectifier Mains Voltage Phase C	30729		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase A	30730		1	10	Units : VAC Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Rectifier Input Voltage Phase B	30731		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase C	30732		1	10	Units : VAC Uint16
Core Rectifier Input Current Phase A	30733		1	10	Units : A AC Uint16
Core Rectifier Input Current Phase B	30734		1	10	Units : A AC Uint16
Core Rectifier Input Current Phase C	30735		1	10	Units : A AC Uint16
Core Input Frequency	30736		1	10	Units : Hz Uint16
Core DC Bus Voltage	30737		1	10	Units : VDC Uint16
Core Rectifier Apparent Power Phase A	30738		1	10	Units : kVA Uint16
Core Rectifier Apparent Power Phase B	30739		1	10	Units : kVA Uint16
Core Rectifier Apparent Power Phase C	30740		1	10	Units : kVA Uint16
Core Rectifier Real Power Phase A	30741		1	10	Units : kW Uint16
Core Rectifier Real Power Phase B	30742		1	10	Units : kW Uint16
Core Rectifier Real Power Phase C	30743		1	10	Units : kW Uint16
Rectifier Phase A Temperature sensor	30744		1	10	Units : deg C Int16
Rectifier Phase A Temperature sensor	30745		1	10	Units : deg F Int16
Rectifier Phase B Temperature sensor	30746		1	10	Units : deg C Int16
Rectifier Phase B Temperature sensor	30747		1	10	Units : deg F Int16
Rectifier Phase C Temperature sensor	30748		1	10	Units : deg C

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Rectifier Phase C Temperature sensor	30749		1	10	Units : deg F Int16
Core Input 2					
Core Rectifier Mains Voltage Phase A	30760		1	10	Units : VAC Uint16
Core Rectifier Mains Voltage Phase B	30761		1	10	Units : VAC Uint16
Core Rectifier Mains Voltage Phase C	30762		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase A	30763		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase B	30764		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase C	30765		1	10	Units : VAC Uint16
Core Rectifier Input Current Phase A	30766		1	10	Units : A AC Uint16
Core Rectifier Input Current Phase B	30767		1	10	Units : A AC Uint16
Core Rectifier Input Current Phase C	30768		1	10	Units : A AC Uint16
Core Input Frequency	30769		1	10	Units : Hz Uint16
Core DC Bus Voltage	30770		1	10	Units : VDC Uint16
Core Rectifier Apparent Power Phase A	30771		1	10	Units : kVA Uint16
Core Rectifier Apparent Power Phase B	30772		1	10	Units : kVA Uint16
Core Rectifier Apparent Power Phase C	30773		1	10	Units : kVA Uint16
Core Rectifier Real Power Phase A	30774		1	10	Units : kW Uint16
Core Rectifier Real Power Phase B	30775		1	10	Units : kW Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Rectifier Real Power Phase C	30776		1	10	Units : kW Uint16
Rectifier Phase A Temperature sensor	30777		1	10	Units : deg C Int16
Rectifier Phase A Temperature sensor	30778		1	10	Units : deg F Int16
Rectifier Phase B Temperature sensor	30779		1	10	Units : deg C Int16
Rectifier Phase B Temperature sensor	30780		1	10	Units : deg F Int16
Rectifier Phase C Temperature sensor	30781		1	10	Units : deg C Int16
Rectifier Phase C Temperature sensor	30782		1	10	Units : deg F Int16
Core Input 10					
Core Rectifier Mains Voltage Phase A	31024		1	10	Units : VAC Uint16
Core Rectifier Mains Voltage Phase B	31025		1	10	Units : VAC Uint16
Core Rectifier Mains Voltage Phase C	31026		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase A	31027		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase B	31028		1	10	Units : VAC Uint16
Core Rectifier Input Voltage Phase C	31029		1	10	Units : VAC Uint16
Core Rectifier Input Current Phase A	31030		1	10	Units : A AC Uint16
Core Rectifier Input Current Phase B	31031		1	10	Units : A AC Uint16
Core Rectifier Input Current Phase C	31032		1	10	Units : A AC Uint16
Core Input Frequency	31033		1	10	Units : Hz Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core DC Bus Voltage	31034		1	10	Units : VDC Uint16
Core Rectifier Apparent Power Phase A	31035		1	10	Units : kVA Uint16
Core Rectifier Apparent Power Phase B	31036		1	10	Units : kVA Uint16
Core Rectifier Apparent Power Phase C	31037		1	10	Units : kVA Uint16
Core Rectifier Real Power Phase A	31038		1	10	Units : kW Uint16
Core Rectifier Real Power Phase B	31039		1	10	Units : kW Uint16
Core Rectifier Real Power Phase C	31040		1	10	Units : kW Uint16
Rectifier Phase A Temperature sensor	31041		1	10	Units : deg C Int16
Rectifier Phase A Temperature sensor	31042		1	10	Units : deg F Int16
Rectifier Phase B Temperature sensor	31043		1	10	Units : deg C Int16
Rectifier Phase B Temperature sensor	31044		1	10	Units : deg F Int16
Rectifier Phase C Temperature sensor	31045		1	10	Units : deg C Int16
Rectifier Phase C Temperature sensor	31046		1	10	Units : deg F Int16
Core Output Measurements 1					
Core Load Voltage Phase A	31057		1	10	Units : VAC Uint16
Core Load Voltage Phase B	31058		1	10	Units : VAC Uint16
Core Load Voltage Phase C	31059		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase A	31060		1	10	Units : VAC Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Inverter Line Voltage Phase B	31061		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase C	31062		1	10	Units : VAC Uint16
Core Load Current Phase A	31063		1	10	Units : A AC Uint16
Core Load Current Phase B	31064		1	10	Units : A AC Uint16
Core Load Current Phase C	31065		1	10	Units : A AC Uint16
Core Inverter DC Bus Voltage	31066		1	10	Units : VDC Uint16
Core Load Frequency	31067		1	10	Units : Hz Uint16
Core Load Real Power Phase A	31068		1	10	Units : kW Uint16
Core Load Real Power Phase B	31069		1	10	Units : kW Uint16
Core Load Real Power Phase C	31070		1	10	Units : kW Uint16
Core Load Real Power Total	31071		1	10	Units : kW Uint16
Core Load Apparent Power Phase A	31072		1	10	Units : kVA Uint16
Core Load Apparent Power Phase B	31073		1	10	Units : kVA Uint16
Core Load Apparent Power Phase C	31074		1	10	Units : kVA Uint16
Core Load Apparent Power Total	31075		1	10	Units : kVA Uint16
Core Load Power Factor Phase A	31076		1	100	Int16
Core Load Power Factor Phase B	31077		1	100	Int16
Core Load Power Factor Phase C	31078		1	100	Int16
Core Load Percent Phase A	31079		1		Units : % Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Load Percent Phase B	31080		1		Units : % Uint16
Core Load Percent Phase C	31081		1		Units : % Uint16
Core Inverter Temperature Phase A	31082		1	10	Units : deg C Int16
Core Inverter Temperature Phase A	31083		1	10	Units : deg F Int16
Core Inverter Temperature Phase B	31084		1	10	Units : deg C Int16
Core Inverter Temperature Phase B	31085		1	10	Units : deg F Int16
Core Inverter Temperature Phase C	31086		1	10	Units : deg C Int16
Core Inverter Temperature Phase C	31087		1	10	Units : deg F Int16
Core Output Measurements 2					
Core Load Voltage Phase A	31098		1	10	Units : VAC Uint16
Core Load Voltage Phase B	31099		1	10	Units : VAC Uint16
Core Load Voltage Phase C	31100		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase A	31101		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase B	31102		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase C	31103		1	10	Units : VAC Uint16
Core Load Current Phase A	31104		1	10	Units : A AC Uint16
Core Load Current Phase B	31105		1	10	Units : A AC Uint16
Core Load Current Phase C	31106		1	10	Units : A AC Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Inverter DC Bus Voltage	31107		1	10	Units : VDC Uint16
Core Load Frequency	31108		1	10	Units : Hz Uint16
Core Load Real Power Phase A	31109		1	10	Units : kW Uint16
Core Load Real Power Phase B	31110		1	10	Units : kW Uint16
Core Load Real Power Phase C	31111		1	10	Units : kW Uint16
Core Load Real Power Total	31112		1	10	Units : kW Uint16
Core Load Apparent Power Phase A	31113		1	10	Units : kVA Uint16
Core Load Apparent Power Phase B	31114		1	10	Units : kVA Uint16
Core Load Apparent Power Phase C	31115		1	10	Units : kVA Uint16
Core Load Apparent Power Total	31116		1	10	Units : kVA Uint16
Core Load Power Factor Phase A	31117		1	100	Int16
Core Load Power Factor Phase B	31118		1	100	Int16
Core Load Power Factor Phase C	31119		1	100	Int16
Core Load Percent Phase A	31120		1		Units : % Uint16
Core Load Percent Phase B	31121		1		Units : % Uint16
Core Load Percent Phase C	31122		1		Units : % Uint16
Core Inverter Temperature Phase A	31123		1	10	Units : deg C Int16
Core Inverter Temperature Phase A	31124		1	10	Units : deg F Int16
Core Inverter Temperature Phase B	31125		1	10	Units : deg C Int16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Inverter Temperature Phase B	31126		1	10	Units : deg F Int16
Core Inverter Temperature Phase C	31127		1	10	Units : deg C Int16
Core Inverter Temperature Phase C	31128		1	10	Units : deg F Int16
Core Output Measurements 10					
Core Load Voltage Phase A	31426		1	10	Units : VAC Uint16
Core Load Voltage Phase B	31427		1	10	Units : VAC Uint16
Core Load Voltage Phase C	31428		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase A	31429		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase B	31430		1	10	Units : VAC Uint16
Core Inverter Line Voltage Phase C	31431		1	10	Units : VAC Uint16
Core Load Current Phase A	31432		1	10	Units : A AC Uint16
Core Load Current Phase B	31433		1	10	Units : A AC Uint16
Core Load Current Phase C	31434		1	10	Units : A AC Uint16
Core Inverter DC Bus Voltage	31435		1	10	Units : VDC Uint16
Core Load Frequency	31436		1	10	Units : Hz Uint16
Core Load Real Power Phase A	31437		1	10	Units : kW Uint16
Core Load Real Power Phase B	31438		1	10	Units : kW Uint16
Core Load Real Power Phase C	31439		1	10	Units : kW Uint16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Load Real Power Total	31440		1	10	Units : kW Uint16
Core Load Apparent Power Phase A	31441		1	10	Units : kVA Uint16
Core Load Apparent Power Phase B	31442		1	10	Units : kVA Uint16
Core Load Apparent Power Phase C	31443		1	10	Units : kVA Uint16
Core Load Apparent Power Total	31444		1	10	Units : kVA Uint16
Core Load Power Factor Phase A	31445		1	100	Int16
Core Load Power Factor Phase B	31446		1	100	Int16
Core Load Power Factor Phase C	31447		1	100	Int16
Core Load Percent Phase A	31448		1		Units : % Uint16
Core Load Percent Phase B	31449		1		Units : % Uint16
Core Load Percent Phase C	31450		1		Units : % Uint16
Core Inverter Temperature Phase A	31451		1	10	Units : deg C Int16
Core Inverter Temperature Phase A	31452		1	10	Units : deg F Int16
Core Inverter Temperature Phase B	31453		1	10	Units : deg C Int16
Core Inverter Temperature Phase B	31454		1	10	Units : deg F Int16
Core Inverter Temperature Phase C	31455		1	10	Units : deg C Int16
Core Inverter Temperature Phase C	31456		1	10	Units : deg F Int16
Core Battery 1					
Core Battery Voltage	31467		1		Units : VDC Int16
Core Battery Current	31468		1	10	Units : A DC

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
					Int16
Core Battery Voltage Per Cell	31469		1	100	Units : VDC Int16
Core Battery Running Time	31470		1		Units : min Uint16
Core Battery 2					
Core Battery Voltage	31481		1		Units : VDC Int16
Core Battery Current	31482		1	10	Units : A DC Int16
Core Battery Voltage Per Cell	31483		1	100	Units : VDC Int16
Core Battery Running Time	31484		1		Units : min Uint16
Core Battery 10					
Core Battery Voltage	31593		1		Units : VDC Int16
Core Battery Current	31594		1	10	Units : A DC Int16
Core Battery Voltage Per Cell	31595		1	100	Units : VDC Int16
Core Battery Running Time	31596		1		Units : min Uint16
Buck Booster 1					
Core Buck Booster Temperature Module Left	31607		1		Units : deg C Int16
Core Buck Booster Temperature Module Left	31608		1		Units : deg F Int16
Core Buck Booster Temperature Module Right	31609		1		Units : deg C Int16
Core Buck Booster Temperature Module Right	31610		1		Units : deg F Int16
Buck Booster 2					
Core Buck Booster Temperature Module Left	31621		1		Units : deg C Int16

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Table 3.187 Vertiv™ Liebert® Trinergy™—Input and Holding (continued)

Data Label	Input	Holding	# of Reg	Scale	Notes/Units
Core Buck Booster Temperature Module Left	31622		1		Units : deg F Int16
Core Buck Booster Temperature Module Right	31623		1		Units : deg C Int16
Core Buck Booster Temperature Module Right	31624		1		Units : deg F Int16
Buck Booster 10					
Core Buck Booster Temperature Module Left	31733		1		Units : deg C Int16
Core Buck Booster Temperature Module Left	31734		1		Units : deg F Int16
Core Buck Booster Temperature Module Right	31735		1		Units : deg C Int16
Core Buck Booster Temperature Module Right	31736		1		Units : deg F Int16
SystemInfo					
System Date and Time	39998	49998	2		Units : Secs since Epoch (UTC)

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary

Data Label	Data Description
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98)
Battery Discharging	The battery is discharging
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Over Temperature Limit	A battery temperature sensor is reporting a value above a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery State of Health	Battery State of Health
Battery Status	Battery Status
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Booster Failure	Booster failure - boost is off
Booster Status	Booster Status
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Input Frequency	The bypass input frequency
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage Phase A	Bypass Input Voltage Phase A
Bypass Input Voltage Phase B	Bypass Input Voltage Phase B
Bypass Input Voltage Phase C	Bypass Input Voltage Phase C
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Not Available	A problem associated with the bypass has been detected
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Bypass Power Phase C	The bypass power on phase C
Bypass Qualification Status	bypass qualification status
Bypass Status	Bypass Status
Charger Failure	Charger Failure - Charger is off
Charger Status	Charger Status
Core Battery Current	Core Battery Current
Core Battery Running Time	Core Battery Running Time
Core Battery Status	Core Battery Status
Core Battery Voltage Per Cell	Core Battery Voltage Per Cell
Core Battery Voltage	Core Battery Voltage
Core Booster Status	Core Booster Status
Core Buck Booster Temperature Module Left	Core Buck Booster Temperature Module Left
Core Buck Booster Temperature Module Right	Core Buck Booster Temperature Module Right
Core Charger Status	Core Charger Status
Core DC Bus Voltage	Core DC Bus Voltage
Core Input Frequency	Core Input Frequency
Core Inverter DC Bus Voltage	Core Inverter DC Bus Voltage
Core Inverter Line Voltage Phase A	Core Inverter Line Voltage Phase A
Core Inverter Line Voltage Phase B	Core Inverter Line Voltage Phase B
Core Inverter Line Voltage Phase C	Core Inverter Line Voltage Phase C
Core Inverter Status	Core Inverter Status
Core Inverter Temperature Phase A	Core Inverter Temperature Phase A
Core Inverter Temperature Phase B	Core Inverter Temperature Phase B
Core Inverter Temperature Phase C	Core Inverter Temperature Phase C
Core KM1 Breaker Status	Core KM1 Breaker Status
Core KM4 Breaker Status	Core KM4 Breaker Status
Core Load Apparent Power Phase A	Core Load Apparent Power Phase A
Core Load Apparent Power Phase B	Core Load Apparent Power Phase B
Core Load Apparent Power Phase C	Core Load Apparent Power Phase C
Core Load Apparent Power Total	Core Load Apparent Power Total
Core Load Current Phase A	Core Load Current Phase A

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Core Load Current Phase B	Core Load Current Phase B
Core Load Current Phase C	Core Load Current Phase C
Core Load Frequency	Core Load Frequency
Core Load Percent Phase A	Core Load Percent Phase A
Core Load Percent Phase B	Core Load Percent Phase B
Core Load Percent Phase C	Core Load Percent Phase C
Core Load Power Factor Phase A	Core Load Power Factor Phase A
Core Load Power Factor Phase B	Core Load Power Factor Phase B
Core Load Power Factor Phase C	Core Load Power Factor Phase C
Core Load Real Power Phase A	Core Load Real Power Phase A
Core Load Real Power Phase B	Core Load Real Power Phase B
Core Load Real Power Phase C	Core Load Real Power Phase C
Core Load Real Power Total	Core Load Real Power Total
Core Load Status	Core Load Status
Core Load Voltage Phase A	Core Load Voltage Phase A
Core Load Voltage Phase B	Core Load Voltage Phase B
Core Load Voltage Phase C	Core Load Voltage Phase C
Core Rectifier Apparent Power Phase A	Core Rectifier Apparent Power Phase A
Core Rectifier Apparent Power Phase B	Core Rectifier Apparent Power Phase B
Core Rectifier Apparent Power Phase C	Core Rectifier Apparent Power Phase C
Core Rectifier Input Current Phase A	Core Rectifier Input Current Phase A
Core Rectifier Input Current Phase B	Core Rectifier Input Current Phase B
Core Rectifier Input Current Phase C	Core Rectifier Input Current Phase C
Core Rectifier Input Voltage Phase A	Core Rectifier Input Voltage Phase A
Core Rectifier Input Voltage Phase B	Core Rectifier Input Voltage Phase B
Core Rectifier Input Voltage Phase C	Core Rectifier Input Voltage Phase C
Core Rectifier Mains Voltage Phase A	Core Rectifier Mains Voltage Phase A
Core Rectifier Mains Voltage Phase B	Core Rectifier Mains Voltage Phase B
Core Rectifier Mains Voltage Phase C	Core Rectifier Mains Voltage Phase C

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Core Rectifier Real Power Phase A	Core Rectifier Real Power Phase A
Core Rectifier Real Power Phase B	Core Rectifier Real Power Phase B
Core Rectifier Real Power Phase C	Core Rectifier Real Power Phase C
Core Rectifier Status	Core Rectifier Status
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event
Fuse Failure	A summary event indicating one or more fuse failures
General Fault	A general fault in the UPS has been detected.
General Warning	A warning in the UPS has been detected.
Input Breaker Open	The main input breaker is open.
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter Status	Inverter Status
Inverter Synchronization Source	The reference source for inverter synchronization
Load Status	Load Status
Maintenance Bypass Breaker	Maintenance bypass breaker
Maintenance Isolation Breaker	Maintenance isolation breaker
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	The output breaker is open.
Output Off Pending	Output off pending - shutdown imminent.
Outside Air Temperature	Ambient outside air temperature.
QS1 Breaker	QS1 Breaker
QS4 Breaker	QS4 Breaker
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Phase A Temperature sensor	Rectifier temperature sensor reading for Phase A.
Rectifier Phase B Temperature sensor	Rectifier temperature sensor reading for Phase B.
Rectifier Phase C Temperature sensor	Rectifier temperature sensor reading for Phase C.

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Rectifier Status	Rectifier Status
Server Class	The general classification for this system
System Backfeed Disconnect Breaker Status	System Backfeed Disconnect Breaker Status
System Battery Cells Number	System Battery Cells Number
System Battery Current Reference	System Battery Current Reference
System Battery Minimum Voltage Last Discharge	System Battery Minimum Voltage Last Discharge
System Battery Voltage Per Cell	System Battery Voltage Per Cell
System Battery Voltage Reference	System Battery Voltage Reference
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Load Apparent Power Total	System Load Apparent Power Total
System Load Bank Breaker	System load bank breaker
System Load Real Power Total	System Load Real Power Total
System Load Voltage Phase A	System Load Voltage Phase A
System Load Voltage Phase B	System Load Voltage Phase B
System Load Voltage Phase C	System Load Voltage Phase C
System Maintenance Bypass Breaker Status	System Maintenance Bypass Breaker Status

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Rectifier Backfeed Breaker Status	System Rectifier Backfeed Breaker Status
System Rectifier Input Breaker Status	System Rectifier Input Breaker Status
System Rectifier Mains Voltage Phase A	System Rectifier Mains Voltage Phase A
System Rectifier Mains Voltage Phase B	System Rectifier Mains Voltage Phase B
System Rectifier Mains Voltage Phase C	System Rectifier Mains Voltage Phase C
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system

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Table 3.188 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Total System Operating Time	The cumulative operation time of the unit
UPS Operating Mode	UPS Operating Mode
UPS Output on Bypass	The output power is supplied by the bypass

3.4 Battery Monitoring Products—Modbus Protocols

Table 3.189 Alber™ BDSU—Status and Coil

Data Description	Status	Coil	Number of Bits	Notes / Units
Battery Entity				
Battery Discharging Battery 1 - 32	10001-10032		1	Active on Alarm
String Entity				
High Ambient Temperature String 1 - 32	10033-10064		1	Active on Alarm
Low Ambient Temperature String 1 - 32	10065-10096		1	Active on Alarm
Low Ambient Temperature Probe Two String 1 - 32	10097-10128		1	Active on Alarm
High Ambient Temperature Probe Two String 1 - 32	10129-10160		1	Active on Alarm
Low Overall Voltage String 1 - 32	10161-10192		1	Active on Alarm
High Overall Voltage String 1 - 32	10193-10224		1	Active on Alarm
High Battery String Current String 1 - 32	10225-10256		1	Active on Alarm
Low Battery String Float Current String 1 - 32	10257-10288		1	Active on Alarm
High Battery String Float Current String 1 - 32	10289-10320		1	Active on Alarm
High Battery String Ripple Current String 1 - 32	10321-10352		1	Active on Alarm
Maximum Discharge Time Exceeded String 1 - 32	10385-10416		1	Active on Alarm
Discharge Low Overall Voltage String 1 - 32	10417-10448		1	Active on Alarm

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Table 3.189 Alber™ BDSU—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Notes / Units
Discharge Low Cell Voltage String 1 - 32	10449-10480		1	Active on Alarm
Discharge High Battery String Current String 1 - 32	10481-10512		1	Active on Alarm
Excessive Cell to Cell Temperature Deviation String 1 - 32	10513-10544		1	Active on Alarm
Excessive Cell to Ambient Temperature Deviation String 1 - 32	10545-10576		1	Active on Alarm
Thermal Runaway Detected String 1 - 32	10577-10608		1	Active on Alarm
Battery String Equalize String 1 - 32	10609-10640		1	Active on Alarm
Battery String Offline String 1 - 32	10641-10672		1	Active on Alarm
Thermal Runaway Cell to Ambient Temperature Event String 1 - 32	13233-13264		1	Active on Alarm
Thermal Runaway Cell to Cell Temperature Event String 1 - 32	13265-13296		1	Active on Alarm
Thermal Runaway Charger Current Level One Event String 1 - 32	13297-13328		1	Active on Alarm
Thermal Runaway Charger Current Level Two Event String 1 - 32	13329-13360		1	Active on Alarm
Cell Entity (Cells 1 – 320)				
Low Cell Voltage Cell 1 - 320	10673-10992		1	Active on Alarm
High Cell Voltage Cell 1 - 320	10993-11312		1	Active on Alarm
Low Cell Temperature Cell 1 - 320	11313-11632		1	Active on Alarm
High Cell Temperature Cell 1 - 320	11633-11952		1	Active on Alarm
Low Internal Resistance Cell 1 - 320	11953-12272		1	Active on Alarm
High Internal Resistance Cell 1 - 320	12273-12592		1	Active on Alarm

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Table 3.189 Alber™ BDSU—Status and Coil (continued)

Data Description	Status	Coil	Number of Bits	Notes / Units
High Intercell Resistance Cell 1 - 320	12593-12912		1	Active on Alarm
Discharge Low Cell Voltage Cell 1 - 320	12913-13232		1	Active on Alarm
Intertier Resistance High Cell 1 - 320	13361-13680		1	Active on Alarm
Cell Entity (Cells 321 – 360)				
Low Cell Voltage Cell 321 - 360	13681-13720		1	Active on Alarm
High Cell Voltage Cell 321 – 360	13721-13760		1	Active on Alarm
Low Cell Temperature Cell 321 – 360	13761-13800		1	Active on Alarm
High Cell Temperature Cell 321 – 360	13801-13840		1	Active on Alarm
Low Internal Resistance Cell 321 – 360	13841-13780		1	Active on Alarm
High Internal Resistance Cell 321 – 360	13881-13920		1	Active on Alarm
High Intercell Resistance Cell 321 – 360	13921-12860		1	Active on Alarm
Discharge Low Cell Voltage Cell 321 – 360	13961-14000		1	Active on Alarm
Intertier Resistance High Cell 321 - 360	14001-14040		1	Active on Alarm

Table 3.190 Alber™ BDSU—Input and Holding

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Measurement and Control					
System Status	30385	—	1	—	1 = Normal Operation 2 = StartUp 8 = Normal with Warning 16 = Normal with Alarm 32 = Abnormal Operation
Battery Entity					

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Battery Name Battery 1 - 32	30386-31057	—	21	—	Each 16-bit register is a single Unicode character of a null terminated string
Battery Rating Battery 1 - 32	31186-31217	—	1	—	Units : AH
Battery Time Remaining Battery 1 - 32	31058-31121	—	2	—	Units : sec
Battery Discharge Time Battery 1 - 32	31122-31185	—	2	—	Units : sec
Ordinal Position of Battery Battery 1 - 32	31218-31249	—	1	—	—
String Entity					
Battery String Name String 1 - 32	31250-31921	—	21	—	Each 16-bit register is a single Unicode character of a null terminated string
Installation Date String 1 - 32	33170-33233	—	2	—	Secs since Epoch(UTC)
Cell/Monobloc Rating String 1 - 32	33234-33265	—	1	—	Units : AH
String Ambient Temperature 1 String 1 - 32	31922-31953	—	1	Scale : x / 10	Units : deg C
String Ambient Temperature 2 String 1 - 32	31954-31985	—	1	Scale : x / 10	Units : deg C
String Ambient Temperature 1 String 1 - 32	31986-32017	—	1	Scale : x / 10	Units : deg F
String Ambient Temperature 2 String 1 - 32	32018-32049	—	1	Scale : x / 10	Units : deg F
String Overall Voltage String 1 - 32	32050-32081	—	1	Scale : x / 10	Units : VDC
String Current String 1 - 32	32082-32113	—	1	—	Units : A DC
String Resistance Test Contact String 1-32		49835-49866	1	—	0 = Stop 1 = Start
Float Current String 1 - 32	32114-32145	—	1	—	Units : mA DC
Ripple Current	32146-32177	—	1	—	Units : A AC

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
String 1 - 32					
Total Active Alarms on a Battery String String 1 - 32	32178-32209	—	1	—	Units : 0
Discharge State String 1 - 32	32210-32241	—	1	—	0 = Not In Progress 1 = In Progress
Battery String Discharge Time String 1 - 32	32338-32401	—	2	—	Units : sec
Cell to Cell Temperature Deviation Threshold String 1 - 32	33042-33073	—	1	—	Units : deg C
Cell to Cell Temperature Deviation Threshold String 1 - 32	33074-33105	—	1	—	Units : deg F
Cell to Ambient Temperature Deviation Threshold String 1 - 32	33106-33137	—	1	—	Units : deg C
Cell to Ambient Temperature Deviation Threshold String 1 - 32	33138-33169	—	1	—	Units : deg F
Battery String Alarm Reset or Acknowledge String 1 - 32		43490-43521	1	—	2 = Reset 4 = Acknowledge
Battery String Time-To-Go String 1 - 32	32242-32305	—	2	—	Units : min
Amp-Hours Remaining in Battery String String 1 - 32	32306-32337	—	1	—	Units : AH
Low Ambient Temperature Global Threshold String 1 - 32	32402-32433	—	1	Scale : x / 10	Units : deg C
Low Ambient Temperature Global Threshold String 1 - 32	32434-32465	—	1	Scale : x / 10	Units : deg F
High Ambient Temperature Global Threshold String 1 - 32	32466-32497	—	1	Scale : x / 10	Units : deg C

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
High Ambient Temperature Global Threshold String 1 - 32	32498-32529	—	1	Scale : x / 10	Units : deg F
Battery String Overall Voltage Low Threshold String 1 - 32	32530-32561	—	1	Scale : x / 10	Units : VDC
Battery String Overall Voltage High Threshold String 1 - 32	32562-32593	—	1	Scale : x / 10	Units : VDC
Battery String Current High Threshold String 1 - 32	32594-32625	—	1	—	Units : A DC
Battery String Float Current Low Threshold String 1 - 32	32626-32657	—	1	—	Units : mA DC
Battery String Float Current High Threshold String 1 - 32	32658-32689	—	1	—	Units : mA DC
Battery String Ripple Current High Threshold String 1 - 32	32690-32721	—	1	—	Units : A AC
Cell Voltage Low Global Threshold String 1 - 32	32722-32753	—	1	Scale : x / 1000	Units : VDC
Cell Voltage High Global Threshold String 1 - 32	32754-32785	—	1	Scale : x / 1000	Units : VDC
Cell Temperature Low Global Threshold String 1 - 32	32786-32817	—	1	Scale : x / 10	Units : deg C
Cell Temperature Low Global Threshold String 1 - 32	32818-32849	—	1	Scale : x / 10	Units : deg F
Cell Temperature High Global Threshold String 1 - 32	32850-32881	—	1	Scale : x / 10	Units : deg C
Cell Temperature High Global Threshold String 1 - 32	32882-32913	—	1	Scale : x / 10	Units : deg F

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Internal Resistance Low Global Threshold String 1 - 32	32914-32945	—	1	—	Units : microOhm
Internal Resistance High Global Threshold String 1 - 32	32946-32977	—	1	—	Units : microOhm
Intercell Resistance High Global Threshold String 1 - 32	32978-33009	—	1	—	Units : microOhm
Intertier Resistance High Global Threshold String 1 - 32	33010-33041	—	1	—	Units : microOhm
Cell to Cell Temperature Deviation Threshold String 1 - 32	39027-39058	—	1	Scale : x / 10	Units : deg C
Cell to Cell Temperature Deviation Threshold String 1 - 32	39059-39090	—	1	Scale : x / 10	Units : deg F
Cell to Ambient Temperature Deviation Threshold String 1 - 32	39091-39122	—	1	Scale : x / 10	Units : deg C
Cell to Ambient Temperature Deviation Threshold String 1 - 32	39123-39154	—	1	Scale : x / 10	Units : deg F
Discharge Low Cell Voltage Threshold String 1 - 32	33266-33297	—	1	Scale : x / 1000	Units : VDC
Discharge Low Overall Voltage Threshold String 1 - 32	33298-33329	—	1	Scale : x / 10	Units : VDC
Discharge Battery String Current High Threshold String 1 - 32	33330-33361	—	1	—	Units : A DC
Discharge Maximum Time String 1 - 32	33362-33393	—	1	—	Units : min
Startup Date String 1 - 32	33394-33457	—	2	—	Secs since Epoch(UTC)
Battery String Commissioned Status	33458-33489	—	1	—	0 = Not Commissioned 1 = Commissioned

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
String 1 - 32					
Cell to Cell Temperature Deviation Threshold String 1 - 32	39027-39058	—	1	Scale : x / 10	Units : deg C
Cell to Cell Temperature Deviation Threshold String 1 - 32	39059-39090	—	1	Scale : x / 10	Units : deg F
Cell to Ambient Temperature Deviation Threshold String 1 - 32	39091-39122	—	1	Scale : x / 10	Units : deg C
Cell to Ambient Temperature Deviation Threshold String 1 - 32	39123-39152	—	1	Scale : x / 10	Units : deg F
Ordinal Position of String String 1 - 32	33522-33553	—	1	—	—
Index of Parent Battery String 1 - 32	33554-33585	—	1	—	—
State of String					
Maintenance Mode Status String 1-32	39867-39898	—	1	—	0 = false 1 = true
Discharge State String 1-32	39899-39930	—	1	—	0 = Inactive 1 = Active 2 = Normalization
Resistance Test State String 1-32	39931-39962	—	1	—	0 = Inactive 1 = Active 2 = Normalization
Battery String Status Summary String 1-32	39963-39994	—	1	—	0 = Normal Operation 1 = Normal with Warning 2 = Normal with Alarm 3 = Abnormal Temperature Readings 4 = Abnormal Monitor Data Unavailable
Cell Entity (Cells 1 – 320)					
Cell Voltage Cell 1 - 320	33586-33905	—	1	Scale : x / 1000	Units : VDC
Cell Temperature Cell 1 - 320	33906-34225	—	1	Scale : x / 10	Units : deg C
Cell Temperature Cell 1 - 320	34226-34545	—	1	Scale : x / 10	Units : deg F
Internal Resistance Value	34546-34865	—	1	—	Units : microOhm

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Cell 1 - 320					
Intercell Resistance Value Cell 1 - 320	34866-35185	—	1	—	Units : microOhm
Cell Voltage Low Threshold Cell 1 - 320	35186-35505	—	1	Scale : x / 1000	Units : VDC
Cell Voltage High Threshold Cell 1 - 320	35506-35825	—	1	Scale : x / 1000	Units : VDC
Cell Temperature Low Threshold Cell 1 - 320	35826-36145	—	1	Scale : x / 10	Units : deg C
Cell Temperature Low Threshold Cell 1 - 320	36146-36465	—	1	Scale : x / 10	Units : deg F
Cell Temperature High Threshold Cell 1 - 320	36466-36785	—	1	Scale : x / 10	Units : deg C
Cell Temperature High Threshold Cell 1 - 320	36786-37105	—	1	Scale : x / 10	Units : deg F
Internal Resistance Low Threshold Cell 1 - 320	37106-37425	—	1	—	Units : microOhm
Internal Resistance High Threshold Cell 1 - 320	37426-37745	—	1	—	Units : microOhm
Intercell Resistance High Threshold Cell 1 - 320	37746-38065	—	1	—	Units : microOhm
Ordinal Position of Cell Cell 1 - 320	38066-38385	—	1	—	—
Index of Parent String Cell 1 - 320	38386-38705	—	1	—	—
Index of Parent Battery Cell 1 - 320	38706-39025	—	1	—	—
Cell Entity (Cells 321 – 360)					
Cell Voltage Cell 321 - 360	39155-39194	—	1	Scale : x / 1000	Units : VDC
Cell Temperature Cell 321 – 360	39195-39234	—	1	Scale : x / 10	Units : deg C

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Cell Temperature Cell 321 – 360	39235-39274	—	1	Scale : x / 10	Units : deg F
Internal Resistance Value Cell 321 – 360	39275-39314	—	1	—	Units : microOhm
Intercell Resistance Value Cell 321 – 360	39315-39354	—	1	—	Units : microOhm
Cell Voltage Low Threshold Cell 321 – 360	39355-39394	—	1	Scale : x / 1000	Units : VDC
Cell Voltage High Threshold Cell 321 – 360	39395-39434	—	1	Scale : x / 1000	Units : VDC
Cell Temperature Low Threshold Cell 321 – 360	39435-39474	—	1	Scale : x / 10	Units : deg C
Cell Temperature Low Threshold Cell 321 – 360	39475-39514	—	1	Scale : x / 10	Units : deg F
Cell Temperature High Threshold Cell 321 - 360	39515-39554	—	1	Scale : x / 10	Units : deg C
Cell Temperature High Threshold Cell 321 – 360	39555-39594	—	1	Scale : x / 10	Units : deg F
Internal Resistance Low Threshold Cell 321 – 360	39595-39634	—	1	—	Units : microOhm
Internal Resistance High Threshold Cell 321 – 360	39635-39674	—	1	—	Units : microOhm
Intercell Resistance High Threshold Cell 321 – 360	39675-39714	—	1	—	Units : microOhm
Ordinal Position of Cell Cell 321 – 360	39715-39754	—	1	—	—
Index of Parent String Cell 321 – 360	39755-39794	—	1	—	—
Index of Parent Battery Cell 321 - 360	39795-39834	—	1	—	—

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Table 3.190 Alber™ BDSU—Input and Holding (continued)

Data Description	Input Register	Holding Register	# of Reg.	Scale	Notes / Units
Device Status and Control					
UXCM Device					
System Date and Time	39998	49998	2	—	Secs since Epoch(UTC)
If the Scale column has a value for a Data Description, divide the Modbus value by the value in the Scale column to get the scaled value.					

Table 3.191 Alber™ BDSU - Glossary

Data Label	Data Description
Battery String Status Summary	Summary status of the battery string
Discharge State	An indication that the system load is being driven by the batteries (Active), is in a normalization state (Normalization), or is in an inactive discharge state (Inactive)
Maintenance Mode Status	An indication of whether the system is undergoing maintenance.
Resistance Test State	An indication that the system is performing a resistance test (Active), is in a normalization state at completion of the resistance test (Normalization), or is operating in a nominal state (Inactive) after completion of the resistance test and the normalization period.
String Resistance Test Contact	Control of the resistance test on a String (start/stop).

3.5 Leak Detection – Modbus Protocols

Table 3.192 Liebert® Liqui-tect™ LP3000 Output Registers

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Leak Threshold	40001	Trip current for leak alarm.	25-295 uAmps	0-65535	—
Contamination Threshold	40002	Trip current for contamination alarm.	20-295 uAmps	0-65535	—
Re-Alarm Delay	40003	The time that elapses between when an alarm is detected and when it is annunciated.	0-24 Hours	0-65535	—
Latching Alarms	40004	Designate the alarms as latching or non-latching.	0=No, 1=Yes	0-65535	—
Silence Audible Alarm	40005	Silence the audible alarm	1=Silenced	0-65535	—

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Table 3.192 Liebert® Liqui-tect™ LP3000 Output Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Reset Alarms	40006	Reset all the alarms	1=Reset	0-65535	—
Spare	40007	—	—	0-65535	—
Spare	40008	—	—	0-65535	—
Spare	40009	—	—	0-65535	—
Spare	40010	—	—	0-65535	—
Spare	40011	—	—	0-65535	—
Spare	40012	—	—	0-65535	—
Spare	40013	—	—	0-65535	—
Spare	40014	—	—	0-65535	—
Spare	40015	—	—	0-65535	—
Leak Alarm Delay	40016	Leak Alarm Delay	5-995 seconds	0-65535	—
Contamination Alarm Delay	40017	Contamination Alarm Delay	5-995 seconds	0-65535	—

Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Status	30001	Bit level status	None	0-65535	Bit 00: 1 = Leak Detected Bit 01: 1 = Cable Break Alarm Bit 02: 1 = Contamination Detected Bit 04 - 15: Spare
Leak Distance	30002	Location of leak	Ft/Meters	0-65535	—
Units	30003	Unit of measure	1=Ft 0=Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Leak Current	30004	Leakage current on cable	uAmps	0-65535	—
Cable Length	30005	Installed cable length	Ft/Meters	0-65535	—
Loop1 Res	30006	Resistance of cable	Ohms	0-65535	—
Loop2 Res	30007	Resistance of cable	Ohms	0-65535	—
Res/Ft	30008	Resistance of cable	Ohms x 1000	0-65535	—
Version	30009	Firmware version	xx.xx X 100	0-65535	—
Virtual Zone Alarm Status	30010	Bit Level Status	None	0-65535	Bit 00: 1 = Zone1 Bit 01: 1 = Zone2 Bit 02: 1 = Zone3 Bit 03: 1 = Zone4 Bit 04: 1 = Zone5 Bit 05: 1 = Zone6 Bit 06: 1 = Zone7 Bit 07: 1 = Zone8 Bit 08: 1 = Zone9 Bit 09: 1 = Zone10 Bit 10: 1 = Zone11 Bit 11: 1 = Zone12 Bit 12: 1 = Zone13 Bit 13: 1 = Zone14 Bit 14: 1 = Zone15 Bit 15: 1 = Zone16
Modbus Zone Enabled Flags	30011	Bit Level Status	None	0-65535	Bit 00: 1 = Not enabled Bit 01: 1 = Enabled, b1 = MBZ2 Bit 02: 1 = MBZ3 Bit 03: 1 = MBZ4 Bit 04: 1 = MBZ5 Bit 05: 1 = MBZ6 Bit 06: 1 = MBZ7 Bit 07: 1 = MBZ8 Bit 08: 1 = MBZ9 Bit 09: 1 = MBZ10 Bit 10: 1 = MBZ11 Bit 11: 1 = MBZ12 Bit 12: 1 = MBZ13 Bit 13: 1 = MBZ14 Bit 14: 1 = MBZ15 Bit 15: 1 = MBZ16

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone2 Status	30012	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone2 Distance	30013	Location of leak	Ft/Meters	0-65535	—
Modbus Zone3 Status	30014	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone3 Distance	30015	Location of leak	Ft/Meters	0-65535	—
Modbus Zone4 Status	30016	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone4 Distance	30017	Location of leak	Ft/Meters	0-65535	—
Modbus Zone5 Status	30018	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone5 Distance	30019	Location of leak	Ft/Meters	0-65535	—
Modbus Zone6 Status	30020	Bit Level Status	None	0-65535	BBit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone6 Distance	30021	Location of leak	Ft/Meters	0-65535	—
Modbus Zone7 Status	30022	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone7 Distance	30023	Location of leak	Ft/Meters	0-65535	—
Modbus Zone8 Status	30024	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone8 Distance	30025	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone9 Status	30026	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone9 Distance	30027	Location of leak	Ft/Meters	0-65535	—
Modbus Zone10 Status	30028	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone10 Distance	30029	Location of leak	Ft/Meters	0-65535	—
Modbus Zone11 Status	30030	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone11 Distance	30031	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone12 Status	30032	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone12 Distance	30033	Location of leak	Ft/Meters	0-65535	—
Modbus Zone13 Status	30034	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone13 Distance	30035	Location of leak	Ft/Meters	0-65535	—
Modbus Zone14 Status	30036	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone14 Distance	30037	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone15 Status	30038	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone15 Distance	30039	Location of leak	Ft/Meters	0-65535	—
Modbus Zone16 Status	30040	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone16 Distance	30041	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags	30042	Bit Level Status	None	0-65535	Bit 00: 1 = MBZ17 Bit 01: 1 = MBZ18 Bit 02: 1 = MBZ19 Bit 03: 1 = MBZ20 Bit 04: 1 = MBZ21 Bit 05: 1 = MBZ22 Bit 06: 1 = MBZ23 Bit 07: 1 = MBZ24 Bit 08: 1 = MBZ25 Bit 09: 1 = MBZ26 Bit 10: 1 = MBZ27 Bit 11: 1 = MBZ28 Bit 12: 1 = MBZ29 Bit 13: 1 = MBZ30 Bit 14: 1 = MBZ31 Bit 15: 1 = MBZ32

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone17 Status	30043	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone17 Distance	30044	Location of leak	Ft/Meters	0-65535	—
Modbus Zone18 Status	30045	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone18 Distance	30046	Location of leak	Ft/Meters	0-65535	—
Modbus Zone19 Status	30047	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone19 Distance	30048	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone20 Status	30049	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone20 Distance	30050	Location of leak	Ft/Meters	0-65535	—
Modbus Zone21 Status	30051	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone21 Distance	30052	Location of leak	Ft/Meters	0-65535	—
Modbus Zone22 Status	30053	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone22 Distance	30054	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone23 Status	30055	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone23 Distance	30056	Location of leak	Ft/Meters	0-65535	—
Modbus Zone24 Status	30057	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone24 Distance	30058	Location of leak	Ft/Meters	0-65535	—
Modbus Zone25 Status	30059	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone25 Distance	30060	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone26 Status	30061	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone26 Distance	30062	Location of leak	Ft/Meters	0-65535	—
Modbus Zone2 7 Status	30063	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone27 Distance	30064	Location of leak	Ft/Meters	0-65535	—
Modbus Zone28 Status	30065	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone28 Distance	30066	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone29 Status	30067	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone29 Distance	30068	Location of leak	Ft/Meters	0-65535	—
Modbus Zone30 Status	30069	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone30 Distance	30070	Location of leak	Ft/Meters	0-65535	—
Modbus Zone31 Status	30071	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone31 Distance	30072	Location of leak	Ft/Meters	0-65535	—

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Table 3.193 Liebert® Liqui-tect™ LP3000 Input Registers (continued)

Controller	LP3000				
Liebert Products	Liebert Liqui-tect LP3000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone32 Status	30073	Bit Level Status	None	0-65535	Bit 00: 1 = Leak Alarm Bit 01: 1 = Cable Break Bit 02: 1 = Contamination Alarm Bit 03: 1 = Communication Loss
Modbus Zone32 Distance	30074	Location of leak	Ft/Meters	0-65535	—
Virtual Zone Alarm Status	30075	Bit Level Status	None	0-65535	Bit 00: 1 = Zone17 Bit 01: 1 = Zone18 Bit 02: 1 = Zone19 Bit 03: 1 = Zone20 Bit 04: 1 = Zone21 Bit 05: 1 = Zone22 Bit 06: 1 = Zone23 Bit 07: 1 = Zone24 Bit 08: 1 = Zone25 Bit 09: 1 = Zone26 Bit 10: 1 = Zone27 Bit 11: 1 = Zone28 Bit 12: 1 = Zone29 Bit 13: 1 = Zone30 Bit 14: 1 = Zone31 Bit 15: 1 = Zone32

Table 3.194 Liebert® Liqui-tect™ LP6000 Output Registers

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Leak Threshold	40001	Trip current for leak alarm.	25-295 uAmps	0-65535	—
Contamination Threshold	40002	Trip current for contamination alarm.	20-295 uAmps	0-65535	—
Spare	40003	—		0-65535	—

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Table 3.194 Liebert® Liqui-tect™ LP6000 Output Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Spare	40004	—		0-65535	—
Spare	40005	—		0-65535	—
Spare	40006	—		0-65535	—
Spare	40007	—		0-65535	—
Spare	40008	—		0-65535	—
Spare	40009	—		0-65535	—
Spare	40010	—		0-65535	—
Spare	40011	—		0-65535	—
Spare	40012	—		0-65535	—
Spare	40013	—		0-65535	—
Spare	40014	—		0-65535	—
Spare	40015	—		0-65535	—
Leak Alarm Delay	40016	Leak Alarm Delay	5-995 seconds	0-65535	—
Contamination Alarm Delay	40017	Contamination Alarm Delay	5-995 seconds	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Status	30001	Bit level status	None	0-65535	Bits 00 : 1 = Leak is Detected 01 : 1 = Cable Break Alarm 02 : 1 = Contamination is Detected 03-15 : Spare
Leak Distance	30002	Location of leak	Ft/Meters	0-65535	—
Units	30003	Unit of measure	1=Ft 0=Meters	0-65535	—
Leak Current	30004	Leakage current on cable	uAmps	0-65535	—
Cable Length	30005	Installed cable length	Ft/Meters	0-65535	—
Loop1 Resistance	30006	Resistance of cable	Ohms	0-65535	—
Loop2 Resistance	30007	Resistance of cable	Ohms	0-65535	—
Resistance per foot	30008	Resistance of cable	Ohms x 1000	0-65535	—
Firmware Version	30009	Firmware version	xx.xx X 100	0-65535	—
Virtual Zone Alarm Status	30010	Bit Level Status Zone 1 through Zone 16	None	0-65535	Bit 00: 1 = Zone1 Bit 01: 1 = Zone2 Bit 02: 1 = Zone3 Bit 03: 1 = Zone4 Bit 04: 1 = Zone5 Bit 05: 1 = Zone6 Bit 06: 1 = Zone7 Bit 07: 1 = Zone8 Bit 08: 1 = Zone9 Bit 09: 1 = Zone10 Bit 10: 1 = Zone11 Bit 11: 1 = Zone12 Bit 12: 1 = Zone13 Bit 13: 1 = Zone14 Bit 14: 1 = Zone15

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
					Bit 15: 1 = Zone16
Virtual Zone Alarm Status	30011	Bit Level Status Zone 17 through Zone 32	None	0-65535	Bit 00: 1 = Zone17 Bit 01: 1 = Zone18 Bit 02: 1 = Zone19 Bit 03: 1 = Zone20 Bit 04: 1 = Zone21 Bit 05: 1 = Zone22 Bit 06: 1 = Zone23 Bit 07: 1 = Zone24 Bit 08: 1 = Zone25 Bit 09: 1 = Zone26 Bit 10: 1 = Zone27 Bit 11: 1 = Zone28 Bit 12: 1 = Zone29 Bit 13: 1 = Zone30 Bit 14: 1 = Zone31 Bit 15: 1 = Zone32
Leak Location Float Values	38001	Location of leak in meters (float-MSW)	None	0-65535	—
Leak Location Float Values	38002	Location of leak in meters (float-MSW)	None	0-65535	—
Modbus Zone Enabled Flags	30012	Bit Level Status Modbus Zone 2 through Modbus Zone 16	None	0-65535	00=Modbus Zone 2… 15=Modbus Zone 16
Modbus Zone2 Status	30013	Bit Level Status	None	0-65535	—
Modbus Zone2 Distance	30014	Location of leak	Ft/Meters	0-65535	—
Modbus Zone3	30015	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Status					
Modbus Zone3 Distance	30016	Location of leak	Ft/Meters	0-65535	—
Modbus Zone4 Status	30017	Bit Level Status	None	0-65535	—
Modbus Zone4 Distance	30018	Location of leak	Ft/Meters	0-65535	—
Modbus Zone5 Status	30019	Bit Level Status	None	0-65535	—
Modbus Zone5 Distance	30020	Location of leak	Ft/Meters	0-65535	—
Modbus Zone6 Status	30021	Bit Level Status	None	0-65535	—
Modbus Zone6 Distance	30022	Location of leak	Ft/Meters	0-65535	—
Modbus Zone7 Status	30023	Bit Level Status	None	0-65535	—
Modbus Zone7 Distance	30024	Location of leak	Ft/Meters	0-65535	—
Modbus Zone8 Status	30025	Bit Level Status	None	0-65535	—
Modbus Zone8 Distance	30026	Location of leak	Ft/Meters	0-65535	—
Modbus Zone9 Status	30027	Bit Level Status	None	0-65535	—
Modbus Zone9 Distance	30028	Location of leak	Ft/Meters	0-65535	—
Modbus Zone10 Status	30029	Bit Level Status	None	0-65535	—
Modbus Zone10 Distance	30030	Location of leak	Ft/Meters	0-65535	—
Modbus Zone11 Status	30031	Bit Level Status	None	0-65535	—
Modbus Zone11 Distance	30032	Location of leak	Ft/Meters	0-65535	—
Modbus Zone12	30033	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Status					
Modbus Zone12 Distance	30034	Location of leak	Ft/Meters	0-65535	—
Modbus Zone13 Status	30035	Bit Level Status	None	0-65535	—
Modbus Zone13 Distance	30036	Location of leak	Ft/Meters	0-65535	—
Modbus Zone14 Status	30037	Bit Level Status	None	0-65535	—
Modbus Zone14 Distance	30038	Location of leak	Ft/Meters	0-65535	—
Modbus Zone15 Status	30039	Bit Level Status	None	0-65535	—
Modbus Zone15 Distance	30040	Location of leak	Ft/Meters	0-65535	—
Modbus Zone16 Status	30041	Bit Level Status	None	0-65535	—
Modbus Zone16 Distance	30042	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags	30043	Bit Level Status Modbus Zone 17 through Modbus Zone 32	None	0-65535	00=Modbus Zone 17… 15=Modbus Zone 32
Modbus Zone17 Status	30044	Bit Level Status	None	0-65535	—
Modbus Zone17 Distance	30045	Location of leak	Ft/Meters	0-65535	—
Modbus Zone18 Status	30046	Bit Level Status	None	0-65535	—
Modbus Zone18 Distance	30047	Location of leak	Ft/Meters	0-65535	—
Modbus Zone19 Status	30048	Bit Level Status	None	0-65535	—
Modbus Zone19 Distance	30049	Location of leak	Ft/Meters	0-65535	—
Modbus Zone20 Status	30050	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone20 Distance	30051	Location of leak	Ft/Meters	0-65535	—
Modbus Zone21 Status	30052	Bit Level Status	None	0-65535	—
Modbus Zone21 Distance	30053	Location of leak	Ft/Meters	0-65535	—
Modbus Zone22 Status	30054	Bit Level Status	None	0-65535	—
Modbus Zone22 Distance	30055	Location of leak	Ft/Meters	0-65535	—
Modbus Zone23 Status	30056	Bit Level Status	None	0-65535	—
Modbus Zone23 Distance	30057	Location of leak	Ft/Meters	0-65535	—
Modbus Zone24 Status	30058	Bit Level Status	None	0-65535	—
Modbus Zone24 Distance	30059	Location of leak	Ft/Meters	0-65535	—
Modbus Zone25 Status	30060	Bit Level Status	None	0-65535	—
Modbus Zone25 Distance	30061	Location of leak	Ft/Meters	0-65535	—
Modbus Zone26 Status	30062	Bit Level Status	None	0-65535	—
Modbus Zone26 Distance	30063	Location of leak	Ft/Meters	0-65535	—
Modbus Zone2 7 Status	30064	Bit Level Status	None	0-65535	—
Modbus Zone27 Distance	30065	Location of leak	Ft/Meters	0-65535	—
Modbus Zone28 Status	30066	Bit Level Status	None	0-65535	—
Modbus Zone28 Distance	30067	Location of leak	Ft/Meters	0-65535	—
Modbus Zone29 Status	30068	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone29 Distance	30069	Location of leak	Ft/Meters	0-65535	—
Modbus Zone30 Status	30070	Bit Level Status	None	0-65535	—
Modbus Zone30 Distance	30071	Location of leak	Ft/Meters	0-65535	—
Modbus Zone31 Status	30072	Bit Level Status	None	0-65535	—
Modbus Zone31 Distance	30073	Location of leak	Ft/Meters	0-65535	—
Modbus Zone32 Status	30074	Bit Level Status	None	0-65535	—
Modbus Zone32 Distance	30075	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags	30076	Bit Level Status Modbus Zone 33 through Modbus Zone 48	None	0-65535	00=Modbus Zone 33… 15=Modbus Zone 48
Modbus Zone33 Status	30077	Bit Level Status	None	0-65535	—
Modbus Zone33 Distance	30078	Location of leak	Ft/Meters	0-65535	—
Modbus Zone34 Status	30079	Bit Level Status	None	0-65535	—
Modbus Zone34 Distance	30080	Location of leak	Ft/Meters	0-65535	—
Modbus Zone35Status	30081	Bit Level Status	None	0-65535	—
Modbus Zone35 Distance	30082	Location of leak	Ft/Meters	0-65535	—
Modbus Zone36 Status	30083	Bit Level Status	None	0-65535	—
Modbus Zone36 Distance	30084	Location of leak	Ft/Meters	0-65535	—
Modbus Zone37 Status	30085	Bit Level Status	None	0-65535	—
Modbus Zone37	30086	Location of leak	Ft/Meters	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Distance					
Modbus Zone38 Status	30087	Bit Level Status	None	0-65535	—
Modbus Zone38 Distance	30088	Location of leak	Ft/Meters	0-65535	—
Modbus Zone39 Status	30089	Bit Level Status	None	0-65535	—
Modbus Zone39 Distance	30090	Location of leak	Ft/Meters	0-65535	—
Modbus Zone40 Status	30091	Bit Level Status	None	0-65535	—
Modbus Zone40Distance	30092	Location of leak	Ft/Meters	0-65535	—
Modbus Zone41 Status	30093	Bit Level Status	None	0-65535	—
Modbus Zone41 Distance	30094	Location of leak	Ft/Meters	0-65535	—
Modbus Zone42 Status	30095	Bit Level Status	None	0-65535	—
Modbus Zone42 Distance	30096	Location of leak	Ft/Meters	0-65535	—
Modbus Zone43 Status	30097	Bit Level Status	None	0-65535	—
Modbus Zone43 Distance	30098	Location of leak	Ft/Meters	0-65535	—
Modbus Zone44 Status	30099	Bit Level Status	None	0-65535	—
Modbus Zone44 Distance	30100	Location of leak	Ft/Meters	0-65535	—
Modbus Zone45 Status	30101	Bit Level Status	None	0-65535	—
Modbus Zone45 Distance	30102	Location of leak	Ft/Meters	0-65535	—
Modbus Zone46 Status	30103	Bit Level Status	None	0-65535	—
Modbus Zone46	30104	Location of leak	Ft/Meters	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Distance					
Modbus Zone47 Status	30106	Bit Level Status	None	0-65535	—
Modbus Zone47 Distance	30107	Location of leak	Ft/Meters	0-65535	—
Modbus Zone48Status	30108	Bit Level Status	None	0-65535	—
Modbus Zone Enabled Flags	30109	Bit Level Status Modbus Zone 49 through Modbus Zone 64	None	0-65535	00=Modbus Zone 49… 15=Modbus Zone 64
Modbus Zone49 Status	30110	Bit Level Status	None	0-65535	—
Modbus Zone49 Distance	30111	Location of leak	Ft/Meters	0-65535	—
Modbus Zone50 Status	30112	Bit Level Status	None	0-65535	—
Modbus Zone50 Distance	30113	Location of leak	Ft/Meters	0-65535	—
Modbus Zone51Status	30114	Bit Level Status	None	0-65535	—
Modbus Zone51 Distance	30115	Location of leak	Ft/Meters	0-65535	—
Modbus Zone52 Status	30116	Bit Level Status	None	0-65535	—
Modbus Zone52 Distance	30117	Location of leak	Ft/Meters	0-65535	—
Modbus Zone53 Status	30118	Bit Level Status	None	0-65535	—
Modbus Zone53 Distance	30119	Location of leak	Ft/Meters	0-65535	—
Modbus Zone54 Status	30120	Bit Level Status	None	0-65535	—
Modbus Zone54 Distance	30121	Location of leak	Ft/Meters	0-65535	—
Modbus Zone55 Status	30122	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone55 Distance	30123	Location of leak	Ft/Meters	0-65535	—
Modbus Zone56 Status	30124	Bit Level Status	None	0-65535	—
Modbus Zone56 Distance	30125	Location of leak	Ft/Meters	0-65535	—
Modbus Zone57 Status	30126	Bit Level Status	None	0-65535	—
Modbus Zone57 Distance	30127	Location of leak	Ft/Meters	0-65535	—
Modbus Zone58 Status	30128	Bit Level Status	None	0-65535	—
Modbus Zone58 Distance	30129	Location of leak	Ft/Meters	0-65535	—
Modbus Zone59 Status	30130	Bit Level Status	None	0-65535	—
Modbus Zone59 Distance	30131	Location of leak	Ft/Meters	0-65535	—
Modbus Zone60 Status	30132	Bit Level Status	None	0-65535	—
Modbus Zone60 Distance	30133	Location of leak	Ft/Meters	0-65535	—
Modbus Zone61 Status	30134	Bit Level Status	None	0-65535	—
Modbus Zone61 Distance	30135	Location of leak	Ft/Meters	0-65535	—
Modbus Zone62 Status	30136	Bit Level Status	None	0-65535	—
Modbus Zone62 Distance	30137	Location of leak	Ft/Meters	0-65535	—
Modbus Zone63 Status	30138	Bit Level Status	None	0-65535	—
Modbus Zone63 Distance	30139	Location of leak	Ft/Meters	0-65535	—
Modbus Zone64Status	30140	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone64 Distance	30141	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags	30142	Bit Level Status Modbus Zone 65 through Modbus Zone 80	None	0-65535	00=Modbus Zone 65… 15=Modbus Zone 80
Modbus Zone65 Status	30143	Bit Level Status	None	0-65535	—
Modbus Zone65 Distance	30144	Location of leak	Ft/Meters	0-65535	—
Modbus Zone66 Status	30145	Bit Level Status	None	0-65535	—
Modbus Zone66 Distance	30146	Location of leak	Ft/Meters	0-65535	—
Modbus Zone67 Status	30147	Bit Level Status	None	0-65535	—
Modbus Zone67 Distance	30148	Location of leak	Ft/Meters	0-65535	—
Modbus Zone68 Status	30149	Bit Level Status	None	0-65535	—
Modbus Zone68 Distance	30150	Location of leak	Ft/Meters	0-65535	—
Modbus Zone69 Status	30151	Bit Level Status	None	0-65535	—
Modbus Zone69 Distance	30152	Location of leak	Ft/Meters	0-65535	—
Modbus Zone70 Status	30153	Bit Level Status	None	0-65535	—
Modbus Zone70 Distance	30154	Location of leak	Ft/Meters	0-65535	—
Modbus Zone71 Status	30155	Bit Level Status	None	0-65535	—
Modbus Zone71 Distance	30156	Location of leak	Ft/Meters	0-65535	—
Modbus Zone72 Status	30157	Bit Level Status	None	0-65535	—
Modbus Zone72	30158	Location of leak	Ft/Meters	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Distance					
Modbus Zone73 Status	30159	Bit Level Status	None	0-65535	—
Modbus Zone73 Distance	30160	Location of leak	Ft/Meters	0-65535	—
Modbus Zone74 Status	30161	Bit Level Status	None	0-65535	—
Modbus Zone74 Distance	30162	Location of leak	Ft/Meters	0-65535	—
Modbus Zone75 Status	30163	Bit Level Status	None	0-65535	—
Modbus Zone75 Distance	30164	Location of leak	Ft/Meters	0-65535	—
Modbus Zone76 Status	30165	Bit Level Status	None	0-65535	—
Modbus Zone76 Distance	30166	Location of leak	Ft/Meters	0-65535	—
Modbus Zone77 Status	30167	Bit Level Status	None	0-65535	—
Modbus Zone77 Distance	30168	Location of leak	Ft/Meters	0-65535	—
Modbus Zone78 Status	30169	Bit Level Status	None	0-65535	—
Modbus Zone78 Distance	30170	Location of leak	Ft/Meters	0-65535	—
Modbus Zone79 Status	30171	Bit Level Status	None	0-65535	—
Modbus Zone79 Distance	30172	Location of leak	Ft/Meters	0-65535	—
Modbus Zone80 Status	30173	Bit Level Status	None	0-65535	—
Modbus Zone80 Distance	30174	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags	30175	Bit Level Status Modbus Zone 81 through Modbus Zone 96	None	0-65535	00=Modbus Zone 81… 15=Modbus Zone 96

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone81 Status	30176	Bit Level Status	None	0-65535	—
Modbus Zone81 Distance	30177	Location of leak	Ft/Meters	0-65535	—
Modbus Zone82 Status	30178	Bit Level Status	None	0-65535	—
Modbus Zone82 Distance	30179	Location of leak	Ft/Meters	0-65535	—
Modbus Zone83 Status	30180	Bit Level Status	None	0-65535	—
Modbus Zone83 Distance	30181	Location of leak	Ft/Meters	0-65535	—
Modbus Zone84 Status	30182	Bit Level Status	None	0-65535	—
Modbus Zone84 Distance	30183	Location of leak	Ft/Meters	0-65535	—
Modbus Zone85 Status	30184	Bit Level Status	None	0-65535	—
Modbus Zone85 Distance	30185	Location of leak	Ft/Meters	0-65535	—
Modbus Zone86 Status	30186	Bit Level Status	None	0-65535	—
Modbus Zone86 Distance	30187	Location of leak	Ft/Meters	0-65535	—
Modbus Zone87 Status	30188	Bit Level Status	None	0-65535	—
Modbus Zone87 Distance	30189	Location of leak	Ft/Meters	0-65535	—
Modbus Zone88 Status	30190	Bit Level Status	None	0-65535	—
Modbus Zone88 Distance	30191	Location of leak	Ft/Meters	0-65535	—
Modbus Zone89 Status	30192	Bit Level Status	None	0-65535	—
Modbus Zone89 Distance	30193	Location of leak	Ft/Meters	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone90 Status	30194	Bit Level Status	None	0-65535	—
Modbus Zone90 Distance	30195	Location of leak	Ft/Meters	0-65535	—
Modbus Zone91 Status	30196	Bit Level Status	None	0-65535	—
Modbus Zone91 Distance	30197	Location of leak	Ft/Meters	0-65535	—
Modbus Zone92 Status	30198	Bit Level Status	None	0-65535	—
Modbus Zone92 Distance	30199	Location of leak	Ft/Meters	0-65535	—
Modbus Zone93 Status	30200	Bit Level Status	None	0-65535	—
Modbus Zone93 Distance	30201	Location of leak	Ft/Meters	0-65535	—
Modbus Zone94 Status	30202	Bit Level Status	None	0-65535	—
Modbus Zone94 Distance	30203	Location of leak	Ft/Meters	0-65535	—
Modbus Zone95 Status	30204	Bit Level Status	None	0-65535	—
Modbus Zone95 Distance	30205	Location of leak	Ft/Meters	0-65535	—
Modbus Zone96 Status	30206	Bit Level Status	None	0-65535	—
Modbus Zone96 Distance	30207	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags	30208	Bit Level Status Modbus Zone 97 through Modbus Zone 112	None	0-65535	00=Modbus Zone 97… 15=Modbus Zone 112
Modbus Zone97 Status	30209	Bit Level Status	None	0-65535	—
Modbus Zone97 Distance	30210	Location of leak	Ft/Meters	0-65535	—
Modbus Zone98	30211	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Status					
Modbus Zone98 Distance	30212	Location of leak	Ft/Meters	0-65535	—
Modbus Zone99 Status	30213	Bit Level Status	None	0-65535	—
Modbus Zone99 Distance	30214	Location of leak	Ft/Meters	0-65535	—
Modbus Zone100 Status	30215	Bit Level Status	None	0-65535	—
Modbus Zone100 Distance	30216	Location of leak	Ft/Meters	0-65535	—
Modbus Zone101 Status	30217	Bit Level Status	None	0-65535	—
Modbus Zone101 Distance	30218	Location of leak	Ft/Meters	0-65535	—
Modbus Zone102 Status	30219	Bit Level Status	None	0-65535	—
Modbus Zone102 Distance	30220	Location of leak	Ft/Meters	0-65535	—
Modbus Zone103 Status	30221	Bit Level Status	None	0-65535	—
Modbus Zone103 Distance	30222	Location of leak	Ft/Meters	0-65535	—
Modbus Zone104 Status	30223	Bit Level Status	None	0-65535	—
Modbus Zone104 Distance	30224	Location of leak	Ft/Meters	0-65535	—
Modbus Zone105 Status	30225	Bit Level Status	None	0-65535	—
Modbus Zone105 Distance	30226	Location of leak	Ft/Meters	0-65535	—
Modbus Zone106 Status	30227	Bit Level Status	None	0-65535	—
Modbus Zone106 Distance	30228	Location of leak	Ft/Meters	0-65535	—
Modbus Zone107	30229	Bit Level Status	None	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Status					
Modbus Zone107 Distance	30230	Location of leak	Ft/Meters	0-65535	—
Modbus Zone108 Status	30231	Bit Level Status	None	0-65535	—
Modbus Zone108 Distance	30232	Location of leak	Ft/Meters	0-65535	—
Modbus Zone109 Status	30233	Bit Level Status	None	0-65535	—
Modbus Zone109 Distance	30234	Location of leak	Ft/Meters	0-65535	—
Modbus Zone110 Status	30235	Bit Level Status	None	0-65535	—
Modbus Zone110 Distance	30236	Location of leak	Ft/Meters	0-65535	—
Modbus Zone111 Status	30237	Bit Level Status	None	0-65535	—
Modbus Zone111 Distance	30238	Location of leak	Ft/Meters	0-65535	—
Modbus Zone112 Status	30239	Bit Level Status	None	0-65535	—
Modbus Zone112 Distance	30240	Location of leak	Ft/Meters	0-65535	—
Modbus Zone Enabled Flags (00=Modbus Zone 113… 15=Modbus Zone 128)	30241	Bit Level Status Modbus Zone 113 through Modbus Zone 128	None	0-65535	—
Modbus Zone113 Status	30242	Bit Level Status	None	0-65535	—
Modbus Zone113 Distance	30243	Location of leak	Ft/Meters	0-65535	—
Modbus Zone114 Status	30244	Bit Level Status	None	0-65535	—
Modbus Zone114 Distance	30245	Location of leak	Ft/Meters	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone115 Status	30246	Bit Level Status	None	0-65535	—
Modbus Zone115 Distance	30247	Location of leak	Ft/Meters	0-65535	—
Modbus Zone116 Status	30248	Bit Level Status	None	0-65535	—
Modbus Zone116 Distance	30249	Location of leak	Ft/Meters	0-65535	—
Modbus Zone117 Status	30250	Bit Level Status	None	0-65535	—
Modbus Zone117 Distance	30251	Location of leak	Ft/Meters	0-65535	—
Modbus Zone118 Status	30252	Bit Level Status	None	0-65535	—
Modbus Zone118 Distance	30253	Location of leak	Ft/Meters	0-65535	—
Modbus Zone119 Status	30254	Bit Level Status	None	0-65535	—
Modbus Zone119 Distance	30255	Location of leak	Ft/Meters	0-65535	—
Modbus Zone120 Status	30256	Bit Level Status	None	0-65535	—
Modbus Zone120 Distance	30257	Location of leak	Ft/Meters	0-65535	—
Modbus Zone121 Status	30258	Bit Level Status	None	0-65535	—
Modbus Zone121 Distance	30259	Location of leak	Ft/Meters	0-65535	—
Modbus Zone122 Status	30260	Bit Level Status	None	0-65535	—
Modbus Zone122 Distance	30261	Location of leak	Ft/Meters	0-65535	—
Modbus Zone123 Status	30262	Bit Level Status	None	0-65535	—
Modbus Zone123 Distance	30263	Location of leak	Ft/Meters	0-65535	—

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Table 3.195 Liebert® Liqui-tect™ LP6000 Input Registers (continued)

Controller	LP6000				
Liebert Products	Liebert Liqui-tect LP6000 Leak-Detection System				
Available Points					
Name	Register	Description	Units	Range	Notes
Modbus Zone124 Status	30264	Bit Level Status	None	0-65535	—
Modbus Zone124 Distance	30265	Location of leak	Ft/Meters	0-65535	—
Modbus Zone125 Status	30266	Bit Level Status	None	0-65535	—
Modbus Zone125 Distance	30267	Location of leak	Ft/Meters	0-65535	—
Modbus Zone126 Status	30268	Bit Level Status	None	0-65535	—
Modbus Zone126 Distance	30269	Location of leak	Ft/Meters	0-65535	—
Modbus Zone127 Status	30270	Bit Level Status	None	0-65535	—
Modbus Zone127 Distance	30271	Location of leak	Ft/Meters	0-65535	—
Modbus Zone128 Status	30272	Bit Level Status	None	0-65535	—
Modbus Zone128 Distance	30273	Location of leak	Ft/Meters	0-65535	—

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4 BACnet Communications

4.1 BACnet Protocol Implementation Conformance Statement

The Liebert® Liebert® IntelliSlot™ IS-UNITY-DP, IS-WEBADPT and IS-IPBML cards provide BACnet IP to Vertiv™ devices via the BACnet protocol. The IS-UNITY-DP card supports the BACnet MSTP protocol as well. Data points of the managed device are mapped to BACnet objects that are automatically created in the card when the device is discovered.

The BACnet implementation does not include a BACnet Broadcast Management Device (BBMD).

The IS-UNITY-DP and IS-IPBML cards support Foreign Device Registration. They allow you to register as a Foreign Device, add the IP address of the BBMD, and set the Foreign Device Time-to-Live.

The BACnet protocol support in the IS-UNITY-DP card has been tested by the BACnet Testing Laboratories (BTL) and certified to be compliant with the BACnet protocol standards. The BACnet Protocol Implementation Conformance Statement for the IS-UNITY-DP card is available to download from our website, www.Vertiv.com.

The following sections contain the BACnet implementation listings of Services and Objects supported in the IS-WEBADPT and IS-IPBML cards.

4.1.1 Segmentation Capability

A BACNet response that exceeds one packet (segment) is not supported. this can occur when performing a read multiple property request.

4.1.2 Supported Services

Service	Initiate	Execute
Alarm and Event Services		
AcknowledgeAlarm	—	—
ConfirmedCOVNotification	x	—
UnconfirmedCOVNotification	x	—
ConfirmedEventNotification	—	—
UnconfirmedEventNotification	—	—
GetAlarmSummary	—	—
GetEnrollmentSummary	—	—
GetEventInformation	—	—
LifeSafetyOperation	—	—
SubscribeCOV	—	x
SubscribeCOVProperty	—	—
File Access Services		
AtomicReadFile	—	—

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Service	Initiate	Execute
AtomicWriteFile	—	—
Object Access Services		
AddListElement	—	—
RemoveListElement	—	—
CreateObject	—	—
DeleteObject	—	—
ReadProperty	—	x
ReadPropertyConditional	—	—
ReadPropertyMultiple	—	x
WriteProperty	—	x
WritePropertyMultiple	—	x
ReadRange	—	—
Remote Device Management Services		
DeviceCommunicationControl	—	—
ConfirmedPrivateTransfer	—	—
UnconfirmedPrivateTransfer	—	—
ReinitializeDevice	—	—
ConfirmedTextMessage	—	—
UnconfirmedTextMessage	—	—
TimeSynchronization	—	x (IS-IPBML, IS-UNITY-DP only)
UTCTimeSynchronization	—	x (IS-IPBML, IS-UNITY-DP only)
Who-Has	—	x
I-Have	x	—
Who-Is	—	x
I-Am	x	—
Virtual Terminal Services		
VT-Open	—	—
VT-Close	—	—
VT-Data	—	—

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4.1.3 Standard Object Types Supported Object Properties

Object Type	X = Supported
Accumulator	—
Analog Input	X
Analog Output	X
Analog Value	X
Averaging	—
Binary Input	X
Binary Output	X
Binary Value	X
Calendar	—
Command	—
Device	X
Event Enrollment	—
File	—
Group	—
Life Safety Point	—
Life Safety Zone	—
Loop	—
Multistate Input	X
Multistate Output	X
Multistate Value	X
Notification Class	—
Program	—
Pulse Converter	—
Schedule	—
Trend Log	—
Access Door	—
Event Log	—
Load Control	—
Structured View	—
Trend Log Multiple	—

The following object properties in the following sections are supported.

NOTE: All properties are read-only unless otherwise noted.

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Device Object

The Device object represents the agent (the card) rather than the managed device.

Device Object Property	Comments
Object_Identifier	The card must be configured with a unique Device Instance Number to avoid interference with other cards on the same BACnet network.
Object_Name	Writable. If the Device Object Name is changed from the default, the configured name must be unique to avoid interference with other cards on the same BACnet network.
Object_Type	—
System_Status	—
Vendor_Name	—
Vendor_Identifier	—
Model_Name	—
Firmware_Revision	—
Application_Software_Version	—
Location	—
Description	—
Protocol_Version	—
Protocol_Revision	—
Protocol_Services_Supported	—
Protocol_Object_Types_Supported	—
Object_List	—
Max_APDU_Length_Accepted	—
Segmentation_Supported	—
Local_Time	—
Local_Date	—
UTC_Offset	—
Daylight_Savings_Status	—
APDU_Timeout	Writable. Range: 1-65,535 ms. Default 3000 ms.
Number_Of_APDU_Retries	Writable. Range: 0-8. Default 3.
Device_Address_Binding	—
Database_Revision	—
Active_COV_Subscriptions	—

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Analog Object

Analog Object Property	Analog Input	Analog Output	Analog Value	Comments
Object_ Identifier	x	x	x	—
Object_Name	x	x	x	—
Object_Type	x	x	x	—
Present_Value	x	x	x	Writable if any of these conditions apply: Object is Analog Output Object is Analog Value and associated device Data Description is writable Out_Of_Service is True
Description	x	x	x	—
Status_Flags	x	x	x	—
Event_State	x	x	x	—
Reliability	x	x	x	—
Out_Of_ Service	x	x	x	Writable. Values: True/False. Default: False.
Units	x	x	x	See Unit below .
Priority_Array		x	(x)	Support for this property on Analog Value objects is device-dependent.
Relinquish_ Default	—	x	(x)	Support for this property on Analog Value objects is device-dependent. The value is equal to the Present_Value so that if all entries in the Priority_Array are relinquished, the Present_Value does not change.
COV_ Increment	x	x	x	Writable. Default: 0.5.

Unit

Possible values of the Units property include the BACnet Engineering Units defined in the BACnet standard, plus these additional proprietary units values:

Value	Units
256	Ampere-Hours
257	MilliHertz (.001 Hertz)
258	GigaHertz (1,000,000,000 Hertz)
259	PSI - Absolute
260	Total Harmonic Distortion (%)
261	Microhms (.000001 Ohms)
262	Bytes

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Value	Units
263	Kilobytes
264	Megabytes
265	Gigabytes
266	Terabytes
267	Volt-Ampere-Hours
268	Kilovolt-Ampere-Hours
269	Volt-Ampere-Reactive-Hours
270	Kilovolt-Ampere-Reactive-Hours
271	Grams of Water per Cubic Meter of Air
272	Torrs
273	MilliTorrs

Binary Object Properties

Binary Object Property	Binary Input	Binary Output	Binary Value	Comments
Object_ Identifier	x	x	x	—
Object_Name	x	x	x	—
Object_Type	x	x	x	—
Present_Value	x	x	x	Writable if any of these conditions apply: Object is Binary Output Object is Binary Value and associated device Data Description is writable Out_Of_Service is True
Description	x	x	x	—
Status_Flags	x	x	x	—
Event_State	x	x	x	—
Reliability	x	x	x	—
Out_Of_ Service	x	x	x	Writable. Values: True/False. Default: False.
Polarity	x	x	—	—
Inactive_Text	x	x	x	—
Active_text	x	x	x	—
Priority_Array	—	x	(x)	Support for this property on Binary Value objects is device-dependent.
Relinquish_ Default	—	x	(x)	Support for this property on Binary Value objects is device-dependent. The value is equal to the Present_Value so that if all entries in the Priority_Array are relinquished, the Present_Value does not change.

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Multistate Object Properties

Multistate Object Property	Multistate Input	Multistate Output	Multistate Value	Comments
Object_ Identifier	x	x	x	—
Object_Name	x	x	x	—
Object_Type	x	x	x	—
Present_Value	x	x	x	Writable if any of these conditions apply: Object is Multistate Output Object is Multistate Value and associated device Data Description is writable Out_Of_Service is True
Description	x	x	x	—
Status_Flags	x	x	x	—
Event_State	x	x	x	—
Reliability	x	x	x	—
Out_Of_Service	x	x	x	Writable. Values: True/False. Default: False.
Number_Of_ States	x	x	x	—
State_Text	x	x	x	—
Priority_Array	—	x	(x)	Support for this property on Multistate Value objects is device-dependent.
Relinquish_ Default	—	x	(x)	Support for this property on Multistate Value objects is device-dependent. The value is equal to the Present_Value so that if all entries in the Priority_Array are relinquished, the Present_Value does not change.

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5 BACnet MSTP and BACnet IP Protocols

5.1 Thermal Management Products—BACnet Protocols

Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Air						
TSA Control Input Issue	Binary_Value	1245	6538_1	RD	Active on Alarm	14, 15, 16, 17
Air - Supply Air						
Supply Air Over Temperature	Binary_Value	1	5015_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Air Under Temperature	Binary_Value	2	5019_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Air Sensor Issue	Binary_Value	3	5026_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply NTC Air Sensor Issue	Binary_Value	4	6530_1_1	RD	Active on Alarm	11, 14, 15, 16, 17
Air - Return Air						
Return Air Over Temperature	Binary_Value	14	5023_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Under Temperature	Binary_Value	15	5335_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Sensor Issue	Binary_Value	16	5147_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return T/H Sensor Failure	Binary_Value	17	8738_1_1	RD	Active on Alarm	17
Air - External Sensors						

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Ext Air Sensor A Over Temperature	Binary_Value	27	4601_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temperature	Binary_Value	28	4608_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Issue	Binary_Value	29	4618_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ambient Air Sensor Issue	Binary_Value	30	5573_1_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
External Air Sensor B Issue	Binary_Value	31	4621_1_1	RD	Active on Alarm	11, 14, 15, 16, 17
External Air Sensor C Issue	Binary_Value	32	6531_1_1	RD	Active on Alarm	11, 14, 15, 16, 17
External Air Sensor D Issue	Binary_Value	33	6532_1_1	RD	Active on Alarm	11, 14, 15, 16, 17
External Air Sensor E Issue	Binary_Value	34	6533_1_1	RD	Active on Alarm	11, 14, 15, 16, 17
Air - Auxiliary Air						
Aux Air Temp Device Communication Lost	Binary_Value	1050	5966_1_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Humidity						
High Return Humidity	Binary_Value	41	5034_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Low Return Humidity	Binary_Value	42	5036_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dew Point Over Temperature	Binary_Value	43	5578_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Dew Point Under Temperature	Binary_Value	44	5579_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Return Humidity Sensor Issue	Binary_Value	45	5902_1	RD	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Humidity - External Sensors						
Ext Air Sensor A High Humidity	Binary_Value	53	5349_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity	Binary_Value	54	5351_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Over Temperature	Binary_Value	55	4615_1_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Under Temperature	Binary_Value	56	5577_1_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressors						
Ext Compressor Lockout	Binary_Value	65	5067_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Capacity Reduced	Binary_Value	66	5513_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressors - Compressor 1						
Compressor Hours Exceeded	Binary_Value	77	5269_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure	Binary_Value	78	5270_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Compressor Low Suction Pressure	Binary_Value	79	5271_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle	Binary_Value	80	5352_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue	Binary_Value	81	5146_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload	Binary_Value	82	5272_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	83	5354_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Over Temp	Binary_Value	84	5355_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Low Pressure Transducer Issue	Binary_Value	85	5514_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor High Pressure Transducer Issue	Binary_Value	86	5148_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Superheat Over Threshold	Binary_Value	87	5604_1_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Low Differential Pressure Lockout	Binary_Value	88	5903_1_1	RD	Active on Alarm	6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Freeze Protection	Binary_Value	89	6758_1_1	RD	Active on Alarm	15, 16, 17
Compressors - Compressor 2						

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Compressor Hours Exceeded	Binary_Value	97	5269_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7,, 17 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure	Binary_Value	98	5270_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure	Binary_Value	99	5271_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle	Binary_Value	100	5352_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue	Binary_Value	101	5146_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload	Binary_Value	102	5272_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	103	5354_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Over Temp	Binary_Value	104	5355_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Low Pressure Transducer Issue	Binary_Value	105	5514_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor High Pressure Transducer Issue	Binary_Value	106	5148_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Superheat Over Threshold	Binary_Value	107	5604_1_2	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						16, 17
Compressor Low Differential Pressure Lockout	Binary_Value	108	5903_1_2	RD	Active on Alarm	6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressor Freeze Protection	Binary_Value	109	6758_1_2	RD	Active on Alarm	15, 16, 17
Compressors - Compressor 3						
Compressor Hours Exceeded	Binary_Value	1265	5269_1_3	RD	Active on Alarm	15, 16, 17
Compressor High Head Pressure	Binary_Value	1266	5270_1_3	RD	Active on Alarm	15, 16, 17
Compressor Low Suction Pressure	Binary_Value	1267	5271_1_3	RD	Active on Alarm	15, 16, 17
Compressor Short Cycle	Binary_Value	1268	5352_1_3	RD	Active on Alarm	15, 16, 17
Compressor Pump Down Issue	Binary_Value	1269	5146_1_3	RD	Active on Alarm	15, 16, 17
Compressor Thermal Overload	Binary_Value	1270	5272_1_3	RD	Active on Alarm	15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	1271	5354_1_3	RD	Active on Alarm	15, 16, 17
Dig Scroll Comp Over Temp	Binary_Value	1272	5355_1_3	RD	Active on Alarm	15, 16, 17
Compressor Low Pressure Transducer Issue	Binary_Value	1273	5514_1_3	RD	Active on Alarm	15, 16, 17
Compressor High Pressure Transducer Issue	Binary_Value	1274	5148_1_3	RD	Active on Alarm	15, 16, 17
Compressor Superheat Over Threshold	Binary_Value	1275	5604_1_3	RD	Active on Alarm	15, 16, 17
Compressor Low Differential Pressure Lockout	Binary_Value	1276	5903_1_3	RD	Active on Alarm	15, 16, 17
Compressor Freeze Protection	Binary_Value	1277	6758_1_3	RD	Active on Alarm	15, 16, 17
Compressors - Compressor 4						
Compressor Hours Exceeded	Binary_Value	1287	5269_1_4	RD	Active on Alarm	15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Compressor High Head Pressure	Binary_Value	1288	5270_1_4	RD	Active on Alarm	15, 16, 17
Compressor Low Suction Pressure	Binary_Value	1289	5271_1_4	RD	Active on Alarm	15, 16, 17
Compressor Short Cycle	Binary_Value	1290	5352_1_4	RD	Active on Alarm	15, 16, 17
Compressor Pump Down Issue	Binary_Value	1291	5146_1_4	RD	Active on Alarm	15, 16, 17
Compressor Thermal Overload	Binary_Value	1292	5272_1_4	RD	Active on Alarm	15, 16, 17
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	1293	5354_1_4	RD	Active on Alarm	15, 16, 17
Dig Scroll Comp Over Temp	Binary_Value	1294	5355_1_4	RD	Active on Alarm	15, 16, 17
Compressor Low Pressure Transducer Issue	Binary_Value	1295	5514_1_4	RD	Active on Alarm	15, 16, 17
Compressor High Pressure Transducer Issue	Binary_Value	1296	5148_1_4	RD	Active on Alarm	15, 16, 17
Compressor Superheat Over Threshold	Binary_Value	1297	5604_1_4	RD	Active on Alarm	15, 16, 17
Compressor Low Differential Pressure Lockout	Binary_Value	1298	5903_1_4	RD	Active on Alarm	15, 16, 17
Compressor Freeze Protection	Binary_Value	1299	6758_1_4	RD	Active on Alarm	15, 16, 17
Free Cooling / Chilled Water						
Free Cooling Valve Hours Exceeded	Binary_Value	117	5306_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Free Cooling Lockout	Binary_Value	118	5361_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling Temp Sensor Issue	Binary_Value	119	5362_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Chilled Water Valve Hours Exceeded	Binary_Value	120	6539_1	RD	Active on Alarm	14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Reheat						
Hot Water / Hot Gas Valve Hours Exceeded	Binary_Value	130	5365_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheater Over Temperature	Binary_Value	131	5068_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Reheat Lockout	Binary_Value	132	5070_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheat - Electric Reheater 1						
Electric Reheater Hours Exceeded	Binary_Value	143	5368_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheat - Electric Reheater 2						
Electric Reheater Hours Exceeded	Binary_Value	154	5368_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheat - Electric Reheater 3						
Electric Reheater Hours Exceeded	Binary_Value	165	5368_1_3	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier						
Humidifier Hours Exceeded	Binary_Value	176	5037_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Humidifier Lockout	Binary_Value	177	5044_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Control Board Not Detected	Binary_Value	178	5045_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Humidifier Cylinder Worn	Binary_Value	179	5042_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Issue	Binary_Value	180	5043_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Low Water	Binary_Value	181	5041_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Over Current	Binary_Value	182	5040_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Under Current	Binary_Value	183	5039_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dehumidifier						
Dehumidifier Hours Exceeded	Binary_Value	194	5038_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan						
Fan Hours Exceeded	Binary_Value	205	5054_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Main Fan Overload	Binary_Value	206	5376_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan Issue	Binary_Value	207	4729_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
FSA Control Input Issue	Binary_Value	208	6540_1	RD	Active on Alarm	14, 15, 16, 17
Fan - Supply Fan Status 1						

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Supply Fan Communication Lost	Binary_Value	1648	8105_1_1	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 2						
Supply Fan Communication Lost	Binary_Value	1659	8105_1_2	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 3						
Supply Fan Communication Lost	Binary_Value	1670	8105_1_3	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 4						
Supply Fan Communication Lost	Binary_Value	1681	8105_1_4	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 5						
Supply Fan Communication Lost	Binary_Value	1692	8105_1_5	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 6						
Supply Fan Communication Lost	Binary_Value	1703	8105_1_6	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 7						
Supply Fan Communication Lost	Binary_Value	1714	8105_1_7	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 8						
Supply Fan Communication Lost	Binary_Value	1725	8105_1_8	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 9						
Supply Fan Communication Lost	Binary_Value	1736	8105_1_9	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 10						
Supply Fan Communication Lost	Binary_Value	1747	8105_1_10	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 11						
Supply Fan Communication Lost	Binary_Value	1758	8105_1_11	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 12						
Supply Fan Communication Lost	Binary_Value	1769	8105_1_12	RD	Active on Alarm	15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Fan - Supply Fan Status 13						
Supply Fan Communication Lost	Binary_Value	1780	8105_1_13	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 14						
Supply Fan Communication Lost	Binary_Value	1791	8105_1_14	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 15						
Supply Fan Communication Lost	Binary_Value	1802	8105_1_15	RD	Active on Alarm	15, 16, 17
Fan - Supply Fan Status 16						
Supply Fan Communication Lost	Binary_Value	1813	8105_1_16	RD	Active on Alarm	15, 16, 17
Condensers						
Condenser VFD Issue	Binary_Value	219	5072_1	RD	Active on Alarm	1, 2, 4, 6, 10
Ext Condenser Pump High Water	Binary_Value	220	5106_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
External Condenser TVSS Issue	Binary_Value	1060	6105_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
External Condenser VFD Issue	Binary_Value	1061	6106_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condensers - Condenser 1						
Condenser Issue	Binary_Value	231	5377_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Condensers - Condenser 2						
Condenser Issue	Binary_Value	242	5377_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Events						
Customer Input 1	Binary_Value	253	4270_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						14, 15, 16, 17
Customer Input 2	Binary_Value	254	4271_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 3	Binary_Value	255	4272_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 4	Binary_Value	256	4273_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Loss of Air Blower	Binary_Value	257	5415_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Loss of Flow	Binary_Value	258	5105_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Standby Glycol Pump On	Binary_Value	259	5107_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
BMS Communications Timeout	Binary_Value	260	5115_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Standby Unit On	Binary_Value	261	5416_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Clogged Air Filter	Binary_Value	262	5118_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Loss of Air Flow	Binary_Value	263	5053_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Service Required	Binary_Value	264	4726_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						14, 15, 16, 17
Master Unit Communication Lost	Binary_Value	265	5120_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
RAM Battery Issue	Binary_Value	266	5119_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Shutdown - Loss Of Power	Binary_Value	267	4714_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Power Shutdown	Binary_Value	268	5121_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Smoke Detected	Binary_Value	269	4720_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Chilled Water Loss of Flow	Binary_Value	270	4980_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Chilled Water Over Temp	Binary_Value	271	4626_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Code Missing	Binary_Value	272	5418_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Communication Lost	Binary_Value	273	5419_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Water Leakage Detector Sensor Issue	Binary_Value	274	5114_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Water Under Floor	Binary_Value	275	4723_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						14, 15, 16, 17
Ext Over Temperature	Binary_Value	276	5104_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
External Fire Detected	Binary_Value	277	5108_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unspecified General Event	Binary_Value	278	5588_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Temperature Control Sensor Issue	Binary_Value	279	5617_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Airflow Sensor Issue	Binary_Value	280	5906_1	RD	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Air Damper Position Issue	Binary_Value	281	5907_1	RD	Active on Alarm	3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Ext Power Source A Failure	Binary_Value	282	5908_1	RD	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Power Source B Failure	Binary_Value	283	5909_1	RD	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Mixed Mode Lockout	Binary_Value	284	5924_1	RD	Active on Alarm	6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Auto Tune License Expiring	Binary_Value	350	6541_1	RD	Active on Alarm	14, 15, 16, 17
Auto Tune License Expired	Binary_Value	351	6542_1	RD	Active on Alarm	14, 15, 16, 17
Unit In Standby Due To Cooling Loss	Binary_Value	352	6543_1	RD	Active on Alarm	14, 15, 16, 17
Control Units Remote Shutdown Mismatch	Binary_Value	353	6544_1	RD	Active on Alarm	15, 16, 17
Slave Control Unit Communication Lost	Binary_Value	354	6545_1	RD	Active on Alarm	15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Control Units Unit Code Mismatch	Binary_Value	355	6546_1	RD	Active on Alarm	15, 16, 17
Door Open	Binary_Value	356	5471_1	RD	Active on Alarm	15, 16, 17
Water Leakage	Binary_Value	357	8192_1	RD	Active on Alarm	16, 17
PHE Sup Tem Snsr Fail	Binary_Value	358	8231_1	RD	Active on Alarm	16, 17
Unit Events - Chilled Water Valve 1						
Chilled Water Control Valve Failure	Binary_Value	288	4703_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unit Events - Chilled Water Valve 2						
Chilled Water Control Valve Failure	Binary_Value	299	4703_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unit Events - Messages						
Unit Off	Binary_Value	310	5110_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit On	Binary_Value	311	5109_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Partial Shutdown	Binary_Value	312	5112_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Shutdown	Binary_Value	313	5113_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Standby	Binary_Value	314	5111_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Maintenance Due	Binary_Value	315	5116_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						14, 15, 16, 17
Maintenance Completed	Binary_Value	316	5117_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Events - iCOM DO Board 1						
Digital Output Board Not Detected	Binary_Value	327	5417_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Events - iCOM DO Board 2						
Digital Output Board Not Detected	Binary_Value	338	5417_1_2	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Events - iCOM DO Board 3						
Digital Output Board Not Detected	Binary_Value	349	5417_1_3	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Remote Sensors						
Remote Sensor Average Over Temperature	Binary_Value	361	5593_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Average Under Temperature	Binary_Value	362	5594_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Average Over Temperature	Binary_Value	363	5595_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Average Under Temperature	Binary_Value	364	5596_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Aggregate Remote Air Temp Sensor Fail	Binary_Value	365	8742_1	RD	Active on Alarm	17
Remote Sensors - Remote Sensor 1						

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Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Remote Sensor Over Temperature	Binary_Value	376	5597_1_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	377	5598_1_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	378	5060_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 2						
Remote Sensor Over Temperature	Binary_Value	390	5597_1_2	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	391	5598_1_2	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	392	5060_1_2	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 3						
Remote Sensor Over Temperature	Binary_Value	404	5597_1_3	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	405	5598_1_3	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	406	5060_1_3	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 4						
Remote Sensor Over Temperature	Binary_Value	418	5597_1_4	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Remote Sensor Under Temperature	Binary_Value	419	5598_1_4	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	420	5060_1_4	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 5						
Remote Sensor Over Temperature	Binary_Value	432	5597_1_5	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	433	5598_1_5	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	434	5060_1_5	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 6						
Remote Sensor Over Temperature	Binary_Value	446	5597_1_6	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	447	5598_1_6	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	448	5060_1_6	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 7						
Remote Sensor Over Temperature	Binary_Value	460	5597_1_7	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	461	5598_1_7	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Remote Sensor Issue	Binary_Value	462	5060_1_7	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 8						
Remote Sensor Over Temperature	Binary_Value	474	5597_1_8	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	475	5598_1_8	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	476	5060_1_8	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 9						
Remote Sensor Over Temperature	Binary_Value	488	5597_1_9	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	489	5598_1_9	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	490	5060_1_9	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 10						
Remote Sensor Over Temperature	Binary_Value	502	5597_1_10	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temperature	Binary_Value	503	5598_1_10	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Issue	Binary_Value	504	5060_1_10	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Air Economizer						
Air Economizer Emergency Override	Binary_Value	516	5600_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Air Economizer Reduced Airflow	Binary_Value	517	5601_1	RD	Active on Alarm	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Econ High Mixed Temp	Binary_Value	519	8619_1	RD	Active on Alarm	17
Air Econ Low Mixed Temp	Binary_Value	520	8620_1	RD	Active on Alarm	17
Ret Damp Fdback Fail	Binary_Value	521	8621_1	RD	Active on Alarm	17
Outdoor Dmp Fdback Fail	Binary_Value	522	8622_1	RD	Active on Alarm	17
Thermal Runaway	Binary_Value	523	8623_1	RD	Active on Alarm	17
Exhaust Damper Feedback Fail	Binary_Value	524	8734_1	RD	Active on Alarm	17
High Unit Differential Pressure	Binary_Value	525	8735_1	RD	Active on Alarm	17
Aggregate Mixed Air Temp Sensor Fail	Binary_Value	526	8743_1	RD	Active on Alarm	17
Electronic Expansion Valves						
EEV Unspecified General Event	Binary_Value	540	5625_1	RD	Active on Alarm	4, 6, 7, 8, 11, 13, 14, 15, 16, 17
Static Pressure						
Static Pressure Sensor Issue	Binary_Value	563	5629_1	RD	Active on Alarm	3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
High Static Pressure	Binary_Value	564	5630_1	RD	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Low Static Pressure	Binary_Value	565	5631_1	RD	Active on Alarm	3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Static Pressure Sensor Out of Range	Binary_Value	566	5910_1	RD	Active on Alarm	3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
SSA Control Input Issue	Binary_Value	567	6547_1	RD	Active on Alarm	14, 15, 16, 17
PRE						
Pump Unspecified General Event	Binary_Value	623	5636_1	RD	Active on Alarm	4, 6, 7, 8, 11, 13, 14, 15, 16, 17
Power Measurement 1						
Input Undervoltage	Binary_Value	1001	5568_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost	Binary_Value	1040	5967_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 2						
Input Undervoltage	Binary_Value	1002	5568_2	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost	Binary_Value	1041	5967_2	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 3						
Input Undervoltage	Binary_Value	1003	5568_3	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost	Binary_Value	1042	5967_3	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 4						
Input Undervoltage	Binary_Value	1004	5568_4	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost	Binary_Value	1043	5967_4	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 5						
Input Undervoltage	Binary_Value	1005	5568_5	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost	Binary_Value	1044	5967_5	RD	Active on Alarm	5, 8, 11, 12, 13, 14,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						15, 16, 17
Power Measurement 6						
Input Undervoltage	Binary_Value	1006	5568_6	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Modbus Power Meter Communication Lost	Binary_Value	1045	5967_6	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid						
Fluid Temperature Sensor Issue	Binary_Value	1021	5911_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Sensor Issue	Binary_Value	1022	5912_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid 2						
Fluid Temperature Sensor Issue	Binary_Value	1031	5911_2	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Sensor Issue	Binary_Value	1032	5912_2	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers						
Condenser Unit Unspecified General Event	Binary_Value	643	5637_1	RD	Active on Alarm	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 1						
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1082	5536_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Control Board Issue	Binary_Value	1084	5537_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temp Sensor Issue	Binary_Value	1086	5535_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Communication Lost	Binary_Value	1088	5531_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Remote Shutdown	Binary_Value	1090	6100_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser TVSS Issue	Binary_Value	218	5073_1_1	RD	Active on Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2						
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1083	5536_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Control Board Issue	Binary_Value	1085	5537_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temp Sensor Issue	Binary_Value	1087	5535_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Communication Lost	Binary_Value	1089	5531_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Remote Shutdown	Binary_Value	1091	6100_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser TVSS Issue	Binary_Value	1092	5073_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 3						
Condenser TVSS Issue	Binary_Value	1350	5073_1_3	RD	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1319	5536_1_3	RD	Active on Alarm	15, 16, 17
Condenser Control Board Issue	Binary_Value	1320	5537_1_3	RD	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Sensor Issue	Binary_Value	1321	5535_1_3	RD	Active on Alarm	15, 16, 17
Condenser Communication Lost	Binary_Value	1322	5531_1_3	RD	Active on Alarm	15, 16, 17
Condenser Remote Shutdown	Binary_Value	1323	6100_1_3	RD	Active on Alarm	15, 16, 17
MC Condensers - Condenser 4						
Condenser TVSS Issue	Binary_Value	1366	5073_1_4	RD	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1335	5536_1_4	RD	Active on Alarm	15, 16, 17

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Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Control Board Issue	Binary_Value	1336	5537_1_4	RD	Active on Alarm	15, 16, 17
Condenser Outside Air Temp Sensor Issue	Binary_Value	1337	5535_1_4	RD	Active on Alarm	15, 16, 17
Condenser Communication Lost	Binary_Value	1338	5531_1_4	RD	Active on Alarm	15, 16, 17
Condenser Remote Shutdown	Binary_Value	1339	6100_1_4	RD	Active on Alarm	15, 16, 17
MC Condensers - Circuit 1						
Condenser Circuit Unspecified General Event	Binary_Value	644	5638_1_1	RD	Active on Alarm	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1104	5541_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1106	5540_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1108	5539_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1110	5544_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Under Temp	Binary_Value	1112	5543_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Over Temp	Binary_Value	1114	5542_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Max Fan Speed Override	Binary_Value	1116	5545_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Circuit 2						
Condenser Circuit Unspecified General Event	Binary_Value	896	5638_1_2	RD	Active on Alarm	—
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1105	5541_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1107	5540_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1109	5539_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1111	5544_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Under Temp	Binary_Value	1113	5543_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Over Temp	Binary_Value	1115	5542_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Max Fan Speed Override	Binary_Value	1117	5545_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Circuit 3						
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1359	5541_1_3	RD	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1360	5540_1_3	RD	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1361	5539_1_3	RD	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1362	5544_1_3	RD	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Under Temp	Binary_Value	1363	5543_1_3	RD	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Over Temp	Binary_Value	1364	5542_1_3	RD	Active on Alarm	15, 16, 17
Condenser Max Fan Speed Override	Binary_Value	1365	5545_1_3	RD	Active on Alarm	15, 16, 17
MC Condensers - Circuit 4						
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1376	5541_1_4	RD	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1377	5540_1_4	RD	Active on Alarm	15, 16, 17
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1378	5539_1_4	RD	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1379	5544_1_4	RD	Active on Alarm	15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Supply Refrigerant Under Temp	Binary_Value	1380	5543_1_4	RD	Active on Alarm	15, 16, 17
Condenser Supply Refrigerant Over Temp	Binary_Value	1381	5542_1_4	RD	Active on Alarm	15, 16, 17
Condenser Max Fan Speed Override	Binary_Value	1382	5545_1_4	RD	Active on Alarm	15, 16, 17
MC Condensers - Condenser 1 Fan 1						
Condenser Fan Issue	Binary_Value	1128	5277_1_1_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 1 Fan 2						
Condenser Fan Issue	Binary_Value	1129	5277_1_1_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 1 Fan 3						
Condenser Fan Issue	Binary_Value	1130	5277_1_1_3	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 1 Fan 4						
Condenser Fan Issue	Binary_Value	1131	5277_1_1_4	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 1						
Condenser Fan Issue	Binary_Value	1132	5277_1_2_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 2						
Condenser Fan Issue	Binary_Value	1133	5277_1_2_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 3						
Condenser Fan Issue	Binary_Value	1134	5277_1_2_3	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 4						
Condenser Fan Issue	Binary_Value	1135	5277_1_2_4	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 1						
Condenser Fan Issue	Binary_Value	1402	5277_1_3_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12,

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 2						
Condenser Fan Issue	Binary_Value	1422	5277_1_3_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 3						
Condenser Fan Issue	Binary_Value	1442	5277_1_3_3	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 4						
Condenser Fan Issue	Binary_Value	1462	5277_1_3_4	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 1						
Condenser Fan Issue	Binary_Value	1482	5277_1_4_1	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 2						
Condenser Fan Issue	Binary_Value	1502	5277_1_4_2	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 3						
Condenser Fan Issue	Binary_Value	1522	5277_1_4_3	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 4						
Condenser Fan Issue	Binary_Value	1542	5277_1_4_4	RD	Active on Alarm	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
PCW-PDX						
Compressor 1B Thermal Overload	Binary_Value	1146	6092_1	RD	Active on Alarm	9
Compressor 2B Thermal Overload	Binary_Value	1147	6093_1	RD	Active on Alarm	9
Compressor 1B Hours Exceeded	Binary_Value	1148	6094_1	RD	Active on Alarm	9
Compressor 2B Hours Exceeded	Binary_Value	1149	6095_1	RD	Active on Alarm	9
Team Static Pressure Sensor Failure	Binary_Value	1150	6303_1	RD	Active on Alarm	9

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Heating Lockout	Binary_Value	1151	6304_1	RD	Active on Alarm	9
Free Cooling Stopped - High Room Temp	Binary_Value	1152	6305_1	RD	Active on Alarm	9
PCW-PDX - Cold Aisle						
Cold Aisle Temperature/Humidity Team Sensor Failure	Binary_Value	1163	6306_1_1	RD	Active on Alarm	9
PCW-PDX - Cold Aisle Sensor 1						
Cold Aisle Air Sensor Failure	Binary_Value	1174	6309_1_1	RD	Active on Alarm	9
PCW-PDX - Cold Aisle Sensor 2						
Cold Aisle Air Sensor Failure	Binary_Value	1185	6309_1_2	RD	Active on Alarm	9
PCW-PDX - Cold Aisle Sensor 3						
Cold Aisle Air Sensor Failure	Binary_Value	1196	6309_1_3	RD	Active on Alarm	9
Chilled Water						
Chilled Water Inlet Temperature Control Active	Binary_Value	1207	6310_1	RD	Active on Alarm	9
Chilled Water - Chilled Water Circuit 1						
Chilled Water Inlet Temperature Sensor Failure	Binary_Value	1218	6313_1_1	RD	Active on Alarm	—
Chilled Water Outlet Temperature Sensor Failure	Binary_Value	1219	6314_1_1	RD	Active on Alarm	—
Chilled Water Flow Meter Sensor Failure	Binary_Value	1220	6315_1_1	RD	Active on Alarm	—
Chilled Water - Chilled Water Circuit 2						
Chilled Water Inlet Temperature Sensor Failure	Binary_Value	1231	6313_1_2	RD	Active on Alarm	—
Chilled Water Outlet Temperature Sensor Failure	Binary_Value	1232	6314_1_2	RD	Active on Alarm	—
Chilled Water Flow Meter Sensor Failure	Binary_Value	1233	6315_1_2	RD	Active on Alarm	—
Unit Operations - Group Independent Operation						

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Group Independent On	Binary_Value	1554	6691_1_1	RD	Active on Alarm	15, 16, 17
Group Independent Off	Binary_Value	1555	6692_1_1	RD	Active on Alarm	15, 16, 17
Fluid Circuit 1						
Fluid Temperature Sensor Issue	Binary_Value	1021	5911_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Sensor Issue	Binary_Value	1022	5912_1	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
External Supply Fluid High Temperature	Binary_Value	1567	6818_1	RD	Active on Alarm	15, 16, 17
External Supply Fluid Temp Sensor Issue	Binary_Value	1568	6819_1	RD	Active on Alarm	15, 16, 17
External Supply Fluid Flow Issue	Binary_Value	1569	6824_1	RD	Active on Alarm	15, 16, 17
Valve Communications Failure	Binary_Value	1570	8075_1	RD	Active on Alarm	15, 16, 17
Valve Issue	Binary_Value	1571	8076_1	RD	Active on Alarm	15, 16, 17
Fluid Circuit 2						
Fluid Temperature Sensor Issue	Binary_Value	1031	5911_2	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Flow Sensor Issue	Binary_Value	1032	5912_2	RD	Active on Alarm	5, 8, 11, 12, 13, 14, 15, 16, 17
External Supply Fluid High Temperature	Binary_Value	1581	6818_2	RD	Active on Alarm	15, 16, 17
External Supply Fluid Temp Sensor Issue	Binary_Value	1582	6819_2	RD	Active on Alarm	15, 16, 17
External Supply Fluid Flow Issue	Binary_Value	1583	6824_2	RD	Active on Alarm	15, 16, 17
Valve Communications Failure	Binary_Value	1584	8075_2	RD	Active on Alarm	15, 16, 17
Valve Issue	Binary_Value	1585	8076_2	RD	Active on Alarm	15, 16, 17
Logs						
Audit Log Update	Binary_Value	1595	6822_1	RD	Active on Alarm	15, 16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Automatic Transfer Switch						
Modbus Automatic Transfer Switch Communication Lost	Binary_Value	1606	7163_1	RD	Active on Alarm	15, 16, 17
Fluid Loop						
Supply Fluid Temp Sensor Issue	Binary_Value	1617	4651_1	RD	Active on Alarm	15, 16, 17
Return Fluid Temp Sensor Issue	Binary_Value	1618	5295_1	RD	Active on Alarm	15, 16, 17
Flow Sensor Failure	Binary_Value	1619	7474_1	RD	Active on Alarm	15, 16, 17
Check Water System	Binary_Value	1620	7475_1	RD	Active on Alarm	15, 16, 17
Supply Fluid Over Temp	Binary_Value	1621	4645_1	RD	Active on Alarm	15, 16, 17
Return Fluid Over Temp	Binary_Value	1622	5293_1	RD	Active on Alarm	15, 16, 17
Pump Operating Without Flow	Binary_Value	1623	7476_1	RD	Active on Alarm	15, 16, 17
Supply Fluid Low Temp	Binary_Value	1824	8180_1	RD	Active on Alarm	16, 17
Return Fluid Low Temp	Binary_Value	1825	8181_1	RD	Active on Alarm	16, 17
Fluid High Differential Pressure	Binary_Value	1826	8182_1	RD	Active on Alarm	16, 17
Fluid Low Differential Pressure	Binary_Value	1827	8183_1	RD	Active on Alarm	16, 17
Fluid Flow Low Inlet Pressure	Binary_Value	1828	8184_1	RD	Active on Alarm	16, 17
Fluid Flow High Supply Pressure	Binary_Value	1829	8185_1	RD	Active on Alarm	16, 17
Fluid Low System Flow	Binary_Value	1830	8186_1	RD	Active on Alarm	16, 17
Fluid Flow Blocked	Binary_Value	1831	8187_1	RD	Active on Alarm	16, 17
Fluid Dewpoint Margin Control	Binary_Value	1832	8188_1	RD	Active on Alarm	16, 17

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Table 5.1 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Binary Data (continued)

Controller	Liebert® iCOM™ v4					
Data Description	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Fluid Supply Pressure Sensor Issue	Binary_Value	1833	8189_1	RD	Active on Alarm	16, 17
Fluid Return Pressure Sensor Issue	Binary_Value	1834	8190_1	RD	Active on Alarm	16, 17
Fluid Inlet Pressure Sensor Issue	Binary_Value	1835	8191_1	RD	Active on Alarm	16, 17
XDM Mix Valve Position Error	Binary_Value	1836	8624_1	RD	Active on Alarm	17
XDM Flow and Load Cycling	Binary_Value	1837	8628_1	RD	Active on Alarm	17
Fluid Loop - Fluid Pump 1						
Pump Inverter Failure	Binary_Value	1634	7483_1_1	RD	Active on Alarm	15, 16, 17
Pump Flow Failure	Binary_Value	1635	7484_1_1	RD	Active on Alarm	15, 16, 17
Fluid Loop - Fluid Pump 2						
Pump Inverter Failure	Binary_Value	1636	7483_1_2	RD	Active on Alarm	15, 16, 17
Pump Flow Failure	Binary_Value	1637	7484_1_2	RD	Active on Alarm	15, 16, 17
Fluid Loop - Fluid Pump Status 1						
XD Pump Communication Lost	Binary_Value	1846	8170_1_1	RD	Active on Alarm	16, 17
XDM Pump No Flow	Binary_Value	1858	8625_1_1	RD	Active on Alarm	16, 17
XDM Pump Pressure Sensor Fail	Binary_Value	1860	8626_1_1	RD	Active on Alarm	17
XDM Pump Not Avail	Binary_Value	1862	8627_1_1	RD	Active on Alarm	17
Fluid Loop - Fluid Pump Status 2						
XD Pump Communication Lost	Binary_Value	1857	8170_1_2	RD	Active on Alarm	16, 17
XDM Pump No Flow	Binary_Value	1859	8625_1_2	RD	Active on Alarm	16, 17
XDM Pump Pressure Sensor Fail	Binary_Value	1861	8626_1_2	RD	Active on Alarm	17
XDM Pump Not Avail	Binary_Value	1863	8627_1_2	RD	Active on Alarm	17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Air						
Air Temperature Set Point	Analog_ Value	1	5008_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Set Point	Analog_ Value	10001	5008_1_ deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Proportional Band	Analog_ Value	2	5325_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Proportional Band	Analog_ Value	10002	5325_1_deg_ F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Dead Band	Analog_ Value	3	5011_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Dead Band	Analog_ Value	10003	5011_1_deg_ F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Control Integration Time	Analog_ Value	4	5326_1	RW	Units: min	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's High Air Temperature	Analog_ Value	5	5327_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's High Air Temperature	Analog_ Value	10005	5327_1_deg_ F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's High Air Temperature Time	Analog_ Value	6	5328_1	RD	Units: Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's Low Air Temperature	Analog_ Value	7	5329_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's Low Air Temperature	Analog_ Value	10007	5329_1_deg_ F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						13, 14, 15, 16, 17
Today's Low Air Temperature Time	Analog_ Value	8	5330_1	RD	Units: Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air - Supply Air						
Supply Air Temperature	Analog_ Value	19	5002_1_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Air Temperature	Analog_ Value	10019	5002_1_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Air Temperature Set Point	Analog_ Value	20	5331_1_1	RW	Units: deg C	1, 9, 10
Supply Air Temperature Set Point	Analog_ Value	10020	5331_1_1_deg_F	RW	Units: deg F	1, 9, 10
High Supply Air Temperature Threshold	Analog_ Value	21	5014_1_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
High Supply Air Temperature Threshold	Analog_ Value	10021	5014_1_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Low Supply Air Temperature Threshold	Analog_ Value	22	5018_1_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Low Supply Air Temperature Threshold	Analog_ Value	10022	5018_1_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Supply Sensor Events Initial Delay	Analog_ Value	23	6756_1_1	RW	Units: sec	15, 16, 17
Air - Return Air						
High Return Air Temperature Threshold	Analog_ Value	33	5022_1_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Return Air Temperature Threshold	Analog_ Value	10033	5022_1_1_deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Low Return Air Temperature Threshold	Analog_ Value	34	5334_1_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Low Return Air Temperature Threshold	Analog_ Value	10034	5334_1_1_deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Sensor Events Initial Delay	Analog_ Value	35	6757_1_1	RW	Units: sec	15, 16, 17
Air - External Sensors						
Ext Air Sensor A Temperature	Analog_ Value	45	4594_1_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Temperature	Analog_Value	10045	4594_1_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
Ext Air Sensor B Temperature	Analog_Value	46	4597_1_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor B Temperature	Analog_Value	10046	4597_1_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor C Temperature	Analog_Value	47	5336_1_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor C Temperature	Analog_ Value	10047	5336_1_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp Threshold	Analog_ Value	48	5337_1_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp Threshold	Analog_ Value	10048	5337_1_1_deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp Threshold	Analog_ Value	49	5338_1_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp Threshold	Analog_ Value	10049	5338_1_1_deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						13, 14, 15, 16, 17
Outside Air Temperature	Analog_ Value	50	5574_1_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Outside Air Temperature	Analog_ Value	10050	5574_1_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Humidity						
Return Humidity	Analog_ Value	60	5028_1	RD	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidity Set Point	Analog_ Value	61	5029_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Humidity Set Point	Analog_ Value	62	5339_1	RW	Units: % RH	1, 9, 10
Humidity Proportional Band	Analog_ Value	63	5341_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidity Dead Band	Analog_ Value	64	5032_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidity Control Integration Time	Analog_ Value	65	5342_1	RW	Units: min	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Return Humidity Threshold	Analog_ Value	66	5033_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Low Return Humidity Threshold	Analog_ Value	67	5035_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's High Humidity	Analog_ Value	68	5343_1	RD	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Today's High Humidity Time	Analog_ Value	69	5344_1	RD	Units: Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's Low Humidity	Analog_ Value	70	5345_1	RD	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Today's Low Humidity Time	Analog_ Value	71	5346_1	RD	Units: Seconds since Midnight	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dew Point Proportional Band	Analog_ Value	72	6258_1	RW	Units: deg C	11, 14, 15, 16, 17
Dew Point Proportional Band	Analog_ Value	10072	6258_1_deg_F	RW	Units: deg F	11, 14, 15, 16, 17
Dew Point Dead Band	Analog_ Value	73	6259_1	RW	Units: deg C	11, 14, 15, 16, 17
Dew Point Dead Band	Analog_ Value	10073	6259_1_deg_F	RW	Units: deg F	11, 14, 15, 16, 17
Dew Point Over Temp Threshold	Analog_ Value	74	6575_1	RW	Units: deg C	14, 15, 16, 17
Dew Point Over Temp Threshold	Analog_ Value	10074	6575_1_deg_F	RW	Units: deg F	14, 15, 16, 17
Dew Point Under Temp Threshold	Analog_ Value	75	6576_1	RW	Units: deg C	14, 15, 16, 17
Dew Point Under Temp Threshold	Analog_ Value	10075	6576_1_deg_F	RW	Units: deg F	14, 15, 16, 17
Humidity - External Sensors						
Ext Air Sensor A Humidity	Analog_ Value	82	4595_1_1	RD	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor B Humidity	Analog_ Value	83	4598_1_1	RD	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor C Humidity	Analog_ Value	84	5347_1_1	RD	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A High Humidity Threshold	Analog_ Value	85	5348_1_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

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Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity Threshold	Analog_ Value	86	5350_1_1	RW	Units: % RH	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Dew Point Temp	Analog_ Value	87	4596_1_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Dew Point Temp	Analog_ Value	10087	4596_1_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Over Temp Threshold	Analog_ Value	88	4614_1_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Over Temp Threshold	Analog_ Value	10088	4614_1_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Under Temp Threshold	Analog_ Value	89	5576_1_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Ext Dew Point Under Temp Threshold	Analog_ Value	10089	5576_1_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressors - Compressor 1						
Compressor Hours	Analog_ Value	97	5267_1_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Hours Threshold	Analog_ Value	98	5268_1_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp	Analog_ Value	99	5353_1_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp	Analog_ Value	10099	5353_1_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Digital Scroll Compressor Loading	Analog_ Value	100	5619_1_1	RD	Units: %	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor Hours	Analog_ Value	101	6241_1_1	RW	Units: hr	8, 11, 12, 13, 14, 15, 16, 17
Compressor Suction Pressure	Analog_ Value	102	6688_1_1	RD	Units: bar	15, 16, 17
Compressors - Compressor 2						
Compressor Hours	Analog_ Value	110	5267_1_2	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Hours Threshold	Analog_ Value	111	5268_1_2	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp	Analog_ Value	112	5353_1_2	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Temp	Analog_ Value	10112	5353_1_2_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Digital Scroll Compressor Loading	Analog_ Value	113	5619_1_2	RD	Units: %	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor Hours	Analog_ Value	114	6241_1_2	RW	Units: hr	8, 11, 12, 13, 14, 15, 16, 17
Compressor Suction Pressure	Analog_ Value	115	6688_1_2	RD	Units: bar	15, 16, 17
Compressors - Compressor 3						
Dig Scroll Comp Discharge Temp	Analog_ Value	2235	5353_1_3	RD	Units: deg C	15, 16, 17
Dig Scroll Comp Discharge Temp	Analog_ Value	12235	5353_1_3_deg_F	RD	Units: deg F	15, 16, 17
Digital Scroll Compressor Loading	Analog_ Value	2236	5619_1_3	RD	Units: %	15, 16, 17
Compressor Hours	Analog_ Value	2237	5267_1_3	RW	Units: hr	15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Tandem 'B' Compressor Hours	Analog_ Value	2238	6241_1_3	RW	Units: hr	15, 16, 17
Compressor Hours Threshold	Analog_ Value	2239	5268_1_3	RW	Units: hr	15, 16, 17
Compressor Suction Pressure	Analog_ Value	2240	6688_1_3	RD	Units: bar	15, 16, 17
Compressors - Compressor 4						
Dig Scroll Comp Discharge Temp	Analog_ Value	2250	5353_1_4	RD	Units: deg C	15, 16, 17
Dig Scroll Comp Discharge Temp	Analog_ Value	12250	5353_1_4_deg_F	RD	Units: deg F	15, 16, 17
Digital Scroll Compressor Loading	Analog_ Value	2251	5619_1_4	RD	Units: %	15, 16, 17
Compressor Hours	Analog_ Value	2252	5267_1_4	RW	Units: hr	15, 16, 17
Tandem 'B' Compressor Hours	Analog_ Value	2253	6241_1_4	RW	Units: hr	15, 16, 17
Compressor Hours Threshold	Analog_ Value	2254	5268_1_4	RW	Units: hr	15, 16, 17
Compressor Suction Pressure	Analog_ Value	2255	6688_1_4	RD	Units: bar	15, 16, 17
Free Cooling / Chilled Water						
Free Cooling Internal Temperature Delta	Analog_ Value	123	5356_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling Internal Temperature Delta	Analog_ Value	10123	5356_1_deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling Fluid Temperature	Analog_ Value	124	5358_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling Fluid Temperature	Analog_ Value	10124	5358_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Minimum Chilled Water Temp Set Point	Analog_ Value	125	5360_1	RW	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Minimum Chilled Water Temp Set Point	Analog_ Value	10125	5360_1_deg_F	RW	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling Valve Hours	Analog_ Value	126	5304_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling Valve Hours Threshold	Analog_ Value	127	5305_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Chilled Water Valve Hours	Analog_ Value	128	5614_1	RW	Units: hr	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Chilled Water Valve Operating Hours Threshold	Analog_ Value	129	6452_1	RW	Units: hr	11, 12, 13, 14, 15, 16, 17
Fluid Free Cooling Lockout Threshold	Analog_ Value	130	6759_1	RW	Units: deg C	15, 16, 17
Fluid Free Cooling Lockout Threshold	Analog_ Value	10130	6759_1_deg_F	RW	Units: deg F	15, 16, 17
Reheat						
Hot Water / Hot Gas Valve Hours	Analog_ Value	138	5363_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas Valve Hours Threshold	Analog_ Value	139	5364_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dehum Reheat Low Limit Set Point	Analog_ Value	140	6761_1	RW	Units: deg C	15, 16, 17
Dehum Reheat Low Limit Set Point	Analog_ Value	10140	6761_1_deg_F	RW	Units: deg F	15, 16, 17
Dehum Reheat Low Limit 1	Analog_ Value	141	6762_1	RW	Units: deg C	15, 16, 17
Dehum Reheat Low Limit 1	Analog_ Value	10141	6762_1_deg_F	RW	Units: deg F	15, 16, 17
Dehum Reheat Low Limit 2	Analog_ Value	142	6763_1	RW	Units: deg C	15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Dehum Reheat Low Limit 2	Analog_ Value	10142	6763_1_deg_F	RW	Units: deg F	15, 16, 17
Dehum Reheat Proportional Band	Analog_ Value	143	6764_1	RW	Units: deg C	15, 16, 17
Dehum Reheat Proportional Band	Analog_ Value	10143	6764_1_deg_F	RW	Units: deg F	15, 16, 17
Reheat - Electric Reheater 1						
Electric Reheater Hours	Analog_ Value	150	5366_1_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold	Analog_ Value	151	5367_1_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheat - Electric Reheater 2						
Electric Reheater Hours	Analog_ Value	162	5366_1_2	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold	Analog_ Value	163	5367_1_2	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheat - Electric Reheater 3						
Electric Reheater Hours	Analog_ Value	174	5366_1_3	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Electric Reheater Hours Threshold	Analog_ Value	175	5367_1_3	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier						
Humidifier Hours	Analog_ Value	186	5369_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Hours Threshold	Analog_ Value	187	5370_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Infrared Humidifier Flush Rate	Analog_ Value	188	5445_1	RW	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						13, 14, 15, 16, 17
Return Temp Threshold for Humidifier Disable	Analog_ Value	189	6765_1	RW	Units: deg C	15, 16, 17
Return Temp Threshold for Humidifier Disable	Analog_ Value	10189	6765_1_deg_F	RW	Units: deg F	15, 16, 17
Return Temp Hysteresis for Humidifier Disable	Analog_ Value	190	6766_1	RW	Units: deg C	15, 16, 17
Return Temp Hysteresis for Humidifier Disable	Analog_ Value	10190	6766_1_deg_F	RW	Units: deg F	15, 16, 17
Dehumidifier						
Dehumidifier Hours	Analog_ Value	199	5371_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dehumidifier Hours Threshold	Analog_ Value	200	5372_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
Fan						
Fan Speed Maximum Set Point	Analog_ Value	211	5050_1	RW	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan Hours	Analog_ Value	212	5374_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan Hours Threshold	Analog_ Value	213	5375_1	RW	Units: hr	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan Speed Minimum Set Point	Analog_ Value	214	5051_1	RW	Units: %	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Fan Speed Temperature Set Point	Analog_ Value	215	5585_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Fan Speed Temperature Set Point	Analog_ Value	10215	5585_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Fan Back Draft Speed Set Point	Analog_ Value	216	6772_1	RW	Units: VDC	15, 16, 17
Fan Speed Temp Control Proportional Band	Analog_ Value	217	6768_1	RW	Units: deg C	15, 16, 17
Fan Speed Temp Control Proportional Band	Analog_ Value	10217	6768_1_deg_F	RW	Units: deg F	15, 16, 17
Fan Speed Temp Control Integration Time	Analog_ Value	218	6769_1	RW	Units: min	15, 16, 17
Fan Speed Temperature Dead Band	Analog_ Value	219	6770_1	RW	Units: deg C	15, 16, 17
Fan Speed Temperature Dead Band	Analog_ Value	10219	6770_1_deg_F	RW	Units: deg F	15, 16, 17
Fan Speed Min Dehum	Analog_ Value	220	8252_1	RW	Units: %	15, 16, 17
Fan - Supply Fan Status 1						
Fan Power	Analog_ Value	2631	8103_1_1	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2632	8104_1_1	RD	Units: A DC	15, 16, 17
Supply Fan Measured Speed	Analog_Value	2633	8487_1_1	RD	Units: RPM	15, 17
Fan - Supply Fan Status 2						
Fan Power	Analog_ Value	2643	8103_1_2	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2644	8104_1_2	RD	Units: A DC	15, 16, 17
Supply Fan Measured Speed	Analog_Value	2645	8487_1_2	RD	Units: RPM	15, 17
Fan - Supply Fan Status 3						
Fan Power	Analog_ Value	2655	8103_1_3	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2656	8104_1_3	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 4						
Fan Power	Analog_ Value	2667	8103_1_4	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2668	8104_1_4	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 5						
Fan Power	Analog_ Value	2679	8103_1_5	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2680	8104_1_5	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 6						

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Fan Power	Analog_ Value	2691	8103_1_6	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2692	8104_1_6	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 7						
Fan Power	Analog_ Value	2703	8103_1_7	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2704	8104_1_7	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 8						
Fan Power	Analog_ Value	2715	8103_1_8	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2716	8104_1_8	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 9						
Fan Power	Analog_ Value	2727	8103_1_9	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2728	8104_1_9	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 10						
Fan Power	Analog_ Value	2739	8103_1_10	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2740	8104_1_10	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 11						
Fan Power	Analog_ Value	2751	8103_1_11	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2752	8104_1_11	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 12						
Fan Power	Analog_ Value	2763	8103_1_12	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2764	8104_1_12	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 13						
Fan Power	Analog_ Value	2775	8103_1_13	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2776	8104_1_13	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 14						
Fan Power	Analog_ Value	2787	8103_1_14	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2788	8104_1_14	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 15, 16						
Fan Power	Analog_ Value	2799	8103_1_15	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2800	8104_1_15	RD	Units: A DC	15, 16, 17
Fan - Supply Fan Status 16						

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Fan Power	Analog_ Value	2811	8103_1_16	RD	Units: W	15, 16, 17
Fan Current	Analog_ Value	2812	8104_1_16	RD	Units: A DC	15, 16, 17
Supply Fan Measured Speed	Analog_Value	2813	8487_1_16	RD	Units: RPM	15, 17
Analog Inputs 1						
Analog Input Reading	Analog_ Value	224	5378_1	RD		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Analog Inputs 2						
Analog Input Reading	Analog_ Value	235	5378_2	RD		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Analog Inputs 3						
Analog Input Reading	Analog_ Value	246	5378_3	RD		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Analog Inputs 4						
Analog Input Reading	Analog_ Value	257	5378_4	RD		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Analog Inputs 5						
Analog Input Reading	Analog_ Value	2930	5378_5	RD		16, 17
Analog Inputs 6						
Analog Input Reading	Analog_ Value	2941	5378_6	RD		16, 17
Analog Inputs 7						
Analog Input Reading	Analog_ Value	2952	5378_7	RD		16, 17
Analog Inputs 8						
Analog Input Reading	Analog_ Value	2963	5378_8	RD		16, 17
Analog Inputs 9						
Analog Input Reading	Analog_ Value	2974	5378_9	RD		16, 17
Analog Inputs 10						
Analog Input Reading	Analog_ Value	2985	5378_10	RD		16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Analog Inputs 11						
Analog Input Reading	Analog_ Value	2996	5378_11	RD		16, 17
Analog Inputs 12						
Analog Input Reading	Analog_ Value	3007	5378_12	RD		16, 17
Analog Outputs 1						
Analog Output	Analog_Value	3018	8473_1	RD	Units: %	15, 17
Analog Outputs 2						
Analog Output	Analog_Value	3029	8473_2	RD	Units: %	15, 17
Analog Outputs 6						
Analog Output	Analog_Value	3073	8473_6	RD	Units: %	15, 17
Unit Information						
BMS Timeout Period	Analog_ Value	268	5075_1	RW	Units: min	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Auto Restart Delay	Analog_ Value	269	4710_1	RW	Units: sec	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Standby Units	Analog_ Value	270	5314_1	RW		2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unit to Unit Group	Analog_ Value	271	6121_1	RD		15, 16, 17
Unit to Unit Address	Analog_ Value	272	6120_1	RD		15, 16, 17
Unit Operations						
Return Air Temperature Set Point	Analog_ Value	32	5333_1	RW	Units: deg C	1, 9, 10
Return Air Temperature Set Point	Analog_ Value	10032	5333_1_deg_F	RW	Units: deg F	1, 9, 10
Return Air Temperature	Analog_ Value	31	4291_1	RD	Units: deg C	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Temperature	Analog_ Value	10031	4291_1_deg_F	RD	Units: deg F	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Supply Humidity	Analog_ Value	30	5027_1	RD	Units: % RH	17
Fan Speed	Analog_ Value	280	5077_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Utilization	Analog_ Value	281	5078_1	RD	Units: %	1, 9, 10
Free Cooling Valve Open Position	Analog_ Value	282	5379_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Maintenance Ramp	Analog_ Value	283	4870_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Calculated Next Maintenance Month	Analog_ Value	284	4868_1	RD		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Calculated Next Maintenance Year	Analog_ Value	285	4869_1	RD		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas Valve Open Position	Analog_ Value	286	5380_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Reheat Utilization	Analog_ Value	287	5080_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Utilization	Analog_ Value	288	5081_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dehumidifier Utilization	Analog_ Value	289	5079_1	RD	Units: %	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Cooling Capacity	Analog_ Value	290	5490_1	RD	Units: %	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Adjusted Humidity	Analog_ Value	291	5606_1	RD	Units: % RH	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Return Dew Point	Analog_ Value	292	5004_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Return Dew Point	Analog_ Value	10292	5004_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Actual Air Temperature Set Point	Analog_ Value	293	5607_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Actual Air Temperature Set Point	Analog_ Value	10293	5607_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Actual Humidity Set Point	Analog_ Value	294	5608_1	RD	Units: % RH	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Dew Point Set Point	Analog_ Value	295	5575_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Dew Point Set Point	Analog_ Value	10295	5575_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Cooling Control Temperature	Analog_ Value	296	5615_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Cooling Control Temperature	Analog_ Value	10296	5615_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Fan Speed Control Temperature	Analog_ Value	297	5616_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Fan Speed Control Temperature	Analog_ Value	10297	5616_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unit Cooling Load	Analog_ Value	298	5904_1	RD	Units: kW	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Unit Calculated Airflow	Analog_ Value	299	6134_1	RD	Units: m3/h	11, 12, 13, 14, 15, 16, 17
Time						
System Date and Time	Analog_ Value	300	4293_1	RW	Units: Secs since Epoch (UTC)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Remote Sensors						
Remote Sensor Over Temp Threshold	Analog_ Value	312	5589_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Over Temp Threshold	Analog_ Value	10312	5589_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temp Threshold	Analog_ Value	313	5590_1	RW	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Under Temp Threshold	Analog_ Value	10313	5590_1_deg_F	RW	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Average Temperature	Analog_ Value	314	5007_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Average Temperature	Analog_ Value	10314	5007_1_deg_ F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Maximum Temperature	Analog_ Value	315	5006_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Maximum Temperature	Analog_ Value	10315	5006_1_ deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Average Temperature	Analog_ Value	316	5591_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Average Temperature	Analog_ Value	10316	5591_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Remote Sensor System Maximum Temperature	Analog_ Value	317	5592_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor System Maximum Temperature	Analog_ Value	10317	5592_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor MinimumTemperature	Analog_Value	318	5005_1	RD	Units: deg C	17
Remote Sensor Minimum Temperature	Analog_Value	10318	5005_1_deg_F	RD	Units: deg F	17
Remote Sensor Average Humidity	Analog_Value	319	8739_1	RD	Units: % RH	17
Remote Sensor Maximum Humidity	Analog_Value	320	8740_1	RD	Units: % RH	17
Remote Sensor Minimum Humidity	Analog_Value	321	8741_1	RD	Units: % RH	17
Remote Sensors - Remote Sensor 1						
Remote Sensor Temperature	Analog_ Value	329	5059_1_1	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10329	5059_1_1_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 2						
Remote Sensor Temperature	Analog_ Value	341	5059_1_2	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10341	5059_1_2_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 3						
Remote Sensor Temperature	Analog_ Value	353	5059_1_3	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10353	5059_1_3_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14,

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						15, 16, 17
Remote Sensors - Remote Sensor 4						
Remote Sensor Temperature	Analog_ Value	365	5059_1_4	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10365	5059_1_4_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 5						
Remote Sensor Temperature	Analog_ Value	377	5059_1_5	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10377	5059_1_5_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 6						
Remote Sensor Temperature	Analog_ Value	389	5059_1_6	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10389	5059_1_6_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 7						
Remote Sensor Temperature	Analog_ Value	401	5059_1_7	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10401	5059_1_7_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 8						
Remote Sensor Temperature	Analog_ Value	413	5059_1_8	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10413	5059_1_8_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14,

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
						15, 16, 17
Remote Sensors - Remote Sensor 9						
Remote Sensor Temperature	Analog_ Value	425	5059_1_9	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10425	5059_1_9_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensors - Remote Sensor 10						
Remote Sensor Temperature	Analog_ Value	437	5059_1_10	RD	Units: deg C	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Remote Sensor Temperature	Analog_ Value	10437	5059_1_10_deg_F	RD	Units: deg F	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Air Economizer						
Air Econ Ret Damp Min Open Limit	Analog_Value	1120	8618_1	RW	Units: %	17
Mixed Air Temp	Analog_Value	1121	8728_1	RD	Units: deg C	17
Mixed Air Temp	Analog_Value	11121	8728_1_deg_F	RD	Units: deg F	17
Return Damper Position	Analog_Value	1122	8729_1	RD	Units: %	17
Outdoor Damper Position	Analog_Value	1123	8730_1	RD	Units: %	17
Exhaust Damper Position	Analog_Value	1124	8731_1	RD	Units: %	17
Aggregated Outdoor Temperature	Analog_Value	1125	8732_1	RD	Units: deg C	17
Aggregated Outdoor Temperature	Analog_Value	11125	8732_1_deg_F	RD	Units: deg F	17
Aggregated Outdoor Humidity	Analog_Value	1126	8733_1	RD	Units: % RH	17
Air Econ Ret Damp Min Open Limit 2	Analog_Value	1127	8765_1	RW	Units: %	17
Trellis TSM Support						

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Unit Aggregated Remote Humidity	Analog_Value	322	8744_1	RD	Units: % RH	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Static Pressure						
Static Pressure Set Point	Analog_ Value	461	5626_1	RW	Units: Pa	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Static Pressure Set Point	Analog_ Value	2121	5626_1	RW	Units: inWC	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Unit Static Pressure	Analog_ Value	462	5627_1	RD	Units: Pa	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Unit Static Pressure	Analog_ Value	2122	5627_1	RD	Units: inWC	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
System Static Pressure	Analog_ Value	463	5628_1	RD	Units: Pa	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Static Pressure	Analog_ Value	2123	5628_1	RD	Units: inWC	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
PRE						
Pump Hours Threshold	Analog_ Value	505	5299_1	RW	Units: hr	11, 13, 14, 15, 16, 17
PRE - Pump 1						
Pump Hours	Analog_ Value	523	5298_1_1	RW	Units: hr	6, 7, 8, 11, 13, 14, 15, 16, 17
Pump Speed	Analog_ Value	522	5634_1_1	RD	Units: %	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	535	5635_1_1	RD	Units: deg C	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	10535	5635_1_1_deg_F	RD	Units: deg F	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	537	5639_1_1	RD	Units: deg C	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	10537	5639_1_1_deg_F	RD	Units: deg F	11, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
PRE - Pump 2						
Pump Hours	Analog_ Value	526	5298_1_2	RW	Units: hr	6, 7, 8, 11, 13, 14, 15, 16, 17
Pump Speed	Analog_ Value	525	5634_1_2	RD	Units: %	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	538	5635_1_2	RD	Units: deg C	11, 13, 14, 15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	10538	5635_1_2_ deg_F	RD	Units: deg F	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	540	5639_1_2	RD	Units: deg C	11, 13, 14, 15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	10540	5639_1_2_ deg_F	RD	Units: deg F	11, 13, 14, 15, 16, 17
PRE - Pump 3						
Pump Hours	Analog_ Value	2274	5298_1_3	RW	Units: hr	15, 16, 17
Pump Speed	Analog_ Value	2275	5634_1_3	RD	Units: %	15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	2276	5635_1_3	RD	Units: deg C	15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	12276	5635_1_3_ deg_F	RD	Units: deg F	15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	2277	5639_1_3	RD	Units: deg C	15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	12277	5639_1_3_ deg_F	RD	Units: deg F	15, 16, 17
PRE - Pump 4						
Pump Hours	Analog_ Value	2288	5298_1_4	RW	Units: hr	15, 16, 17
Pump Speed	Analog_ Value	2289	5634_1_4	RD	Units: %	15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	2290	5635_1_4	RD	Units: deg C	15, 16, 17
Pump Inlet Refrigerant Temperature	Analog_ Value	12290	5635_1_4_ deg_F	RD	Units: deg F	15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	2291	5639_1_4	RD	Units: deg C	15, 16, 17
Pump Outlet Refrigerant Temperature	Analog_ Value	12291	5639_1_4_ deg_F	RD	Units: deg F	15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Power Measurement 1						
System Input RMS A-N	Analog_ Value	810	4096_1	RD	Units: VAC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N	Analog_ Value	811	4098_1	RD	Units: VAC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N	Analog_ Value	812	4100_1	RD	Units: VAC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A	Analog_ Value	813	4113_1	RD	Units: A AC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B	Analog_ Value	814	4114_1	RD	Units: A AC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C	Analog_ Value	815	4115_1	RD	Units: A AC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power	Analog_ Value	816	5901_1	RD	Units: W	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
Energy Consumption	Analog_ Value	817	5900_1	RW	Units: kWH	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B	Analog_ Value	1900	4097_1	RD	Units: VAC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C	Analog_ Value	1901	4099_1	RD	Units: VAC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A	Analog_ Value	1902	4101_1	RD	Units: VAC	5, 8, 9, 11, 12, 13, 14, 15, 16, 17
Power Measurement 2						
System Input RMS A-N	Analog_ Value	820	4096_2	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N	Analog_ Value	821	4098_2	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N	Analog_ Value	822	4100_2	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A	Analog_ Value	823	4113_2	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B	Analog_ Value	824	4114_2	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C	Analog_ Value	825	4115_2	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Instantaneous Power	Analog_ Value	826	5901_2	RD	Units: W	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption	Analog_ Value	827	5900_2	RW	Units: kWH	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B	Analog_ Value	1910	4097_2	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C	Analog_ Value	1911	4099_2	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A	Analog_ Value	1912	4101_2	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 3						
System Input RMS A-N	Analog_ Value	830	4096_3	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N	Analog_ Value	831	4098_3	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N	Analog_ Value	832	4100_3	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A	Analog_ Value	833	4113_3	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B	Analog_ Value	834	4114_3	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C	Analog_ Value	835	4115_3	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power	Analog_ Value	836	5901_3	RD	Units: W	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption	Analog_ Value	837	5900_3	RW	Units: kWH	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B	Analog_ Value	1920	4097_3	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C	Analog_ Value	1921	4099_3	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A	Analog_ Value	1922	4101_3	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 4						
System Input RMS A-N	Analog_ Value	840	4096_4	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
System Input RMS B-N	Analog_ Value	841	4098_4	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N	Analog_ Value	842	4100_4	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A	Analog_ Value	843	4113_4	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B	Analog_ Value	844	4114_4	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C	Analog_ Value	845	4115_4	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power	Analog_ Value	846	5901_4	RD	Units: W	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption	Analog_ Value	847	5900_4	RW	Units: kWH	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B	Analog_ Value	1930	4097_4	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C	Analog_ Value	1931	4099_4	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A	Analog_ Value	1932	4101_4	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 5						
System Input RMS A-N	Analog_ Value	850	4096_5	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N	Analog_ Value	851	4098_5	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N	Analog_ Value	852	4100_5	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A	Analog_ Value	853	4113_5	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B	Analog_ Value	854	4114_5	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C	Analog_ Value	855	4115_5	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power	Analog_ Value	856	5901_5	RD	Units: W	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption	Analog_ Value	857	5900_5	RW	Units: kWH	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
System Input RMS A-B	Analog_ Value	1940	4097_5	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C	Analog_ Value	1941	4099_5	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A	Analog_ Value	1942	4101_5	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
Power Measurement 6						
System Input RMS A-N	Analog_ Value	860	4096_6	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-N	Analog_ Value	861	4098_6	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-N	Analog_ Value	862	4100_6	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase A	Analog_ Value	863	4113_6	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase B	Analog_ Value	864	4114_6	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS Current Phase C	Analog_ Value	865	4115_6	RD	Units: A AC	5, 8, 11, 12, 13, 14, 15, 16, 17
Instantaneous Power	Analog_ Value	866	5901_6	RD	Units: W	5, 8, 11, 12, 13, 14, 15, 16, 17
Energy Consumption	Analog_ Value	867	5900_6	RW	Units: kWH	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS A-B	Analog_ Value	1950	4097_6	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS B-C	Analog_ Value	1951	4099_6	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
System Input RMS C-A	Analog_ Value	1952	4101_6	RD	Units: VAC	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid						
Fluid Input Temperature	Analog_ Value	871	5897_1	RD	Units: deg C	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Input Temperature	Analog_ Value	10871	5897_1_deg_F	RD	Units: deg F	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Output Temperature	Analog_ Value	872	5898_1	RD	Units: deg C	5, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Fluid Output Temperature	Analog_ Value	10872	5898_1_deg_F	RD	Units: deg F	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid 2						
Fluid Input Temperature	Analog_ Value	1871	5897_2	RD	Units: deg C	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Input Temperature	Analog_ Value	11871	5897_2_deg_ F	RD	Units: deg F	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Output Temperature	Analog_ Value	1872	5898_2	RD	Units: deg C	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Output Temperature	Analog_ Value	11872	5898_2_deg_F	RD	Units: deg F	5, 8, 11, 12, 13, 14, 15, 16, 17
Circuit						
Fluid Flow Rate	Analog_ Value	881	5899_1	RD	Units: l/min	5, 8, 11, 12, 13, 14, 15, 16, 17
Fluid Control Valve Position	Analog_Value	882	8488_1	RD	Units: %	15, 17
Circuit 2						
Fluid Flow Rate	Analog_ Value	891	5899_2	RD	Units: l/min	5, 8, 11, 12, 13, 14, 15, 16
Fluid Control Valve Position	Analog_Value	892	8488_2	RD	Units: %	15, 17
Unit Operations - Cooling Load 1						
Circuit Cooling Load	Analog_ Value	901	5905_1_1	RD	Units: kW	5, 8, 11, 12, 13, 14, 15, 16, 17
Unit Operations - Cooling Load 2						
Circuit Cooling Load	Analog_ Value	911	5905_1_2	RD	Units: kW	5, 8, 11, 12, 13, 14, 15, 16
Air - Auxiliary Air						
Raw Auxiliary Air Temperature	Analog_ Value	1960	5964_1_1	RW	Units: deg C	5, 8, 11, 12, 13, 14, 15, 16
Raw Auxiliary Air Temperature	Analog_ Value	11960	5964_1_1_deg_F	RW	Units: deg F	5, 8, 11, 12, 13, 14, 15, 16
Actual Auxiliary Air Temperature	Analog_ Value	1961	5965_1_1	RD	Units: deg C	5, 8, 11, 12, 13, 14, 15, 16
Actual Auxiliary Air Temperature	Analog_ Value	11961	5965_1_1_deg_F	RD	Units: deg F	5, 8, 11, 12, 13, 14, 15, 16

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
MC Condensers						
Expected Condenser Unit Count	Analog_ Value	1981	6101_1	RD		3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Low Noise Mode						
Condenser Low Noise Mode Max Fan Speed	Analog_ Value	529	5548_1_1	RW	Units: %	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16
Condenser Normal Mode Max Fan Speed	Analog_ Value	530	5549_1_1	RW	Units: %	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode Start Time	Analog_ Value	531	5552_1_1	RW	Units: Seconds since Midnight	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode Stop Time	Analog_ Value	532	5553_1_1	RW	Units: Seconds since Midnight	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode - Interval Days	Analog_ Value	533	5550_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode - Full Days	Analog_ Value	534	5551_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 1						
Condenser Outside Air Temperature	Analog_ Value	1992	5534_1_1	RD	Units: deg C	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temperature	Analog_ Value	11992	5534_1_1_deg_F	RD	Units: deg F	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2						

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Outside Air Temperature	Analog_ Value	1993	5534_1_2	RD	Units: deg C	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Outside Air Temperature	Analog_ Value	11993	5534_1_2_deg_F	RD	Units: deg F	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 3						
Condenser Outside Air Temperature	Analog_ Value	2307	5534_1_3	RD	Units: deg C	15, 16, 17
Condenser Outside Air Temperature	Analog_ Value	12307	5534_1_3_deg_F	RD	Units: deg F	15, 16, 17
MC Condensers - Condenser 4						
Condenser Outside Air Temperature	Analog_ Value	2318	5534_1_4	RD	Units: deg C	15, 16, 17
Condenser Outside Air Temperature	Analog_ Value	12318	5534_1_4_deg_F	RD	Units: deg F	15, 16, 17
MC Condensers - Circuit 1						
Condenser Refrigerant Pressure	Analog_ Value	2004	6103_1_1	RD	Units: bar	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	2006	6102_1_1	RD	Units: deg C	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	12006	6102_1_1_deg_F	RD	Units: deg F	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Circuit 2						
Condenser Refrigerant Pressure	Analog_ Value	2005	6103_1_2	RD	Units: bar	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	2007	6102_1_2	RD	Units: deg C	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	12007	6102_1_2_deg_F	RD	Units: deg F	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Circuit 3						
Condenser Refrigerant Pressure	Analog_ Value	2338	6103_1_3	RD	Units: bar	15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Supply Refrigerant Temperature	Analog_ Value	2339	6102_1_3	RD	Units: deg C	15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	12339	6102_1_3_deg_F	RD	Units: deg F	15, 16, 17
MC Condensers - Circuit 4						
Condenser Refrigerant Pressure	Analog_ Value	2350	6103_1_4	RD	Units: bar	15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	2351	6102_1_4	RD	Units: deg C	15, 16, 17
Condenser Supply Refrigerant Temperature	Analog_ Value	12351	6102_1_4_deg_F	RD	Units: deg F	15, 16, 17
MC Condensers - Condenser 1 Fan 1						
Condenser Fan Speed	Analog_ Value	2018	5276_1_1_1	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2026	5538_1_1_1	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2034	6244_1_1_1	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 1 Fan 2						
Condenser Fan Speed	Analog_ Value	2019	5276_1_1_2	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2027	5538_1_1_2	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2035	6244_1_1_2	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 1 Fan 3						
Condenser Fan Speed	Analog_ Value	2020	5276_1_1_3	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2028	5538_1_1_3	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2036	6244_1_1_3	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 1 Fan 4						
Condenser Fan Speed	Analog_ Value	2021	5276_1_1_4	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Fan Power	Analog_ Value	2029	5538_1_1_4	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2037	6244_1_1_4	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 1						
Condenser Fan Speed	Analog_ Value	2022	5276_1_2_1	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2030	5538_1_2_1	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2038	6244_1_2_1	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 2						
Condenser Fan Speed	Analog_ Value	2023	5276_1_2_2	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2031	5538_1_2_2	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2039	6244_1_2_2	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 3						
Condenser Fan Speed	Analog_ Value	2024	5276_1_2_3	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2032	5538_1_2_3	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2040	6244_1_2_3	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 2 Fan 4						
Condenser Fan Speed	Analog_ Value	2025	5276_1_2_4	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2033	5538_1_2_4	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2041	6244_1_2_4	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 1						
Condenser Fan Speed	Analog_ Value	2371	5276_1_3_1	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Fan Power	Analog_ Value	2372	5538_1_3_1	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2373	6244_1_3_1	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 2						
Condenser Fan Speed	Analog_ Value	2384	5276_1_3_2	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2385	5538_1_3_2	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2386	6244_1_3_2	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 3						
Condenser Fan Speed	Analog_ Value	2397	5276_1_3_3	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2398	5538_1_3_3	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2399	6244_1_3_3	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 3 Fan 4						
Condenser Fan Speed	Analog_ Value	2410	5276_1_3_4	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2411	5538_1_3_4	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2412	6244_1_3_4	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 1						
Condenser Fan Speed	Analog_ Value	2423	5276_1_4_1	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2424	5538_1_4_1	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2425	6244_1_4_1	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 2						
Condenser Fan Speed	Analog_ Value	2436	5276_1_4_2	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Condenser Fan Power	Analog_ Value	2437	5538_1_4_2	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2438	6244_1_4_2	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 3						
Condenser Fan Speed	Analog_ Value	2449	5276_1_4_3	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2450	5538_1_4_3	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2451	6244_1_4_3	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
MC Condensers - Condenser 4 Fan 4						
Condenser Fan Speed	Analog_ Value	2462	5276_1_4_4	RD	Units: %	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Power	Analog_ Value	2463	5538_1_4_4	RD	Units: W	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Fan Current	Analog_ Value	2464	6244_1_4_4	RD	Units: A AC	8, 11, 13, 14, 15, 16, 17
PCW-PDX						
Actual Cold Aisle Humidity	Analog_ Value	2044	6085_1	RD	Units: % RH	9
Actual Cold Aisle Temperature	Analog_ Value	2045	6086_1	RD	Units: deg C	9
Actual Cold Aisle Temperature	Analog_ Value	12045	6086_1_ deg_F	RD	Units: deg F	9
Cold Aisle Cascade Fan Speed Max Set Point	Analog_ Value	2046	6087_1	RD	Units: %	9
Cold Aisle Fan Speed Min Set Point	Analog_ Value	2047	6088_1	RD	Units: %	9
Cold Aisle Fan Speed Max Set Point	Analog_ Value	2048	6089_1	RD	Units: %	9
Humidification Fan Speed Min Set Point	Analog_ Value	2049	6096_1	RD	Units: %	9
Heating Fan Speed Min Set Point	Analog_ Value	2050	6097_1	RD	Units: %	9

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Dehumidification Fan Speed Min Set Point	Analog_ Value	2051	6098_1	RD	Units: %	9
Back Draft Control Fan Speed	Analog_ Value	2052	6099_1	RD	Units: %	9
Air Filter Differential Pressure	Analog_ Value	2053	6302_1	RD	Units: Pa	9
Air Filter Differential Pressure	Analog_ Value	2213	6302_1	RD	Units: inWC	9
PCW-PDX - Cold Aisle Sensor 1						
Cold Aisle Sensor Air Temperature	Analog_ Value	2147	6307_1_1	RD	Units: deg C	9
Cold Aisle Sensor Air Temperature	Analog_ Value	12147	6307_1_1_deg_F	RD	Units: deg F	9
Cold Aisle Sensor Humidity	Analog_ Value	2148	6308_1_1	RD	Units: % RH	9
PCW-PDX - Cold Aisle Sensor 2						
Cold Aisle Sensor Air Temperature	Analog_ Value	2159	6307_1_2	RD	Units: deg C	9
Cold Aisle Sensor Air Temperature	Analog_ Value	12159	6307_1_2_deg_F	RD	Units: deg F	9
Cold Aisle Sensor Humidity	Analog_ Value	2160	6308_1_2	RD	Units: % RH	9
PCW-PDX - Cold Aisle Sensor 3						
Cold Aisle Sensor Air Temperature	Analog_ Value	2171	6307_1_3	RD	Units: deg C	9
Cold Aisle Sensor Air Temperature	Analog_ Value	12171	6307_1_3_deg_F	RD	Units: deg F	9
Cold Aisle Sensor Humidity	Analog_ Value	2172	6308_1_3	RD	Units: % RH	9
PCW-PDX - Fluid Source 1						
Cooling Fluid Source Temperature	Analog_ Value	2488	6825_1_1	RD	Units: deg C	15, 16, 17
Cooling Fluid Source Temperature	Analog_ Value	12488	6825_1_1_deg_F	RD	Units: deg F	15, 16, 17
PCW-PDX - Fluid Source 2						

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Cooling Fluid Source Temperature	Analog_ Value	2489	6825_1_2	RD	Units: deg C	15, 16, 17
Cooling Fluid Source Temperature	Analog_ Value	12489	6825_1_2_ deg_F	RD	Units: deg F	15, 16, 17
Super Saver						
Super Saver Call For Cooling	Analog_ Value	2100	6234_1	RD	Units: %	9, 11, 14, 15, 16, 17
Thermal Control Override						
Thermal Control Override - Temperature Call	Analog_ Value	2135	6263_1	RW	Units: %	11, 14, 15, 16, 17
Thermal Control Override - Humidity Call	Analog_ Value	2136	6265_1	RW	Units: %	11, 14, 15, 16, 17
Chilled Water - Chilled Water Circuit 1						
Chilled Water Inlet Temperature	Analog_ Value	2189	6311_1_1	RD	Units: deg C	9
Chilled Water Inlet Temperature	Analog_ Value	12189	6311_1_1_ deg_F	RD	Units: deg F	9
Chilled Water Outlet Temperature	Analog_ Value	2190	6312_1_1	RD	Units: deg C	9
Chilled Water Outlet Temperature	Analog_ Value	12190	6312_1_1_ deg_F	RD	Units: deg F	9
Chilled Water - Chilled Water Circuit 2						
Chilled Water Inlet Temperature	Analog_ Value	2201	6311_1_2	RD	Units: deg C	9
Chilled Water Inlet Temperature	Analog_ Value	12201	6311_1_2_ deg_F	RD	Units: deg F	9
Chilled Water Outlet Temperature	Analog_ Value	2202	6312_1_2	RD	Units: deg C	9
Chilled Water Outlet Temperature	Analog_ Value	12202	6312_1_2_ deg_F	RD	Units: deg F	9
EconoPhase						
EconoPhase Proportional Band Switchover	Analog_ Value	2476	6797_1	RW	Units: %	15, 16, 17
Logs						

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Event Log Record Counter	Analog_ Value	2501	6820_1	RD		15, 16, 17
Audit Log Record Counter	Analog_ Value	2502	6821_1	RD		15, 16, 17
Unit Control - Teamwork						
Unit Cascade On Delay	Analog_ Value	2526	6780_1_1	RW	Units: min	15, 16, 17
Quick Start Unit Cascade On Delay	Analog_ Value	2527	6781_1_1	RW	Units: sec	15, 16, 17
Unit Cascade Control Delay	Analog_ Value	2528	6779_1_1	RW	Units: min	15, 16, 17
Teamwork Average Calculation Unit Count	Analog_ Value	2529	6783_1_1	RW		15, 16, 17
Unit Control - Standby/Rotation						
Standby Units	Analog_ Value	2541	5314_1_1	RW		2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Networked Unit Rotation Time	Analog_ Value	2542	6122_1_1	RW	Units: Seconds since Midnight	15, 16, 17
Networked Unit Rotation Count	Analog_ Value	2543	6123_1_1	RW		15, 16, 17
Automatic Transfer Switch - Power Source 1						
Power Source: L1-L2 voltage	Analog_ Value	2554	7130_1_1	RD	Units: VAC	15, 16, 17
Power Source: L2-L3 voltage	Analog_ Value	2555	7131_1_1	RD	Units: VAC	15, 16, 17
Power Source: L3-L1 voltage	Analog_ Value	2556	7132_1_1	RD	Units: VAC	15, 16, 17
Power Source: Line Frequency	Analog_ Value	2557	7133_1_1	RD	Units: Hz	15, 16, 17
Power Source: Breaker Operation Count	Analog_ Value	2558	7134_1_1	RD	—	15, 16, 17
Automatic Transfer Switch - Power Source 2						
Power Source: L1-L2 voltage	Analog_ Value	2569	7130_1_2	RD	Units: VAC	15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Power Source: L2-L3 voltage	Analog_ Value	2570	7131_1_2	RD	Units: VAC	15, 16, 17
Power Source: L3-L1 voltage	Analog_ Value	2571	7132_1_2	RD	Units: VAC	15, 16, 17
Power Source: Line Frequency	Analog_ Value	2572	7133_1_2	RD	Units: Hz	15, 16, 17
Power Source: Breaker Operation Count	Analog_ Value	2573	7134_1_2	RD	—	15, 16, 17
Fluid Loop						
Supply Fluid Temperature	Analog_ Value	2584	4643_1	RD	Units: deg C	15, 16, 17
Supply Fluid Temperature	Analog_ Value	12584	4643_1_deg_F	RD	Units: deg F	15, 16, 17
Return Fluid Temperature	Analog_ Value	2585	5288_1	RD	Units: deg C	15, 16, 17
Return Fluid Temperature	Analog_ Value	12585	5288_1_deg_F	RD	Units: deg F	15, 16, 17
Flow Rate	Analog_ Value	2586	7468_1	RD	Units: l/min	15, 16, 17
Cooling Capacity	Analog_ Value	2587	5491_1	RD	Units: kW	15, 16, 17
Pump Speed	Analog_ Value	2588	7469_1	RD	Units: %	15, 16, 17
Flow Set Point	Analog_ Value	2589	7470_1	RW	Units: l/min	15, 16, 17
Flow Proportional Band	Analog_ Value	2590	7471_1	RW	Units: l/min	15, 16, 17
Flow Dead Band	Analog_ Value	2591	7472_1	RW	Units: l/min	15, 16, 17
Flow Integration Time	Analog_ Value	2592	7473_1	RW	Units: sec	15, 16, 17
Supply Fluid Over Temp Threshold	Analog_ Value	2593	4644_1	RW	Units: deg C	15, 16, 17
Supply Fluid Over Temp Threshold	Analog_ Value	12593	4644_1_deg_ F	RW	Units: deg F	15, 16, 17
Return Fluid Over Temp Threshold	Analog_ Value	2594	5289_1	RW	Units: deg C	15, 16, 17
Return Fluid Over Temp Threshold	Analog_ Value	12594	5289_1_deg_F	RW	Units: deg F	15, 16, 17
Fluid Loop - Fluid Pump 1						
Pump Speed	Analog_ Value	2605	7480_1_1	RD	Units: %	15, 16, 17
Pump Expected Speed	Analog_ Value	2606	7481_1_1	RD	Units: %	15, 16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Pump Run Time	Analog_ Value	2607	7482_1_1	RD	Units: hr	15, 16, 17
Fluid Loop - Fluid Pump 2						
Pump Speed	Analog_ Value	2618	7480_1_2	RD	Units: %	15, 16, 17
Pump Expected Speed	Analog_ Value	2619	7481_1_2	RD	Units: %	15, 16, 17
Pump Run Time	Analog_ Value	2620	7482_1_2	RD	Units: hr	15, 16, 17
Fluid Loop - Fluid Pump Status 1						
Pump Motor Power	Analog_ Value	2904	8167_1_1	RD	Units: kW	16, 17
Pump Motor Amps	Analog_ Value	2905	8168_1_1	RD	Units: A AC	16, 17
Inverter Temperature	Analog_ Value	2906	8169_1_1	RD	Units: deg C	16, 17
Inverter Temperature	Analog_ Value	12906	8169_1_1_deg_F	RD	Units: deg F	16, 17
Fluid Loop - Fluid Pump Status 2						
Pump Motor Power	Analog_ Value	2917	8167_1_2	RD	Units: kW	16, 17
Pump Motor Amps	Analog_ Value	2918	8168_1_2	RD	Units: A AC	16, 17
Inverter Temperature	Analog_ Value	2919	8169_1_2	RD	Units: deg C	16, 17
Inverter Temperature	Analog_ Value	12919	8169_1_2_deg_F	RD	Units: deg F	16, 17
Chiller Fluid						
Unit Fluid Supply Temperature	Analog_ Value	2823	8132_1	RD	Units: deg C	16, 17
Unit Fluid Supply Temperature	Analog_ Value	12823	8132_1_deg_F	RD	Units: deg F	16, 17
Unit Fluid Return Temperature	Analog_ Value	2824	8133_1	RD	Units: deg C	16, 17
Unit Fluid Return Temperature	Analog_ Value	12824	8133_1_deg_F	RD	Units: deg F	16, 17
Unit Fluid Supply Pressure	Analog_ Value	2825	8134_1	RD	Units: bar	16, 17
Unit Fluid Return Pressure	Analog_ Value	2826	8135_1	RD	Units: bar	16, 17
Unit Fluid Pump Speed	Analog_ Value	2827	8136_1	RD	Units: %	16, 17
Unit Fluid Flow	Analog_ Value	2828	8137_1	RD	Units: l/min	16, 17
Unit Fluid Diff Pressure	Analog_ Value	2829	8138_1	RD	Units: bar	16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Unit Fluid Cooling Capacity	Analog_ Value	2830	8139_1	RD	Units: kW	16, 17
System Fluid Flow	Analog_ Value	2831	8140_1	RD	Units: l/min	16, 17
System Fluid Diff Pressure	Analog_ Value	2832	8141_1	RD	Units: bar	16, 17
System Fluid Cooling Capacity	Analog_ Value	2833	8142_1	RD	Units: kW	16, 17
Chiller Fluid - Fluid Control Temperature						
Fluid Temperature Set Point	Analog_ Value	2844	8143_1_1	RW	Units: deg C	16, 17
Fluid Temperature Set Point	Analog_ Value	12844	8143_1_1_deg_F	RW	Units: deg F	16, 17
Fluid Temperature Proportional Band	Analog_ Value	2845	8145_1_1	RW	Units: deg C	16, 17
Fluid Temperature Proportional Band	Analog_ Value	12845	8145_1_1_deg_F	RW	Units: deg F	16, 17
Fluid Temperature Dead Band	Analog_ Value	2846	8146_1_1	RW	Units: deg C	16, 17
Fluid Temperature Dead Band	Analog_ Value	12846	8146_1_1_deg_F	RW	Units: deg F	16, 17
Fluid Temperature Control Integration Time	Analog_ Value	2847	8147_1_1	RW	Units: min	16, 17
Chiller Fluid - Fluid Pump Flow						
Fluid Flow Set Point	Analog_ Value	2858	8149_1_1	RW	Units: l/min	16, 17
Fluid Flow Proportional Band	Analog_ Value	2859	8150_1_1	RW	Units: l/min	16, 17
Fluid Flow Dead Band	Analog_ Value	2860	8151_1_1	RW	Units: l/min	16, 17
Fluid Flow Control Integration Time	Analog_ Value	2861	8152_1_1	RW	Units: sec	16, 17
Fluid Diff Prs Set Point	Analog_ Value	2862	8153_1_1	RW	Units: bar	16, 17
Fluid Diff Prs Prop Band	Analog_ Value	2863	8154_1_1	RW	Units: bar	16, 17
Flow Diff Prs Dead Band	Analog_ Value	2864	8155_1_1	RW	Units: bar	16, 17
Fluid Diff Prs Control Integration Time	Analog_ Value	2865	8156_1_1	RW	Units: sec	16, 17

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Table 5.2 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Analog Data (continued)

Controller	Liebert® iCOM™ v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	See Notes key on page 1415
Flow Manual Pump Speed	Analog_ Value	2866	8157_1_1	RW	Units: %	16, 17
Chiller Fluid - Fluid Pump Periodic Op						
Pump Operation Period	Analog_ Value	2867	8158_1_1	RW	Units: day	16, 17
Pump Operation Duration	Analog_ Value	2868	8159_1_1	RW	Units: min	16, 17
Pump Operation Speed	Analog_ Value	2869	8160_1_1	RW	Units: %	16, 17
Chiller Fluid - Fluid Dew Point Margin						
Dew Point Max Adjust	Analog_ Value	2880	8163_1_1	RW	Units: deg C	16, 17
Dew Point Max Adjust	Analog_ Value	12880	8163_1_1_deg_F	RW	Units: deg F	16, 17
System Dew Point	Analog_ Value	2881	8164_1_1	RD	Units: deg C	16, 17
System Dew Point	Analog_ Value	12881	8164_1_1_deg_F	RD	Units: deg F	16, 17
Unit Dew Point	Analog_ Value	2882	8165_1_1	RD	Units: deg C	16, 17
Unit Dew Point	Analog_ Value	12882	8165_1_1_deg_F	RD	Units: deg F	16, 17
Chiller Fluid - Plate Heat Exchanger						
PHE Fluid Supply Temperature	Analog_ Value	2893	8230_1_1	RD	Units: deg C	16, 17
PHE Fluid Supply Temperature	Analog_ Value	12893	8230_1_1_deg_F	RD	Units: deg F	16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Protocol						
Server Class	MultiState_ Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air						
Air Temperature Control Type	MultiState_ Value	12	5324_1	RW	1 = Proportional 2 = Prop+Integral 3 = Adaptive PID 4 = Intelligent	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Air Temperature Control Sensor	MultiState_ Value	13	5012_1	RW	1 = Supply 2 = Remote 3 = Return	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Air - Supply Air						
Supply Air Temperature Sensor Control	MultiState_ Value	23	5332_1_1	RW	1 = Disabled 2 = Limit 3 = Control 4 = Temp Only	1, 9, 10
Humidity						
Humidity Control Type	MultiState_ Value	34	5340_1	RW	1 = Relative 2 = Compensated 3 = Predictive	1, 9, 10
Humidity Control Type	MultiState_ Value	35	5603_1	RW	1 = Relative 2 = Compensated 3 = Predictive 4 = Dew Point	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Humidity Control Sensor	MultiState_ Value	36	5618_1	RW	1 = Supply 2 = Remote 3 = Return	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Compressors - Compressor 1						
Compressor State	MultiState_ Value	45	5264_1_1	RD	1 = off	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
					2 = on	11, 12, 13, 14, 15, 16, 17
Compressor Capacity Control State	MultiState_ Value	46	5265_1_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor State	MultiState_ Value	47	6243_1_1	RD	1 = off 2 = on	8, 11, 12, 13, 14, 15, 16, 17
Compressors - Compressor 2						
Compressor State	MultiState_ Value	57	5264_1_2	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Capacity Control State	MultiState_ Value	58	5265_1_2	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Tandem 'B' Compressor State	MultiState_ Value	59	6243_1_2	RD	1 = off 2 = on	8, 11, 12, 13, 14, 15, 16, 17
Compressors - Compressor 3						
Compressor State	MultiState_ Value	543	5264_1_3	RD	1 = off 2 = on n	15, 16, 17
Compressor Capacity Control State	MultiState_ Value	544	5265_1_3	RD	1 = off 2 = on	15, 16, 17
Tandem 'B' Compressor State	MultiState_ Value	545	6243_1_3	RD	1 = off 2 = on	15, 16, 17
Compressors - Compressor 4						
Compressor State	MultiState_ Value	556	5264_1_4	RD	1 = off 2 = on	15, 16, 17
Compressor Capacity Control State	MultiState_ Value	557	5265_1_4	RD	1 = off 2 = on	15, 16, 17
Tandem 'B' Compressor State	MultiState_ Value	558	6243_1_4	RD	1 = off 2 = on	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Free Cooling / Chilled Water						
Free Cooling Status	MultiState_ Value	69	5302_1	RD	1 = off 2 = on 3 = No Support	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Free Cooling Internal Control Mode	MultiState_ Value	70	5581_1	RW	1 = Disabled 2 = Contact 3 = Temperature 4 = Set Point	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Minimum Chilled Water Temp Set Point Enable	MultiState_ Value	71	5359_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Main Chilled Water Valve	MultiState_ Value	72	5605_1	RW	1 = Valve 1 2 = Valve 2	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Free Cooling Internal Control Mode	MultiState_ Value	70	5357_1	RW	1 = Disabled 2 = Contact 3 = Value	1, 9, 10
Fan						
Fan Control Mode	MultiState_ Value	82	5373_1	RW	1 = Auto 2 = Manual 3 = Economy 4 = Delta	1, 9, 10
Fan Control Sensor	MultiState_ Value	83	5586_1	RW	1 = Supply 2 = Remote 3 = Return 4 = Manual	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Fan Back Draft Operation	MultiState_ Value	84	6736_1	RW	1 = Disabled 2 = Standby 3 = Outdoor Temp	15, 16, 17
Fan Back Draft Control Enable	MultiState_ Value	85	6771_1	RW	1 = disabled 2 = enabled	15, 16, 17
	MultiState_ Value				1 = Proportional	

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Speed Temp Control Type		86	6767_1	RW	2 = Prop+Integral 3 = Adaptive PID	15, 16, 17
Unit Information						
System Status	MultiState_ Value	93	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Operating State	MultiState_ Value	94	4706_1	RD	1 = off 2 = on 3 = standby	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Control Mode	MultiState_ Value	95	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Off Reason	MultiState_ Value	96	5074_1	RD	1 = None 2 = User 3 = Alarm 4 = Timer 5 = Monitoring 6 = Remote Off 7 = HCS12 Off	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Operations						
Fan State	MultiState_ Value	107	5381_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Cooling State	MultiState_ Value	108	5382_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Free Cooling State	MultiState_ Value	109	5383_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Maintenance Tracking State	MultiState_ Value	110	5384_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Hot Water / Hot Gas State	MultiState_ Value	111	5385_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Electric Reheat State	MultiState_ Value	112	5386_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dehumidifier State	MultiState_ Value	113	5387_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier State	MultiState_ Value	114	5388_1	RD	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
System On/Off Control	MultiState_ Value	115	5143_1	RW	1 = off 2 = on	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Local Fan Override	MultiState_ Value	500	6175_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
					1 = Normal operation 2 = Increased for internal protection	

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Local Cooling Override	MultiState_ Value	501	6176_1	RD	3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
Local Electric Heat Override	MultiState_ Value	502	6177_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
Local Humidifier Override	MultiState_ Value	503	6178_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17
Local Dehumidifier Override	MultiState_ Value	504	6179_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection	8, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Master Cooling Fluid Source	MultiState_ Value	505	6553_1	RW	1 = Supply 1 2 = Supply 2	14, 15, 16, 17
Automatic Transfer Switch - Active Power Supply	MultiState_ Value	506	6524_1	RD	1 = Power Supply 1 2 = Power Supply 2	14, 15, 16, 17
Automatic Transfer Switch - Power Supply 1 Status	MultiState_ Value	507	6525_1	RD	1 = OK 2 = Not OK	14, 15, 16, 17
Automatic Transfer Switch - Power Supply 2 Status	MultiState_ Value	508	6526_1	RD	1 = OK 2 = Not OK	14, 15, 16, 17
System Event Configuration						
Customer Input 1 - Event Control	MultiState_ Value	126	4718_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 1 - Event Type	MultiState_ Value	127	4719_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 2 - Event Control	MultiState_ Value	128	5098_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 2 - Event Type	MultiState_ Value	129	5099_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 3 - Event Control	MultiState_ Value	130	5100_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 3 - Event Type	MultiState_ Value	131	5101_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Customer Input 4 - Event Control	MultiState_ Value	132	5102_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
						11, 12, 13, 14, 15, 16, 17
Customer Input 4 - Event Type	MultiState_ Value	133	5103_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Free Cooling Lockout - Event Control	MultiState_ Value	134	5389_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Free Cooling Lockout - Event Type	MultiState_ Value	135	5390_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Condenser Pump High Water - Event Control	MultiState_ Value	136	5122_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Condenser Pump High Water - Event Type	MultiState_ Value	137	5123_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Standby Glycol Pump On - Event Control	MultiState_ Value	138	5129_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Standby Glycol Pump On - Event Type	MultiState_ Value	139	5130_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Standby Unit On - Event Control	MultiState_ Value	140	5391_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Standby Unit On - Event Type	MultiState_ Value	141	5392_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Ext Humidifier Lockout - Event Control	MultiState_ Value	142	5086_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Humidifier Lockout - Event Type	MultiState_ Value	143	5087_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Loss of Flow - Event Control	MultiState_ Value	144	5082_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Loss of Flow - Event Type	MultiState_ Value	145	5083_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Over Temperature - Event Control	MultiState_ Value	146	5090_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Over Temperature - Event Type	MultiState_ Value	147	5091_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Reheat Lockout - Event Control	MultiState_ Value	148	5084_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Reheat Lockout - Event Type	MultiState_ Value	149	5085_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Power Shutdown - Event Control	MultiState_ Value	150	5141_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Power Shutdown - Event Type	MultiState_ Value	151	5142_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Humidifier Issue - Event Control	MultiState_ Value	152	5131_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Humidifier Issue - Event Type	MultiState_ Value	153	5132_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Master Unit Communication Lost - Event Control	MultiState_ Value	154	5133_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Master Unit Communication Lost - Event Type	MultiState_ Value	155	5134_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Service Required - Event Control	MultiState_ Value	156	4727_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Service Required - Event Type	MultiState_ Value	157	4728_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Shutdown - Loss Of Power - Event Control	MultiState_ Value	158	4715_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Shutdown - Loss Of Power - Event Type	MultiState_ Value	159	4716_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Smoke Detected - Event Control	MultiState_ Value	160	4721_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Smoke Detected - Event Type	MultiState_ Value	161	4722_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Water Under Floor - Event Control	MultiState_ Value	162	4724_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Water Under Floor - Event Type	MultiState_ Value	163	4725_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Compressor Lockout - Event Control	MultiState_ Value	164	5088_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Compressor Lockout - Event Type	MultiState_ Value	165	5089_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Clogged Air Filter - Event Control	MultiState_ Value	166	5135_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Clogged Air Filter - Event Type	MultiState_ Value	167	5136_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Loss of Air Blower - Event Control	MultiState_ Value	168	5393_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Loss of Air Blower - Event Type	MultiState_ Value	169	5394_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
System Event Configuration - Compressor 1						
Compressor High Head Pressure - Event Control	MultiState_ Value	180	5316_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure - Event Type	MultiState_ Value	181	5317_1_1	RW	1 = Message 2 = Warning	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
					3 = Alarm	11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Control	MultiState_ Value	182	5318_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Type	MultiState_ Value	183	5319_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Control	MultiState_ Value	184	5395_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Type	MultiState_ Value	185	5396_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Control	MultiState_ Value	186	5397_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Type	MultiState_ Value	187	5398_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Control	MultiState_ Value	188	5320_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Type	MultiState_ Value	189	5321_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Ctrl	MultiState_ Value	190	5399_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Dig Scroll Comp Discharge Over Temp - Event Type	MultiState_ Value	191	5400_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
System Event Configuration - Compressor 2						
Compressor High Head Pressure - Event Control	MultiState_ Value	202	5316_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor High Head Pressure - Event Type	MultiState_ Value	203	5317_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Control	MultiState_ Value	204	5318_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Low Suction Pressure - Event Type	MultiState_ Value	205	5319_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Control	MultiState_ Value	206	5395_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Pump Down Issue - Event Type	MultiState_ Value	207	5396_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Control	MultiState_ Value	208	5397_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Short Cycle - Event Type	MultiState_ Value	209	5398_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Control	MultiState_ Value	210	5320_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
						11, 12, 13, 14, 15, 16, 17
Compressor Thermal Overload - Event Type	MultiState_ Value	211	5321_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Ctrl	MultiState_ Value	212	5399_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Dig Scroll Comp Discharge Over Temp - Event Type	MultiState_ Value	213	5400_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
System Event Configuration - Air						
Ext Air Sensor A Event Control	MultiState_ Value	224	5401_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Sensor Event Control	MultiState_ Value	225	5402_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A High Humidity - Event Control	MultiState_ Value	226	5403_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A High Humidity - Event Type	MultiState_ Value	227	5404_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity - Event Control	MultiState_ Value	228	5405_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Low Humidity - Event Type	MultiState_ Value	229	5406_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Ext Air Sensor A Over Temp - Event Control	MultiState_ Value	230	4602_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Over Temp - Event Type	MultiState_ Value	231	4603_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp - Event Control	MultiState_ Value	232	4609_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Ext Air Sensor A Under Temp - Event Type	MultiState_ Value	233	4610_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Return Humidity - Event Control	MultiState_ Value	234	5137_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
High Return Humidity - Event Type	MultiState_ Value	235	5138_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Low Return Humidity - Event Control	MultiState_ Value	236	5139_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Low Return Humidity - Event Type	MultiState_ Value	237	5140_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Over Temp - Event Control	MultiState_ Value	238	5024_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Over Temp - Event Type	MultiState_ Value	239	5025_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Return Air Under Temp - Event Control	MultiState_ Value	240	5407_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Return Air Under Temp - Event Type	MultiState_ Value	241	5408_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Supply Air Over/Under Temperature - Event Control	MultiState_ Value	242	5587_1_1	RW	1 = disabled 2 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
System Event Configuration - Fan						
Fan Hours Exceeded - Event Control	MultiState_ Value	252	5409_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan Hours Exceeded - Event Type	MultiState_ Value	253	5410_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fan Issue - Event Control	MultiState_ Value	254	4730_1_1	RW	1 = disabled 2 = enabled	1, 9, 10
Fan Issue - Event Type	MultiState_ Value	255	4731_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 9, 10
Main Fan Overload - Event Control	MultiState_ Value	256	5411_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Main Fan Overload - Event Type	MultiState_ Value	257	5412_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
System Event Configuration - Condenser						
Condenser Issue - Event Control	MultiState_ Value	268	5413_1_1	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Condenser Issue - Event Type	MultiState_ Value	269	5414_1_1	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
System Event Configuration - Condenser						
Condenser Issue - Event Control	MultiState_ Value	280	5413_1_2	RW	1 = disabled 2 = enabled	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Condenser Issue - Event Type	MultiState_ Value	281	5414_1_2	RW	1 = Message 2 = Warning 3 = Alarm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Unit Events						
System Event Acknowledge/Reset	MultiState_ Value	292	4717_1	WO	1 = Reset 2 = Acknowledge	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Compressors						
Compressor Lockout	MultiState_ Value	304	5580_1	RW	1 = disabled 2 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Reheat						
Reheater Lockout	MultiState_ Value	316	5582_1	RW	1 = disabled 2 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Dehum Reheat Low Limit Sensor	MultiState_ Value	317	6760_1	RW	1 = Supply 2 = Remote 3 = Return	15, 16, 17
Humidifier						
Humidifier Lockout	MultiState_ Value	328	5583_1	RW	1 = disabled 2 = enabled	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Air Economizer						
Air Economizer Availability	MultiState_ Value	340	5599_1	RD	1 = Not Available 2 = Available	2, 3, 4, 5, 6, 7, 8, 11, 12,

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
						13, 14, 15, 16, 17
Air Economizer Control Source	MultiState_ Value	341	5602_1	RW	1 = disabled 2 = internal 3 = external	2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
PRE - Pump 1						
PRE Operational Mode	MultiState_ Value	363	5632_1_1	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test	11, 13, 14, 15, 16, 17
Pump State	MultiState_ Value	364	5633_1_1	RD	1 = off 2 = on	7, 8, 11, 13, 14, 15, 16, 17
PRE - Pump 2						
PRE Operational Mode	MultiState_ Value	368	5632_1_2	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test	11, 13, 14, 15, 16, 17
Pump State	MultiState_ Value	369	5633_1_2	RD	1 = off 2 = on	7, 8, 11, 13, 14, 15, 16, 17
PRE - Pump 3						
Pump State	MultiState_ Value	577	5633_1_3	RD	1 = off 2 = on	15, 16
PRE Operational Mode	MultiState_ Value	578	5632_1_3	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test	15, 16
PRE - Pump 4						
Pump State	MultiState_ Value	589	5633_1_4	RD	1 = off 2 = on	15, 16, 17
					1 = Bootup 2 = Idle	

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
PRE Operational Mode	MultiState_ Value	590	5632_1_4	RD	3 = Manual 4 = Pump Automatic 5 = Test	15, 16, 17
MC Condensers						
Condenser Refrigerant Type	MultiState_ Value	395	5533_1	RD	1 = R22 2 = R407C 3 = R410A	3, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Low Noise Mode						
Condenser Low Noise Mode State	MultiState_ Value	374	5546_1_1	RD	1 = Inactive 2 = Active (Interval) 3 = Active (Full Day)	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Condenser Low Noise Mode Schedule Control	MultiState_ Value	375	5547_1_1	RW	1 = disabled 2 = enabled	3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 1						
Condenser Fan Reversal Requested	MultiState_ Value	406	6104_1_1	RW	1 = false 2 = true	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 2						
Condenser Fan Reversal Requested	MultiState_ Value	407	6104_1_2	RW	1 = false 2 = true	3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
MC Condensers - Condenser 3						
Condenser Fan Reversal Requested	MultiState_ Value	612	6104_1_3	RW	1 = false 2 = true	15, 16, 17
MC Condensers - Condenser 4						
Condenser Fan Reversal Requested	MultiState_ Value	623	6104_1_4	RW	1 = false 2 = true	15, 16, 17
PCW-PDX						
Cold Aisle Humidity Calculation Method	MultiState_ Value	438	6081_1	RD	1 = Highest 2 = Average	9
Cold Aisle Temperature Calculation Method	MultiState_ Value	439	6082_1	RD	1 = Highest 2 = Average	9

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Cold Aisle Control Enable	MultiState_ Value	440	6083_1	RD	1 = disabled 2 = enabled	9
Cold Aisle Force Max Fan/Cooling - Ext Control	MultiState_ Value	441	6084_1	RD	1 = disabled 2 = enabled	9
Static Pressure Control Enable	MultiState_ Value	442	6090_1	RD	1 = disabled 2 = enabled	
Chilled Water Valve Reset Enable	MultiState_ Value	443	6091_1	RD	1 = disabled 2 = enabled	9
Underfloor Static Pressure Control Enable	MultiState_ Value	529	6300_1	RD	1 = disabled 2 = enabled 3 = visualization only	9
Return Damper Status	MultiState_ Value	531	6301_1	RD	1 = closed 2 = open	9
Thermal Control Override						
Thermal Control Override	MultiState_ Value	516	6261_1	RW	1 = disabled 2 = enabled	11, 14, 15, 16, 17
Thermal Control Override - Temperature Control Type	MultiState_ Value	517	6262_1	RW	1 = Cooling 2 = Heating	11, 14, 15, 16, 17
Thermal Control Override - Humidity Control Type	MultiState_ Value	518	6264_1	RW	1 = Dehumidification 2 = Humidification	11, 14, 15, 16, 17
Unit Operations - Group Independent Operation						
Group Independent Operation Enable	MultiState_ Value	635	6695_1_1	RW	1 = disabled 2 = enabled	15, 16
Group Independent Operation	MultiState_ Value	636	6690_1_1	RW	1 = No override (default) 2 = Override, forced on 3 = Override, forced off	15, 16, 17
Unit Control						
Auto Restart Enable	MultiState_ Value	648	6775_1	RW	1 = disabled 2 = enabled	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Virtual Master Enable	MultiState_ Value	649	6777_1	RW	1 = disabled 2 = enabled	15, 16, 17
Unit Control - Teamwork						
Teamwork Mode	MultiState_ Value	661	6784_1_1	RW	1 = No Teamwork Mode 2 = Mode 1 (parallel) 3 = Mode 2 (independent) 4 = Mode 3 (optimized aisle)	15, 16, 17
Unit Cascade Type	MultiState_ Value	662	6778_1_1	RW	1 = None 2 = Temp/Humidity 3 = Cool/Heat 4 = Cooling 5 = Fan PI 6 = Fan Speed	15, 16, 17
Teamwork Temperature Calculation Method	MultiState_ Value	663	6782_1_1	RW	1 = Average 2 = Maximum	15, 16, 17
Unit Control - Standby/Rotation						
Networked Unit Daily Rotation Frequency	MultiState_ Value	675	6130_1_1	RW	1 = Every 24 hours 2 = Every 12 hours	15, 16, 17
Force Networked Unit Rotation	MultiState_ Value	676	6131_1_1	RW	1 = no 2 = yes	15, 16, 17
Networked Unit Rotation Frequency	MultiState_ Value	677	6129_1_1	RW	1 = None 2 = Daily 3 = Weekly Monday 4 = Weekly Tuesday 5 = Weekly Wednesday 6 = Weekly Thursday 7 = Weekly Friday	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
					8 = Weekly Saturday 9 = Weekly Sunday 10 = Monthly Monday 11 = Monthly Tuesday 12 = Monthly Wednesday 13 = Monthly Thursday 14 = Monthly Friday 15 = Monthly Saturday 16 = Monthly Sunday	
Start Standby Units on High Temperature	MultiState_ Value	678	6823_1_1	RW	1 = false 2 = true	15, 16, 17
Static Pressure						
Static Pressure Fan Control	MultiState_ Value	689	7564_1	RW	1 = disabled 2 = Limit 3 = Control 4 = BMS Backup SP Ctrl	15, 16, 17
Automatic Transfer Switch						
ATS Switch Mode	MultiState_ Value	700	7127_1	RD	1 = Off 2 = Manual 3 = Automatic 4 = Test	15, 16, 17
ATS Load Not Powered Timeout	MultiState_ Value	701	7128_1	RD	1 = false 2 = true	15, 16, 17
ATS Non Priority Load Breaker Timeout	MultiState_ Value	702	7129_1	RD	1 = false 2 = true	15, 16, 17
Automatic Transfer Switch - Power Source 1						
Power Source: All status are okay	MultiState_ Value	713	7135_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Voltage Is Too Low	MultiState_ Value	714	7136_1_1	RD	1 = false 2 = true	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Power Source: Voltage Is Too High	MultiState_ Value	715	7137_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Voltages Are Asymmetric	MultiState_ Value	716	7138_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Voltage Phase Loss	MultiState_ Value	717	7139_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Phase Sequence Issue	MultiState_ Value	718	7140_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Frequency Is Too Low	MultiState_ Value	719	7141_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Frequency Is Too High	MultiState_ Value	720	7142_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker is closed	MultiState_ Value	721	7143_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker command status closed	MultiState_ Value	722	7144_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker withdrawn issue	MultiState_ Value	723	7145_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker Timeout Issue	MultiState_ Value	724	7146_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Line Operating Hour Exceeded	MultiState_ Value	725	7147_1_1	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker Operating Hour Exceeded	MultiState_ Value	726	7148_1_1	RD	1 = false 2 = true	15, 16, 17
Automatic Transfer Switch - Power Source 2						
Power Source: All status are okay	MultiState_ Value	737	7135_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Voltage Is Too Low	MultiState_ Value	738	7136_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Voltage Is Too High	MultiState_ Value	739	7137_1_2	RD	1 = false 2 = true	15, 16, 17

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Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Power Source: Voltages Are Asymmetric	MultiState_ Value	740	7138_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Voltage Phase Loss	MultiState_ Value	741	7139_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Phase Sequence Issue	MultiState_ Value	742	7140_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Frequency Is Too Low	MultiState_ Value	743	7141_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Frequency Is Too High	MultiState_ Value	744	7142_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker is closed	MultiState_ Value	745	7143_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker command status closed	MultiState_ Value	746	7144_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker withdrawn issue	MultiState_ Value	747	7145_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker Timeout Issue	MultiState_ Value	748	7146_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Line Operating Hour Exceeded	MultiState_ Value	749	7147_1_2	RD	1 = false 2 = true	15, 16, 17
Power Source: Breaker Operating Hour Exceeded	MultiState_ Value	750	7148_1_2	RD	1 = false 2 = true	15, 16, 17
Fluid Loop						
Force Pump Rotate	MultiState_ Value	761	7477_1	WO	1 = Rotate	15, 16, 17
Reset Pump Speed Calibration	MultiState_ Value	762	7478_1	WO	1 = Reset	15, 16, 17
Fluid Loop - Fluid Pump 1						
Pump Operating State	MultiState_ Value	773	7479_1_1	RD	1 = off 2 = on	15, 16, 17
Fluid Loop - Fluid Pump 2						
Pump Operating State	MultiState_ Value	784	7479_1_2	RD	1 = off	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
					2 = on	
Fluid Loop - Fluid Pump Status 1						
Pump Drive Overload	MultiState_ Value	1175	8171_1_1	RD	1 = no 2 = yes	16, 17
Pump Drive Over Temperature	MultiState_ Value	1176	8172_1_1	RD	1 = no 2 = yes	16, 17
Pump Drive Warning	MultiState_ Value	1177	8173_1_1	RD	1 = no 2 = yes	16, 17
Pump Drive Low AC Alarm	MultiState_ Value	1178	8174_1_1	RD	1 = no 2 = yes	16, 17
Pump Drive Phase Loss Active	MultiState_ Value	1179	8175_1_1	RD	1 = no 2 = yes	16, 17
Pump Drive Product Identification	MultiState_ Value	1180	8176_1_1	RD	1 = OK 2 = Not OK	16, 17
Pump Drive Communications	MultiState_ Value	1181	8177_1_1	RD	1 = OK 2 = Not OK	16, 17
Fluid Loop - Fluid Pump Status 2						
Pump Drive Overload	MultiState_ Value	1192	8171_1_2	RD	1 = no 2 = yes	16, 17
Pump Drive Over Temperature	MultiState_ Value	1193	8172_1_2	RD	1 = no 2 = yes	16, 17
Pump Drive Warning	MultiState_ Value	1194	8173_1_2	RD	1 = no 2 = yes	16, 17
Pump Drive Low AC Alarm	MultiState_ Value	1195	8174_1_2	RD	1 = no 2 = yes	16, 17
Pump Drive Phase Loss Active	MultiState_ Value	1196	8175_1_2	RD	1 = no 2 = yes	16, 17

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Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Pump Drive Product Identification	MultiState_ Value	1197	8176_1_2	RD	1 = OK 2 = Not OK	16, 17
Pump Drive Communications	MultiState_ Value	1198	8177_1_2	RD	1 = OK 2 = Not OK	16, 17
Fan - Supply Fan Configuration						
Communicate At Fan Power Off	MultiState_ Value	795	8101_1_1	RW	1 = disabled 2 = enabled	15, 16, 17
Supply Fan Emergency Op	MultiState_ Value	796	8102_1_1	RW	1 = disabled 2 = enabled	15, 16, 17
Fan - Supply Fan Status 1						
Fan Error: Phase Failure	MultiState_ Value	807	8106_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	808	8107_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	809	8108_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	810	8109_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	811	8110_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	812	8111_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	813	8112_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	814	8113_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	815	8114_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	816	8115_1_1	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Warning: High Motor Temperature	MultiState_ Value	817	8116_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	818	8117_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	819	8118_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	820	8193_1_1	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 2						
Fan Error: Phase Failure	MultiState_ Value	830	8106_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	831	8107_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	832	8108_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	833	8109_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	834	8110_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	835	8111_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	836	8112_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	837	8113_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	838	8114_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	839	8115_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	840	8116_1_2	RD	1 = OK 2 = Not OK	15, 16, 17

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Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: DC-link undervoltage	MultiState_ Value	841	8117_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	842	8118_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	843	8193_1_2	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 3						
Fan Error: Phase Failure	MultiState_ Value	853	8106_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	854	8107_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	855	8108_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	856	8109_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	857	8110_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	858	8111_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	859	8112_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	860	8113_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	861	8114_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	862	8115_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	863	8116_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	864	8117_1_3	RD	1 = OK 2 = Not OK	15, 16, 17

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Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Warning: Identification	MultiState_ Value	865	8118_1_3	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	866	8193_1_3	RD	1 = OK 2 = Not OK	15,, 16, 17
Fan - Supply Fan Status 4						
Fan Error: Phase Failure	MultiState_ Value	876	8106_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	877	8107_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	878	8108_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	879	8109_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	880	8110_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	881	8111_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	882	8112_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	883	8113_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	884	8114_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	885	8115_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	886	8116_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	887	8117_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	888	8118_1_4	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	889	8193_1_4	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 5						
Fan Error: Phase Failure	MultiState_ Value	899	8106_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	900	8107_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	901	8108_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	902	8109_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	903	8110_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	904	8111_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	905	8112_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	906	8113_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	907	8114_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	908	8115_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	909	8116_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	910	8117_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	911	8118_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	912	8193_1_5	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 6						

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: Phase Failure	MultiState_ Value	922	8106_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	923	8107_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	924	8108_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	925	8109_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	926	8110_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	927	8111_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	928	8112_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	929	8113_1_6	RD	1 = OK 2 = Not OK	15, 16
Fan Warning: DC-link voltage high	MultiState_ Value	930	8114_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	931	8115_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	932	8116_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	933	8117_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	934	8118_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	935	8193_1_6	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 7						
Fan Error: Phase Failure	MultiState_ Value	945	8106_1_7	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: Pwr Mod Overheated	MultiState_ Value	946	8107_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	947	8108_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	948	8109_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	949	8110_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	950	8111_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	951	8112_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	952	8113_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	953	8114_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	954	8115_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	955	8116_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	956	8117_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	957	8118_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	958	8193_1_7	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 8						
Fan Error: Phase Failure	MultiState_ Value	968	8106_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	969	8107_1_8	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: Internal Comms Error	MultiState_ Value	970	8108_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	971	8109_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	972	8110_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	973	8111_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	974	8112_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	975	8113_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	976	8114_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	977	8115_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	978	8116_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	979	8117_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	980	8118_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	981	8193_1_8	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 9						
Fan Error: Phase Failure	MultiState_ Value	991	8106_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	992	8107_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	993	8108_1_9	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: General Failure	MultiState_ Value	994	8109_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	995	8110_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	996	8111_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	997	8112_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	998	8113_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	999	8114_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1000	8115_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1001	8116_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1002	8117_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1003	8118_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1004	8193_1_9	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 10						
Fan Error: Phase Failure	MultiState_ Value	1014	8106_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1015	8107_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1016	8108_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1017	8109_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1018	8110_1_10	RD	1 = OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
					2 = Not OK	
Fan Error: Hall Sensor Error	MultiState_ Value	1019	8111_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	1020	8112_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	1021	8113_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	1022	8114_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1023	8115_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1024	8116_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1025	8117_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1026	8118_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1027	8193_1_10	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 11						
Fan Error: Phase Failure	MultiState_ Value	1037	8106_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1038	8107_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1039	8108_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1040	8109_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1041	8110_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	1042	8111_1_11	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: Locked Motor	MultiState_ Value	1043	8112_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	1044	8113_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	1045	8114_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1046	8115_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1047	8116_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1048	8117_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1049	8118_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1050	8193_1_11	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 12						
Fan Error: Phase Failure	MultiState_ Value	1060	8106_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1061	8107_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1062	8108_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1063	8109_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1064	8110_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	1065	8111_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	1066	8112_1_12	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Warning: High Supply Voltage	MultiState_ Value	1067	8113_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	1068	8114_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1069	8115_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1070	8116_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1071	8117_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1072	8118_1_12	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1073	8193_1_12	RD	1 = OK 2 = Not OK	16, 17
Fan - Supply Fan Status 13						
Fan Error: Phase Failure	MultiState_ Value	1083	8106_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1084	8107_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1085	8108_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1086	8109_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1087	8110_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	1088	8111_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	1089	8112_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	1090	8113_1_13	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Warning: DC-link voltage high	MultiState_ Value	1091	8114_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1092	8115_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1093	8116_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1094	8117_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1095	8118_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1096	8193_1_13	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 14						
Fan Error: Phase Failure	MultiState_ Value	1106	8106_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1107	8107_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1108	8108_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1109	8109_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1110	8110_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	1111	8111_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	1112	8112_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	1113	8113_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	1114	8114_1_14	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Warning: High Interior Temperature	MultiState_ Value	1115	8115_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1116	8116_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1117	8117_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1118	8118_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1119	8193_1_14	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 15, 16						
Fan Error: Phase Failure	MultiState_ Value	1129	8106_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1130	8107_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1131	8108_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1132	8109_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1133	8110_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	1134	8111_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	1135	8112_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	1136	8113_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	1137	8114_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1138	8115_1_15	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Warning: High Motor Temperature	MultiState_ Value	1139	8116_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: DC-link undervoltage	MultiState_ Value	1140	8117_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1141	8118_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1142	8193_1_15	RD	1 = OK 2 = Not OK	15, 16, 17
Fan - Supply Fan Status 16						
Fan Error: Phase Failure	MultiState_ Value	1152	8106_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Pwr Mod Overheated	MultiState_ Value	1153	8107_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Internal Comms Error	MultiState_ Value	1154	8108_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: General Failure	MultiState_ Value	1155	8109_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Motor Overheated	MultiState_ Value	1156	8110_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Hall Sensor Error	MultiState_ Value	1157	8111_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Locked Motor	MultiState_ Value	1158	8112_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Supply Voltage	MultiState_ Value	1159	8113_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: DC-link voltage high	MultiState_ Value	1160	8114_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Interior Temperature	MultiState_ Value	1161	8115_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: High Motor Temperature	MultiState_ Value	1162	8116_1_16	RD	1 = OK 2 = Not OK	15, 16, 17

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Table 5.3 Liebert® Challenger 3000, Liebert® Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Multistate Data (continued)

Controller	Liebert® iCOM ™v4					
Data Label	Object Type	Instance	Object Name	Access	Notes	see Notes key on page 1415
Fan Error: DC-link undervoltage	MultiState_ Value	1163	8117_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Warning: Identification	MultiState_ Value	1164	8118_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Fan Error: Speed Limit or Rotor Sens Calib	MultiState_ Value	1165	8193_1_16	RD	1 = OK 2 = Not OK	15, 16, 17
Chiller Fluid - Fluid Control Temperature						
Fluid Temperature Control Type	MultiState_ Value	1209	8144_1_1	RW	1 = Proportional 2 = Prop+Integral 3 = Adaptive PID 4 = Intelligent	16, 17
Chiller Fluid - Fluid Pump Flow						
Fluid Control Type	MultiState_ Value	1220	8148_1_1	RW	1 = Flow Rate 2 = Differential Pressure 3 = Flow Rate with DP Limit 4 = Diff Prs with Flo Limit 5 = Manual	16, 17
Chiller Fluid - Fluid Pump Periodic Op						
Pump Operation Type	MultiState_ Value	1231	8161_1_1	RW	1 = Unit On or Standby 2 = Unit On, Off, or Standby	16, 17
Chiller Fluid - Fluid Dew Point Margin						
Fluid Dew Pnt Margin	MultiState_ Value	1242	8162_1_1	RW		16, 17

Table 5.4 Notes key

Number	Description
1	This point is supported on: iCOM controller version 1.04.042.STD.
2	This point is supported on: iCOM controller version 2.00.11R for US iCOM controller version 2.00.12R (for Japan and China – language corrections only).
3	This point is supported on: iCOM controller version 2.01.29.07R.

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Table 5.4 Notes key (continued)

Number	Description
4	This point is supported on: iCOM controller version 2.02.21R.
5	This point is supported on: iCOM controller version 2.01.45R.
6	This point is supported on: iCOM controller version 2.03.27.06R.
7	This point is supported on: iCOM controller version 2.03.33R.
8	This point is supported on: iCOM controller version 2.04.32R.
9	This point is supported on: iCOM controller version A9HB-1.04.xx (Similar to Liebert PDX and to be replaced by separate family branch).
10	This point is supported on: iCOM controller version 1.04.37O-STD.
11	This point is supported on: iCOM controller version 2.05.30R.
12	This point is supported on: iCOM controller version 2.01.53R.
13	This point is supported on: iCOM controller version 2.04.???R (TBD).
14	This point is supported on: iCOM controller version 2.05.41R.
15	This point is supported on: iCOM controller version PA 2.06.57R.
16	This point is supported on: iCOM controller version 2.07.x
17	This point is supported on iCOM controller version 2.08.x

Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary

Data Label	Data Description
(Deprecated) Free Cooling Status	(Deprecated) Free Cooling Status
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Cold Aisle Humidity	Actual humidity value being used for cold aisle humidity control. The value is calculated from multiple humidity measurements using [Cold Aisle Humidity Calculation Method].
Actual Cold Aisle Temperature	Actual temperature value being used for cold aisle temperature control. The value is calculated from multiple temperature measurements using [Cold Aisle Temperature Calculation Method].
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Aggregate Mixed Air Temp Sensor Fail	Failure of Aggregated Mixed Air Temperature Sensor. This event is active when Remote Sensor Issue and External Air Sensor E Issue are active.
Aggregate Remote Air Temp Sensor Fail	Failure of Aggregated Remote Air Temperature Sensor. This event is active when all configured Remote Sensor Issue events are active.
Aggregated Outdoor Humidity	Aggregated Outdoor Humidity

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Aggregated Outdoor Temperature	Aggregated Outdoor Temperature
Air Econ High Mixed Temp	Air Economizer High Mixed Temperature
Air Econ Low Mixed Temp	Air Economizer Low Mixed Temperature
Air Econ Ret Damp Min Open Limit 2	Air Economizer Return Damper Minimum Open Limit Secondary
Air Econ Ret Damp Min Open Limit	Air Economizer Return Damper Minimum Open Limit
Air Economizer Availability	Indicates if the outside air conditions are appropriate for cooling with the air economizer or glycol freecooling.
Air Economizer Control Source	Source of control of the air economizer.
Air Economizer Emergency Override	Indoor room temperature has exceeded its upper threshold and the outdoor air damper has been opened for emergency cooling.
Air Economizer Reduced Airflow	Air economizer filter is dirty and needs to be cleaned or replaced.
Air Filter Differential Pressure	Differential pressure across the air filter.
Air Temperature Control Integration Time	Time value used when system is under integral air temperature control.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Control Type	Type of algorithm used to control the system's output air temperature.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
Analog Output	Analog Output
ATS Load Not Powered Timeout	Automatic Transfer Switch Load not powered timeout

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
ATS Non Priority Load Breaker Timeout	Automatic Transfer Switch Non-priority load breaker timeout.
ATS Switch Mode	ATS Switch Mode.
Audit Log Record Counter	Number of audit log records that have been sent to the client.
Audit Log Update	Audit log has been updated.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart Enable	Enable/disable automatic restart of unit after a power cycle.
Auto Tune License Expired	License for the AutoTune feature has expired.
Auto Tune License Expiring	License for the AutoTune feature has not been refreshed in 30 days and will be expiring soon.
Automatic Transfer Switch - Active Power Supply	Indicates which power supply is in use by the Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 1 Status	Status of power supply 1 in Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 2 Status	Status of power supply 2 in Automatic Transfer Switch.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
Back Draft Control Fan Speed	Fan speed when in back draft control mode.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Check Water System	Fluid check water system
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Flow Meter Sensor Failure	Chilled water flow meter sensor is disconnected or the signal is out of range.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Chilled Water Inlet Temperature Control Active	Chilled water inlet temperature control is active.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature Sensor Failure	Chilled water outlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours Exceeded	[Chilled Water Valve Hours] has exceeded [Chilled Water Valve Operating Hours Threshold].
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Operating Hours Threshold	Operating hours threshold for the chilled water valve. When the number of operating hours reaches this threshold, an event is generated.
Chilled Water Valve Reset Enable	Enable/disable the ability to reset the chilled water valve.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Cold Aisle Air Sensor Failure	Cold aisle sensor measuring air temperature and humidity is disconnected or the signal is out of range.
Cold Aisle Cascade Fan Speed Max Set Point	Cold aisle maximum fan speed when system is in cascade mode and one or more units in the system are in standby.
Cold Aisle Control Enable	Enable/disable cold aisle control.
Cold Aisle Fan Speed Max Set Point	Cold aisle maximum fan speed when system is not in cascade mode OR when system is in cascade mode and no units in the system are in standby.
Cold Aisle Fan Speed Min Set Point	Cold aisle minimum fan speed.
Cold Aisle Force Max Fan/Cooling - Ext Control	The cold aisle fan speed and system cooling can be forced to 100% via an external input signal. Use this value to enable/disable that feature.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Cold Aisle Humidity Calculation Method	Algorithm used to calculate a single cold aisle humidity value from multiple humidity measurements.
Cold Aisle Sensor Air Temperature	Air temperature measured by cold aisle sensor.
Cold Aisle Sensor Humidity	Humidity measured by cold aisle sensor.
Cold Aisle Temperature Calculation Method	Algorithm used to calculate a single cold aisle temperature value from multiple temperature measurements.
Cold Aisle Temperature/Humidity Team Sensor Failure	Cold aisle team sensor measuring air temperature and humidity is disconnected or the signal is out of range.
Communicate At Fan Power Off	Communicate with fans at power off
Compressor 1B Hours Exceeded	Fixed compressor 1B run hours have exceeded the threshold.
Compressor 1B Thermal Overload	Fixed compressor 1B is shut down due to thermal overload.
Compressor 2B Hours Exceeded	Fixed compressor 2B run hours have exceeded the threshold.
Compressor 2B Thermal Overload	Fixed compressor 2B is shut down due to thermal overload.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor Freeze Protection	Compressor has entered the freeze protection phase.
Compressor High Head Pressure - Event Control	Enable/disable the activation of the [Compressor High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor High Head Pressure - Event Type	The event type for the [Compressor High Head Pressure] event.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor High Pressure Transducer Issue	Compressor high pressure transducer is disconnected or the signal is out of range.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Lockout	Enable/disable the use of the compressor.
Compressor Low Differential Pressure Lockout	Compressor exceeded maximum startup attempts due to low differential pressure. Compressor is shutdown and has been disabled.
Compressor Low Pressure Transducer Issue	Compressor low pressure transducer is disconnected or the signal is out of range.
Compressor Low Suction Pressure - Event Control	Enable/disable the activation of the [Compressor Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Low Suction Pressure - Event Type	The event type for the [Compressor Low Suction Pressure] event.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Pump Down Issue - Event Control	Enable/disable the activation of the [Compressor Pump Down Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Pump Down Issue - Event Type	The event type for the [Compressor Pump Down Issue] event.
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Compressor Short Cycle - Event Control	Enable/disable the activation of the [Compressor Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Short Cycle - Event Type	The event type for the [Compressor Short Cycle] event.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor State	Compressor operational state.
Compressor Suction Pressure	Refrigerant pressure at the input of the compressor.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload - Event Control	Enable/disable the activation of the [Compressor Thermal Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Thermal Overload - Event Type	The event type for the [Compressor Thermal Overload] event.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Compressor Utilization	Present compressor utilization expressed as a percentage of the maximum rated capacity.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Condenser Communication Lost	Communication with condenser unit has been lost.
Condenser Control Board Issue	The condenser control board is reporting an issue.
Condenser Fan Current	Condenser fan's measured input current.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Reversal Requested	Request the condenser fans to rotate in the reverse direction.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Issue - Event Control	Enable/disable the activation of the [Condenser Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser Issue - Event Type	The event type for the [Condenser Issue] event.
Condenser Issue	Condenser is not operating within its operational parameters.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.
Condenser Outside Air Temp Out of Operating Range	[Condenser Outside Air Temperature] is either above an upper threshold or below a lower threshold.
Condenser Outside Air Temp Sensor Issue	Condenser outside air temperature sensor is disconnected or the signal is out of range.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Pressure Over Threshold	Condenser refrigerant pressure has exceeded a threshold.
Condenser Refrigerant Pressure Sensor Issue	Condenser refrigerant pressure sensor is disconnected or the signal is out of range.
Condenser Refrigerant Pressure Under Threshold	Condenser refrigerant pressure has dropped below a threshold.
Condenser Refrigerant Pressure	Pressure of the refrigerant in a condenser circuit.
Condenser Refrigerant Type	Condenser refrigerant type.
Condenser Remote Shutdown	Condenser is shut down by a remote signal.
Condenser Supply Refrigerant Over Temp	Condenser supply refrigerant temperature has exceeded a threshold.
Condenser Supply Refrigerant Temp Sensor Issue	Condenser supply refrigerant temperature sensor is disconnected or the signal is out of range.
Condenser Supply Refrigerant Temperature	Temperature of the supply refrigerant in a condenser circuit.
Condenser Supply Refrigerant Under Temp	Condenser supply refrigerant temperature has dropped below a specified threshold.
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline.
Control Units Remote Shutdown Mismatch	The remote shutdown status of the master control unit does not match the remote shutdown status of the slave control unit.
Control Units Unit Code Mismatch	Unit codes for the master and slave control units do not match.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling Fluid Source Temperature	Temperature of the cooling fluid being provided by the source.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1.
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3.
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4.
Dehum Reheat Low Limit 1	Value added to [Dehum Reheat Low Limit Set Point]. If the air temperature measured by [Dehum Reheat Low Limit Sensor] falls below the sum of those values, compressor operation will be limited.
Dehum Reheat Low Limit 2	Value added to [Dehum Reheat Low Limit Set Point]. If the air temperature measured by [Dehum Reheat Low Limit Sensor] falls below the sum of those values, all compressors will be turned off for dehumidification.
Dehum Reheat Low Limit Sensor	Air temperature sensor whose measurements will be compared against [Dehum Reheat Low Limit Set Point] to determine when a compressor and reheat are used to support dehumidification.
Dehum Reheat Low Limit Set Point	Air temperature set point used to determine when a compressor and reheat are used to support dehumidification.
Dehum Reheat Proportional Band	Size of temperature band below [Dehum Reheat Low Limit Set Point] used to determine the temperatures at which each reheater is activated. As the temperature falls further below the set point, more reheaters are activated.
Dehumidification Fan Speed Min Set Point	Minimum fan speed when system dehumidification is active.
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier Hours Threshold	Threshold value used in the [Dehumidifier Hours Exceeded] event.
Dehumidifier Hours	Operating hours for dehumidifier since last reset of this value.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Max Adjust	Dew Point Margin Maximum Set Point Adjust
Dew Point Over Temp Threshold	Threshold value used in the [Dew Point Over Temperature] event.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temp Threshold	Threshold value used in the [Dew Point Under Temperature] event.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Dig Scroll Comp Discharge Over Temp - Event Ctrl	Enable/disable the activation of the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Over Temp - Event Type	The event type for the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Temp Sensor Issue	Digital scroll compressor discharge temperature sensor is disconnected or the signal is out of range.
Dig Scroll Comp Discharge Temp	Digital scroll compressor discharge temperature.
Dig Scroll Comp Over Temp	Digital scroll compressor is shut down due to head temperature exceeding an upper threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Digital Scroll Compressor Loading	Present digital scroll compressor utilization expressed as a percentage of the maximum rated capacity.
Door Open	An open door was detected.
EconoPhase Proportional Band Switchover	After entering EconoPhase mode, the threshold for continuing EconoPhase operation is gradually reduced to this percentage of [Air Temperature Proportional Band]. If the air temperature cannot be maintained within this reduced proportional band, the system will switch over to compressor control.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours Exceeded	[Electric Reheater Hours] has exceeded [Electric Reheaters Hours Threshold].
Electric Reheater Hours Threshold	Threshold value used in the [Electric Reheater Hours Exceeded] event.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Energy Consumption	Energy consumption since the last reset of this value.
Event Log Record Counter	Number of event log records that have been sent to the client.
Exhaust Damper Feedback Fail	Exhaust Damper Feedback Failure Alarm
Exhaust Damper Position	Exhaust Damper Current Position Open Percentage (%)
Expected Condenser Unit Count	Number of physical condenser units that are expected to be connected to the system.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Free Cooling Lockout	Free cooling is disabled by an external input signal.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Humidifier Lockout	The humidifier is shut down and disabled by an external input signal.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Reheat Lockout	The reheater is shut down and disabled by an external input signal.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed, as indicated by an external input signal.
External Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Supply Fluid Flow Issue	Supply fluid flow issue, as indicated by an external input signal.
External Supply Fluid High Temperature	Supply fluid temperature has exceeded a threshold, as indicated by an external input signal.
External Supply Fluid Temp Sensor Issue	Supply fluid temperature sensor is disconnected or the signal is out of range, as indicated by an external input signal.
Fan Back Draft Control Enable	Enable/disable fan back draft control.
Fan Back Draft Operation	Operational mode of the fan back draft control.
Fan Back Draft Speed Set Point	If [Fan Back Draft Control Enable] is enabled and unit is in standby, its evaporator fan will run at a fixed speed corresponding to this value.
Fan Control Mode	Fan control mode.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fan Control Sensor	Sensor to be used for fan speed control.
Fan Current	Supply Fan Measured Current.
Fan Error: DC-link undervoltage	Fan Error: DC-link undervoltage
Fan Error: General Failure	Supply Fan Error: General Failure.
Fan Error: Hall Sensor Error	Supply Fan Error: Hall Sensor Error.
Fan Error: Internal Comms Error	Supply Fan Error: Internal Communications Error.
Fan Error: Locked Motor	Supply Fan Error: Locked Motor.
Fan Error: Motor Overheated	Supply Fan Error: Motor Overheated.
Fan Error: Phase Failure	Supply Fan Error: Phase Failure.
Fan Error: Pwr Mod Overheated	Supply Fan Error: Power Module Overheated.
Fan Error: Speed Limit or Rotor Sens Calib	Supply Fan Error: Speed Limit or Rotor Sens Calib
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours Threshold	Threshold value used in the [Fan Hours Exceeded] event.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue - Event Control	Enable/disable the activation of the [Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Issue - Event Type	The event type for the [Fan Issue] event.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Power	Supply Fan Measured Power.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed Maximum Set Point	Maximum fan speed. This value may only be modified if iCOM is enabled to allow fan speed changes by the BMS.
Fan Speed Min Dehum	Minimum fan speed for dehumidification operation
Fan Speed Minimum Set Point	Minimum fan speed.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fan Speed Temp Control Integration Time	Integration time value used when [Fan Speed Temperature Control Type] contains an integral term.
Fan Speed Temp Control Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Fan Speed Temperature Set Point].
Fan Speed Temp Control Type	Type of algorithm used to control the fan speed when in decoupled mode. The algorithm is applied to the difference between the selected fan control sensor temperature and [Fan Speed Temperature Set Point].
Fan Speed Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fan Speed Temperature Set Point]. If the fan control air temperature sensor is within this range, no changes to the fan speed will occur (unless overridden for internal safeguards).
Fan Speed Temperature Set Point	If fan is in decoupled mode and not under manual control, the fan speed will vary depending on the delta between the selected fan control sensor temperature and this set point.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Fan Warning: DC-link voltage high	Supply Fan Warning: DC-link voltage high.
Fan Warning: High Interior Temperature	Supply Fan Warning: High Interior Electronic Temperature.
Fan Warning: High Motor Temperature	Supply Fan Warning: High Motor Temperature.
Fan Warning: High Supply Voltage	Supply Fan Warning: High Supply Voltage.
Fan Warning: Identification	Supply Fan Warning: Unexpected Fan Identification - Check Fan Firmware Version.
Flow Dead Band	Fluid flow dead band.
Flow Diff Prs Dead Band	Flow Diff Pressure Dead Band
Flow Integration Time	Fluid flow integration time.
Flow Manual Pump Speed	Flow Manual Pump Speed
Flow Proportional Band	Fluid flow proportional band.
Flow Rate	Fluid measured flow volume rate.
Flow Sensor Failure	Fluid flow sensor failure.
Flow Set Point	Fluid flow rate setpoint.
Fluid Control Type	Fluid flow algorithm control type
Fluid Control Valve Position	Fluid Control Valve Position
Fluid Dew Pnt Margin	Fluid Dew Point Margin Control Operation
Fluid Dewpoint Margin Control	Fluid Loop Dewpoint Margin Control is active

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fluid Diff Prs Control Integration Time	Fluid Diff Pressure Control Integration Time
Fluid Diff Prs Prop Band	Flow Diff Pressure Proportional Band
Fluid Diff Prs Set Point	Fluid Diff Pressure Set Point
Fluid Flow Blocked	Fluid Loop Flow Blocked (Loss of Flow with High Supply Pressure)
Fluid Flow Control Integration Time	Fluid Flow Control Integration Time
Fluid Flow Dead Band	Fluid Flow Dead Band; evenly split above/below set point
Fluid Flow High Supply Pressure	Fluid Loop Flow High Supply Pressure
Fluid Flow Low Inlet Pressure	Fluid Loop Flow Low Inlet Pressure
Fluid Flow Proportional Band	Fluid Flow Proportional Band; evenly split above/below set point
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Flow Sensor Issue	The fluid flow sensor is disconnected or the signal is out of range.
Fluid Flow Set Point	Fluid Flow Set Point
Fluid Free Cooling Lockout Threshold	If the temperature of the cooling fluid drops below this value, fluid free cooling will be disabled.
Fluid High Differential Pressure	Fluid Loop High Differential Pressure (Supply - Return)
Fluid Inlet Pressure Sensor Issue	Fluid Loop Inlet Pressure Sensor Issue
Fluid Input Temperature	Temperature of the fluid entering the cooling coil.
Fluid Low Differential Pressure	Fluid Loop Low Differential Pressure (Supply - Return)
Fluid Low System Flow	Fluid Loop Low System Flow (Low total flow for units in group)
Fluid Output Temperature	Temperature of the fluid exiting the cooling coil.
Fluid Return Pressure Sensor Issue	Fluid Loop Return Pressure Sensor Issue
Fluid Supply Pressure Sensor Issue	Fluid Loop Supply Pressure Sensor Issue
Fluid Temperature Control Integration Time	Time value used when system is under integral fluid temperature control.
Fluid Temperature Control Type	Type of algorithm used to control the system's output fluid temperature.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Fluid Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fluid Temperature Set Point].
Fluid Temperature Proportional Band	Value that is divided evenly to form proportional temperature control.
Fluid Temperature Sensor Issue	The fluid temperature sensor is disconnected or the signal is out of range.
Fluid Temperature Set Point	Desired chiller fluid temperature.
Force Networked Unit Rotation	If networked units are configured to rotate between standby and running, force the rotation to occur immediately.
Force Pump Rotate	Fluid force pump rotation (swap pump lead/lag operation)
Free Cooling Fluid Temperature	Free cooling fluid temperature.
Free Cooling Internal Control Mode	Free cooling internal control mode.
Free Cooling Internal Control Mode	Free cooling internal control mode.
Free Cooling Internal Temperature Delta	Minimum temperature delta required between supply fluid and internal ambient air temperatures in order to enable free cooling.
Free Cooling State	Free cooling operational state.
Free Cooling Status	Free cooling status.
Free Cooling Stopped - High Room Temp	Free cooling is temporarily disabled due to room temperature exceeding a preset delta above the setpoint.
Free Cooling Temp Sensor Issue	The free cooling fluid temperature sensor is disconnected or the signal is out of range.
Free Cooling Valve Hours Exceeded	[Free Cooling Valve Hours] has exceeded [Free Cooling Valve Hours Threshold].
Free Cooling Valve Hours Threshold	Threshold value used in the [Free Cooling Valve Hours Exceeded] event.
Free Cooling Valve Hours	Operating hours for free cooling valve since last reset of this value.
Free Cooling Valve Open Position	Free cooling valve open position.
FSA Control Input Issue	The analog input used to set the air temperature set point for fan speed control is disconnected or the signal is out of range.
Group Independent Off	The group standby/cascade state for this unit has been overridden. The unit has been forced off.
Group Independent On	The group standby/cascade state for this unit has been overridden. The unit has been forced on.
Group Independent Operation Enable	Enable/disable group independent operation. If enabled, the user can override the unit's on/off state being controlled by its standby/cascade group.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Group Independent Operation	If this unit is part of a standby/cascade group, this value can be used to override the group control of the unit's on/off state.
Heating Fan Speed Min Set Point	Minimum fan speed when system heating is active.
Heating Lockout	Heating is shut down and disabled.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Static Pressure	High static pressure event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
High Unit Differential Pressure	High Unit Differential Pressure Alarm
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Hours Exceeded	[Hot Water / Hot Gas Valve Hours] has exceeded [Hot Water / Hot Gas Valve Hours Threshold].
Hot Water / Hot Gas Valve Hours Threshold	Threshold value used in the [Hot Water / Hot Gas Valve Hours Exceeded] event.
Hot Water / Hot Gas Valve Hours	Operating hours for hot water / hot gas valve since last reset of this value.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidification Fan Speed Min Set Point	Minimum fan speed when system humidification is active.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Humidifier Cylinder Worn	Humidifier cylinder is not operating properly and needs to be replaced.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours Threshold	Threshold value used in the [Humidifier Hours Exceeded] event.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier Lockout	Enable/disable the use of the humidifier.
Humidifier Low Water	The water level in the humidifier has dropped below its threshold.
Humidifier Over Current	The electrical current to the humidifier has exceeded its upper threshold.
Humidifier State	Humidifier operational state.
Humidifier Under Current	The electrical current to the humidifier has dropped below its lower threshold.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Infrared Humidifier Flush Rate	A multiple of an internal time constant that determines the flush duration of the infrared humidifier water pan.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.
Inverter Temperature	Inverter Temperature
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Static Pressure	Low static pressure event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Main Chilled Water Valve	The master valve in a dual valve chilled water system.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Main Fan Overload	Main fan is shut down due to thermal overload.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Chilled Water Temp Set Point Enable	Enable/disable the activation of [Minimum Chilled Water Temp Set Point].
Minimum Chilled Water Temp Set Point	Minimum desired chilled water temperature.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Mixed Air Temp	Current Mixed Air Temperature Reading
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.
Modbus Automatic Transfer Switch Communication Lost	Communications with Modbus Automatic Transfer Switch has been lost
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Networked Unit Daily Rotation Frequency	If [Networked Unit Rotation Frequency] is set to 'Daily', this sets the frequency of rotation within each day.
Networked Unit Rotation Count	If networked units are configured to rotate between standby and running, this is the number of units that will rotate at the selected rotation time.
Networked Unit Rotation Frequency	Configures the frequency with which networked units will rotate between a running state and a standby state.
Networked Unit Rotation Time	If networked units are configured to rotate between standby and running, this is the time the rotation will occur on the day specified by [Networked Unit Rotation Frequency].
Outdoor Damper Position	Outdoor Damper Current Position Open Percentage (%)
Outdoor Dmp Fdback Fail	Outdoor Damper Feedback Failure
Outside Air Temperature	Ambient outside air temperature.
PHE Fluid Supply Temperature	Plate Heat Exchanger Fluid Supply Temperature
PHE Sup Tem Snsr Fail	Plate Heat Exchanger Supply Temperature Sensor Fail
Power Source: All status are okay	Automatic Transfer Switch Power Source: All status are okay.
Power Source: Breaker command status closed	Automatic Transfer Switch Power Source: Breaker command status closed.
Power Source: Breaker is closed	Automatic Transfer Switch Power Source: Breaker is closed.
Power Source: Breaker Operating Hour Exceeded	Automatic Transfer Switch Power Source: Breaker operating hour exceeded.
Power Source: Breaker Operation Count	Automatic Transfer Switch Power Source: Breaker Operation Count.
Power Source: Breaker Timeout Issue	Automatic Transfer Switch Power Source: Breaker timeout issue.
Power Source: Breaker withdrawn issue	Automatic Transfer Switch Power Source: Breaker withdrawn issue.
Power Source: Frequency Is Too High	Automatic Transfer Switch Power Source: Frequency is too high.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Power Source: Frequency Is Too Low	Automatic Transfer Switch Power Source: Frequency is too low.
Power Source: L1-L2 voltage	Automatic Transfer Switch Power Source: L1-L2 voltage.
Power Source: L2-L3 voltage	Automatic Transfer Switch Power Source: L2-L3 voltage.
Power Source: L3-L1 voltage	Automatic Transfer Switch Power Source: L3-L1 voltage.
Power Source: Line Frequency	Automatic Transfer Switch Power Source: Line Frequency.
Power Source: Line Operating Hour Exceeded	Automatic Transfer Switch Power Source: Line operating hour exceeded.
Power Source: Phase Sequence Issue	Automatic Transfer Switch Power Source: Phase sequence issue.
Power Source: Voltage Is Too High	Automatic Transfer Switch Power Source: Voltage is too high.
Power Source: Voltage Is Too Low	Automatic Transfer Switch Power Source: Voltage is too low.
Power Source: Voltage Phase Loss	Automatic Transfer Switch Power Source: Voltage phase loss.
Power Source: Voltages Are Asymmetric	Automatic Transfer Switch Power Source: Voltages are asymmetric.
PRE Operational Mode	Pumped Refrigerant Economizer operational mode.
Pump Drive Communications	Pump Drive Communications Status
Pump Drive Low AC Alarm	Pump Drive Low AC Alarm
Pump Drive Over Temperature	Pump Drive Over Temperature
Pump Drive Overload	Pump Drive Overload
Pump Drive Phase Loss Active	Pump Drive Phase Loss Active
Pump Drive Product Identification	Pump Drive Product Identification
Pump Drive Warning	Pump Drive Warning
Primary Cooling Fluid Source	Master source of fluid for cooling purposes.
Pump Expected Speed	Fluid pump expected speed for flow setpoint.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Pump Flow Failure	Fluid pump flow failure.
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Inlet Refrigerant Temperature	Refrigerant temperature at the inlet of the pump.
Pump Inverter Failure	Fluid pump inverter failure.
Pump Motor Amps	Pump Motor Amps
Pump Motor Power	Pump Motor Power
Pump Operating State	Fluid pump operating state.
Pump Operating Without Flow	Fluid pump operation with no flow.
Pump Operation Duration	Pump periodic operation duration
Pump Operation Period	Pump shall periodically operate if off for too long
Pump Operation Speed	Pump periodic operation speed
Pump Operation Type	Pump periodic operation type
Pump Outlet Refrigerant Temperature	Refrigerant temperature at the outlet of the pump.
Pump Run Time	Fluid pump run time.
Pump Speed	Fluid pump speed.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump State	Pump operational state.
Pump Unspecified General Event	One or more unspecified pump events active. See local unit display for further details.
Quick Start Unit Cascade On Delay	When a Teamwork unit restarts after a power cycle, this value is used instead of [Unit Cascade On Delay]. The system will return to the use of [Unit Cascade On Delay] after a period of time determined by a predefined algorithm.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reheater Lockout	Enable/disable the use of the reheater..
Reheater Over Temperature	The temperature of the reheater has exceeded its threshold.
Remote Sensor Average Humidity	Average value of remote sensor humidity measurements.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Remote Sensor Average Over Temperature	[Remote Sensor Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Average Under Temperature	[Remote Sensor Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Humidity	Maximum value of remote sensor humidity measurements.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Minimum Humidity	Minimum value of remote sensor humidity measurements.
Remote Sensor Minimum Temperature	Minimum value of remote sensor temperature measurements.
Remote Sensor Over Temp Threshold	Threshold value used in the remote air sensor over temperature events.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Over Temperature	[Remote Sensor System Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Temperature	Average value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor System Average Under Temperature	[Remote Sensor System Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor System Maximum Temperature	Maximum value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temp Threshold	Threshold value used in the remote air sensor under temperature events.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Reset Pump Speed Calibration	Fluid reset pump speed calibration
Ret Damp Fdback Fail	Return Damper Feedback Failure
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air.
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Damper Position	Return Damper Current Position Open Percentage (%)
Return Damper Status	Status of the return damper.
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Fluid Low Temp	[Return Fluid Temperature] below Return Fluid Low Temp Threshold.
Return Fluid Over Temp Threshold	Threshold value used in the [Return Fluid Over Temp] event.
Return Fluid Over Temp	[Return Fluid Temperature] has exceeded a specified threshold.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity Set Point	Desired relative humidity at the inlet of the unit.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any return sensor events are detected and annunciated.
Return T/H Sensor Failure	Return Temperature/Humidity Sensor Failure
Return Temp Hysteresis for Humidifier Disable	If return air temperature has exceeded [Return Temperature Threshold for Humidifier Disable], the humidifer will remain disabled until the temperature has dropped below the threshold minus this hysteresis value.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Return Temp Threshold for Humidifier Disable	If return air temperature exceeds this threshold, the humidifier will be disabled.
Secondary Control Unit Communication Lost	The master control unit has lost Ethernet communications with the slave control unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
SSA Control Input Issue	The analog input used to set the static pressure set point for fan speed control is disconnected or the signal is out of range.
Standby Units	The number of standby units.
Start Standby Units on High Temperature	Force the system to start all standby units if any unit in operation reports a high air temperature warning.
Static Pressure Control Enable	Enable/disable underfloor static pressure control.
Static Pressure Fan Control	Static Pressure Fan Control type.
Static Pressure Sensor Issue	The static pressure sensor is disconnected or the signal is out of range.
Static Pressure Sensor Out of Range	Static pressure sensor signal is out of its configured range.
Static Pressure Set Point	Desired static pressure.
Super Saver Call For Cooling	Call for cooling value used for Super Saver functionality. A higher call for cooling value indicates a need for a lower coolant temperature.
Supply Air Over Temperature	Supply air high temperature event.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature Sensor Control	Control mode to be used with the supply air temperature sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Fan Communication Lost	Communications with Supply Fan has been lost.
Supply Fan Emergency Op	Supply Fan Emergency Fan operate at communications disconnect.
Supply Fan Measured Speed	Supply Fan Measured Speed
Supply Fluid Low Temp	[Supply Fluid Temperature] below Supply Fluid Low Temp Threshold.
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply fluid temperature..
Supply Humidity	Relative humidity at the outlet of the unit.
Supply NTC Air Sensor Issue	The supply NTC air sensor is disconnected or the signal is out of range.
Supply Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any supply sensor events are detected and annunciated.
System Date and Time	The system date and time.
System Dew Point	System aggregated dew point
System Event Acknowledge/Reset	Reset and/or acknowledge all events.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
System Fluid Cooling Capacity	Chiller system-level cooling capacity in use, expressed in kilowatts.
System Fluid Diff Pressure	Chiller system-level fluid differential pressure
System Fluid Flow	Chiller system-level fluid measured flow volume rate
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System On/Off Control	Turn system functionality on or off.
System Static Pressure	Static pressure measurement among a group of interconnected units in a single system.
System Status	The operating status for the system.
Tandem 'B' Compressor Hours	Operating hours for the 'B' compressor in a tandem configuration since last reset of this value.
Tandem 'B' Compressor State	Operational state for the 'B' compressor in a tandem configuration.
Team Static Pressure Sensor Failure	The team static pressure sensor is disconnected or the signal is out of range.
Teamwork Average Calculation Unit Count	If [Teamwork Temperature Calculation Method] is set to Average, this value specifies the maximum number of units in the Teamwork group used to calculate the average.
Teamwork Mode	Teamwork mode. Provides the ability to group multiple networked units for the purpose of operating based on shared system parameters.
Teamwork Temperature Calculation Method	Method used for calculating the single Teamwork Mode air temperature from the temperature sensor values provided by the units in the Teamwork group. Each unit provides a single air temperature sensor value.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Thermal Control Override - Humidity Call	If [Thermal Control Override] is enabled, this value sets the percent call for humidification or dehumidification.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Thermal Control Override - Humidity Control Type	If [Thermal Control Override] is enabled, this value selects if the humidity override is applied to humidification or dehumidification.
Thermal Control Override - Temperature Call	If [Thermal Control Override] is enabled, this value sets the percent call for cooling or heating.
Thermal Control Override - Temperature Control Type	If [Thermal Control Override] is enabled, this value selects if the temperature override is applied to cooling or heating.
Thermal Control Override	Override internal programmatic control of thermal conditions. This includes, but may not be limited to, temperature and humidity. The ability to enable this override may require additional system configuration.
Thermal Runaway	Thermal Runaway
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time.
Today's Low Humidity	The lowest external humidity measured since midnight.
TSA Control Input Issue	The analog input used to set the air temperature set point for cooling control is disconnected or the signal is out of range.
Underfloor Static Pressure Control Enable	Enable/disable the underfloor static pressure control.
Unit Aggregated Remote Humidity	The aggregate air humidity computed from remote sensors connected to a single unit. This value will be used for monitoring only. No control is associated with it.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Cascade Control Delay	When a Teamwork unit transitions from 'standby' to 'running' due to cascading, its local control operations are delayed for this amount of time. Control operations can include, but are not limited to, heating, cooling, humidification, and/or dehumidification.
Unit Cascade On Delay	If [Unit Cascade Type] is set to anything other than 'No', and the measured value has reached the transition threshold, a Teamwork unit in 'standby' will transition to 'running' after delaying this amount of time.
Unit Cascade Type	If a unit is a member of a Teamwork group, it can be configured to cascade, i.e. automatically transition between 'standby' and 'running'. The decision of when to perform the transition is determined by comparing the value of this parameter type against a given transition threshold.
Unit Code Missing	Unit code has not been entered and saved.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit Dew Point	Unit aggregated dew point
Unit Fluid Cooling Capacity	Chiller unit-level cooling capacity in use, expressed in kilowatts.
Unit Fluid Diff Pressure	Chiller unit-level fluid differential pressure
Unit Fluid Flow	Chiller unit-level fluid measured flow volume rate
Unit Fluid Pump Speed	Chiller unit-level fluid pump speed
Unit Fluid Return Pressure	Chiller unit-level fluid return pressure
Unit Fluid Return Temperature	Chiller unit-level entering return fluid temperature
Unit Fluid Supply Pressure	Chiller unit-level fluid supply pressure
Unit Fluid Supply Temperature	Chiller unit-level leaving supply fluid temperature
Unit In Standby Due To Cooling Loss	Unit forced into standby because it is unable to provide any cooling.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unit Static Pressure	Static pressure measurement for a single unit.
Unit to Unit Address	If the unit is part of a networked group, this is the address of the unit within the group, known as the U2U address.
Unit to Unit Group	If the unit is part of a networked group, this is the address of the unit's group, known as the U2U group.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Valve Communications Failure	A valve is configured to exist but communications cannot be established.
Valve Issue	Valve is reporting abnormal operating condition.
Virtual Master Enable	Enable/disable the virtual master feature.

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Table 5.5 Liebert® Challenger 3000, Challenger ITR, Liebert® CW, Liebert® CWA, Liebert® Deluxe System/3, Liebert® DS, Liebert® DSE, Liebert® HPM, Liebert® PeX, Liebert® PDX/PCW—Glossary (continued)

Data Label	Data Description
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Pump Communication Lost	Communications with XD Pump has been lost
XDM Flow and Load Cycling	XDM Flow is Cycling Between Flow and Load
XDM Mix Valve Position Error	XDM Mix Valve is reporting Out of Position
XDM Pump No Flow	XDM Pump Indicates No Flow
XDM Pump Not Avail	XDM Pump is Not Available
XDM Pump Pressure Sensor Fail	XDM Pump Pressure Sensor Has Failed

Table 5.6 Liebert® CRV CR012—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Air filter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm

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Table 5.6 Liebert® CRV CR012—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air Temp Sensor					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Return Air Humidity Sensor					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Compressor					
Compressor Drive Failure U00	Binary_Value	437	8051_1	RD	Active on Alarm
Compressor Drive Failure U01	Binary_Value	438	8052_1	RD	Active on Alarm
Compressor Drive Failure U02	Binary_Value	439	8053_1	RD	Active on Alarm
Compressor Drive Failure U03	Binary_Value	440	8054_1	RD	Active on Alarm
Compressor Drive Failure U04	Binary_Value	441	8055_1	RD	Active on Alarm
Compressor Drive Failure U05	Binary_Value	442	8056_1	RD	Active on Alarm
Compressor Drive Failure U06	Binary_Value	443	8057_1	RD	Active on Alarm
Compressor Drive Failure U07	Binary_Value	444	8058_1	RD	Active on Alarm
Compressor Drive Failure U08	Binary_Value	445	8059_1	RD	Active on Alarm
Compressor Drive Failure U09	Binary_Value	446	8060_1	RD	Active on Alarm
Compressor Drive Failure U10	Binary_Value	447	8061_1	RD	Active on Alarm
Compressor Drive Failure U11	Binary_Value	448	8062_1	RD	Active on Alarm
Compressor Drive Failure U12	Binary_Value	449	8063_1	RD	Active on Alarm
Compressor Drive Failure U13	Binary_Value	450	8064_1	RD	Active on Alarm
Compressor Drive Failure U14	Binary_Value	451	8065_1	RD	Active on Alarm
Compressor Drive Failure U15	Binary_Value	452	8066_1	RD	Active on Alarm
EEV Driver Unselect Refrigerant	Binary_Value	453	8067_1	RD	Active on Alarm
Compressor - Compressor Info					
High Compressor Pressure Abnormal	Binary_Value	422	7549_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm

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Table 5.6 Liebert® CRV CR012—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	Binary_Value	416	7555_1_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
Fan - Fan Issue 4					
Fan Issue	Binary_Value	513	4729_1_4	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
System Lack Of Refrigerant	Binary_Value	655	8073_1	RD	Active on Alarm

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Table 5.6 Liebert® CRV CR012—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - EEVDrive					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm

Table 5.7 Liebert® CRV CR012—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - Air filter Info					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C

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Table 5.7 Liebert® CRV CR012—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
. . .					
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Return Air Humidity Sensor					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Compressor - Compressor Info					
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Fan - Fan Info					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Condenser					
Condenser Fan Speed	Analog_Value	424	5276_1	RD	Units: %
Condenser - Condensate Pump					
Condensate Pump Hours	Analog_Value	450	8122_1_1	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC

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Table 5.7 Liebert® CRV CR012—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - Reheater Info					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr

Table 5.8 Liebert® CRV CR012—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on

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Table 5.8 Liebert® CRV CR012—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = off 2 = on
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.9 Liebert® CRV CR012—Glossary

Data Label	Data Description
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode.
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive Failure U00	Compressor Drive Failure U00.
Compressor Drive Failure U01	Compressor Drive Failure U01.
Compressor Drive Failure U02	Compressor Drive Failure U02.
Compressor Drive Failure U03	Compressor Drive Failure U03.
Compressor Drive Failure U04	Compressor Drive Failure U04.

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Table 5.9 Liebert® CRV CR012—Glossary (continued)

Data Label	Data Description
Compressor Drive Failure U05	Compressor Drive Failure U05.
Compressor Drive Failure U06	Compressor Drive Failure U06.
Compressor Drive Failure U07	Compressor Drive Failure U07.
Compressor Drive Failure U08	Compressor Drive Failure U08.
Compressor Drive Failure U09	Compressor Drive Failure U09.
Compressor Drive Failure U10	Compressor Drive Failure U10.
Compressor Drive Failure U11	Compressor Drive Failure U11.
Compressor Drive Failure U12	Compressor Drive Failure U12.
Compressor Drive Failure U13	Compressor Drive Failure U13.
Compressor Drive Failure U14	Compressor Drive Failure U14.
Compressor Drive Failure U15	Compressor Drive Failure U15.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Unselect Refrigerant	EEV Driver Unselect Refrigerant.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.

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Table 5.9 Liebert® CRV CR012—Glossary (continued)

Data Label	Data Description
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout Compressor	Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal Compressor pressure has exceeded a normal threshold.	High Compressor Pressure Sensor Failure.
High compressor pressure sensor is disconnected or the signal is out of range.	High Compressor Pressure.
Compressor pressure has exceeded a threshold.	High Return Humidity.
[Return Humidity] has exceeded [High Return Humidity Threshold].	Humidification Proportional Band.
Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.	Humidifier State.
Humidifier operational state.	Humidity Set Point.
Desired relative humidity.	Input Frequency Deviation.
The input frequency is outside of the normal range.	Input Overvoltage.
One or more of the input phase voltages has exceeded the limit.	Input Undervoltage.
One or more of the input phase voltages has dropped below the limit.	Internal Communications Failure.
The control has detected a communication failure of a component on the internal communication bus	Loss of Airflow Sensor Failure.
Airflow sensor is disconnected or the signal is out of range.	Loss of Airflow.
Loss of airflow detected.	Loss of Teamwork Slave.
Teamwork Slave is offline or not connected to the network	Low Compressor Discharge Superheat Lockout
Compressor lockout occurred due to low compressor discharge superheat temperature.	Low Compressor Discharge Superheat.
Compressor discharge superheat has dropped below a threshold.	Low Compressor Pressure Lockout.
Compressor lockout occurred due to low compressor pressure.	Low Compressor Pressure Sensor Failure Lockout.
Compressor lockout occurred due to low compressor pressure.	Low Compressor Pressure Sensor Failure.
Low compressor pressure sensor is disconnected or the signal is out of	Low Compressor Pressure.

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Table 5.9 Liebert® CRV CR012—Glossary (continued)

Data Label	Data Description
range.	
Compressor pressure has dropped below a threshold.	Low Return Humidity [Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF.
Power Loss Of Phase	One of the input phases has been lost.
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Under Temperature	Supply air low temperature event.
System Input Frequency	The system input frequency.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Lack Of Refrigerant	System Lack Of Refrigerant.
System Operating State	System Operating State.
System Status	The operating status for the system.
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master.
Teamwork Status	Teamwork Status.
Water Under Floor	Water under the floor is detected.

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Table 5.10 Vertiv™ Liebert® CRV CR025,CRD25,CRD35—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Loss of Air flow	Binary_Value	11	7522_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
. . .					
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Return Air Humidity Sensor					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Compressor					
EEV Driver Unselect Refrigerant	Binary_Value	453	8067_1	RD	Active on Alarm
Compressor Drive Heat sink High Temperature	Binary_Value	454	8068_1	RD	Active on Alarm
Compressor Drive Over Current	Binary_Value	455	8069_1	RD	Active on Alarm
Compressor Drive Phase Loss	Binary_Value	456	8070_1	RD	Active on Alarm
Compressor Drive DC Power Abnormal	Binary_Value	457	8071_1	RD	Active on Alarm

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Table 5.10 Vertiv™ Liebert® CRV CR025,CRD25,CRD35—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor - Compressor Info					
High Compressor Pressure Abnormal	Binary_Value	422	7549_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Pressure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Failure	Binary_Value	432	7497_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	Binary_Value	416	7555_1_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
. . .					
Fan - Fan Issue 4					
Fan Issue	Binary_Value	513	4729_1_4	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm

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Table 5.10 Vertiv™ Liebert® CRV CR025,CRD25,CRD35—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
System Lack Of Refrigerant	Binary_Value	655	8073_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - EEVDrive					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm

Table 5.11 Liebert® CRV CR025,CRD25,CRD35—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F

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Table 5.11 Liebert® CRV CR025,CRD25,CRD35—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air Temp Sensor					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
. . .					
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Return Air Humidity Sensor					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Compressor - CompressorInfo					
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Fan - FanInfo					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Condenser - CondensatePump					

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Table 5.11 Liebert® CRV CR025,CRD25,CRD35—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condensate Pump Hours	Analog_Value	450	8122_1_1	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - ReheaterInfo					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.12 Liebert® CRV CR025,CRD25,CRD35—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure

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Table 5.12 Liebert® CRV CR025,CRD25,CRD35—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = off 2 = on
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.13 Liebert® CRV CR025,CRD25,CRD35—Glossary

Data Label	Data Description
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode.
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.

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Table 5.13 Liebert® CRV CR025,CRD25,CRD35—Glossary (continued)

Data Label	Data Description
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive DC Power Abnormal	Compressor Drive DC Power Abnormal.
Compressor Drive Heatsink High Temperature	Compressor Drive Heatsink High Temperature.
Compressor Drive Over Current	Compressor Drive Over Current.
Compressor Drive Phase Loss	Compressor Drive Phase Loss.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Unselect Refrigerant	EEV Driver Unselect Refrigerant.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Power Consumption	Real Time Power for Fan

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Table 5.13 Liebert® CRV CR025,CRD25,CRD35—Glossary (continued)

Data Label	Data Description
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.

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Table 5.13 Liebert® CRV CR025,CRD25,CRD35—Glossary (continued)

Data Label	Data Description
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Under Temperature	Supply air low temperature event.
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Lack Of Refrigerant	System Lack Of Refrigerant
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

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Table 5.14 Liebert® CRV CR030, CRC30, CRC60—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Low Supply Air Humidity	Binary_Value	12	7489_1	RD	Active on Alarm
High Supply Air Humidity	Binary_Value	13	7490_1	RD	Active on Alarm
Low Remote Air Humidity	Binary_Value	14	7491_1	RD	Active on Alarm
High Remote Air Humidity	Binary_Value	15	7492_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Air Filter Differential Sensor					
Filter Pressure Difference Sensor Failure	Binary_Value	652	7560_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Issue	Binary_Value	55	5026_1_4	RD	Active on Alarm
Air - Return Air Temp Sensor 1					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm

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Table 5.14 Liebert® CRV CR030, CRC30, CRC60—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Supply Air Humidity Sensor 1					
Supply Humidity Sensor Issue	Binary_Value	204	7493_1_1	RD	Active on Alarm
Air - Supply Air Humidity Sensor 2					
Supply Humidity Sensor Issue	Binary_Value	215	7493_1_2	RD	Active on Alarm
Air - Supply Air Humidity Sensor 3					
Supply Humidity Sensor Issue	Binary_Value	226	7493_1_3	RD	Active on Alarm
Air - Return Air Humidity Sensor 1					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor 2					
Return Humidity Sensor Issue	Binary_Value	248	5902_1_2	RD	Active on Alarm
Air - Return Air Humidity Sensor 3					
Return Humidity Sensor Issue	Binary_Value	259	5902_1_3	RD	Active on Alarm
Air - Remote Humidity Sensor 1					
External Humidity Sensor Issue	Binary_Value	270	7494_1_1	RD	Active on Alarm
Air - Remote Humidity Sensor 2					
External Humidity Sensor Issue	Binary_Value	281	7494_1_2	RD	Active on Alarm
Air - Remote Humidity Sensor 10					
External Humidity Sensor Issue	Binary_Value	369	7494_1_10	RD	Active on Alarm
Chilled Water					
Fluid Valve Hours Exceeded	Binary_Value	381	6239_1	RD	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	Binary_Value	382	6313_1	RD	Active on Alarm
Chilled Water Outlet Temperature Sensor Failure	Binary_Value	383	6314_1	RD	Active on Alarm
Outlet Fluid Under Temp	Binary_Value	386	7509_1	RD	Active on Alarm
Outlet Fluid Over Temp	Binary_Value	387	7510_1	RD	Active on Alarm
Inlet Fluid Under Temp	Binary_Value	388	7512_1	RD	Active on Alarm
Inlet Fluid Over Temp	Binary_Value	389	7511_1	RD	Active on Alarm

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Table 5.14 Liebert® CRV CR030, CRC30, CRC60—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Supply Chilled Water Loss of Flow	Binary_Value	391	4980_1	RD	Active on Alarm
Chilled Water - Water Valve					
Water Valve Failure	Binary_Value	403	7504_1_1	RD	Active on Alarm
Chilled Water - Water Pressure Sensor 1					
Water Pressure Sensor Failure	Binary_Value	380	7562_1_1	RD	Active on Alarm
Chilled Water - Water Pressure Sensor 2					
Water Pressure Sensor Failure	Binary_Value	409	7562_1_2	RD	Active on Alarm
Chilled Water - Water Flow					
Water Flow Sensor Failure	Binary_Value	392	7558_1_1	RD	Active on Alarm
Supply Fluid Low Flow	Binary_Value	390	7506_1_1	RD	Active on Alarm
Fan					
Fan Hours Exceeded	Binary_Value	468	5054_1	RD	Active on Alarm
Fan Detection Board Communication Failure	Binary_Value	469	7515_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
Fan - Fan Issue 10					
Fan Issue	Binary_Value	579	4729_1_10	RD	Active on Alarm
Fan - Static Pressure 1					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Static Pressure 2					
Fan Static Pressure Sensor Failure	Binary_Value	601	7563_1_2	RD	Active on Alarm
Condenser - CondensatePump 1					
Condensate Pump Failure	Binary_Value	669	8083_1_1	RD	Active on Alarm
Condenser - CondensatePump 2					
Condensate Pump Failure	Binary_Value	680	8083_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
DC Power Supply Fail	Binary_Value	614	6615_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm

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Table 5.14 Liebert® CRV CR030, CRC30, CRC60—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Surge Protection Device Alarm	Binary_Value	616	7518_1	RD	Active on Alarm
AC Power Supply Fail	Binary_Value	617	6614_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
System Events - Custom Alarm 6					
Custom Alarm	Binary_Value	746	7561_1_6	RD	Active on Alarm

Table 5.15 Liebert® CRV CR030, CRC30, CRC60—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C

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Table 5.15 Liebert® CRV CR030, CRC30, CRC60—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Temperature	Analog_Value	50	8077_1_4	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10050	8077_1_4_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 3					
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 10					

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Table 5.15 Liebert® CRV CR030, CRC30, CRC60—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor 1					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Air - Return Air Humidity Sensor 2					
Return Sensor Humidity	Analog_Value	245	8080_1_2	RD	Units: % RH
Air - Return Air Humidity Sensor 3					
Return Sensor Humidity	Analog_Value	256	8080_1_3	RD	Units: % RH
Air - Remote Humidity Sensor 1					
Relative Humidity	Analog_Value	267	4587_1_1	RD	Units: % RH
Air - Remote Humidity Sensor 2					
Relative Humidity	Analog_Value	278	4587_1_2	RD	Units: % RH
Air - Remote Humidity Sensor 10					
Relative Humidity	Analog_Value	366	4587_1_10	RD	Units: % RH
Chilled Water					
Chilled Water Inlet Temperature	Analog_Value	377	6311_1	RD	Units: deg C
Chilled Water Inlet Temperature	Analog_Value	10377	6311_1_deg_F	RD	Units: deg F
Chilled Water Outlet Temperature	Analog_Value	378	6312_1	RD	Units: deg C
Chilled Water Outlet Temperature	Analog_Value	10378	6312_1_deg_F	RD	Units: deg F
Fluid Flow Rate	Analog_Value	379	5899_1	RD	Units: m3/h
Inlet Fluid Pressure	Analog_Value	380	7514_1	RD	Units: kPa
Outlet Fluid Pressure	Analog_Value	381	7513_1	RD	Units: kPa
Chilled Water - Water Valve					
Chilled Water Valve Open Position	Analog_Value	392	5640_1_1	RD	Units: %
Chilled Water Valve Hours	Analog_Value	393	5614_1_1	RW	Units: hr
Fan					

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Table 5.15 Liebert® CRV CR030, CRC30, CRC60—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fan Temperature Difference Setpoint	Analog_Value	421	7517_1	RW	Units: deg C
Fan Temperature Difference Setpoint	Analog_Value	10421	7517_1_deg_F	RW	Units: deg F
Fan - Fan Info					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Fan - Static Pressure 1					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Fan - Static Pressure 2					
Fan Static Pressure	Analog_Value	446	7527_1_2	RD	Units: Pa
Condenser - Condensate Pump 1					
Condensate Pump Hours	Analog_Value	450	8122_1_1	RW	Units: hr
Condenser - Condensate Pump 2					
Condensate Pump Hours	Analog_Value	451	8122_1_2	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - Reheater Info					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Humidifier - Humidifier Info					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.16 Liebert® CRV CR030, CRC30, CRC60—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Chilled Water - Water Valve					

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Table 5.16 Liebert® CRV CR030, CRC30, CRC60—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Water Valve Control Mode	MultiState_Value	12	7505_1_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off

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Table 5.16 Liebert® CRV CR030, CRC30, CRC60—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.17 Liebert® CRV CR030, CRC30, CRC60—Glossary

Data Label	Data Description
AC Power Supply Fail	A failure of the AC Power Supply has been detected.
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature Sensor Failure	Chilled water outlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Open Position	Chilled water valve open position.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Condensate Pump Failure	Condensate Pump Failure
Condensate Pump Hours	Condensate Pump Hours
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
DC Power Supply Fail	A failure of the DC Power Supply has been detected.
Dehumidifier State	Dehumidifier operational state.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.

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Table 5.17 Liebert® CRV CR030, CRC30, CRC60—Glossary (continued)

Data Label	Data Description
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Detection Board Communication Failure	Communication with the fan detection board has failed.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Power Consumption	Real Time Power for Fan
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
Filter Pressure Difference Sensor Failure	Filter pressure difference sensor is disconnected or the signal is out of range.
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Valve Hours Exceeded	Operating hours for the fluid valve have exceeded the threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
High Supply Air Humidity	Supply air humidity has exceeded a threshold.
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Inlet Fluid Over Temp	Inlet fluid temperature has exceeded a threshold.
Inlet Fluid Pressure	The inlet water/fluid pressure.
Inlet Fluid Under Temp	Inlet fluid temperature has dropped below a threshold.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.

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Table 5.17 Liebert® CRV CR030, CRC30, CRC60—Glossary (continued)

Data Label	Data Description
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Low Supply Air Humidity	Supply air humidity has dropped below a threshold.
Monitoring ON/OFF	Monitoring ON/OFF
Outlet Fluid Over Temp	Outlet fluid temperature has exceeded a threshold.
Outlet Fluid Pressure	The outlet water/fluid pressure.
Outlet Fluid Under Temp	Outlet fluid temperature has dropped below a threshold.
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].

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Table 5.17 Liebert® CRV CR030, CRC30, CRC60—Glossary (continued)

Data Label	Data Description
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Fluid Low Flow	Supply fluid flow has dropped below a threshold.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
System Status	The operating status for the system
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Flow Sensor Failure	Water flow sensor is disconnected or the signal is out of range.
Water Pressure Sensor Failure	Water pressure sensor is disconnected or the signal is out of range.
Water Under Floor	Water under the floor is detected.
Water Valve Control Mode	Water Valve Control Mode
Water Valve Failure	There is an issue with the chilled water valve.

Table 5.18 Liebert® CRV CRD10—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm

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Table 5.18 Liebert® CRV CRD10—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Clogged Air Filter	Binary_Value	8	5118_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1	RD	Active on Alarm
Air Damper Failure	Binary_Value	10	7526_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Low Supply Air Humidity	Binary_Value	12	7489_1	RD	Active on Alarm
High Supply Air Humidity	Binary_Value	13	7490_1	RD	Active on Alarm
Low Remote Air Humidity	Binary_Value	14	7491_1	RD	Active on Alarm
High Remote Air Humidity	Binary_Value	15	7492_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 3					
Supply Air Sensor Issue	Binary_Value	50	5026_1_3	RD	Active on Alarm
Air - Return Air Temp Sensor 1					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
. . .					
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Supply Air Humidity Sensor 1					
Supply Humidity Sensor Issue	Binary_Value	204	7493_1_1	RD	Active on Alarm
Air - Supply Air Humidity Sensor 2					

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Table 5.18 Liebert® CRV CRD10—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Supply Humidity Sensor Issue	Binary_Value	215	7493_1_2	RD	Active on Alarm
Air - Supply Air Humidity Sensor 3					
Supply Humidity Sensor Issue	Binary_Value	226	7493_1_3	RD	Active on Alarm
Air - Return Air Humidity Sensor 1					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor 2					
Return Humidity Sensor Issue	Binary_Value	248	5902_1_2	RD	Active on Alarm
Air - Return Air Humidity Sensor 3					
Return Humidity Sensor Issue	Binary_Value	259	5902_1_3	RD	Active on Alarm
Air - Remote Humidity Sensor 1					
External Humidity Sensor Issue	Binary_Value	270	7494_1_1	RD	Active on Alarm
Air - Remote Humidity Sensor 2					
External Humidity Sensor Issue	Binary_Value	281	7494_1_2	RD	Active on Alarm
. . .					
Air - Remote Humidity Sensor 10					
External Humidity Sensor Issue	Binary_Value	369	7494_1_10	RD	Active on Alarm
Chilled Water					
Water Pressure Sensor Failure	Binary_Value	380	7562_1	RD	Active on Alarm
Fluid Valve Hours Exceeded	Binary_Value	381	6239_1	RD	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	Binary_Value	382	6313_1	RD	Active on Alarm
Chilled Water Outlet Temperature Sensor Failure	Binary_Value	383	6314_1	RD	Active on Alarm
Inlet Fluid Low Pressure	Binary_Value	384	7507_1	RD	Active on Alarm
Inlet Fluid High Pressure	Binary_Value	385	7508_1	RD	Active on Alarm
Outlet Fluid Under Temp	Binary_Value	386	7509_1	RD	Active on Alarm
Outlet Fluid Over Temp	Binary_Value	387	7510_1	RD	Active on Alarm
Inlet Fluid Under Temp	Binary_Value	388	7512_1	RD	Active on Alarm
Inlet Fluid Over Temp	Binary_Value	389	7511_1	RD	Active on Alarm
Supply Fluid Low Flow	Binary_Value	390	7506_1	RD	Active on Alarm
Supply Chilled Water Loss of Flow	Binary_Value	391	4980_1	RD	Active on Alarm
Water Flow Sensor Failure	Binary_Value	392	7558_1	RD	Active on Alarm
Chilled Water - Water Valve					
Water Valve Failure	Binary_Value	403	7504_1_1	RD	Active on Alarm

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Table 5.18 Liebert® CRV CRD10—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor					
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	Binary_Value	416	7555_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1	RD	Active on Alarm
Low Compressor Pressure Abnormal	Binary_Value	421	7550_1	RD	Active on Alarm
High Compressor Pressure Abnormal	Binary_Value	422	7549_1	RD	Active on Alarm
Low Compressor Discharge Temperature Lockout	Binary_Value	423	7546_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1	RD	Active on Alarm
Low Compressor Discharge Temperature	Binary_Value	425	7545_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	431	7496_1	RD	Active on Alarm
Compressor Driver Failure	Binary_Value	432	7497_1	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	433	7498_1	RD	Active on Alarm
Compressor Pressure Difference Lockout	Binary_Value	434	7499_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1	RD	Active on Alarm
Compressor Pressure Difference	Binary_Value	436	7501_1	RD	Active on Alarm
Compressor Drive Failure U00	Binary_Value	437	8051_1	RD	Active on Alarm
Compressor Drive Failure U01	Binary_Value	438	8052_1	RD	Active on Alarm
Compressor Drive Failure U02	Binary_Value	439	8053_1	RD	Active on Alarm
Compressor Drive Failure U03	Binary_Value	440	8054_1	RD	Active on Alarm
Compressor Drive Failure U04	Binary_Value	441	8055_1	RD	Active on Alarm
Compressor Drive Failure U05	Binary_Value	442	8056_1	RD	Active on Alarm
Compressor Drive Failure U06	Binary_Value	443	8057_1	RD	Active on Alarm
Compressor Drive Failure U07	Binary_Value	444	8058_1	RD	Active on Alarm

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Table 5.18 Liebert® CRV CRD10—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Drive Failure U08	Binary_Value	445	8059_1	RD	Active on Alarm
Compressor Drive Failure U09	Binary_Value	446	8060_1	RD	Active on Alarm
Compressor Drive Failure U10	Binary_Value	447	8061_1	RD	Active on Alarm
Compressor Drive Failure U11	Binary_Value	448	8062_1	RD	Active on Alarm
Compressor Drive Failure U12	Binary_Value	449	8063_1	RD	Active on Alarm
Compressor Drive Failure U13	Binary_Value	450	8064_1	RD	Active on Alarm
Compressor Drive Failure U14	Binary_Value	451	8065_1	RD	Active on Alarm
Compressor Drive Failure U15	Binary_Value	452	8066_1	RD	Active on Alarm
EEV Driver Unselect Refrigerant	Binary_Value	453	8067_1	RD	Active on Alarm
Compressor Drive Heatsink High Temperature	Binary_Value	454	8068_1	RD	Active on Alarm
Compressor Drive Over Current	Binary_Value	455	8069_1	RD	Active on Alarm
Compressor Drive Phase Loss	Binary_Value	456	8070_1	RD	Active on Alarm
Compressor Drive DC Power Abnormal	Binary_Value	457	8071_1	RD	Active on Alarm
Fan					
Fan Hours Exceeded	Binary_Value	468	5054_1	RD	Active on Alarm
Fan Detection Board Communication Failure	Binary_Value	469	7515_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
. . .					
Fan - Fan Issue 10					
Fan Issue	Binary_Value	579	4729_1_10	RD	Active on Alarm
Fan - Static Pressure 1					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Static Pressure 2					
Fan Static Pressure Sensor Failure	Binary_Value	601	7563_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
DC Power Supply Fail	Binary_Value	614	6615_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm

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Table 5.18 Liebert® CRV CRD10—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Surge Protection Device Alarm	Binary_Value	616	7518_1	RD	Active on Alarm
AC Power Supply Fail	Binary_Value	617	6614_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Heater Maintenance Due	Binary_Value	641	7538_1	RD	Active on Alarm
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
Humidifier Hours Exceeded	Binary_Value	649	5037_1	RD	Active on Alarm
EEV Driver Communication Failure	Binary_Value	650	7551_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1	RD	Active on Alarm
Filter Pressure Difference Sensor Failure	Binary_Value	652	7560_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
10DI Sensor Communication Fail	Binary_Value	654	8072_1	RD	Active on Alarm
System Lack Of Refrigerant	Binary_Value	655	8073_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - Condensate Pump Fail 1					
Condensate Pump Failure	Binary_Value	669	8083_1_1	RD	Active on Alarm
System Events - Condensate Pump Fail 2					
Condensate Pump Failure	Binary_Value	680	8083_1_2	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					

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Table 5.18 Liebert® CRV CRD10—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
. . .					
System Events - Custom Alarm 6					
Custom Alarm	Binary_Value	746	7561_1_6	RD	Active on Alarm

Table 5.19 Liebert® CRV CRD10—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	3	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10003	5007_1_deg_F	RD	Units: deg F
Supply Humidity	Analog_Value	4 5027	1	RD	Units: % RH
0	Analog_Value	5	8090_1	RD	Units: % RH
Return Humidity	Analog_Value	6	5028_1	RD	Units: % RH
Average Relative Humidity	Analog_Value	7	8081_1	RD	
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air Filter Hours	Analog_Value	14	7521_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					

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Table 5.19 Liebert® CRV CRD10—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 3					
Supply Air Sensor Temperature	Analog_Value	47	8077_1_3	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10047	8077_1_3_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 3					
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
. . .					
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor 1					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH

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Table 5.19 Liebert® CRV CRD10—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air Humidity Sensor 2					
Return Sensor Humidity	Analog_Value	245	8080_1_2	RD	Units: % RH
Air - Return Air Humidity Sensor 3					
Return Sensor Humidity	Analog_Value	256	8080_1_3	RD	Units: % RH
Air - Remote Humidity Sensor 1					
Relative Humidity	Analog_Value	267	4587_1_1	RD	Units: % RH
Air - Remote Humidity Sensor 2					
Relative Humidity	Analog_Value	278	4587_1_2	RD	Units: % RH
. . .					
Air - Remote Humidity Sensor 10					
Relative Humidity	Analog_Value	366	4587_1_10	RD	Units: % RH
Chilled Water					
Chilled Water Inlet Temperature	Analog_Value	377	6311_1	RD	Units: deg C
Chilled Water Inlet Temperature	Analog_Value	10377	6311_1_deg_F	RD	Units: deg F
Chilled Water Outlet Temperature	Analog_Value	378	6312_1	RD	Units: deg C
Chilled Water Outlet Temperature	Analog_Value	10378	6312_1_deg_F	RD	Units: deg F
Fluid Flow Rate	Analog_Value	379	5899_1	RD	Units: m3/h
Inlet Fluid Pressure	Analog_Value	380	7514_1	RD	Units: Pa
Outlet Fluid Pressure	Analog_Value	381	7513_1	RD	Units: Pa
Chilled Water - Water Valve					
Chilled Water Valve Open Position	Analog_Value	392	5640_1_1	RD	Units: %
Chilled Water Valve Hours	Analog_Value	393	5614_1_1	RW	Units: hr
Compressor					
Compressor Discharge Temperature	Analog_Value	404	7532_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_deg_F	RD	Units: deg F
Compressor Suction Superheat	Analog_Value	406	7534_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1	RD	Units: bar

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Table 5.19 Liebert® CRV CRD10—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor High Pressure	Analog_Value	409	7530_1	RD	Units: bar
Compressor Hours	Analog_Value	410	5267_1	RW	Units: hr
Fan					
Fan Temperature Difference Setpoint	Analog_Value	421	7517_1	RW	Units: deg C
Fan Temperature Difference Setpoint	Analog_Value	10421	7517_1_deg_F	RW	Units: deg F
Fan Hours	Analog_Value	422	5374_1	RW	Units: hr
Fan Speed	Analog_Value	423	5077_1	RD	Units: %
Condenser Fan Speed	Analog_Value	424	5276_1	RD	Units: %
Fan - Static Pressure 1					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Fan - Static Pressure 2					
Fan Static Pressure	Analog_Value	446	7527_1_2	RD	Units: Pa
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	458	4113_1	RD	Units: A AC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS Current Phase B	Analog_Value	460	4114_1	RD	Units: A AC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input RMS Current Phase C	Analog_Value	462	4115_1	RD	Units: A AC
Energy Consumption	Analog_Value	463	5900_1	RW	Units: kWH
Instantaneous Power	Analog_Value	464	5901_1	RD	Units: W
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Reheater					
Electric Reheater Hours	Analog_Value	476	5366_1	RW	Units: hr
System Operations					
Cooling Capacity (Master)	Analog_Value	487	5078_1	RD	Units: %
Humidifier Hours	Analog_Value	488	5369_1	RW	Units: hr
Dehumidifier Hours	Analog_Value	489	5371_1	RW	Units: hr

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Table 5.20 Liebert® CRV CRD10—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Chilled Water - Water Valve					
Water Valve Control Mode	MultiState_Value	12	7505_1_1	RD	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on

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Table 5.20 Liebert® CRV CRD10—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = NoTeamwork 2 = TeamworkMode0 3 = TeamworkMode1
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = off 2 = on
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.21 Liebert® CRV CRD10—Glossary

Data Label	Data Description
0	0
10DI Sensor Communication Fail	10DI Sensor Communication Fail.
AC Power Supply Fail	A failure of the AC Power Supply has been detected.
Air Damper Failure	There is an issue with the air damper.
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Average Relative Humidity	Average value of humidity sensor measurements.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature Sensor Failure	Chilled water outlet temperature sensor is disconnected or the signal is out of range.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Open Position	Chilled water valve open position.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode.
Compressor Discharge Superheat	Compressor discharge superheat value.

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Table 5.21 Liebert® CRV CRD10—Glossary (continued)

Data Label	Data Description
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive DC Power Abnormal	Compressor Drive DC Power Abnormal.
Compressor Drive Failure U00	Compressor Drive Failure U00.
Compressor Drive Failure U01	Compressor Drive Failure U01.
Compressor Drive Failure U02	Compressor Drive Failure U02.
Compressor Drive Failure U03	Compressor Drive Failure U03.
Compressor Drive Failure U04	Compressor Drive Failure U04.
Compressor Drive Failure U05	Compressor Drive Failure U05.
Compressor Drive Failure U06	Compressor Drive Failure U06.
Compressor Drive Failure U07	Compressor Drive Failure U07.
Compressor Drive Failure U08	Compressor Drive Failure U08.
Compressor Drive Failure U09	Compressor Drive Failure U09.
Compressor Drive Failure U10	Compressor Drive Failure U10.
Compressor Drive Failure U11	Compressor Drive Failure U11.
Compressor Drive Failure U12	Compressor Drive Failure U12.
Compressor Drive Failure U13	Compressor Drive Failure U13.
Compressor Drive Failure U14	Compressor Drive Failure U14.
Compressor Drive Failure U15	Compressor Drive Failure U15.
Compressor Drive Heatsink High Temperature	Compressor Drive Heatsink High Temperature.
Compressor Drive Over Current	Compressor Drive Over Current.
Compressor Drive Phase Loss	Compressor Drive Phase Loss.
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Pressure Difference Lockout	Compressor lockout occurred due to multiple compressor pressure differences.

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Table 5.21 Liebert® CRV CRD10—Glossary (continued)

Data Label	Data Description
Compressor Pressure Difference	Compressor pressure difference is out of range.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Failure	Condensate Pump Failure.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm.
DC Power Supply Fail	A failure of the DC Power Supply has been detected.
Dehumidifier Hours	Operating hours for dehumidifier since last reset of this value.
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
EEV Driver Unselect Refrigerant	EEV Driver Unselect Refrigerant.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Energy Consumption	Energy consumption since the last reset of this value.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode.
Fan Detection Board Communication Failure	Communication with the fan detection board has failed.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.

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Table 5.21 Liebert® CRV CRD10—Glossary (continued)

Data Label	Data Description
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement.
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
Filter Pressure Difference Sensor Failure	Filter pressure difference sensor is disconnected or the signal is out of range.
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Valve Hours	Exceeded Operating hours for the fluid valve have exceeded the threshold.
Heater Maintenance Due	The operating hours of the heater has exceeded the threshold.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
High Supply Air Humidity	Supply air humidity has exceeded a threshold.
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Inlet Fluid High Pressure	Inlet fluid pressure has exceeded a threshold.
Inlet Fluid Low Pressure	Inlet fluid pressure has dropped below a threshold.
Inlet Fluid Over Temp	Inlet fluid temperature has exceeded a threshold.
Inlet Fluid Pressure	The inlet water/fluid pressure.
Inlet Fluid Under Temp	Inlet fluid temperature has dropped below a threshold.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.

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Table 5.21 Liebert® CRV CRD10—Glossary (continued)

Data Label	Data Description
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave Teamwork	Slave is offline or not connected to the network.
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Discharge Temperature Lockout	Compressor lockout occurred due to low compressor discharge temperature.
Low Compressor Discharge Temperature	Compressor discharge temperature has dropped below a threshold.
Low Compressor Pressure Abnormal	Compressor pressure has dropped below a normal threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Low Supply Air Humidity	Supply air humidity has dropped below a threshold.
Monitoring ON/OFF	Monitoring ON/OFF.
Outlet Fluid Over Temp	Outlet fluid temperature has exceeded a threshold.
Outlet Fluid Pressure	The outlet water/fluid pressure.
Outlet Fluid Under Temp	Outlet fluid temperature has dropped below a threshold.
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity Relative	Humidity measured at the humidity sensor.
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.

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Table 5.21 Liebert® CRV CRD10—Glossary (continued)

Data Label	Data Description
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Fluid Low Flow	Supply fluid flow has dropped below a threshold.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
Surge Protection Device Alarm	Surge Protection Device Alarm.
System Input Frequency	The system input frequency.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B

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Table 5.21 Liebert® CRV CRD10—Glossary (continued)

Data Label	Data Description
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Lack Of Refrigerant	System Lack Of Refrigerant.
System Operating State	System Operating State.
System Status	The operating status for the system.
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master.
Teamwork Status	Teamwork Status.
Water Flow Sensor Failure	Water flow sensor is disconnected or the signal is out of range.
Water Pressure Sensor Failure	Water pressure sensor is disconnected or the signal is out of range.
Water Under Floor	Water under the floor is detected.
Water Valve Control Mode	Water Valve Control Mode.
Water Valve Failure	There is an issue with the chilled water valve.

Table 5.22 Liebert® CRV—Binary Data

Controller	Liebert iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Air Temperature					
Supply Air Over Temperature	Binary_Value	1	5015_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	2	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	3	5023_1	RD	Active on Alarm
Supply Air Sensor Issue	Binary_Value	4	5026_1	RD	Active on Alarm
Return Air Sensor Issue	Binary_Value	5	5147_1	RD	Active on Alarm
Air Temperature - Auxiliary Air					
Aux Air Temp Device Communication Lost	Binary_Value	6	5966_1_1	RD	Active on Alarm
Humidity					
High Return Humidity	Binary_Value	16	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	17	5036_1	RD	Active on Alarm
Humidifier Hours Exceeded	Binary_Value	18	5037_1	RD	Active on Alarm
Dehumidifier Hours Exceeded	Binary_Value	19	5038_1	RD	Active on Alarm
Humidifier Under Current	Binary_Value	20	5039_1	RD	Active on Alarm
Humidifier Over Current	Binary_Value	21	5040_1	RD	Active on Alarm
Humidifier Low Water	Binary_Value	22	5041_1	RD	Active on Alarm
Humidifier Cylinder Worn	Binary_Value	23	5042_1	RD	Active on Alarm

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Table 5.22 Liebert® CRV—Binary Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Humidifier Issue	Binary_Value	24	5043_1	RD	Active on Alarm
Ext Humidifier Lockout	Binary_Value	25	5044_1	RD	Active on Alarm
Humidifier Control Board Not Detected	Binary_Value	26	5045_1	RD	Active on Alarm
Return Humidity Out Of Proportional Band	Binary_Value	27	5046_1	RD	Active on Alarm
Fans					
Loss of Air Flow	Binary_Value	38	5053_1	RD	Active on Alarm
Fan Hours Exceeded	Binary_Value	39	5054_1	RD	Active on Alarm
Top Fan Issue	Binary_Value	40	5055_1	RD	Active on Alarm
Bottom Fan Issue	Binary_Value	41	5056_1	RD	Active on Alarm
Remote Sensors 1					
Remote Sensor Issue	Binary_Value	52	5060_1	RD	Active on Alarm
Remote Sensors 2					
Remote Sensor Issue	Binary_Value	63	5060_2	RD	Active on Alarm
Remote Sensors 10					
Remote Sensor Issue	Binary_Value	151	5060_10	RD	Active on Alarm
Compressor					
Compressor 1 High Head Pressure	Binary_Value	162	4669_1	RD	Active on Alarm
Compressor 1 Low Suction Pressure	Binary_Value	163	5062_1	RD	Active on Alarm
Compressor 1 Hours Exceeded	Binary_Value	164	5063_1	RD	Active on Alarm
Dig Scroll Comp 1 Temp Sensor Issue	Binary_Value	165	5064_1	RD	Active on Alarm
Dig Scroll Comp 1 Over Temp	Binary_Value	166	5065_1	RD	Active on Alarm
Compressor 1 Low Pressure Transducer Issue	Binary_Value	167	5066_1	RD	Active on Alarm
Compressor 1 High Pressure Transducer Issue	Binary_Value	168	5148_1	RD	Active on Alarm
Ext Compressor Lockout	Binary_Value	169	5067_1	RD	Active on Alarm
Compressor 1 Short Cycle	Binary_Value	170	4681_1	RD	Active on Alarm
Compressor 1 Pump Down Issue	Binary_Value	171	5146_1	RD	Active on Alarm
Reheater					
Reheater Over Temperature	Binary_Value	182	5068_1	RD	Active on Alarm
Electric Reheater Hours Exceeded	Binary_Value	183	5069_1	RD	Active on Alarm
Ext Reheat Lockout	Binary_Value	184	5070_1	RD	Active on Alarm

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Table 5.22 Liebert® CRV—Binary Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Condenser					
Condenser 1 Issue	Binary_Value	195	5071_1	RD	Active on Alarm
Condenser VFD Issue	Binary_Value	196	5072_1	RD	Active on Alarm
Condenser TVSS Issue	Binary_Value	197	5073_1	RD	Active on Alarm
Chilled Water					
Supply Chilled Water Over Temp	Binary_Value	208	4626_1	RD	Active on Alarm
Chilled Water Control Valve Failure	Binary_Value	209	4703_1	RD	Active on Alarm
Supply Chilled Water Loss of Flow	Binary_Value	210	4980_1	RD	Active on Alarm
System Events					
Customer Input 1	Binary_Value	221	4270_1	RD	Active on Alarm
Customer Input 2	Binary_Value	222	4271_1	RD	Active on Alarm
Customer Input 3	Binary_Value	223	4272_1	RD	Active on Alarm
Customer Input 4	Binary_Value	224	4273_1	RD	Active on Alarm
Smoke Detected	Binary_Value	225	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	226	4723_1	RD	Active on Alarm
Service Required	Binary_Value	227	4726_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	228	4714_1	RD	Active on Alarm
Ext Over Temperature	Binary_Value	229	5104_1	RD	Active on Alarm
Ext Loss of Flow	Binary_Value	230	5105_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	231	5106_1	RD	Active on Alarm
Ext Standby Glycol Pump On	Binary_Value	232	5107_1	RD	Active on Alarm
External Fire Detected	Binary_Value	233	5108_1	RD	Active on Alarm
Unit On	Binary_Value	234	5109_1	RD	Active on Alarm
Unit Off	Binary_Value	235	5110_1	RD	Active on Alarm
Unit Standby	Binary_Value	236	5111_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	237	5112_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	238	5113_1	RD	Active on Alarm
Water Leakage Detector Sensor Issue	Binary_Value	239	5114_1	RD	Active on Alarm
BMS Communications Timeout	Binary_Value	240	5115_1	RD	Active on Alarm
Maintenance Due	Binary_Value	241	5116_1	RD	Active on Alarm

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Table 5.22 Liebert® CRV—Binary Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Maintenance Completed	Binary_Value	242	5117_1	RD	Active on Alarm
Clogged Air Filter	Binary_Value	243	5118_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	244	5119_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	245	5120_1	RD	Active on Alarm
High Power Shutdown	Binary_Value	246	5121_1	RD	Active on Alarm
Supply Fluid Temp Sensor Issue	Binary_Value	247	4651_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	248	5588_1	RD	Active on Alarm
Global Condenser					
Condenser Unit Unspecified General Event	Binary_Value	269	5637_1	RD	Active on Alarm
Condenser Circuit Unspecified General Event	Binary_Value	270	5638_1	RD	Active on Alarm

Table 5.23 Liebert® CRV—Analog Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Air Temperature					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Return Dew Point	Analog_Value	3	5004_1	RD	Units: deg C
Return Dew Point	Analog_Value	10003	5004_1_deg_F	RD	Units: deg F
Remote Sensor Minimum Temperature	Analog_Value	4	5005_1	RD	Units: deg C
Remote Sensor Minimum Temperature	Analog_Value	10004	5005_1_deg_F	RD	Units: deg F
Remote Sensor Maximum Temperature	Analog_Value	5	5006_1	RD	Units: deg C
Remote Sensor Maximum Temperature	Analog_Value	10005	5006_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	6	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10006	5007_1_deg_F	RD	Units: deg F

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Table 5.23 Liebert® CRV—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Air Temperature Set Point	Analog_Value	7	5008_1	RW	Units: deg C
Air Temperature Set Point	Analog_Value	10007	5008_1_deg_F	RW	Units: deg F
Cooling Proportional Band	Analog_Value	8	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10008	5009_1_deg_F	RW	Units: deg F
Heating Proportional Band	Analog_Value	9	5010_1	RW	Units: deg C
Heating Proportional Band	Analog_Value	10009	5010_1_deg_F	RW	Units: deg F
Air Temperature Dead Band	Analog_Value	10	5011_1	RW	Units: deg C
Air Temperature Dead Band	Analog_Value	10010	5011_1_deg_F	RW	Units: deg F
High Supply Air Temperature Threshold	Analog_Value	11	5014_1	RW	Units: deg C
High Supply Air Temperature Threshold	Analog_Value	10011	5014_1_deg_F	RW	Units: deg F
Low Supply Air Temperature Threshold	Analog_Value	12	5018_1	RW	Units: deg C
Low Supply Air Temperature Threshold	Analog_Value	10012	5018_1_deg_F	RW	Units: deg F
High Return Air Temperature Threshold	Analog_Value	13	5022_1	RW	Units: deg C
High Return Air Temperature Threshold	Analog_Value	10013	5022_1_deg_F	RW	Units: deg F
Air Temperature - Auxiliary Air					
Raw Auxiliary Air Temperature	Analog_Value	14	5964_1_1	RW	Units: deg C
Raw Auxiliary Air Temperature	Analog_Value	10014	5964_1_1_deg_F	RW	Units: deg F
Actual Auxiliary Air Temperature	Analog_Value	15	5965_1_1	RD	Units: deg C
Actual Auxiliary Air Temperature	Analog_Value	10015	5965_1_1_deg_F	RD	Units: deg F
Humidity					
Supply Humidity	Analog_Value	24	5027_1	RD	Units: % RH
Return Humidity	Analog_Value	25	5028_1	RD	Units: % RH
Humidity Set Point	Analog_Value	26	5029_1	RW	Units: % RH
Humidification Proportional Band	Analog_Value	27	5030_1	RW	Units: % RH
Dehumidification Proportional Band	Analog_Value	28	5031_1	RW	Units: % RH
Humidity Dead Band	Analog_Value	29	5032_1	RW	Units: % RH

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Table 5.23 Liebert® CRV—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
High Return Humidity Threshold	Analog_Value	30	5033_1	RW	Units: % RH
Low Return Humidity Threshold	Analog_Value	31	5035_1	RW	Units: % RH
Fans					
Fan Speed Proportional Band	Analog_Value	42	5048_1	RW	Units: deg C
Fan Speed Proportional Band	Analog_Value	10042	5048_1_deg_F	RW	Units: deg F
Fan Speed Manual Set Point	Analog_Value	43	5049_1	RW	Units: %
Fan Speed Maximum Set Point	Analog_Value	44	5050_1	RW	Units: %
Fan Speed Minimum Set Point	Analog_Value	45	5051_1	RW	Units: %
Remote Sensors 1					
Remote Sensor Temperature	Analog_Value	56	5059_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10056	5059_1_deg_F	RD	Units: deg F
Remote Sensors 2					
Remote Sensor Temperature	Analog_Value	67	5059_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10067	5059_2_deg_F	RD	Units: deg F
Remote Sensors 10					
Remote Sensor Temperature	Analog_Value	155	5059_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10155	5059_10_deg_F	RD	Units: deg F
Chilled Water					
Supply Fluid Temperature	Analog_Value	166	4624_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	10166	4624_1_deg_F	RD	Units: deg F
High Supply Fluid Temperature Threshold	Analog_Value	167	4625_1	RW	Units: deg C
High Supply Fluid Temperature Threshold	Analog_Value	10167	4625_1_deg_F	RW	Units: deg F
System Info					
BMS Timeout Period	Analog_Value	178	5075_1	RW	Units: min
Auto Restart Delay	Analog_Value	179	4710_1	RW	Units: sec
System Operations					
Operating Efficiency	Analog_Value	190	5076_1	RD	Units: %
Fan Speed	Analog_Value	191	5077_1	RD	Units: %
Cooling Capacity (Master)	Analog_Value	192	5078_1	RD	Units: %

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Table 5.23 Liebert® CRV—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Dehumidifier Utilization	Analog_Value	193	5079_1	RD	Units: %
Reheat Utilization	Analog_Value	194	5080_1	RD	Units: %
Humidifier Utilization	Analog_Value	195	5081_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	196	4868_1	RD	
Calculated Next Maintenance Year	Analog_Value	197	4869_1	RD	
Maintenance Ramp	Analog_Value	198	4870_1	RD	Units: %
Time					
System Date and Time	Analog_Value	209	4293_1	RW	Units: Secs since Epoch (UTC)
Global Condenser					
Condenser Outside Air Temperature	Analog_Value	221	5534_1	RD	Units: deg C
Condenser Outside Air Temperature	Analog_Value	10221	5534_1_deg_F	RD	Units: deg F
Global Condenser - GC Fan 1					
Condenser Fan Speed	Analog_Value	233	5276_1_1	RD	Units: %
Condenser Fan Power	Analog_Value	234	5538_1_1	RD	Units: kW
Global Condenser - GC Fan 2					
Condenser Fan Speed	Analog_Value	246	5276_1_2	RD	Units: %
Condenser Fan Power	Analog_Value	247	5538_1_2	RD	Units: kW
Global Condenser – Low Noise Mode					
Condenser Low Noise Mode Max Fan Speed	Analog_Value	285	5548_1_1	RW	Units: %
Condenser Normal Mode Max Fan Speed	Analog_Value	286	5549_1_1	RW	Units: %
Condenser Low Noise Mode - Interval Days	Analog_Value	287	5550_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode - Full Days	Analog_Value	288	5551_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday

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Table 5.23 Liebert® CRV—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
					8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode Start Time	Analog_Value	289	5552_1_1	RW	Units: Seconds since Midnight
Condenser Low Noise Mode Stop Time	Analog_Value	290	5553_1_1	RW	Units: Seconds since Midnight

Table 5.24 Liebert® CRV—Multistate Data

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Air Temperature					
Air Temperature Control Sensor	MultiState_Value	12	5012_1	RW	1 = Supply 2 = Remote 3 = Return
Remote Sensor Temperature Calculation	MultiState_Value	13	5013_1	RW	1 = Average 2 = Maximum
Air Temperature - Auxiliary Air					
Auxiliary Air Temperature Enable	MultiState_Value	18	6132_1_1	RW	1 = disabled 2 = enabled
Auxiliary Proxy Status	MultiState_Value	19	6133_1_1	RD	1 = Disabled 2 = Initializing 3 = Active 4 = Inactive 5 = Comm Lost

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Table 5.24 Liebert® CRV—Multistate Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Fans					
Fan Control Mode	MultiState_Value	24	5047_1	RW	1 = Internal (Auto) 2 = External (Manual)
Fan Control Sensor	MultiState_Value	25	5052_1	RW	1 = Supply 2 = Remote 3 = Return
Remote Sensors 1					
Remote Sensor Function	MultiState_Value	36	5058_1	RW	1 = Disable 2 = Reference 3 = Control
Remote Sensors 2					
Remote Sensor Function	MultiState_Value	47	5058_2	RW	1 = Disable 2 = Reference 3 = Control
Remote Sensors 10					
Remote Sensor Function	MultiState_Value	135	5058_10	RW	1 = Disable 2 = Reference 3 = Control
System Info					
System Status	MultiState_Value	146	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_Value	147	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_Value	148	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Off Reason	MultiState_Value	149	5074_1	RD	1 = None 2 = User

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Table 5.24 Liebert® CRV—Multistate Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
					3 = Alarm 4 = Timer 5 = Monitoring 6 = Remote Off 7 = HCS12 Off
System Operations					
System On/Off Control	MultiState_Value	160	5143_1	RW	1 = off 2 = on
Event Configuration					
System Event Acknowledge/Reset	MultiState_Value	171	4717_1	WO	1 = Reset 2 = Acknowledge
Smoke Detected - Event Control	MultiState_Value	172	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_Value	173	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_Value	174	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_Value	175	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 1 - Event Control	MultiState_Value	176	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_Value	177	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 2 - Event Control	MultiState_Value	178	5098_1	RW	1 = disabled 2 = enabled
Customer Input 2 - Event Type	MultiState_Value	179	5099_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 3 - Event Control	MultiState_Value	180	5100_1	RW	1 = disabled 2 = enabled

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Table 5.24 Liebert® CRV—Multistate Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Customer Input 3 - Event Type	MultiState_Value	181	5101_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 4 - Event Control	MultiState_Value	182	5102_1	RW	1 = disabled 2 = enabled
Customer Input 4 - Event Type	MultiState_Value	183	5103_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_Value	184	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_Value	185	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Shutdown - Loss Of Power - Event Control	MultiState_Value	186	4715_1	RW	1 = disabled 2 = enabled
Shutdown - Loss Of Power - Event Type	MultiState_Value	187	4716_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Flow - Event Control	MultiState_Value	188	5082_1	RW	1 = disabled 2 = enabled
Ext Loss of Flow - Event Type	MultiState_Value	189	5083_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Reheat Lockout - Event Control	MultiState_Value	190	5084_1	RW	1 = disabled 2 = enabled
Ext Reheat Lockout - Event Type	MultiState_Value	191	5085_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Humidifier Lockout - Event Control	MultiState_Value	192	5086_1	RW	1 = disabled 2 = enabled
Ext Humidifier Lockout - Event Type	MultiState_Value	193	5087_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.24 Liebert® CRV—Multistate Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Compressor Lockout - Event Control	MultiState_Value	194	5088_1	RW	1 = disabled 2 = enabled
Ext Compressor Lockout - Event Type	MultiState_Value	195	5089_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Over Temperature - Event Control	MultiState_Value	196	5090_1	RW	1 = disabled 2 = enabled
Ext Over Temperature - Event Type	MultiState_Value	197	5091_1	RW	1 = Message 2 = Warning 3 = Alarm
Condenser VFD Issue - Event Control	MultiState_Value	198	5092_1	RW	1 = disabled 2 = enabled
Condenser VFD Issue - Event Type	MultiState_Value	199	5093_1	RW	1 = Message 2 = Warning 3 = Alarm
Condenser TVSS Issue - Event Control	MultiState_Value	200	5094_1	RW	1 = disabled 2 = enabled
Condenser TVSS Issue - Event Type	MultiState_Value	201	5095_1	RW	1 = Message 2 = Warning 3 = Alarm
Condenser 1 Issue - Event Control	MultiState_Value	202	5096_1	RW	1 = disabled 2 = enabled
Condenser 1 Issue - Event Type	MultiState_Value	203	5097_1	RW	1 = Message 2 = Warning 3 = Alarm
Global Condenser					
Condenser Refrigerant Type	MultiState_Value	215	5533_1	RD	1 = R22 2 = R407C 3 = R410A

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Table 5.24 Liebert® CRV—Multistate Data (continued)

Controller	Liebert iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Global Condenser – Low Noise Mode					
Condenser Low Noise Mode State	MultiState_Value	227	5546_1_1	RD	1 = Inactive 2 = Active (Interval) 3 = Active (Full Day)
Condenser Low Noise Mode Schedule Control	MultiState_Value	228	5547_1_1	RW	1 = disabled 2 = enabled

Table 5.25 Liebert® CRV—Analog Data

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Super Saver Call For Cooling	Analog_Value	300	6234_1	RD	Units: %

Table 5.26 Liebert® CRV—Glossary

Data Label	Data Description
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
Auxiliary Air Temperature Enable	Enable/disable the use of an external auxiliary air temperature value.
Auxiliary Proxy Status	Status of the proxy device providing the external auxiliary air temperature value.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Bottom Fan Issue	The bottom fan is not operating within its normal parameters.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].

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Table 5.26 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor 1 High Head Pressure	Compressor 1 high head pressure.
Compressor 1 High Pressure Transducer Issue	Compressor 1 high pressure transducer is disconnected or the signal is out of range.
Compressor 1 Hours Exceeded	Operating hours for compressor 1 have exceeded the threshold.
Compressor 1 Low Pressure Transducer Issue	Compressor 1 low pressure transducer is disconnected or the signal is out of range.
Compressor 1 Low Suction Pressure	Compressor 1 low suction pressure.
Compressor 1 Pump Down Issue	Unable to pump down suction-side pressure during compressor 1 shutdown.
Compressor 1 Short Cycle	Compressor 1 short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Condenser 1 Issue - Event Control	Enable/disable the activation of the [Condenser 1 Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser 1 Issue - Event Type	The event type for the [Condenser 1 Issue] event.
Condenser 1 Issue	Condenser 1 is not operating within its normal parameters.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Type	Condenser refrigerant type.
Condenser TVSS Issue - Event Control	Enable/disable the activation of the [Condenser TVSS or SPD Issue] event (Transient Voltage Surge Suppressor or Surge Protection Device). If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser TVSS Issue - Event Type	The event type for the [Condenser TVSS or SPD Issue] event (Transient Voltage Surge Suppressor or Surge Protection Device).

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Table 5.26 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Condenser VFD Issue - Event Control	Enable/disable the activation of the [Condenser VFD Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser VFD Issue - Event Type	The event type for the [Condenser VFD Issue] event.
Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1.
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer input 2.
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer input 3.
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer input 4.
Dehumidification Proportional Band	Humidity control band above [Humidity Set Point]. If measured humidity is within this band, dehumidification operations are proportionally controlled.
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dig Scroll Comp 1 Over Temp	Digital scroll compressor 1 shut off because its head temperature has exceeded the upper threshold.
Dig Scroll Comp 1 Temp Sensor Issue	Digital scroll compressor 1 temperature sensor is disconnected or the signal is out of range.
Electric Reheater Hours Exceeded	Operating hours for electric reheater have exceeded the threshold.

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Table 5.26 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Humidifier Lockout	The humidifier is shut down and disabled by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Reheat Lockout	The reheater is shut down and disabled by an external input signal.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Mode	Fan control mode. Allowable modes are: (0) Auto - Fan speed is controlled via the selected fan control sensor, and, (1) Manual - Fan will operate at a fixed speed.
Fan Control Sensor	Sensor from which air temperature measurements will be used for fan speed control.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Speed Manual Set Point	Manual fan speed.
Fan Speed Maximum Set Point	Maximum fan speed.
Fan Speed Minimum Set Point	Minimum fan speed.

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Table 5.26 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Fan Speed Proportional Band	Temperature control band above the temperature set point calculated for proportional fan speed control. If measured air temperature is within this band, fan speed operations are proportionally controlled.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Heating Proportional Band	Temperature control band below [Air Temperature Set Point]. If measured air temperature is within this band, heating operations are proportionally controlled.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Humidifier Cylinder Worn	Humidifier cylinder is not operating properly and needs to be replaced.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier Low Water	The water level in the humidifier has dropped below its threshold.
Humidifier Over Current	The electrical current to the humidifier has exceeded its upper threshold.
Humidifier Under Current	The electrical current to the humidifier has dropped below its lower threshold.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Set Point	Desired relative humidity.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Operating Efficiency	The ratio of cooling energy provided to the amount of total energy being used.

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Table 5.26 Liebert® CRV—Glossary (continued)

Data Label	Data Description
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reheater Over Temperature	The temperature of the reheater has exceeded its threshold.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Function	Function assigned to remote sensor. Available values are: (0) Control - sensor will be used in calculation of remote sensor temperature that may be used for heating and cooling control, (1) Reference - sensor will not be used in calculation of remote sensor temperature, but is enabled, (2) Disable - sensor is disabled
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Minimum Temperature	Minimum value of remote sensor temperature measurements.
Remote Sensor Temperature Calculation	Calculation method applied to temperature readings from the remote sensors to determine a single temperature measurement value for cooling and heating control.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Humidity Out Of Proportional Band	[Return Humidity] has exceeded the upper limit of [Dehumidification Proportional Band], or has dropped below the lower limit of [Humidification Proportional Band]], for an extended period of time.
Return Humidity	Relative humidity measured at the inlet of the unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.26 Liebert® CRV—Glossary (continued)

Data Label	Data Description
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Super Saver Call For Cooling	Call for cooling value used for Super Saver functionality. A higher call for cooling value indicates a need for a lower coolant temperature.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Chilled Water Over Temp	[Supply Fluid Temperature] has exceeded [High Supply Fluid Temperature Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Humidity	Relative humidity at the outlet of the unit.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Top Fan Issue	The top fan is not operating within its normal parameters.
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.

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Table 5.27 Vertiv™Liebert® CRV4 —Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Low Remote Air Humidity	Binary_Value	14	7491_1	RD	Active on Alarm
High Remote Air Humidity	Binary_Value	15	7492_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Issue	Binary_Value	55	5026_1_4	RD	Active on Alarm
Air - Return Air Temp Sensor 1					

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Table 5.27 Vertiv™Liebert® CRV4 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Supply Air Humidity Sensor 1					
Supply Humidity Sensor Issue	Binary_Value	204	7493_1_1	RD	Active on Alarm
Air - Supply Air Humidity Sensor 2					
Supply Humidity Sensor Issue	Binary_Value	215	7493_1_2	RD	Active on Alarm
Air - Supply Air Humidity Sensor 3					
Supply Humidity Sensor Issue	Binary_Value	226	7493_1_3	RD	Active on Alarm
Air - Return Air Humidity Sensor 1					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor 2					
Return Humidity Sensor Issue	Binary_Value	248	5902_1_2	RD	Active on Alarm
Air - Return Air Humidity Sensor 3					
Return Humidity Sensor Issue	Binary_Value	259	5902_1_3	RD	Active on Alarm
Air - Remote Humidity Sensor 1					
External Humidity Sensor Issue	Binary_Value	270	7494_1_1	RD	Active on Alarm

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Table 5.27 Vertiv™Liebert® CRV4 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Remote Humidity Sensor 2					
External Humidity Sensor Issue	Binary_Value	281	7494_1_2	RD	Active on Alarm
Air - Remote Humidity Sensor 10					
External Humidity Sensor Issue	Binary_Value	369	7494_1_10	RD	Active on Alarm
Compressor					
Compressor Drive Failure U00	Binary_Value	437	8051_1	RD	Active on Alarm
Compressor Drive Failure U01	Binary_Value	438	8052_1	RD	Active on Alarm
Compressor Drive Failure U02	Binary_Value	439	8053_1	RD	Active on Alarm
Compressor Drive Failure U03	Binary_Value	440	8054_1	RD	Active on Alarm
Compressor Drive Failure U04	Binary_Value	441	8055_1	RD	Active on Alarm
Compressor Drive Failure U05	Binary_Value	442	8056_1	RD	Active on Alarm
Compressor Drive Failure U06	Binary_Value	443	8057_1	RD	Active on Alarm
Compressor Drive Failure U07	Binary_Value	444	8058_1	RD	Active on Alarm
Compressor Drive Failure U08	Binary_Value	445	8059_1	RD	Active on Alarm
Compressor Drive Failure U09	Binary_Value	446	8060_1	RD	Active on Alarm
Compressor Drive Failure U10	Binary_Value	447	8061_1	RD	Active on Alarm
Compressor Drive Failure U11	Binary_Value	448	8062_1	RD	Active on Alarm
Compressor Drive Failure U12	Binary_Value	449	8063_1	RD	Active on Alarm
Compressor Drive Failure U13	Binary_Value	450	8064_1	RD	Active on Alarm
Compressor Drive Failure U14	Binary_Value	451	8065_1	RD	Active on Alarm
Compressor Drive Failure U15	Binary_Value	452	8066_1	RD	Active on Alarm

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Table 5.27 Vertiv™Liebert® CRV4 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor - CompressorInfo					
High Compressor Pressure Abnormal	Binary_Value	422	7549_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	431	7496_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	433	7498_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	Binary_Value	416	7555_1_1	RD	Active on Alarm

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Table 5.27 Vertiv™Liebert® CRV4 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
Fan - Fan Issue 10					
Fan Issue	Binary_Value	579	4729_1_10	RD	Active on Alarm
Fan - Static Pressure 1					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Static Pressure 2					
Fan Static Pressure Sensor Failure	Binary_Value	601	7563_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Surge Protection Device Alarm	Binary_Value	616	7518_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm

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Table 5.27 Vertiv™Liebert® CRV4 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
10DI Sensor Communication Fail	Binary_Value	654	8072_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
System Events - EEVDrive					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1_1	RD	Active on Alarm

Table 5.28 Liebert® CRV4 Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F

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Table 5.28 Liebert® CRV4 Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Average Temperature	Analog_Value	3	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10003	5007_1_deg_F	RD	Units: deg F
Supply Air Theoretical Humidity	Analog_Value	5	8090_1	RD	Units: % RH
Return Humidity	Analog_Value	6	5028_1	RD	Units: % RH
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Temperature	Analog_Value	50	8077_1_4	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10050	8077_1_4_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 3					

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Table 5.28 Liebert® CRV4 Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor 1					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Air - Return Air Humidity Sensor 2					
Return Sensor Humidity	Analog_Value	245	8080_1_2	RD	Units: % RH
Air - Return Air Humidity Sensor 3					
Return Sensor Humidity	Analog_Value	256	8080_1_3	RD	Units: % RH
Air - Remote Humidity Sensor 1					
Relative Humidity	Analog_Value	267	4587_1_1	RD	Units: % RH
Air - Remote Humidity Sensor 2					
Relative Humidity	Analog_Value	278	4587_1_2	RD	Units: % RH
Air - Remote Humidity Sensor 10					
Relative Humidity	Analog_Value	366	4587_1_10	RD	Units: % RH
Compressor - CompressorInfo					
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F

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Table 5.28 Liebert® CRV4 Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Fan					
Fan Temperature Difference Setpoint	Analog_Value	421	7517_1	RW	Units: deg C
Fan Temperature Difference Setpoint	Analog_Value	10421	7517_1_deg_F	RW	Units: deg F
Fan - FanInfo 1					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Fan - FanInfo 2					
Fan Speed	Analog_Value	511	5077_1_2	RD	Units: %
Fan Hours	Analog_Value	510	5374_1_2	RW	Units: hr
Fan - Static Pressure 1					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Fan - Static Pressure 2					
Fan Static Pressure	Analog_Value	446	7527_1_2	RD	Units: Pa
Condenser - CondensatePump					
Condensate Pump Hours	Analog_Value	450	8122_1_1	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - ReheaterInfo					

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Table 5.28 Liebert® CRV4 Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.29 Vertiv™ Liebert® Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on

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Table 5.29 Vertiv™ Liebert® Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout

Table 5.30 Vertiv™ Liebert® CRV4 Glossary

Data Label	Data Description
10DI Sensor Communication Fail	10DI Sensor Communication Fail
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected, or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.

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Table 5.30 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Compressor Drive Failure U00	Compressor Drive Failure U00
Compressor Drive Failure U01	Compressor Drive Failure U01
Compressor Drive Failure U02	Compressor Drive Failure U02
Compressor Drive Failure U03	Compressor Drive Failure U03
Compressor Drive Failure U04	Compressor Drive Failure U04
Compressor Drive Failure U05	Compressor Drive Failure U05
Compressor Drive Failure U06	Compressor Drive Failure U06
Compressor Drive Failure U07	Compressor Drive Failure U07
Compressor Drive Failure U08	Compressor Drive Failure U08
Compressor Drive Failure U09	Compressor Drive Failure U09
Compressor Drive Failure U10	Compressor Drive Failure U10
Compressor Drive Failure U11	Compressor Drive Failure U11
Compressor Drive Failure U12	Compressor Drive Failure U12
Compressor Drive Failure U13	Compressor Drive Failure U13
Compressor Drive Failure U14	Compressor Drive Failure U14
Compressor Drive Failure U15	Compressor Drive Failure U15
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected, or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Pump Hours	Condensate Pump Hours
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm

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Table 5.30 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected, or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected, or the signal is out of range.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Power Consumption	Real Time Power for Fan
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected, or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected, or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.

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Table 5.30 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected, or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected, or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.

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Table 5.30 Vertiv™ Liebert® CRV4 Glossary (continued)

Data Label	Data Description
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

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Table 5.31 Vertiv™ Liebert® CRV4-12 —Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Low Remote Air Humidity	Binary_Value	14	7491_1	RD	Active on Alarm
High Remote Air Humidity	Binary_Value	15	7492_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Issue	Binary_Value	55	5026_1_4	RD	Active on Alarm
Air - Return Air Temp Sensor 1					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm

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Table 5.31 Vertiv™ Liebert® CRV4-12 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Supply Air Humidity Sensor 1					
Supply Humidity Sensor Issue	Binary_Value	204	7493_1_1	RD	Active on Alarm
Air - Supply Air Humidity Sensor 2					
Supply Humidity Sensor Issue	Binary_Value	215	7493_1_2	RD	Active on Alarm
Air - Supply Air Humidity Sensor 3					
Supply Humidity Sensor Issue	Binary_Value	226	7493_1_3	RD	Active on Alarm
Air - Return Air Humidity Sensor 1					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor 2					
Return Humidity Sensor Issue	Binary_Value	248	5902_1_2	RD	Active on Alarm
Air - Return Air Humidity Sensor 3					
Return Humidity Sensor Issue	Binary_Value	259	5902_1_3	RD	Active on Alarm
Air - Remote Humidity Sensor 1					
External Humidity Sensor Issue	Binary_Value	270	7494_1_1	RD	Active on Alarm
Air - Remote Humidity Sensor 2					
External Humidity Sensor Issue	Binary_Value	281	7494_1_2	RD	Active on Alarm
Air - Remote Humidity Sensor 10					
External Humidity Sensor Issue	Binary_Value	369	7494_1_10	RD	Active on Alarm
Compressor					
Compressor Drive Failure U00	Binary_Value	437	8051_1	RD	Active on Alarm
Compressor Drive Failure U01	Binary_Value	438	8052_1	RD	Active on Alarm
Compressor Drive Failure U02	Binary_Value	439	8053_1	RD	Active on Alarm
Compressor Drive Failure U03	Binary_Value	440	8054_1	RD	Active on Alarm
Compressor Drive Failure U04	Binary_Value	441	8055_1	RD	Active on Alarm
Compressor Drive Failure U05	Binary_Value	442	8056_1	RD	Active on Alarm
Compressor Drive Failure U06	Binary_Value	443	8057_1	RD	Active on Alarm
Compressor Drive Failure U07	Binary_Value	444	8058_1	RD	Active on Alarm
Compressor Drive Failure U08	Binary_Value	445	8059_1	RD	Active on Alarm
Compressor Drive Failure U09	Binary_Value	446	8060_1	RD	Active on Alarm
Compressor Drive Failure U10	Binary_Value	447	8061_1	RD	Active on Alarm

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Table 5.31 Vertiv™ Liebert® CRV4-12 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Drive Failure U11	Binary_Value	448	8062_1	RD	Active on Alarm
Compressor Drive Failure U12	Binary_Value	449	8063_1	RD	Active on Alarm
Compressor Drive Failure U13	Binary_Value	450	8064_1	RD	Active on Alarm
Compressor Drive Failure U14	Binary_Value	451	8065_1	RD	Active on Alarm
Compressor Drive Failure U15	Binary_Value	452	8066_1	RD	Active on Alarm
Compressor - CompressorInfo					
High Compressor Pressure Abnormal	Binary_Value	422	7549_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	431	7496_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	433	7498_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure Lockout	Binary_Value	416	7555_1_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
Fan - Fan Issue 10					
Fan Issue	Binary_Value	579	4729_1_10	RD	Active on Alarm
Fan - Static Pressure 1					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Static Pressure 2					

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Table 5.31 Vertiv™ Liebert® CRV4-12 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fan Static Pressure Sensor Failure	Binary_Value	601	7563_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Surge Protection Device Alarm	Binary_Value	616	7518_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
10DI Sensor Communication Fail	Binary_Value	654	8072_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
System Events - EEVDrive					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1_1	RD	Active on Alarm

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Table 5.32 Vertiv™ Liebert® CRV4-12 —Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	3	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10003	5007_1_deg_F	RD	Units: deg F
Supply Air Theoretical Humidity	Analog_Value	5	8090_1	RD	Units: % RH
Return Humidity	Analog_Value	6	5028_1	RD	Units: % RH
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Temperature	Analog_Value	50	8077_1_4	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10050	8077_1_4_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C

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Table 5.32 Vertiv™ Liebert® CRV4-12 —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 3					
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor 1					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Air - Return Air Humidity Sensor 2					
Return Sensor Humidity	Analog_Value	245	8080_1_2	RD	Units: % RH
Air - Return Air Humidity Sensor 3					
Return Sensor Humidity	Analog_Value	256	8080_1_3	RD	Units: % RH
Air - Remote Humidity Sensor 1					
Relative Humidity	Analog_Value	267	4587_1_1	RD	Units: % RH
Air - Remote Humidity Sensor 2					
Relative Humidity	Analog_Value	278	4587_1_2	RD	Units: % RH

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Table 5.32 Vertiv™ Liebert® CRV4-12 —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Remote Humidity Sensor 10					
Relative Humidity	Analog_Value	366	4587_1_10	RD	Units: % RH
Compressor - CompressorInfo					
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Fan					
Fan Temperature Difference Setpoint	Analog_Value	421	7517_1	RW	Units: deg C
Fan Temperature Difference Setpoint	Analog_Value	10421	7517_1_deg_F	RW	Units: deg F
Fan - FanInfo					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Fan - Static Pressure 1					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Fan - Static Pressure 2					
Fan Static Pressure	Analog_Value	446	7527_1_2	RD	Units: Pa
Condenser					
Condenser Fan Speed	Analog_Value	424	5276_1	RD	Units: %
Condenser - CondensatePump					
Condensate Pump Hours	Analog_Value	450	8122_1_1	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC

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Table 5.32 Vertiv™ Liebert® CRV4-12 —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - ReheaterInfo					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.33 Vertiv™ Liebert® CRV4-12 —Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp

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Table 5.33 Vertiv™ Liebert® CRV4-12 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					10 = TemperatureDiff 11 = StaticPressure
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout

Table 5.34 Liebert® CRD30-40—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm

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Table 5.34 Liebert® CRD30-40—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air – Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 3					
Supply Air Sensor Issue	Binary_Value	50	5026_1_3	RD	Active on Alarm
Air - Return Air Temp Sensor 1					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Return Air Humidity Sensor					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Compressor					
Compressor Drive Failure U00	Binary_Value	437	8051_1	RD	Active on Alarm
Compressor Drive Failure U01	Binary_Value	438	8052_1	RD	Active on Alarm
Compressor Drive Failure U02	Binary_Value	439	8053_1	RD	Active on Alarm

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Table 5.34 Liebert® CRD30-40—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Drive Failure U03	Binary_Value	440	8054_1	RD	Active on Alarm
Compressor Drive Failure U04	Binary_Value	441	8055_1	RD	Active on Alarm
Compressor Drive Failure U05	Binary_Value	442	8056_1	RD	Active on Alarm
Compressor Drive Failure U06	Binary_Value	443	8057_1	RD	Active on Alarm
Compressor Drive Failure U07	Binary_Value	444	8058_1	RD	Active on Alarm
Compressor Drive Failure U08	Binary_Value	445	8059_1	RD	Active on Alarm
Compressor Drive Failure U09	Binary_Value	446	8060_1	RD	Active on Alarm
Compressor Drive Failure U10	Binary_Value	447	8061_1	RD	Active on Alarm
Compressor Drive Failure U11	Binary_Value	448	8062_1	RD	Active on Alarm
Compressor Drive Failure U12	Binary_Value	449	8063_1	RD	Active on Alarm
Compressor Drive Failure U13	Binary_Value	450	8064_1	RD	Active on Alarm
Compressor Drive Failure U14	Binary_Value	451	8065_1	RD	Active on Alarm
Compressor Drive Failure U15	Binary_Value	452	8066_1	RD	Active on Alarm
Compressor - CompressorInfo					
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	431	7496_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm

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Table 5.34 Liebert® CRD30-40—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fan - Fan Issue 10					
Fan Issue	Binary_Value	579	4729_1_10	RD	Active on Alarm
Fan - Static Pressure					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Outdoor Fan 1					
Outdoor Fan Communication Failure	Binary_Value	606	8463_1_1	RD	Active on Alarm
Outdoor Fan Driver Failure	Binary_Value	607	8464_1_1	RD	Active on Alarm
Fan - Outdoor Fan 2					
Outdoor Fan Communication Failure	Binary_Value	608	8463_1_2	RD	Active on Alarm
Outdoor Fan Driver Failure	Binary_Value	609	8464_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
Humidifier Hours Exceeded	Binary_Value	649	5037_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
Energy Meter Communication Failure	Binary_Value	799	8468_1	RD	Active on Alarm
System Events - Custom Alarm					

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Table 5.34 Liebert® CRD30-40—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - EEVDrive					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1_1	RD	Active on Alarm
System Events - 10DI Sensor					
10DI Sensor Communication Fail	Binary_Value	654	8072_1_1	RD	Active on Alarm

Table 5.35 Liebert® CRD30-40—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	3	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10003	5007_1_deg_F	RD	Units: deg F
Supply Air Theoretical Humidity	Analog_Value	5	8090_1	RD	Units: % RH
Return Humidity	Analog_Value	6	5028_1	RD	Units: % RH
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F

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Table 5.35 Liebert® CRD30-40—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 3					
Supply Air Sensor Temperature	Analog_Value	47	8077_1_3	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10047	8077_1_3_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 3					
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH

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Table 5.35 Liebert® CRD30-40—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor - CompressorInfo					
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Primary)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Fan					
Fan Temperature Difference Setpoint	Analog_Value	421	7517_1	RW	Units: deg C
Fan Temperature Difference Setpoint	Analog_Value	10421	7517_1_deg_F	RW	Units: deg F
Fan - FanInfo					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Fan - Static Pressure					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Condenser					
Condenser Fan Speed	Analog_Value	424	5276_1	RD	Units: %
Condensate Fan Hours	Analog_Value	425	8413_1	RW	Units: hr
Condenser - CondensatePump					
Condensate Pump Hours	Analog_Value	450	8122_1_1	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	458	4113_1	RD	Units: A AC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS Current Phase B	Analog_Value	460	4114_1	RD	Units: A AC

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Table 5.35 Liebert® CRD30-40—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input RMS Current Phase C	Analog_Value	462	4115_1	RD	Units: A AC
Energy Consumption	Analog_Value	463	5900_1	RD	Units: kWH
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Active Power	Analog_Value	621	8749_1	RD	Units: kW
Reheater - ReheaterInfo					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.36 Liebert® CRD30-40—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp

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Table 5.36 Liebert® CRD30-40—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

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Table 5.37 Liebert® CRD30-40—Glossary

Data Label	Data Description
10DI Sensor Communication Fail	10DI Sensor Communication Fail
Active Power	Active Power
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Drive Failure U00	Compressor Drive Failure U00
Compressor Drive Failure U01	Compressor Drive Failure U01
Compressor Drive Failure U02	Compressor Drive Failure U02
Compressor Drive Failure U03	Compressor Drive Failure U03
Compressor Drive Failure U04	Compressor Drive Failure U04
Compressor Drive Failure U05	Compressor Drive Failure U05
Compressor Drive Failure U06	Compressor Drive Failure U06
Compressor Drive Failure U07	Compressor Drive Failure U07
Compressor Drive Failure U08	Compressor Drive Failure U08
Compressor Drive Failure U09	Compressor Drive Failure U09
Compressor Drive Failure U10	Compressor Drive Failure U10
Compressor Drive Failure U11	Compressor Drive Failure U11
Compressor Drive Failure U12	Compressor Drive Failure U12
Compressor Drive Failure U13	Compressor Drive Failure U13
Compressor Drive Failure U14	Compressor Drive Failure U14
Compressor Drive Failure U15	Compressor Drive Failure U15
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.

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Table 5.37 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
Compressor Suction Temperature	Compressor suction temperature value.
Condensate Fan Hours	Condensate Fan Hours
Condensate Pump Hours	Condensate Pump Hours
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Cooling Capacity (Primary)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Energy Consumption	Energy consumption since the last reset of this value.
Energy Meter Communication Failure	Energy Meter Communication Failure
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Mode	Fan Control Mode
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Fan Temperature Difference Setpoint	Fan temperature difference setpoint.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Pressure Lockout	Compressor lockout occurred due to high compressor pressure.

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Table 5.37 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Outdoor Fan Communication Failure	Outdoor Fan Communication Failure
Outdoor Fan Driver Failure	Outdoor Fan Driver Failure
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.

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Table 5.37 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Operating State	System Operating State
System Status	The operating status for the system

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Table 5.37 Liebert® CRD30-40—Glossary (continued)

Data Label	Data Description
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 5.38 Liebert®CAHU —Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Low Remote Air Humidity	Binary_Value	14	7491_1	RD	Active on Alarm
High Remote Air Humidity	Binary_Value	15	7492_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Supply Air Volume Sensor Communication Failure	Binary_Value	18	8405_1	RD	Active on Alarm
Air - Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Air Filter Differential Sensor 1					
Filter Pressure Difference Sensor Failure	Binary_Value	652	7560_1_1	RD	Active on Alarm
Air Filter Differential Pressure Sensor Failure	Binary_Value	808	8404_1_1	RD	Active on Alarm
Air - Air Filter Differential Sensor 2					
Filter Pressure Difference Sensor Failure	Binary_Value	663	7560_1_2	RD	Active on Alarm
Air Filter Differential Pressure Sensor Failure	Binary_Value	819	8404_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm

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Table 5.38 Liebert®CAHU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Issue	Binary_Value	55	5026_1_4	RD	Active on Alarm
Air - Return Air Temp Sensor 1					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Supply Air Humidity Sensor 1					
Supply Humidity Sensor Issue	Binary_Value	204	7493_1_1	RD	Active on Alarm
Air - Supply Air Humidity Sensor 2					
Supply Humidity Sensor Issue	Binary_Value	215	7493_1_2	RD	Active on Alarm
Air - Supply Air Humidity Sensor 3					
Supply Humidity Sensor Issue	Binary_Value	226	7493_1_3	RD	Active on Alarm
Air - Return Air Humidity Sensor 1					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor 2					
Return Humidity Sensor Issue	Binary_Value	248	5902_1_2	RD	Active on Alarm
Air - Return Air Humidity Sensor 3					
Return Humidity Sensor Issue	Binary_Value	259	5902_1_3	RD	Active on Alarm
Air - Remote Humidity Sensor 1					
External Humidity Sensor Issue	Binary_Value	270	7494_1_1	RD	Active on Alarm
Air - Remote Humidity Sensor 2					
External Humidity Sensor Issue	Binary_Value	281	7494_1_2	RD	Active on Alarm
Air - Remote Humidity Sensor 10					
External Humidity Sensor Issue	Binary_Value	369	7494_1_10	RD	Active on Alarm

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Table 5.38 Liebert®CAHU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Chilled Water					
Inlet Fluid Under Temp	Binary_Value	388	7512_1	RD	Active on Alarm
Inlet Fluid Over Temp	Binary_Value	389	7511_1	RD	Active on Alarm
Chilled Water - Water Valve					
Water Valve Failure	Binary_Value	403	7504_1_1	RD	Active on Alarm
Chilled Water - Water Flow 1					
Water Flow Sensor Failure	Binary_Value	392	7558_1_1	RD	Active on Alarm
Supply Fluid Low Flow	Binary_Value	390	7506_1_1	RD	Active on Alarm
Chilled Water - Water Flow 2					
Water Flow Sensor Failure	Binary_Value	398	7558_1_2	RD	Active on Alarm
Supply Fluid Low Flow	Binary_Value	396	7506_1_2	RD	Active on Alarm
Compressor					
Compressor in Alarm Condition	Binary_Value	458	8407_1	RD	Active on Alarm
Compressor - CompressorInfo 1					
Compressor Pressure Difference Lockout	Binary_Value	434	7499_1_1	RD	Active on Alarm
Compressor Pressure Difference	Binary_Value	436	7501_1_1	RD	Active on Alarm
Low Compressor Pressure Abnormal	Binary_Value	421	7550_1_1	RD	Active on Alarm
High Compressor Pressure Abnormal	Binary_Value	422	7549_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Failure	Binary_Value	432	7497_1_1	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	431	7496_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	433	7498_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm

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Table 5.38 Liebert®CAHU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Compressor - CompressorInfo 2					
Compressor Pressure Difference Lockout	Binary_Value	778	7499_1_2	RD	Active on Alarm
Compressor Pressure Difference	Binary_Value	780	7501_1_2	RD	Active on Alarm
Low Compressor Pressure Abnormal	Binary_Value	765	7550_1_2	RD	Active on Alarm
High Compressor Pressure Abnormal	Binary_Value	766	7549_1_2	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	763	7548_1_2	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	764	7547_1_2	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	770	7544_1_2	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	771	7543_1_2	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	772	7542_1_2	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	768	7541_1_2	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	773	7540_1_2	RD	Active on Alarm
High Compressor Pressure	Binary_Value	774	7539_1_2	RD	Active on Alarm
Compressor Driver Failure	Binary_Value	776	7497_1_2	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	775	7496_1_2	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	779	7500_1_2	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	777	7498_1_2	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	762	7553_1_2	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	761	7554_1_2	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	759	7556_1_2	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	758	7557_1_2	RD	Active on Alarm
Fan					
Fan Communication Failure	Binary_Value	470	8410_1	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Data Label	Object Type	Instance	Object Name	Access	Notes
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
Fan - Fan Issue 10					
Fan Issue	Binary_Value	579	4729_1_10	RD	Active on Alarm

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Table 5.38 Liebert®CAHU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fan - Static Pressure 1					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Static Pressure 2					
Fan Static Pressure Sensor Failure	Binary_Value	601	7563_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
Emergency Cooling	Binary_Value	659	8178_1	RD	Active on Alarm
Aisle Static Pressure Sensor Failure	Binary_Value	791	8422_1	RD	Active on Alarm
BPHE Communication Failure	Binary_Value	792	8423_1	RD	Active on Alarm
Data Collector Communication Failure	Binary_Value	793	8424_1	RD	Active on Alarm
EPIV Failure	Binary_Value	794	8425_1	RD	Active on Alarm
ATS Communication Failure	Binary_Value	795	8426_1	RD	Active on Alarm
BMS Communications Timeout	Binary_Value	796	5115_1	RD	Active on Alarm

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Table 5.38 Liebert®CAHU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
APF Communication Failure	Binary_Value	797	8427_1	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
System Events - Custom Alarm 4					
Custom Alarm	Binary_Value	724	7561_1_4	RD	Active on Alarm
System Events - EEVDrive 1					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1_1	RD	Active on Alarm
System Events - EEVDrive 2					
EEV Driver Communication Failure	Binary_Value	661	7551_1_2	RD	Active on Alarm
EEV Driver Failure	Binary_Value	662	7552_1_2	RD	Active on Alarm
System Events - Motorized Ball Valve 1					
Motorized Ball Valve Failure	Binary_Value	673	8421_1_1	RD	Active on Alarm
System Events - Motorized Ball Valve 2					
Motorized Ball Valve Failure	Binary_Value	684	8421_1_2	RD	Active on Alarm

Table 5.39 Liebert®CAHU —Analog Data

Data label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	3	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10003	5007_1_deg_F	RD	Units: deg F
Supply Humidity	Analog_Value	4	5027_1	RD	Units: % RH
Supply Air Theoretical Humidity	Analog_Value	5	8090_1	RD	Units: % RH
Return Humidity	Analog_Value	6	5028_1	RD	Units: % RH
Average Relative Humidity	Analog_Value	7	8081_1	RD	Units: % RH

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Table 5.39 Liebert®CAHU —Analog Data (continued)

Data label	Object Type	Instance	Object Name	Access	Notes
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Supply Air Flowrate	Analog_Value	20	8406_1	RD	Units: m3/h
Upper Module Supply Air Average Temperature	Analog_Value	22	8441_1	RD	Units: deg C
Upper Module Supply Air Average Temperature	Analog_Value	10022	8441_1_deg_F	RD	Units: deg F
Lower Module Supply Air Average Temperature	Analog_Value	23	8445_1	RD	Units: deg C
Lower Module Supply Air Average Temperature	Analog_Value	10023	8445_1_deg_F	RD	Units: deg F
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Temperature	Analog_Value	50	8077_1_4	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10050	8077_1_4_deg_F	RD	Units: deg F

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Table 5.39 Liebert®CAHU —Analog Data (continued)

Data label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 3					
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor 1					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Air - Return Air Humidity Sensor 2					
Return Sensor Humidity	Analog_Value	245	8080_1_2	RD	Units: % RH
Air - Return Air Humidity Sensor 3					

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Table 5.39 Liebert®CAHU —Analog Data (continued)

Data label	Object Type	Instance	Object Name	Access	Notes
Return Sensor Humidity	Analog_Value	256	8080_1_3	RD	Units: % RH
Air - Remote Humidity Sensor 1					
Relative Humidity	Analog_Value	267	4587_1_1	RD	Units: % RH
Air - Remote Humidity Sensor 2					
Relative Humidity	Analog_Value	278	4587_1_2	RD	Units: % RH
Air - Remote Humidity Sensor 10					
Relative Humidity	Analog_Value	366	4587_1_10	RD	Units: % RH
Air - Supply Air DewpointTemp 1					
Supply Air Dewpoint Temperature	Analog_Value	371	8403_1_1	RD	Units: deg C
Supply Air Dewpoint Temperature	Analog_Value	10371	8403_1_1_deg_F	RD	Units: deg F
Air - Supply Air DewpointTemp 2					
Supply Air Dewpoint Temperature	Analog_Value	382	8403_1_2	RD	Units: deg C
Supply Air Dewpoint Temperature	Analog_Value	10382	8403_1_2_deg_F	RD	Units: deg F
Chilled Water					
Chilled Water Inlet Temperature	Analog_Value	377	6311_1	RD	Units: deg C
Chilled Water Inlet Temperature	Analog_Value	10377	6311_1_deg_F	RD	Units: deg F
Chilled Water Outlet Temperature	Analog_Value	378	6312_1	RD	Units: deg C
Chilled Water Outlet Temperature	Analog_Value	10378	6312_1_deg_F	RD	Units: deg F
Fluid Flow Rate	Analog_Value	379	5899_1	RD	Units: m3/h
Chilled Water - Water Valve					
Chilled Water Valve Open Position	Analog_Value	392	5640_1_1	RD	Units: %
Chilled Water Valve Hours	Analog_Value	393	5614_1_1	RW	Units: hr
Water Valve Feedback	Analog_Value	394	8442_1_1	RD	Units: %
Compressor - CompressorInfo 1					

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Table 5.39 Liebert®CAHU —Analog Data (continued)

Data label	Object Type	Instance	Object Name	Access	Notes
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Compressor - CompressorInfo 2					
Compressor Suction Superheat	Analog_Value	500	7534_1_2	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10500	7534_1_2_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	501	7535_1_2	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10501	7535_1_2_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	499	7533_1_2	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10499	7533_1_2_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	498	7532_1_2	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10498	7532_1_2_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	502	7531_1_2	RD	Units: bar
Compressor High Pressure	Analog_Value	503	7530_1_2	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	581	5078_1_2	RD	Units: %
Compressor Hours	Analog_Value	504	5267_1_2	RW	Units: hr

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Table 5.39 Liebert®CAHU —Analog Data (continued)

Data label	Object Type	Instance	Object Name	Access	Notes
Fan					
BMS Fan Speed Setting	Analog_Value	412	5584_1	RW	Units: %
Fan Speed Minimum Set Point	Analog_Value	413	5051_1	RW	Units: %
Fan - FanInfo 1					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Fan - FanInfo 2					
Fan Speed	Analog_Value	511	5077_1_2	RD	Units: %
Fan Hours	Analog_Value	510	5374_1_2	RW	Units: hr
Fan - Static Pressure 1					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Fan - Static Pressure 2					
Fan Static Pressure	Analog_Value	446	7527_1_2	RD	Units: Pa
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Compressor Instantaneous Power	Analog_Value	466	8416_1	RD	Units: kW
Total Input THDI Phase A	Analog_Value	467	8221_1	RD	Units: %
Total Input THDI Phase B	Analog_Value	468	8222_1	RD	Units: %
Total Input THDI Phase C	Analog_Value	469	8223_1	RD	Units: %
Power Factor	Analog_Value	470	8417_1	RD	Units: %
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - ReheaterInfo 1					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Reheater - ReheaterInfo 2					
Electric Reheater Hours	Analog_Value	481	5366_1_2	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr
System Operations					

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Table 5.39 Liebert®CAHU —Analog Data (continued)

Data label	Object Type	Instance	Object Name	Access	Notes
Current Heartbeat Timer	Analog_Value	506	8419_1	RD	Units: unknown
System Operations - BPHE Valve 1					
BPHE Valve Opening	Analog_Value	505	8418_1_1	RD	Units: %
BPHE Valve Feedback	Analog_Value	519	8444_1_1	RD	Units: %
System Operations - BPHE Valve 2					
BPHE Valve Opening	Analog_Value	516	8418_1_2	RD	Units: %
BPHE Valve Feedback	Analog_Value	530	8444_1_2	RD	Units: %

Table 5.40 Liebert®CAHU —Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Chilled Water - Water Valve					
Water Valve Control Mode	MultiState_Value	12	7505_1_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp

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Table 5.40 Liebert®CAHU —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Compressor - CompressorInfo 1					
Compressor Status	MultiState_Value	24	8408_1_1	RD	1 = Stop 2 = Run
Compressor - CompressorInfo 2					
Compressor Status	MultiState_Value	30	8408_1_2	RD	1 = Stop 2 = Run
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Fan Control	MultiState_Value	36	8409_1	RW	1 = Stop 2 = Run
Fan Control Status	MultiState_Value	37	8411_1	RW	1 = Local 2 = Remote
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
Power Measurement					

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Table 5.40 Liebert®CAHU —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Master Power Source Status	MultiState_Value	50	8414_1	RD	1 = off 2 = on
Slave Power Source Status	MultiState_Value	51	8415_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off
Heartbeat Timer Setpoint	MultiState_Value	61	8420_1	RD	1 = 1200 2 = 2400 3 = 4800 4 = 9600 5 = 19200
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout

Table 5.41 Liebert®CAHU —Glossary

Data Label	Data Description
Air Filter Differential Pressure Sensor Failure	Air Filter Differential Pressure Sensor Failure
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Aisle Static Pressure Sensor Failure	Aisle static pressure sensor failure
APF Communication Failure	Active Power Filter Communication Failure
ATS Communication Failure	ATS Communication Failure
Average Relative Humidity	Average value of humidity sensor measurements.

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Table 5.41 Liebert®CAHU —Glossary (continued)

Data Label	Data Description
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Fan Speed Setting	Fan speed setting when under the manual control of the Building Management System.
BPHE Communication Failure	Brazed Plate Heat Exchanger Communication Failure
BPHE Valve Feedback	Brazed Plate Heat Exchangeer Valve Feedback Status
BPHE Valve Opening	Brazed Plate Heat Exchanger Valve Opening
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Open Position	Chilled water valve open position.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor in Alarm Condition	Compressor in Alarm Condition
Compressor Instantaneous Power	Compressor Instantaneous Power
Compressor Low Pressure	Compressor low pressure detected.
Compressor Pressure Difference Lockout	Compressor lockout occurred due to multiple compressor pressure differences.
Compressor Pressure Difference	Compressor pressure difference is out of range.
Compressor Status	Compressor Status
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.

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Table 5.41 Liebert®CAHU —Glossary (continued)

Data Label	Data Description
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Current Heartbeat Timer	Current Heartbeat Timer
Custom Alarm	Custom Alarm
Data Collector Communication Failure	Data Collector Communication Failure
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver Failure	EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Emergency Cooling	Emergency Cooling
EPIV Failure	Electronic Pressure Independent Control Valve Failure
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Communication Failure	Fan Communication Failure
Fan Control Mode	Fan Control Mode
Fan Control Status	Fan Control Status
Fan Control	Fan Control
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Power Consumption	Real Time Power for Fan
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
Filter Pressure Difference Sensor Failure	Filter pressure difference sensor is disconnected or the signal is out of range.

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Table 5.41 Liebert®CAHU —Glossary (continued)

Data Label	Data Description
Fluid Flow Rate	Flow rate of fluid used for cooling.
Heartbeat Timer Setpoint	Heartbeat Timer Setpoint
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Inlet Fluid Over Temp	Inlet fluid temperature has exceeded a threshold.
Inlet Fluid Under Temp	Inlet fluid temperature has dropped below a threshold.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Abnormal	Compressor pressure has dropped below a normal threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.

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Table 5.41 Liebert®CAHU —Glossary (continued)

Data Label	Data Description
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Lower Module Supply Air Average Temperature	Average supply air termperature for the lower module.
Monitoring ON/OFF	Monitoring ON/OFF
Motorized Ball Valve Failure	Motorized Ball Valve Failure
Power Factor	Power Factor
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Master Power Source Status	Master Power Source Status
Relative Humidity	Relative Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Slave Power Source Status	Slave Power Source Status
Server Class	The general classification for this system
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.
Supply Air Dewpoint Temperature	Supply Air Dewpoint Temperature

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Table 5.41 Liebert®CAHU —Glossary (continued)

Data Label	Data Description
Supply Air Flowrate	Supply Air Flowrate
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Air Volume Sensor Communication Failure	Supply Air Volume Sensor Communication Failure
Supply Fluid Low Flow	Supply fluid flow has dropped below a threshold.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Total Input THDI Phase A	Total Input THDI Phase A
Total Input THDI Phase B	Total Input THDI Phase B
Total Input THDI Phase C	Total Input THDI Phase C
Upper Module Supply Air Average Temperature	Average supply air termperature for the upper module.
Water Flow Sensor Failure	Water flow sensor is disconnected or the signal is out of range.
Water Under Floor	Water under the floor is detected.
Water Valve Control Mode	Water Valve Control Mode
Water Valve Failure	There is an issue with the chilled water valve.
Water Valve Feedback	Water Valve Feedback Status

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Table 5.42 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (ADPT-only)

Controller	MM2			
Liebert Products	Liebert DataMate Liebert Mini-Mate2			
Data Description	Object Type	Instance	Object Name	Notes
Status Points (View)				
Temperature	Analog_Value	5	bs01_1	—
Humidity	Analog_Value	6	bs02_1	—
Cooling	Analog_Value	13	bs03_1	0 = Off 1 = On
Heating	Analog_Value	14	bs04_1	0 = Off 1 = On
Humidification	Analog_Value	15	bs05_1	0 = Off 1 = On
Dehumidification	Analog_Value	16	bs06_1	0 = Off 1 = On
Econ-O-Cycle	Analog_Value	17	bs07_1	0 = Off 1 = On
Stages	Analog_Value	7	bs08_1	
% Capacity	Analog_Value	8	bs09_1	
Unit On/Off	Analog_Value	18	bs18_1	0 = Off 1 = On
Alarm Points				
Communications	Analog_Value	1	ba01_1:00	—
Local Off	Analog_Value	1	ba01_1:01	—
Remote Off	Analog_Value	1	ba01_1:02	—
High Head Pressure 1	Analog_Value	1	ba01_1:03	—
Loss of Airflow	Analog_Value	1	ba01_1:05	—
Change Filters	Analog_Value	1	ba01_1:07	—
High Temperature	Analog_Value	1	ba01_1:08	—
Low Temperature	Analog_Value	1	ba01_1:09	—
High Humidity	Analog_Value	2	ba02_1:00	—
Low Humidity	Analog_Value	2	ba02_1:01	—
Humidifier Problem	Analog_Value	2	ba02_1:02	—
Smoke Detected	Analog_Value	2	ba02_1:08	—
Loss of Water Flow	Analog_Value	2	ba02_1:09	—
Short Cycle	Analog_Value	3	ba03_1:01	—

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Table 5.42 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (ADPT-only) (continued)

Controller	MM2			
Liebert Products	Liebert DataMate Liebert Mini-Mate2			
Data Description	Object Type	Instance	Object Name	Notes
Loss of Power	Analog_Value	3	ba03_1:02	—
Local Alarm 1	Analog_Value	3	ba03_1:06	—
Local Alarm 2	Analog_Value	3	ba03_1:07	—
High Water	Analog_Value	3	ba03_1:08	—
Setpoints (View)				
Temperature	Analog_Value	9	bs10_1	—
Humidity	Analog_Value	10	bs12_1	—
Control Points				
Remote On/Off	Analog_Value	4	bc01_1	Bit 0 - ON = Unit Off Bit 1 - ON = Unit On
Temperature Setpoint	Analog_Value	11	bc02_1	—
Humidity Setpoint	Analog_Value	12	bc03_1	—

Table 5.43 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (Liebert® iCOM™ CMS only)

Controller	MM2			
Liebert Products	Liebert DataMate Liebert Mini-Mate2			
Data Description	Object Type	Instance	Object Name	Notes
Status Points (View)				
Temperature	Analog_Value	5	bs01_1	—
Humidity	Analog_Value	6	bs02_1	—
Cooling	Analog_Value	13	bs03_1	0 = Off 1 = On
Heating	Analog_Value	14	bs04_1	0 = Off 1 = On
Humidification	Analog_Value	15	bs05_1	0 = Off 1 = On
Dehumidification	Analog_Value	16	bs06_1	0 = Off 1 = On
Econ-O-Cycle	Analog_Value	17	bs07_1	0 = Off 1 = On
Stages	Analog_Value	7	bs08_1	—

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Table 5.43 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (Liebert® iCOM™ CMS only) (continued)

Controller	MM2			
Liebert Products	Liebert DataMate Liebert Mini-Mate2			
Data Description	Object Type	Instance	Object Name	Notes
% Capacity	Analog_Value	8	bs09_1	—
Unit On/Off	Analog_Value	18	bs18_1	0 = Off 1 = On
Cooling/Heating Status	MultiState_Value	6	bs23_1	1 = Idle 2 = Heating 3 = Cooling
Humidifier Status	MultiState_Value	7	bs24_1	1 = Off 2 = On
Dehumidifying Status	MultiState_Value	8	bs25_1	1 = Off 2 = On
Econocycle Status	MultiState_Value	9	bs26_1	1 = Off 2 = On
Unit Status	MultiState_Value	10	bs27_1	1 = On 2 = On but in Restart Delay 3 = Off by I/O Key 4 = Off by Remote Shutdown 5 = Off by Remote Control
Alarm Points				
Communications	Analog_Value	1	ba01_1:00	—
Local Off	Analog_Value	1	ba01_1:01	—
Remote Off	Analog_Value	1	ba01_1:02	—
High Head Pressure 1	Analog_Value	1	ba01_1:03	—
Loss of Airflow	Analog_Value	1	ba01_1:05	—
Change Filters	Analog_Value	1	ba01_1:07	—
High Temperature	Analog_Value	1	ba01_1:08	—
Low Temperature	Analog_Value	1	ba01_1:09	—
High Humidity	Analog_Value	2	ba02_1:00	—
Low Humidity	Analog_Value	2	ba02_1:01	—
Humidifier Problem	Analog_Value	2	ba02_1:02	—
Smoke Detected	Analog_Value	2	ba02_1:08	—
Loss of Water Flow	Analog_Value	2	ba02_1:09	—
Short Cycle	Analog_Value	3	ba03_1:01	—
Loss of Power	Analog_Value	3	ba03_1:02	—

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Table 5.43 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (Liebert® iCOM™ CMS only) (continued)

Controller	MM2			
Liebert Products	Liebert DataMate Liebert Mini-Mate2			
Data Description	Object Type	Instance	Object Name	Notes
Local Alarm 1	Analog_Value	3	ba03_1:06	—
Local Alarm 2	Analog_Value	3	ba03_1:07	—
High Water	Analog_Value	3	ba03_1:08	—
Communications	Binary_Value	1	ba21_1	0 = Off 1 = On
High Head Pressure 1	Binary_Value	2	ba22_1	0 = Off 1 = On
Loss of Airflow	Binary_Value	4	ba24_1	0 = Off 1 = On
Change Filters	Binary_Value	6	ba26_1	0 = Off 1 = On
High Temperature	Binary_Value	7	ba27_1	0 = Off 1 = On
Low Temperature	Binary_Value	8	ba28_1	0 = Off 1 = On
High Humidity	Binary_Value	9	ba29_1	0 = Off 1 = On
Low Humidity	Binary_Value	10	ba30_1	0 = Off 1 = On
Humidifer Problem	Binary_Value	11	ba31_1	0 = Off 1 = On
Smoke Detected	Binary_Value	12	ba32_1	0 = Off 1 = On
Loss of Water Flow	Binary_Value	13	ba33_1	0 = Off 1 = On
Short Cycle	Binary_Value	15	ba35_1	0 = Off 1 = On
Loss of Power	Binary_Value	16	ba36_1	0 = Off 1 = On
Custom Alarm 1	Binary_Value	17	ba37_1	0 = Off 1 = On
Custom Alarm 2	Binary_Value	18	ba38_1	0 = Off 1 = On
High Water	Binary_Value	21	ba41_1	0 = Off 1 = On
Setpoints (View)				

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Table 5.43 Liebert® DataMate, Liebert® Mini-Mate2—MM2 (Liebert® iCOM™ CMS only) (continued)

Controller	MM2			
Liebert Products	Liebert DataMate Liebert Mini-Mate2			
Data Description	Object Type	Instance	Object Name	Notes
Temperature	Analog_Value	9	bs10_1	—
Humidity	Analog_Value	10	bs12_1	—
Control Points				
Remote On/Off	Analog_Value	4	bc01_1	Bit 0 - ON = Unit Off Bit 1 - ON = Unit On
Temperature Setpoint	Analog_Value	11	bc02_1	—
Humidity Setpoint	Analog_Value	12	bc03_1	—
On/Off Control	MultiState_Value	3	bc21_1	1 = Off 2 = On

Table 5.44 Liebert® DCP—Binary Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Ext Air Sensor A Over Temperature	Binary_Value	1	4601_1	RD	Active on Alarm
Ext Air Sensor B Over Temperature	Binary_Value	2	4604_1	RD	Active on Alarm
Ext Air Sensor A Under Temperature	Binary_Value	3	4608_1	RD	Active on Alarm
Ext Air Sensor B Under Temperature	Binary_Value	4	4611_1	RD	Active on Alarm
Ext Dew Point Over Temperature	Binary_Value	5	4615_1	RD	Active on Alarm
Ext Air Sensor A Issue	Binary_Value	6	4618_1	RD	Active on Alarm
Ext Air Sensor B Issue	Binary_Value	7	4621_1	RD	Active on Alarm
Chilled Water					
Supply Chilled Water Over Temp	Binary_Value	18	4626_1	RD	Active on Alarm
Supply Chilled Water Temp Sensor Issue	Binary_Value	19	4629_1	RD	Active on Alarm
Chilled Water Control Valve Failure	Binary_Value	20	4703_1	RD	Active on Alarm
Fluid					
Supply Fluid Over Temp	Binary_Value	44	4645_1	RD	Active on Alarm
Supply Fluid Under Temp	Binary_Value	45	4648_1	RD	Active on Alarm
Supply Fluid Temp Sensor Issue	Binary_Value	46	4651_1	RD	Active on Alarm
Pumps					
Pump 1 Loss of Flow	Binary_Value	57	4656_1	RD	Active on Alarm

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Table 5.44 Liebert® DCP—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Pump 2 Loss of Flow	Binary_Value	58	4659_1	RD	Active on Alarm
Pump Short Cycle	Binary_Value	59	4662_1	RD	Active on Alarm
Pumps - PumpHours					
Pump Hours Exceeded	Binary_Value	70	5300_1_1	RD	Active on Alarm
Pump Hours Exceeded	Binary_Value	81	5300_1_2	RD	Active on Alarm
XDSystem					
Ext System Condensation Detected	Binary_Value	112	5492_1	RD	Active on Alarm
Ext Fan Issue	Binary_Value	113	5495_1	RD	Active on Alarm
Sensor Issue	Binary_Value	114	5060_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	115	5500_1	RD	Active on Alarm
Hot Aisle Temp Out of Range	Binary_Value	116	5505_1	RD	Active on Alarm
Cold Aisle Temp Out of Range	Binary_Value	117	5508_1	RD	Active on Alarm
XD Module Communication Lost	Binary_Value	118	6535_1	RD	Active on Alarm
XDSystem 2					
Ext System Condensation Detected	Binary_Value	128	5492_2	RD	Active on Alarm
Ext Fan Issue	Binary_Value	129	5495_2	RD	Active on Alarm
Sensor Issue	Binary_Value	130	5060_2	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	131	5500_2	RD	Active on Alarm
Hot Aisle Temp Out of Range	Binary_Value	132	5505_2	RD	Active on Alarm
Cold Aisle Temp Out of Range	Binary_Value	133	5508_2	RD	Active on Alarm
XD Module Communication Lost	Binary_Value	134	6535_2	RD	Active on Alarm
System Events					
Customer Input 1	Binary_Value	432	4270_1	RD	Active on Alarm
System Condensation Detected	Binary_Value	433	4711_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	434	4714_1	RD	Active on Alarm
Smoke Detected	Binary_Value	435	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	436	4723_1	RD	Active on Alarm
Service Required	Binary_Value	437	4726_1	RD	Active on Alarm
Fan Issue	Binary_Value	438	4729_1	RD	Active on Alarm
Unit Communication Lost	Binary_Value	439	5419_1	RD	Active on Alarm

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Table 5.44 Liebert® DCP—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
RAM Battery Issue	Binary_Value	440	5119_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	441	5120_1	RD	Active on Alarm
Remote Shutdown	Binary_Value	442	5512_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	443	5418_1	RD	Active on Alarm
System Events - Messages					
Unit On	Binary_Value	454	5109_1_1	RD	Active on Alarm
Unit Off	Binary_Value	455	5110_1_1	RD	Active on Alarm
Unit Standby	Binary_Value	456	5111_1_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	457	5112_1_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	458	5113_1_1	RD	Active on Alarm
Maintenance Due	Binary_Value	459	5116_1_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	460	5117_1_1	RD	Active on Alarm
SFA_Report					
SFA Reserved Event 1	Binary_Value	18000	5642_1	RD	Active on Alarm
SFA Reserved Event 2	Binary_Value	18001	5643_1	RD	Active on Alarm
SFA Reserved Event 3	Binary_Value	18002	5644_1	RD	Active on Alarm
SFA Reserved Event 4	Binary_Value	18003	5645_1	RD	Active on Alarm
SFA Reserved Event 5	Binary_Value	18004	5646_1	RD	Active on Alarm
SFA Reserved Event 6	Binary_Value	18005	5647_1	RD	Active on Alarm
SFA Reserved Event 7	Binary_Value	18006	5648_1	RD	Active on Alarm
SFA Reserved Event 8	Binary_Value	18007	5649_1	RD	Active on Alarm
SFA Reserved Event 9	Binary_Value	18008	5650_1	RD	Active on Alarm
SFA Reserved Event 10	Binary_Value	18009	5651_1	RD	Active on Alarm
SFA Reserved Event 11	Binary_Value	18010	5652_1	RD	Active on Alarm
SFA Reserved Event 12	Binary_Value	18011	5653_1	RD	Active on Alarm
SFA Reserved Event 13	Binary_Value	18012	5654_1	RD	Active on Alarm
SFA Reserved Event 14	Binary_Value	18013	5655_1	RD	Active on Alarm
SFA Reserved Event 15	Binary_Value	18014	5656_1	RD	Active on Alarm
SFA Reserved Event 16	Binary_Value	18015	5657_1	RD	Active on Alarm
SFA Reserved Event 17	Binary_Value	18016	5658_1	RD	Active on Alarm

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Table 5.44 Liebert® DCP—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
SFA Reserved Event 18	Binary_Value	18017	5659_1	RD	Active on Alarm
SFA Reserved Event 19	Binary_Value	18018	5660_1	RD	Active on Alarm
SFA Reserved Event 20	Binary_Value	18019	5661_1	RD	Active on Alarm
SFA Reserved Event 21	Binary_Value	18020	5662_1	RD	Active on Alarm
SFA Reserved Event 22	Binary_Value	18021	5663_1	RD	Active on Alarm
SFA Reserved Event 23	Binary_Value	18022	5664_1	RD	Active on Alarm
SFA Reserved Event 24	Binary_Value	18023	5665_1	RD	Active on Alarm
SFA Reserved Event 25	Binary_Value	18024	5666_1	RD	Active on Alarm
Pumps – Pump 1					
Pump Thermal Overload	Binary_Value	71	6534_1_1	RD	Active on Alarm
Pumps – Pump 2					
Pump Thermal Overload	Binary_Value	82	6534_1_2	RD	Active on Alarm

Table 5.45 Liebert® DCP—Analog Data

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
External Air					
Dew Point Temperature	Analog_Value	1	4867_1	RD	Units: deg C
Dew Point Temperature	Analog_Value	10001	4867_1_deg_F	RD	Units: deg F
Minimum Room Temperature Set Point	Analog_Value	2	4709_1	RW	Units: deg C
Minimum Room Temperature Set Point	Analog_Value	10002	4709_1_deg_F	RW	Units: deg F
Ext Air Sensor A Temperature	Analog_Value	3	4594_1	RD	Units: deg C
Ext Air Sensor A Temperature	Analog_Value	10003	4594_1_deg_F	RD	Units: deg F
Ext Air Sensor A Humidity	Analog_Value	4	4595_1	RD	Units: % RH
Ext Air Sensor A Dew Point Temp	Analog_Value	5	4596_1	RD	Units: deg C
Ext Air Sensor A Dew Point Temp	Analog_Value	10005	4596_1_deg_F	RD	Units: deg F
Ext Air Sensor B Temperature	Analog_Value	6	4597_1	RD	Units: deg C
Ext Air Sensor B Temperature	Analog_Value	10006	4597_1_deg_F	RD	Units: deg F
Ext Air Sensor B Humidity	Analog_Value	7	4598_1	RD	Units: % RH
Ext Air Sensor B Dew Point Temp	Analog_Value	8	4599_1	RD	Units: deg C

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Table 5.45 Liebert® DCP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Air Sensor B Dew Point Temp	Analog_Value	10008	4599_1_deg_F	RD	Units: deg F
Ext Air Over Temp Threshold	Analog_Value	9	4600_1	RW	Units: deg C
Ext Air Over Temp Threshold	Analog_Value	10009	4600_1_deg_F	RW	Units: deg F
Ext Air Under Temp Threshold	Analog_Value	10	4607_1	RW	Units: deg C
Ext Air Under Temp Threshold	Analog_Value	10010	4607_1_deg_F	RW	Units: deg F
Ext Dew Point Over Temp Threshold	Analog_Value	11	4614_1	RW	Units: deg C
Ext Dew Point Over Temp Threshold	Analog_Value	10011	4614_1_deg_F	RW	Units: deg F
Chilled Water					
Supply Fluid Temperature	Analog_Value	22	4624_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	10022	4624_1_deg_F	RD	Units: deg F
High Supply Fluid Temperature Threshold	Analog_Value	23	4625_1	RW	Units: deg C
High Supply Fluid Temperature Threshold	Analog_Value	10023	4625_1_deg_F	RW	Units: deg F
Chilled Water Valve Open Position	Analog_Value	24	5640_1	RD	
Fluid					
Supply Fluid Temperature	Analog_Value	46	4643_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	10046	4643_1_deg_F	RD	Units: deg F
Supply Fluid Over Temp Threshold	Analog_Value	47	4644_1	RW	Units: deg C
Supply Fluid Over Temp Threshold	Analog_Value	10047	4644_1_deg_F	RW	Units: deg F
Pumps - PumpHours					
Pump Hours	Analog_Value	58	5298_1_1	RW	Units: hr
Pump Hours Threshold	Analog_Value	59	5299_1_1	RW	Units: hr
Pump Hours	Analog_Value	70	5298_1_2	RW	Units: hr
Pump Hours Threshold	Analog_Value	71	5299_1_2	RW	Units: hr
XDSystem					
Cooling Capacity	Analog_Value	94	5490_1	RD	Units: %
Cooling Capacity	Analog_Value	95	5491_1	RD	Units: kW
Hot Aisle Over Temp Threshold	Analog_Value	96	5503_1	RW	Units: deg C
Hot Aisle Over Temp Threshold	Analog_Value	10096	5503_1_deg_F	RW	Units: deg F
Hot Aisle Under Temp Threshold	Analog_Value	97	5504_1	RW	Units: deg C
Hot Aisle Under Temp Threshold	Analog_Value	10097	5504_1_deg_F	RW	Units: deg F

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Table 5.45 Liebert® DCP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Cold Aisle Over Temp Threshold	Analog_Value	98	5506_1	RW	Units: deg C
Cold Aisle Over Temp Threshold	Analog_Value	10098	5506_1_deg_F	RW	Units: deg F
Cold Aisle Under Temp Threshold	Analog_Value	99	5507_1	RW	Units: deg C
Cold Aisle Under Temp Threshold	Analog_Value	10099	5507_1_deg_F	RW	Units: deg F
XDSystem - Temperature Sensor 1					
Sensor Temperature	Analog_Value	110	5059_1_1	RD	Units: deg C
Sensor Temperature	Analog_Value	10110	5059_1_1_deg_F	RD	Units: deg F
XDSystem - Temperature Sensor 2					
Sensor Temperature	Analog_Value	121	5059_1_2	RD	Units: deg C
Sensor Temperature	Analog_Value	10121	5059_1_2_deg_F	RD	Units: deg F
. . .					
XDSystem - Temperature Sensor 4					
Sensor Temperature	Analog_Value	143	5059_1_4	RD	Units: deg C
Sensor Temperature	Analog_Value	10143	5059_1_4_deg_F	RD	Units: deg F
XDSystem 2					
Cooling Capacity	Analog_Value	154	5490_2	RD	Units: %
Cooling Capacity	Analog_Value	155	5491_2	RD	Units: kW
Hot Aisle Over Temp Threshold	Analog_Value	156	5503_2	RW	Units: deg C
Hot Aisle Over Temp Threshold	Analog_Value	10156	5503_2_deg_F	RW	Units: deg F
Hot Aisle Under Temp Threshold	Analog_Value	157	5504_2	RW	Units: deg C
Hot Aisle Under Temp Threshold	Analog_Value	10157	5504_2_deg_F	RW	Units: deg F
Cold Aisle Over Temp Threshold	Analog_Value	158	5506_2	RW	Units: deg C
Cold Aisle Over Temp Threshold	Analog_Value	10158	5506_2_deg_F	RW	Units: deg F
Cold Aisle Under Temp Threshold	Analog_Value	159	5507_2	RW	Units: deg C
Cold Aisle Under Temp Threshold	Analog_Value	10159	5507_2_deg_F	RW	Units: deg F
XDSystem - Temperature Sensor 1					
Sensor Temperature	Analog_Value	170	5059_2_1	RD	Units: deg C
Sensor Temperature	Analog_Value	10170	5059_2_1_deg_F	RD	Units: deg F
XDSystem - Temperature Sensor 2					
Sensor Temperature	Analog_Value	181	5059_2_2	RD	Units: deg C

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Table 5.45 Liebert® DCP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Sensor Temperature	Analog_Value	10181	5059_2_2_deg_F	RD	Units: deg F
...					
XDSystem - Temperature Sensor 4					
Sensor Temperature	Analog_Value	203	5059_2_4	RD	Units: deg C
Sensor Temperature	Analog_Value	10203	5059_2_4_deg_F	RD	Units: deg F
System Information					
Auto Restart Delay	Analog_Value	1294	4710_1	RW	Units: sec
Maintenance Ramp	Analog_Value	1295	4870_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	1296	4868_1	RD	
Calculated Next Maintenance Year	Analog_Value	1297	4869_1	RD	
Time					
System Date and Time	Analog_Value	1308	4293_1	RW	Units: Secs since Epoch(UTC)
SFA_Report					
SFA ID Number	Analog_Value	18000	5641_1	RD	Units: Generic
SFA 16bit Read Only Value 1	Analog_Value	18001	5667_1	RD	Units: Generic
SFA 16bit Read Only Value 2	Analog_Value	18002	5668_1	RD	Units: Generic
SFA 16bit Read Only Value 3	Analog_Value	18003	5669_1	RD	Units: Generic
SFA 16bit Read Only Value 4	Analog_Value	18004	5670_1	RD	Units: Generic
SFA 16bit Read Only Value 5	Analog_Value	18005	5671_1	RD	Units: Generic
SFA 16bit Read Only Value 6	Analog_Value	18006	5672_1	RD	Units: Generic
SFA 16bit Read Only Value 7	Analog_Value	18007	5673_1	RD	Units: Generic
SFA 16bit Read Only Value 8	Analog_Value	18008	5674_1	RD	Units: Generic
SFA 16bit Read Only Value 9	Analog_Value	18009	5675_1	RD	Units: Generic
SFA 16bit Read Only Value 10	Analog_Value	18010	5676_1	RD	Units: Generic
SFA 32bit Read Only Value 1	Analog_Value	18011	5692_1	RD	Units: Generic
SFA 32bit Read Only Value 2	Analog_Value	18012	5693_1	RD	Units: Generic
SFA 32bit Read Only Value 3	Analog_Value	18013	5694_1	RD	Units: Generic
SFA 32bit Read Only Value 4	Analog_Value	18014	5695_1	RD	Units: Generic
SFA 32bit Read Only Value 5	Analog_Value	18015	5696_1	RD	Units: Generic
SFA 32bit Read Only Value 6	Analog_Value	18016	5697_1	RD	Units: Generic

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Table 5.45 Liebert® DCP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA 32bit Read Only Value 7	Analog_Value	18017	5698_1	RD	Units: Generic
SFA 32bit Read Only Value 8	Analog_Value	18018	5699_1	RD	Units: Generic
SFA 32bit Read Only Value 9	Analog_Value	18019	5700_1	RD	Units: Generic
SFA 32bit Read Only Value 10	Analog_Value	18020	5701_1	RD	Units: Generic
SFA 16bit Writable Value 1	Analog_Value	18021	5717_1	RW	Units: Generic
SFA 16bit Writable Value 2	Analog_Value	18022	5718_1	RW	Units: Generic
SFA 16bit Writable Value 3	Analog_Value	18023	5719_1	RW	Units: Generic
SFA 16bit Writable Value 4	Analog_Value	18024	5720_1	RW	Units: Generic
SFA 16bit Writable Value 5	Analog_Value	18025	5721_1	RW	Units: Generic
SFA 16bit Writable Value 6	Analog_Value	18026	5722_1	RW	Units: Generic
SFA 16bit Writable Value 7	Analog_Value	18027	5723_1	RW	Units: Generic
SFA 16bit Writable Value 8	Analog_Value	18028	5724_1	RW	Units: Generic
SFA 16bit Writable Value 9	Analog_Value	18029	5725_1	RW	Units: Generic
SFA 16bit Writable Value 10	Analog_Value	18030	5726_1	RW	Units: Generic
SFA 32bit Writable Value 1	Analog_Value	18031	5742_1	RW	Units: Generic
SFA 32bit Writable Value 2	Analog_Value	18032	5743_1	RW	Units: Generic
SFA 32bit Writable Value 3	Analog_Value	18033	5744_1	RW	Units: Generic
SFA 32bit Writable Value 4	Analog_Value	18034	5745_1	RW	Units: Generic
SFA 32bit Writable Value 5	Analog_Value	18035	5746_1	RW	Units: Generic
SFA 32bit Writable Value 6	Analog_Value	18036	5747_1	RW	Units: Generic
SFA 32bit Writable Value 7	Analog_Value	18037	5748_1	RW	Units: Generic
SFA 32bit Writable Value 8	Analog_Value	18038	5749_1	RW	Units: Generic
SFA 32bit Writable Value 9	Analog_Value	18039	5750_1	RW	Units: Generic
SFA 32bit Writable Value 10	Analog_Value	18040	5751_1	RW	Units: Generic

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Table 5.46 Liebert® DCP—Multistate Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Ext Air Sensor A Over Temp - Event Control	MultiState_Value	1	4602_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Over Temp - Event Type	MultiState_Value	2	4603_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Over Temp - Event Control	MultiState_Value	3	4605_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Over Temp - Event Type	MultiState_Value	4	4606_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Under Temp - Event Control	MultiState_Value	5	4609_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Under Temp - Event Type	MultiState_Value	6	4610_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Under Temp - Event Control	MultiState_Value	7	4612_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Under Temp - Event Type	MultiState_Value	8	4613_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Dew Point Over Temp - Event Control	MultiState_Value	9	4616_1	RW	1 = disabled 2 = enabled
Ext Dew Point Over Temp - Event Type	MultiState_Value	10	4617_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Issue - Event Control	MultiState_Value	11	4619_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Issue - Event Type	MultiState_Value	12	4620_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Issue - Event Control	MultiState_Value	13	4622_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Issue - Event Type	MultiState_Value	14	4623_1	RW	1 = Message 2 = Warning 3 = Alarm
Chilled Water					
Supply CW Over Temp - Event Control	MultiState_Value	25	4627_1	RW	1 = disabled 2 = enabled

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Table 5.46 Liebert® DCP—Multistate Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Supply CW Over Temp - Event Type	MultiState_Value	26	4628_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply CW Temp Sensor Issue - Event Control	MultiState_Value	27	4630_1	RW	1 = disabled 2 = enabled
Supply CW Temp Sensor Issue - Event Type	MultiState_Value	28	4631_1	RW	1 = Message 2 = Warning 3 = Alarm
Chilled Water Cntrl Valve Pos - Event Control	MultiState_Value	29	4704_1	RW	1 = disabled 2 = enabled
Chilled Water Cntrl Valve Pos - Event Type	MultiState_Value	30	4705_1	RW	1 = Message 2 = Warning 3 = Alarm
Fluid					
Supply Fluid Over Temp - Event Control	MultiState_Value	57	4646_1	RW	1 = disabled 2 = enabled
Supply Fluid Over Temp - Event Type	MultiState_Value	58	4647_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Fluid Under Temp - Event Control	MultiState_Value	59	4649_1	RW	1 = disabled 2 = enabled
Supply Fluid Under Temp - Event Type	MultiState_Value	60	4650_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Fluid Temp Sensor Issue - Event Control	MultiState_Value	61	4652_1	RW	1 = disabled 2 = enabled
Supply Fluid Temp Sensor Issue - Event Type	MultiState_Value	62	4653_1	RW	1 = Message 2 = Warning 3 = Alarm
Pumps					
Pump 1 State	MultiState_Value	73	4654_1	RD	1 = off 2 = on
Pump 2 State	MultiState_Value	74	4655_1	RD	1 = off 2 = on
Pump 1 Loss of Flow - Event Control	MultiState_Value	75	4657_1	RW	1 = disabled 2 = enabled
Pump 1 Loss of Flow - Event Type	MultiState_Value	76	4658_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.46 Liebert® DCP—Multistate Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Pump 2 Loss of Flow - Event Control	MultiState_Value	77	4660_1	RW	1 = disabled 2 = enabled
Pump 2 Loss of Flow - Event Type	MultiState_Value	78	4661_1	RW	1 = Message 2 = Warning 3 = Alarm
Pump Short Cycle - Event Control	MultiState_Value	79	4663_1	RW	1 = disabled 2 = enabled
Pump Short Cycle - Event Type	MultiState_Value	80	4664_1	RW	1 = Message 2 = Warning 3 = Alarm
XDSystem					
Communication Status	MultiState_Value	137	5486_1	RD	1 = Connected 2 = Not Connected
Fan On/Off Control	MultiState_Value	138	5487_1	RW	1 = off 2 = on
Master Fan Group State	MultiState_Value	139	5509_1	RD	1 = off 2 = on 3 = economy
Fan Button Control	MultiState_Value	140	5488_1	RW	1 = enabled 2 = disabled
Visual ID Control	MultiState_Value	141	5489_1	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Control	MultiState_Value	142	5493_1	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Type	MultiState_Value	143	5494_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Fan Issue - Event Control	MultiState_Value	144	5496_1	RW	1 = disabled 2 = enabled
Ext Fan Issue - Event Type	MultiState_Value	145	5497_1	RW	1 = Message 2 = Warning 3 = Alarm
Sensor Issue - Event Control	MultiState_Value	146	5498_1	RW	1 = disabled 2 = enabled
Sensor Issue - Event Type	MultiState_Value	147	5499_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Remote Shutdown - Event Control	MultiState_Value	148	5501_1	RW	1 = disabled 2 = enabled

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Table 5.46 Liebert® DCP—Multistate Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Remote Shutdown - Event Type	MultiState_Value	149	5502_1	RW	1 = Message 2 = Warning 3 = Alarm
XSsyst;em – Slave Fans 1					
Fan State	MultiState_Value	160	5510_1_1	RD	1 = off 2 = on 3 = economy
Fan Economy Mode	MultiState_Value	161	5511_1_1	RW	1 = disabled 2 = automatic 3 = manual
XDSystem 2					
Communication Status	MultiState_Value	172	5486_2	RD	1 = Connected 2 = Not Connected
Fan On/Off Control	MultiState_Value	173	5487_2	RW	1 = off 2 = on
Master Fan Group State	MultiState_Value	174	5509_2	RD	1 = off 2 = on 3 = economy
Fan Button Control	MultiState_Value	175	5488_2	RW	1 = enabled 2 = disabled
Visual ID Control	MultiState_Value	176	5489_2	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Control	MultiState_Value	177	5493_2	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Type	MultiState_Value	178	5494_2	RW	1 = Message 2 = Warning 3 = Alarm
Ext Fan Issue - Event Control	MultiState_Value	179	5496_2	RW	1 = disabled 2 = enabled
Ext Fan Issue - Event Type	MultiState_Value	180	5497_2	RW	1 = Message 2 = Warning 3 = Alarm
Sensor Issue - Event Control	MultiState_Value	181	5498_2	RW	1 = disabled 2 = enabled
Sensor Issue - Event Type	MultiState_Value	182	5499_2	RW	1 = Message 2 = Warning 3 = Alarm
Ext Remote Shutdown - Event Control	MultiState_Value	183	5501_2	RW	1 = disabled 2 = enabled

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Table 5.46 Liebert® DCP—Multistate Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Remote Shutdown - Event Type	MultiState_Value	184	5502_2	RW	1 = Message 2 = Warning 3 = Alarm
XDSystem – Slave Fans 1					
Fan State	MultiState_Value	195	5510_2_1	RD	1 = off 2 = on 3 = economy
Fan Economy Mode	MultiState_Value	196	5511_2_1	RW	1 = disabled 2 = automatic 3 = manual
System Information					
System Status	MultiState_Value	837	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_Value	838	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_Value	839	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Off Reason	MultiState_Value	840	5074_1	RD	1 = None 2 = User 3 = Alarm 4 = Timer 5 = Monitoring 6 = Remote Off 7 = HCS12 Off
System On/Off Control	MultiState_Value	841	5143_1	RW	1 = off 2 = on
System Event Configuration					
Customer Input 1 - Event Control	MultiState_Value	852	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_Value	853	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
System Condensation Detected - Event Control	MultiState_Value	854	4712_1	RW	1 = disabled 2 = enabled
System Condensation Detected - Event Type	MultiState_Value	855	4713_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.46 Liebert® DCP—Multistate Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Shutdown - Loss Of Power - Event Control	MultiState_Value	856	4715_1	RW	1 = disabled 2 = enabled
Shutdown - Loss Of Power - Event Type	MultiState_Value	857	4716_1	RW	1 = Message 2 = Warning 3 = Alarm
Smoke Detected - Event Control	MultiState_Value	858	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_Value	859	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_Value	860	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_Value	861	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_Value	862	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_Value	863	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Fan Issue - Event Control	MultiState_Value	864	4730_1	RW	1 = disabled 2 = enabled
Fan Issue - Event Type	MultiState_Value	865	4731_1	RW	1 = Message 2 = Warning 3 = Alarm
System Events					
System Event Acknowledge/Reset	MultiState_Value	876	4717_1	WO	1 = Reset 2 = Acknowledge

Table 5.47 Liebert® DCP—Glossary

Data Label	Data Description
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Cntrl Valve Pos - Event Control	Enable/disable the activation of the [Chilled Water Control Valve Position] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Chilled Water Cntrl Valve Pos - Event Type	The event type for the [Chilled Water Control Valve Position] event.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Valve Open Position	Chilled water valve open position.
Circuit 1 Low Suction Pressure - Event Control	Enable/disable the activation of the [Circuit 1 Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Circuit 1 Low Suction Pressure - Event Type	The event type for the [Circuit 1 Low Suction Pressure] event.
Circuit 1 Low Suction Pressure	Compressor circuit 1 low suction pressure.
Circuit 2 Low Suction Pressure - Event Control	Enable/disable the activation of the [Circuit 2 Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Circuit 2 Low Suction Pressure - Event Type	The event type for the [Circuit 2 Low Suction Pressure] event.
Circuit 2 Low Suction Pressure	Compressor circuit 2 low suction pressure.
Cold Aisle Over Temp Threshold	Upper threshold value used in the [Cold Aisle Temp Out of Range] event.
Cold Aisle Temp Out of Range	The air temperature in the cold aisle is either above [Cold Aisle Over Temp Threshold] or below [Cold Aisle Under Temp Threshold].
Cold Aisle Under Temp Threshold	Lower threshold value used in the [Cold Aisle Temp Out of Range] event.
Communication Status	Communication status of remote device.
Compressor 1A High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 1A High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1A High Head Pressure - Event Type	The event type for the [Compressor 1A High Head Pressure] event.
Compressor 1A High Head Pressure	Compressor 1A high head pressure.
Compressor 1A Short Cycle - Event Control	Enable/disable the activation of the [Compressor 1A Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1A Short Cycle - Event Type	The event type for the [Compressor 1A Short Cycle] event.
Compressor 1A Short Cycle	Compressor 1A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1A State	Compressor 1A operational state.
Compressor 1B High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 1B High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1B High Head Pressure - Event Type	The event type for the [Compressor 1B High Head Pressure] event.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Compressor 1B High Head Pressure	Compressor 1B high head pressure.
Compressor 1B Short Cycle - Event Control	Enable/disable the activation of the [Compressor 1B Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1B Short Cycle - Event Type	The event type for the [Compressor 1B Short Cycle] event.
Compressor 1B Short Cycle	Compressor 1B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1B State	Compressor 1B operational state.
Compressor 2A High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 2A High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2A High Head Pressure - Event Type	The event type for the [Compressor 2A High Head Pressure] event.
Compressor 2A High Head Pressure	Compressor 2A high head pressure.
Compressor 2A Short Cycle - Event Control	Enable/disable the activation of the [Compressor 2A Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2A Short Cycle - Event Type	The event type for the [Compressor 2A Short Cycle] event.
Compressor 2A Short Cycle	Compressor 2A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2A State	Compressor 2A operational state.
Compressor 2B High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 2B High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2B High Head Pressure - Event Type	The event type for the [Compressor 2B High Head Pressure] event.
Compressor 2B High Head Pressure	Compressor 2B high head pressure.
Compressor 2B Short Cycle - Event Control	Enable/disable the activation of the [Compressor 2B Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2B Short Cycle - Event Type	The event type for the [Compressor 2B Short Cycle] event.
Compressor 2B Short Cycle	Compressor 2B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2B State	Compressor 2B operational state.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer input 1.
Dew Point Temperature	Dew point temperature, using the highest reading from all sensors.
Ext Air Over Temp Threshold	Threshold value used in the ([Ext Air Sensor A Over Temperature], [Ext Air Sensor B Over Temperature]...) events.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue - Event Control	Enable/disable the activation of the [Ext Air Sensor A Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Issue - Event Type	The event type for the [Ext Air Sensor A Issue] event.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [Ext Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Sensor B Dew Point Temp	Dew point temperature as measured by external air sensor B.
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Issue - Event Control	Enable/disable the activation of the [Ext Air Sensor B Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Ext Air Sensor B Issue - Event Type	The event type for the [Ext Air Sensor B Issue] event.
Ext Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
Ext Air Sensor B Over Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor B Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Over Temp - Event Type	The event type for the [Ext Air Sensor B Over Temperature] event.
Ext Air Sensor B Over Temperature	[Ext Air Sensor B Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor B Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor B Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Under Temp - Event Type	The event type for the [Ext Air Sensor B Under Temperature] event.
Ext Air Sensor B Under Temperature	[Ext Air Sensor B Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Under Temp Threshold	Threshold value used in the ([Ext Air Sensor A Under Temperature], [Ext Air Sensor B Under Temperature]...) events.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Dew Point Over Temp - Event Control	Enable/disable the activation of the [Ext Dew Point Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Dew Point Over Temp - Event Type	The event type for the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Fan Issue - Event Control	Enable/disable the activation of the [Ext Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Fan Issue - Event Type	The event type for the [Ext Fan Issue] event.
Ext Fan Issue	One or more fans are not operating within their operational parameters.
Ext Remote Shutdown - Event Control	Enable/disable the activation of the [Remote Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Remote Shutdown - Event Type	The event type for the [Remote Shutdown] event.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Ext System Condensation Detected - Event Control	Enable/disable the activation of the [Ext System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Ext System Condensation Detected - Event Type	The event type for the [Ext System Condensation Detected] event.
Ext System Condensation Detected	External system condensation detected.
Fan Button Control	Enable or disable the buttons from controlling the state of the fans.
Fan Economy Mode	Mode in which system slave fans are to be controlled.
Fan Issue - Event Control	Enable/disable the activation of the [Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Issue - Event Type	The event type for the [Fan Issue] event.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan On/Off Control	Turn system fans on or off.
Fan State	Current operational state of a group of fans.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Hot Aisle Over Temp Threshold	Upper threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Aisle Temp Out of Range	The air temperature in the Hot aisle is either above [Hot Aisle Over Temp Threshold] or below [Hot Aisle Under Temp Threshold].
Hot Aisle Under Temp Threshold	Lower threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Gas Solenoid Valve 1 Position	Hot gas solenoid valve 1 position.
Hot Gas Solenoid Valve 2 Position	Hot gas solenoid valve 2 position.
Hot Gas Valve 1 Open Position	Hot gas valve 1 open position.
Hot Gas Valve 2 Open Position	Hot gas valve 2 open position.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Room Temperature Set Point	Minimum desired room air temperature. If the room air temperature falls below this set point, the unit will reduce the cooling.
Master Fan Group State	Current operational state of the master fan group.
Pump 1 Loss of Flow - Event Control	Enable/disable the activation of the [Pump 1 Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Pump 1 Loss of Flow - Event Type	The event type for the [Pump 1 Loss of Flow] event.
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow - Event Control	Enable/disable the activation of the [Pump 2 Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump 2 Loss of Flow - Event Type	The event type for the [Pump 2 Loss of Flow] event.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Short Cycle - Event Control	Enable/disable the activation of the [Pump Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump Short Cycle - Event Type	The event type for the [Pump Short Cycle] event.
Pump Short Cycle	Pumps have short cycled. A short cycle is defined as turning on and off a number of times over a set time period.
Pump Thermal Overload	Pump is shut down due to thermal overload.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Shutdown	Unit is shut down by a remote signal.
Sensor Issue - Event Control	Enable/disable the activation of the [Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Sensor Issue - Event Type	The event type for the [Sensor Issue] event.
Sensor Issue	One or more sensors are disconnected or the signals are out of range.
Sensor Temperature	Temperature as measured by sensor.
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
SFA 16bit Read Only Value 1	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 10	Reserved 16bit value for SFA use.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
SFA 16bit Read Only Value 2	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 3	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 4	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 5	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 6	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 7	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 8	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 9	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 1	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 10	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 2	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 3	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 4	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 5	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 6	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 7	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 8	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 9	Reserved 16bit value for SFA use.
SFA 32bit Read Only Value 1	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 10	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 2	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 3	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 4	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 5	Reserved 32bit value for SFA use.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
SFA 32bit Read Only Value 6	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 7	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 8	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 9	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 1	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 10	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 2	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 3	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 4	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 5	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 6	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 7	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 8	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 9	Reserved 32bit value for SFA use.
SFA ID Number	This is a unique value identifying a specific SFA.
SFA Reserved Event 1	Reserved event for SFA use.
SFA Reserved Event 10	Reserved event for SFA use.
SFA Reserved Event 11	Reserved event for SFA use.
SFA Reserved Event 12	Reserved event for SFA use.
SFA Reserved Event 13	Reserved event for SFA use.
SFA Reserved Event 14	Reserved event for SFA use.
SFA Reserved Event 15	Reserved event for SFA use.
SFA Reserved Event 16	Reserved event for SFA use.
SFA Reserved Event 17	Reserved event for SFA use.
SFA Reserved Event 18	Reserved event for SFA use.
SFA Reserved Event 19	Reserved event for SFA use.
SFA Reserved Event 2	Reserved event for SFA use.
SFA Reserved Event 20	Reserved event for SFA use.
SFA Reserved Event 21	Reserved event for SFA use.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
SFA Reserved Event 22	Reserved event for SFA use.
SFA Reserved Event 23	Reserved event for SFA use.
SFA Reserved Event 24	Reserved event for SFA use.
SFA Reserved Event 25	Reserved event for SFA use.
SFA Reserved Event 3	Reserved event for SFA use.
SFA Reserved Event 4	Reserved event for SFA use.
SFA Reserved Event 5	Reserved event for SFA use.
SFA Reserved Event 6	Reserved event for SFA use.
SFA Reserved Event 7	Reserved event for SFA use.
SFA Reserved Event 8	Reserved event for SFA use.
SFA Reserved Event 9	Reserved event for SFA use.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Chilled Water Temp Sensor Issue	The supply chilled water temperature sensor is disconnected or the signal is out of range.
Supply CW Over Temp - Event Control	Enable/disable the activation of the [Supply Chilled Water Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply CW Over Temp - Event Type	The event type for the [Supply Chilled Water Over Temp] event.
Supply CW Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Chilled Water Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply CW Temp Sensor Issue - Event Type	The event type for the [Supply Chilled Water Temp Sensor Issue] event.
Supply Fluid Over Temp - Event Control	Enable/disable the activation of the [Supply Fluid Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Over Temp - Event Type	The event type for the [Supply Fluid Over Temp] event.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Fluid Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Temp Sensor Issue - Event Type	The event type for the [Supply Fluid Temp Sensor Issue] event.
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Fluid Temperature	Supply fluid temperature.
Supply Fluid Under Temp - Event Control	Enable/disable the activation of the [Supply Fluid Under Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Under Temp - Event Type	The event type for the [Supply Fluid Under Temp] event.
Supply Fluid Under Temp	[Supply Fluid Temperature] has dropped below a specified threshold.
Supply Refrig Over Temp - Event Control	Enable/disable the activation of the [Supply Refrigerant Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Over Temp - Event Type	The event type for the [Supply Refrigerant Over Temp] event.
Supply Refrig Over Temp Threshold	Threshold value used in the [Supply Refrigerant Over Temp] event.
Supply Refrig Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Refrigerant Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Temp Sensor Issue - Event Type	The event type for the [Supply Refrigerant Temp Sensor Issue] event.
Supply Refrig Under Temp - Event Control	Enable/disable the activation of the [Supply Refrigerant Under Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Under Temp - Event Type	The event type for the [Supply Refrigerant Under Temp] event.
Supply Refrigerant Over Temp	Event that is activated when [Supply Refrigerant Temperature] exceeds [Supply Refrig Over Temp Threshold]. The event is deactivated when the temperature drops below the threshold.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
Supply Refrigerant Temperature	Supply refrigerant temperature.
Supply Refrigerant Under Temp	[Supply Refrigerant Temperature] has dropped below a specified threshold.

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Table 5.47 Liebert® DCP—Glossary (continued)

Data Label	Data Description
System Condensation Detected - Event Control	Enable/disable the activation of the [System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
System Condensation Detected - Event Type	The event type for the [System Condensation Detected] event.
System Condensation Detected	System condensation detected.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Visual ID Control	Visual identification control to display an LED flashing sequence, allowing it to be visually located.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Module Communication Lost	Communication with XD Module has been lost.

Table 5.48 Vertiv™ Liebert® DME2 —Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm

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Table 5.48 Vertiv™ Liebert® DME2 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Airfilter					
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Compressor - CompressorInfo					
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Fan					
Fan Hours Exceeded	Binary_Value	468	5054_1	RD	Active on Alarm
Condenser					
Condensate Pressure Sensor Alarm	Binary_Value	605	8412_1	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Surge Protection Device Alarm	Binary_Value	616	7518_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm

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Table 5.48 Vertiv™ Liebert® DME2 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
Humidifier Hours Exceeded	Binary_Value	649	5037_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
System Events - Custom Alarm 3					
Custom Alarm	Binary_Value	713	7561_1_3	RD	Active on Alarm

Table 5.49 Vertiv™ Liebert® DME2—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - Return Air Temp Sensor					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Humidity Sensor					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Compressor - CompressorInfo					
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Fan - FanInfo					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr

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Table 5.49 Vertiv™ Liebert® DME2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser					
Condensate Fan Hours	Analog_Value	425	8413_1	RW	Units: hr
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - ReheaterInfo					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.50 Vertiv™ Liebert® DME2—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0

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Table 5.50 Vertiv™ Liebert® DME2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout

Table 5.51 Vertiv™ Liebert® DME2 Glossary

Data Label	Data Description
Compressor Hours	Operating hours for compressor since last reset of this value.
Condensate Fan Hours	Condensate Fan Hours
Condensate Pressure Sensor Alarm	Condensate Pressure Sensor Alarm
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm
Dehumidifier State	Dehumidifier operational state.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Power Consumption	Real Time Power for Fan
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout	Compressor Lockout occurred due to high compressor discharge temperature.

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Table 5.51 Vertiv™ Liebert® DME2 Glossary (continued)

Data Label	Data Description
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.

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Table 5.51 Vertiv™ Liebert® DME2 Glossary (continued)

Data Label	Data Description
Server Class	The general classification for this system
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Surge Protection Device Alarm	Surge Protection Device Alarm
System Input Frequency	The system input frequency
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Operating State	System Operating State
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master
Teamwork Status	Teamwork Status
Water Under Floor	Water under the floor is detected.

Table 5.52 Liebert® HPC—Binary Data

Controller	Liebert® iCOM® v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Compressors					
Compressor Not Stopping	Binary_Value	1	5263_1	RD	Active on Alarm
Compressor Superheat Over Threshold	Binary_Value	2	5604_1	RD	Active on Alarm
Compressors - Compressor 1					
Compressor Hours Exceeded	Binary_Value	12	5269_1_1	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	13	5270_1_1	RD	Active on Alarm
Compressor Low Suction Pressure	Binary_Value	14	5271_1_1	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	15	5272_1_1	RD	Active on Alarm
Compressor Low Oil Pressure	Binary_Value	16	5273_1_1	RD	Active on Alarm
Compressor Loss of Differential Pressure	Binary_Value	17	5275_1_1	RD	Active on Alarm
Compressor Capacity Reduced	Binary_Value	18	5513_1_1	RD	Active on Alarm
Compressor Capacity Normal	Binary_Value	19	5773_1_1	RD	Active on Alarm
Compressor Contactor Issue	Binary_Value	20	5774_1_1	RD	Active on Alarm
Compressors - Compressor 2					
Compressor Hours Exceeded	Binary_Value	29	5269_1_2	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	30	5270_1_2	RD	Active on Alarm

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Table 5.52 Liebert® HPC—Binary Data (continued)

Controller	Liebert® iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Compressor Low Suction Pressure	Binary_Value	31	5271_1_2	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	32	5272_1_2	RD	Active on Alarm
Compressor Low Oil Pressure	Binary_Value	33	5273_1_2	RD	Active on Alarm
Compressor Loss of Differential Pressure	Binary_Value	34	5275_1_2	RD	Active on Alarm
Compressor Capacity Reduced	Binary_Value	35	5513_1_2	RD	Active on Alarm
Compressor Capacity Normal	Binary_Value	36	5773_1_2	RD	Active on Alarm
Compressor Contactor Issue	Binary_Value	37	5774_1_2	RD	Active on Alarm
Compressors - Compressor 4					
Compressor Hours Exceeded	Binary_Value	263	5269_1_4	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	264	5270_1_4	RD	Active on Alarm
Compressor Low Suction Pressure	Binary_Value	265	5271_1_4	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	266	5272_1_4	RD	Active on Alarm
Compressor Low Oil Pressure	Binary_Value	267	5273_1_4	RD	Active on Alarm
Compressor Loss of Differential Pressure	Binary_Value	268	5275_1_4	RD	Active on Alarm
Compressor Capacity Reduced	Binary_Value	269	5513_1_4	RD	Active on Alarm
Compressor Capacity Normal	Binary_Value	270	5773_1_4	RD	Active on Alarm
Compressor Contactor Issue	Binary_Value	271	5774_1_4	RD	Active on Alarm
Condenser 1					
Condenser Fan Issue	Binary_Value	46	5277_1	RD	Active on Alarm
Low Condenser Refrigerant Pressure	Binary_Value	47	5278_1	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	48	5545_1	RD	Active on Alarm
Condenser 2					
Condenser Fan Issue	Binary_Value	59	5277_2	RD	Active on Alarm
Low Condenser Refrigerant Pressure	Binary_Value	60	5278_2	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	61	5545_2	RD	Active on Alarm
Condenser 4					
Condenser Fan Issue	Binary_Value	67	5277_4	RD	Active on Alarm
Low Condenser Refrigerant Pressure	Binary_Value	68	5278_4	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	69	5545_4	RD	Active on Alarm
Fluid					

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Table 5.52 Liebert® HPC—Binary Data (continued)

Controller	Liebert® iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Low Fluid Pressure	Binary_Value	72	5280_1	RD	Active on Alarm
Return Fluid Temp Sensor Issue	Binary_Value	73	5295_1	RD	Active on Alarm
Fluid - Supply (Outlet) Fluid					
Supply Fluid Over Temp	Binary_Value	84	4645_1_1	RD	Active on Alarm
Supply Fluid Under Temp	Binary_Value	85	4648_1_1	RD	Active on Alarm
Supply Fluid Temp Sensor Issue	Binary_Value	86	4651_1_1	RD	Active on Alarm
Pumps					
All Pumps Loss of Flow	Binary_Value	97	5297_1	RD	Active on Alarm
Pump 1 Loss of Flow	Binary_Value	98	4656_1	RD	Active on Alarm
Pump 2 Loss of Flow	Binary_Value	99	4659_1	RD	Active on Alarm
Pumps - Pump 1					
Pump Hours Exceeded	Binary_Value	110	5300_1_1	RD	Active on Alarm
Pumps - Pump 2					
Pump Hours Exceeded	Binary_Value	121	5300_1_2	RD	Active on Alarm
Free Cooling					
Free Cooling Valve Hours Exceeded	Binary_Value	132	5306_1	RD	Active on Alarm
Ambient Air Temperature Sensor Issue	Binary_Value	133	4618_1	RD	Active on Alarm
Evaporators					
Evaporator Inlet Temp Sensor Issue	Binary_Value	144	5308_1	RD	Active on Alarm
Evaporator Return Fluid Over Temp	Binary_Value	145	5559_1	RD	Active on Alarm
Evaporator Return Fluid Under Temp	Binary_Value	146	5560_1	RD	Active on Alarm
Evaporators - Evaporator 1					
Evaporator Fluid Freeze - Auto Reset	Binary_Value	157	5310_1_1	RD	Active on Alarm
Evaporator Fluid Freeze - Manual Reset Required	Binary_Value	158	5311_1_1	RD	Active on Alarm
Supply Refrigerant Temp Sensor Issue	Binary_Value	159	4640_1_1	RD	Active on Alarm
Evaporators - Evaporator 2					
Evaporator Fluid Freeze - Auto Reset	Binary_Value	170	5310_1_2	RD	Active on Alarm
Evaporator Fluid Freeze - Manual Reset Required	Binary_Value	171	5311_1_2	RD	Active on Alarm
Supply Refrigerant Temp Sensor Issue	Binary_Value	172	4640_1_2	RD	Active on Alarm
System Events					

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Table 5.52 Liebert® HPC—Binary Data (continued)

Controller	Liebert® iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Customer Input 1	Binary_Value	183	4270_1	RD	Active on Alarm
Customer Input 2	Binary_Value	184	4271_1	RD	Active on Alarm
Customer Input 3	Binary_Value	194	4272_1	RD	Active on Alarm
Customer Input 4	Binary_Value	195	4273_1	RD	Active on Alarm
Unit On	Binary_Value	185	5109_1	RD	Active on Alarm
Unit Off	Binary_Value	186	5110_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	187	5120_1	RD	Active on Alarm
Subgroup Event Occurred During Communication Loss	Binary_Value	188	5315_1	RD	Active on Alarm
Humidifier Control Board Not Detected	Binary_Value	189	5045_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	190	5119_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	191	5418_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	192	5588_1	RD	Active on Alarm
Unit Shutdown Unspecified General Event	Binary_Value	193	5775_1	RD	Active on Alarm
EEV 1					
EEV Unspecified General Event	Binary_Value	200	5625_1	RD	Active on Alarm
EEV 2					
EEV Unspecified General Event	Binary_Value	210	5625_2	RD	Active on Alarm
EEV 4					
EEV Unspecified General Event	Binary_Value	230	5625_4	RD	Active on Alarm
Power Measurement 1					
Modbus Power Meter Communication Lost	Binary_Value	282	5967_1	RD	Active on Alarm
Power Measurement 2					
Modbus Power Meter Communication Lost	Binary_Value	293	5967_2	RD	Active on Alarm

Table 5.53 Liebert® HPC—Analog Data

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Compressors					
Compressor Shut Down - Ambient Air Low Temp Limit	Analog_Value	1	5262_1	RW	Units: deg C
Compressor Shut Down - Ambient Air Low Temp Limit	Analog_Value	10001	5262_1_deg_F	RW	Units: deg F
Compressors - Compressor 1					

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Table 5.53 Liebert® HPC—Analog Data (continued)

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Compressor Head Pressure	Analog_Value	12	5266_1_1	RD	Units: bar
Compressor Hours	Analog_Value	13	5267_1_1	RW	Units: hr
Compressor Hours Threshold	Analog_Value	14	5268_1_1	RW	Units: hr
Compressors - Compressor 2					
Compressor Head Pressure	Analog_Value	25	5266_1_2	RD	Units: bar
Compressor Hours	Analog_Value	26	5267_1_2	RW	Units: hr
Compressor Hours Threshold	Analog_Value	27	5268_1_2	RW	Units: hr
Compressors - Compressor 4					
Compressor Head Pressure	Analog_Value	215	5266_1_4	RD	Units: bar
Compressor Hours	Analog_Value	216	5267_1_4	RW	Units: hr
Compressor Hours Threshold	Analog_Value	217	5268_1_4	RW	Units: hr
Condenser 1					
Condenser Fan Speed	Analog_Value	38	5276_1	RD	Units: %
Condenser 2					
Condenser Fan Speed	Analog_Value	49	5276_2	RD	Units: %
Condenser 4					
Condenser Fan Speed	Analog_Value	55	5276_4	RD	Units: %
Fluid					
Fluid Pressure	Analog_Value	60	5279_1	RD	Units: bar
Fluid Cooling Proportional Band	Analog_Value	61	5281_1	RW	Units: deg C
Fluid Cooling Proportional Band	Analog_Value	10061	5281_1_deg_F	RW	Units: deg F
Fluid - Supply (Outlet) Fluid					
Supply Fluid Temp Set Point 1	Analog_Value	72	5283_1_1	RW	Units: deg C
Supply Fluid Temp Set Point 1	Analog_Value	10072	5283_1_1_deg_F	RW	Units: deg F
Supply Fluid Temp Set Point 2	Analog_Value	73	5284_1_1	RW	Units: deg C
Supply Fluid Temp Set Point 2	Analog_Value	10073	5284_1_1_deg_F	RW	Units: deg F
Supply Fluid Over Temp Alarm Threshold	Analog_Value	74	5285_1_1	RW	Units: deg C
Supply Fluid Over Temp Alarm Threshold	Analog_Value	10074	5285_1_1_deg_F	RW	Units: deg F
Supply Fluid Over Temp Warning Threshold	Analog_Value	75	4644_1_1	RW	Units: deg C
Supply Fluid Over Temp Warning Threshold	Analog_Value	10075	4644_1_1_deg_F	RW	Units: deg F
Supply Fluid Under Temp Warning Threshold	Analog_Value	76	5286_1_1	RW	Units: deg C

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Table 5.53 Liebert® HPC—Analog Data (continued)

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Supply Fluid Under Temp Warning Threshold	Analog_Value	10076	5286_1_1_deg_F	RW	Units: deg F
Supply Fluid Under Temp Alarm Threshold	Analog_Value	77	5287_1_1	RW	Units: deg C
Supply Fluid Under Temp Alarm Threshold	Analog_Value	10077	5287_1_1_deg_F	RW	Units: deg F
Pumps - Pump 1					
Pump Hours	Analog_Value	88	5298_1_1	RW	Units: hr
Pump Hours Threshold	Analog_Value	89	5299_1_1	RW	Units: hr
Pumps - Pump 2					
Pump Hours	Analog_Value	100	5298_1_2	RW	Units: hr
Pump Hours Threshold	Analog_Value	101	5299_1_2	RW	Units: hr
Free Cooling					
Free Cooling External Temperature Delta	Analog_Value	112	5301_1	RW	Units: deg C
Free Cooling External Temperature Delta	Analog_Value	10112	5301_1_deg_F	RW	Units: deg F
Free Cooling Valve Open Position	Analog_Value	113	5303_1	RD	Units: %
Free Cooling Valve Hours	Analog_Value	114	5304_1	RW	Units: hr
Free Cooling Valve Hours Threshold	Analog_Value	115	5305_1	RW	Units: hr
Evaporators					
Evaporator Return Fluid Temperature	Analog_Value	126	5307_1	RD	Units: deg C
Evaporator Return Fluid Temperature	Analog_Value	10126	5307_1_deg_F	RD	Units: deg F
Evaporator Return Fluid Over Temp Alarm Threshold	Analog_Value	127	5555_1	RW	Units: deg C
Evaporator Return Fluid Over Temp Alarm Threshold	Analog_Value	10127	5555_1_deg_F	RW	Units: deg F
Evaporator Return Fluid Over Temp Warning Threshold	Analog_Value	128	5556_1	RW	Units: deg C
Evaporator Return Fluid Over Temp Warning Threshold	Analog_Value	10128	5556_1_deg_F	RW	Units: deg F
Evaporator Return Fluid Under Temp Warning Threshold	Analog_Value	129	5557_1	RW	Units: deg C
Evaporator Return Fluid Under Temp Warning Threshold	Analog_Value	10129	5557_1_deg_F	RW	Units: deg F
Evaporator Return Fluid Under Temp Alarm Threshold	Analog_Value	130	5558_1	RW	Units: deg C
Evaporator Return Fluid Under Temp Alarm Threshold	Analog_Value	10130	5558_1_deg_F	RW	Units: deg F
Brine					
Supply Brine Temp Set Point	Analog_Value	141	5312_1	RW	Units: deg C
Supply Brine Temp Set Point	Analog_Value	10141	5312_1_deg_F	RW	Units: deg F
Standby Units					
Standby Units	Analog_Value	152	5314_1	RW	

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Table 5.53 Liebert® HPC—Analog Data (continued)

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
System Operations					
Return Fluid Temperature	Analog_Value	163	5288_1	RD	Units: deg C
Return Fluid Temperature	Analog_Value	10163	5288_1_deg_F	RD	Units: deg F
Supply Fluid Temperature	Analog_Value	164	4643_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	10164	4643_1_deg_F	RD	Units: deg F
Actual Supply Fluid Temp Set Point	Analog_Value	165	5282_1	RD	Units: deg C
Actual Supply Fluid Temp Set Point	Analog_Value	10165	5282_1_deg_F	RD	Units: deg F
Condenser Inlet Water Temperature	Analog_Value	166	5517_1	RD	Units: deg C
Condenser Inlet Water Temperature	Analog_Value	10166	5517_1_deg_F	RD	Units: deg F
Condenser Outlet Water Temperature	Analog_Value	167	5518_1	RD	Units: deg C
Condenser Outlet Water Temperature	Analog_Value	10167	5518_1_deg_F	RD	Units: deg F
Supply Heated Water Temp Set Point	Analog_Value	168	5313_1	RW	Units: deg C
Supply Heated Water Temp Set Point	Analog_Value	10168	5313_1_deg_F	RW	Units: deg F
Free Cooling Utilization	Analog_Value	169	5519_1	RD	Units: %
Reheat Utilization	Analog_Value	170	5080_1	RD	Units: %
Compressor Utilization	Analog_Value	171	5078_1	RD	Units: %
Ambient Air Temperature	Analog_Value	172	4594_1	RD	Units: deg C
Ambient Air Temperature	Analog_Value	10172	4594_1_deg_F	RD	Units: deg F
Compressor Economizer Utilization	Analog_Value	173	5520_1	RD	Units: %
Condenser Adiabatic Cooling Utilization	Analog_Value	174	5521_1	RD	Units: %
Time					
System Date and Time	Analog_Value	185	4293_1	RW	—
Power Measurement 1					
System Input RMS A-B	Analog_Value	263	4097_1	RD	Units: VAC
System Input RMS A-N	Analog_Value	264	4096_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	265	4113_1	RD	Units: A AC
System Input RMS B-C	Analog_Value	266	4099_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	267	4098_1	RD	Units: VAC
System Input RMS Current Phase B	Analog_Value	268	4114_1	RD	Units: A AC
System Input RMS C-A	Analog_Value	269	4101_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	270	4100_1	RD	Units: VAC

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Table 5.53 Liebert® HPC—Analog Data (continued)

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
System Input RMS Current Phase C	Analog_Value	271	4115_1	RD	Units: A AC
Energy Consumption	Analog_Value	272	5900_1	RD	Units: kWH
Instantaneous Power	Analog_Value	273	5901_1	RD	Units: W
Output Power Factor	Analog_Value	274	5167_1	RD	—
Power Measurement 2					
System Input RMS A-B	Analog_Value	285	4097_2	RD	Units: VAC
System Input RMS A-N	Analog_Value	286	4096_2	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	287	4113_2	RD	Units: A AC
System Input RMS B-C	Analog_Value	288	4099_2	RD	Units: VAC
System Input RMS B-N	Analog_Value	289	4098_2	RD	Units: VAC
System Input RMS Current Phase B	Analog_Value	290	4114_2	RD	Units: A AC
System Input RMS C-A	Analog_Value	291	4101_2	RD	Units: VAC
System Input RMS C-N	Analog_Value	292	4100_2	RD	Units: VAC
System Input RMS Current Phase C	Analog_Value	293	4115_2	RD	Units: A AC
Energy Consumption	Analog_Value	294	5900_2	RD	Units: kWH
Instantaneous Power	Analog_Value	295	5901_2	RD	Units: W
Output Power Factor	Analog_Value	296	5167_2	RD	—

Table 5.54 Liebert® HPC—MultiState Data

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU
Compressors - Compressor 1					
Compressor State	MultiState_Value	12	5264_1_1	RD	1 = off 2 = on
Compressor Capacity Control State	MultiState_Value	13	5265_1_1	RD	1 = off 2 = on
Compressors - Compressor 2					
Compressor State	MultiState_Value	24	5264_1_2	RD	1 = off 2 = on

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Table 5.54 Liebert® HPC—MultiState Data (continued)

Controller	Liebert iCOM® v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Compressor Capacity Control State	MultiState_Value	25	5265_1_2	RD	1 = off 2 = on
Compressors - Compressor 4					
Compressor State	MultiState_Value	246	5264_1_4	RD	1 = off 2 = on
Compressor Capacity Control State	MultiState_Value	247	5265_1_4	RD	1 = off 2 = on
Free Cooling					
Free Cooling Status	MultiState_Value	36	5302_1	RD	1 = off 2 = on 3 = No Support
System Events					
System Event Acknowledge/Reset	MultiState_Value	47	4717_1	WO	1 = Reset 2 = Acknowledge
System Info					
System Status	MultiState_Value	58	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
System Operating State	MultiState_Value	59	4706_1	RD	1 = off 2 = on 3 = standby
System Control Mode	MultiState_Value	60	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
System Operating State Reason	MultiState_Value	61	5074_1	RD	1 = Reason Unknown 2 = Network Display 3 = Alarm 4 = Schedule 5 = Remote System 6 = External Input 7 = Local Display
System On/Off Control	MultiState_Value	62	5143_1	RW	1 = off 2 = on
System Operations					
Pump 1 State	MultiState_Value	73	4654_1	RD	1 = off 2 = on
Pump 2 State	MultiState_Value	74	4655_1	RD	1 = off 2 = on

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Table 5.55 Liebert® HPC—Glossary

Data Label	Data Description
Actual Supply Fluid Temp Set Point	The actual set point value being used for the desired fluid temperature at the outlet of the unit.
All Pumps Loss of Flow	System is shut down due to loss of flow in all available pumps.
Ambient Air Temperature Sensor Issue	The ambient air temperature sensor is disconnected or the signal is out of range.
Ambient Air Temperature	Ambient air temperature.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Normal	Compressor has returned to normal load capacity.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor Contactor Issue	Compressor contactor is not closing during compressor startup or is not opening during compressor shutdown.
Compressor Economizer Utilization	Present compressor economizer utilization expressed as a percentage of the maximum.
Compressor Head Pressure	Compressor head pressure.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Loss of Differential Pressure	Compressor is shut down due to low differential pressure.
Compressor Low Oil Pressure	Compressor low oil pressure.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Not Stopping	Compressor commanded to stop, but continues to run.
Compressor Shut Down - Ambient Air Low Temp Limit	When the temperature of ambient air falls below this lower threshold, the compressor will be shut off. Correct condensing pressure cannot be achieved when temperature is too low.
Compressor State	Compressor operational state.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Compressor Utilization	Present compressor utilization expressed as a percentage of the maximum rated capacity.
Condenser Adiabatic Cooling Utilization	Present adiabatic cooling utilization expressed as a percentage of the maximum.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Inlet Water Temperature	For water cooled condensers, the temperature of the water entering the heat exchanger, before cooling the refrigerant.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.

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Table 5.55 Liebert® HPC—Glossary (continued)

Data Label	Data Description
Condenser Outlet Water Temperature	For water cooled condensers, the temperature of the water exiting the heat exchanger, after cooling the refrigerant.
Cooling Gross Capacity	Cooling Gross Capacity
Customer Input 1	Customer input 1.
Customer Input 2	Customer input 2.
Customer Input 3	Customer input 3.
Customer Input 4	Customer input 4.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Energy Consumption	Energy consumption since the last reset of this value.
Evaporator Fluid Freeze - Auto Reset	Evaporator outlet fluid temperature has dropped below the freeze threshold. Evaporator has been shut down, but will restart when the temperature rises above the threshold.
Evaporator Fluid Freeze - Manual Reset Required	Evaporator outlet fluid temperature has dropped below the freeze threshold. Evaporator has been shut down and requires a manual reset.
Evaporator Inlet Temp Sensor Issue	The evaporator inlet temperature sensor is disconnected or the signal is out of range.
Evaporator Return Fluid Over Temp Alarm Threshold	Alarm threshold value used in the [Evaporator Return Fluid Over Temp] event.
Evaporator Return Fluid Over Temp Warning Threshold	Warning threshold value used in the [Evaporator Return Fluid Over Temp] event.
Evaporator Return Fluid Over Temp	[Evaporator Return Fluid Temperature] has exceeded a threshold. The event is deactivated when the temperature drops below the threshold.
Evaporator Return Fluid Temperature	Fluid temperature measured at the inlet of the evaporator.
Evaporator Return Fluid Under Temp Alarm Threshold	Alarm threshold value used in the [Evaporator Return Fluid Under Temp] event.
Evaporator Return Fluid Under Temp Warning Threshold	Warning threshold value used in the [Evaporator Return Fluid Under Temp] event.
Evaporator Return Fluid Under Temp	[Evaporator Return Fluid Temperature] has dropped below a threshold. The event is deactivated when the temperature rises above the threshold.
Fluid Cooling Proportional Band	Temperature control band above [Actual Supply Fluid Temp Set Point]. If [Return Fluid Temperature] is within this band, fluid cooling operations are proportionally controlled.
Fluid Pressure	Fluid pressure. This is the pressure within a closed water/glycol circuit.
Free Cooling External Temperature Delta	Minimum temperature delta required between return fluid and external ambient air temperatures in order to enable free cooling.
Free Cooling Status	Free cooling status.
Free Cooling Utilization	Present free cooling utilization expressed as a percentage of the maximum.
Free Cooling Valve Hours Exceeded	[Free Cooling Valve Hours] has exceeded [Free Cooling Valve Hours Threshold].
Free Cooling Valve Hours Threshold	Threshold value used in the [Free Cooling Valve Hours Exceeded] event.

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Table 5.55 Liebert® HPC—Glossary (continued)

Data Label	Data Description
Free Cooling Valve Hours	Operating hours for free cooling valve since last reset of this value.
Free Cooling Valve Open Position	Free cooling valve open position.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Instantaneous Power	Total electrical power currently being consumed.
Low Condenser Refrigerant Pressure	Refrigerant pressure in condenser coil is too low.
Low Fluid Pressure	[Fluid Pressure] has dropped below a specified threshold.
Master Unit Communication Lost	Communication with master unit has been lost.
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Output Power Factor	Total power factor, real power/apparent power for all phases combined
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. This condition occurs when no flow is detected through the flow switch.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. This condition occurs when no flow is detected through the flow switch.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Server Class	The general classification for this system
Standby Units	The number of standby units.
Subgroup Event Occurred During Communication Loss	While subgroup unit communication was lost, an event occurred on the subgroup unit. Please check subgroup unit event log.
Supply Brine Temp Set Point	Desired brine fluid temperature at the outlet of the unit.
Supply Fluid Over Temp Alarm Threshold	Threshold value used to generate a [Supply Fluid Over Temp] alarm.
Supply Fluid Over Temp Warning Threshold	Threshold value used to generate a [Supply Fluid Over Temp] warning.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded a specified threshold.
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temp Set Point 1	Set point 1 of desired fluid temperature at the outlet of the unit.

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Table 5.55 Liebert® HPC—Glossary (continued)

Data Label	Data Description
Supply Fluid Temp Set Point 2	Set point 2 of desired fluid temperature at the outlet of the unit.
Supply Fluid Temperature	Fluid temperature measured at the outlet of the unit.
Supply Fluid Under Temp Alarm Threshold	Threshold value used to generate a [Supply Fluid Under Temp] alarm.
Supply Fluid Under Temp Warning Threshold	Threshold value used to generate a [Supply Fluid Under Temp] warning.
Supply Fluid Under Temp	[Supply Fluid Temperature] has dropped below a specified threshold.
Supply Heated Water Temp Set Point	Desired heated water temperature at the outlet of the unit.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
System Control Mode	System control mode.
System Date and Time	The system date and time.
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System On/Off Control	Turn system functionality on or off.
System Operating State Reason	The reason the system is in the current operating state.
System Operating State	Current operating state of the system.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Shutdown Unspecified General Event	One or more unspecified unit shutdown events active. See local unit display for further details.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.

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Table 5.56 Liebert® iCOM™ DCL—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air Temperature					
Supply Air Over Temperature	Binary_Value	1	5015_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	2	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	3	5023_1	RD	Active on Alarm
Supply Air Sensor Issue	Binary_Value	4	5026_1	RD	Active on Alarm
Return Air Sensor Issue	Binary_Value	5	5147_1	RD	Active on Alarm
Unit Top Return Air Sensor Failure	Binary_Value	6	6274_1	RD	Active on Alarm
Unit Middle Return Air Sensor Failure	Binary_Value	7	6275_1	RD	Active on Alarm
Unit Bottom Return Air Sensor Failure	Binary_Value	8	6276_1	RD	Active on Alarm
Unit Top Supply Air Sensor Failure	Binary_Value	9	6277_1	RD	Active on Alarm
Unit Middle First Supply Air Sensor Failure	Binary_Value	10	6278_1	RD	Active on Alarm
Unit Middle Second Supply Air Sensor Failure	Binary_Value	11	6284_1	RD	Active on Alarm
Unit Bottom Supply Air Sensor Failure	Binary_Value	12	6279_1	RD	Active on Alarm
Pipe Temperature Sensor Failure	Binary_Value	13	6358_1	RD	Active on Alarm
Humidity					
High Return Humidity	Binary_Value	24	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	25	5036_1	RD	Active on Alarm
Dehumidifier Hours Exceeded	Binary_Value	26	5038_1	RD	Active on Alarm
Fans					
Loss of Air Flow	Binary_Value	37	5053_1	RD	Active on Alarm
Fan Hours Exceeded	Binary_Value	38	5054_1	RD	Active on Alarm
Top Fan Issue	Binary_Value	39	5055_1	RD	Active on Alarm
Bottom Fan Issue	Binary_Value	40	5056_1	RD	Active on Alarm
Remote Sensors 1					
Remote Sensor Issue	Binary_Value	51	5060_1	RD	Active on Alarm
Remote Sensors 2					
Remote Sensor Issue	Binary_Value	62	5060_2	RD	Active on Alarm
Remote Sensors 4					
Remote Sensor Issue	Binary_Value	84	5060_4	RD	Active on Alarm
Chilled Water					
Chilled Water Control Valve Failure	Binary_Value	95	4703_1	RD	Active on Alarm
Supply Chilled Water Loss of Flow	Binary_Value	96	4980_1	RD	Active on Alarm

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Table 5.56 Liebert® iCOM™ DCL—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Chilled Water Control Active	Binary_Value	97	6293_1	RD	Active on Alarm
Modbus 0-10V Module Communication Failure	Binary_Value	98	6297_1	RD	Active on Alarm
Chilled Water Circuit 1					
Chilled Water Flow Transducer Failure	Binary_Value	109	6294_1_1	RD	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	Binary_Value	110	6295_1_1	RD	Active on Alarm
Chilled Water High Inlet Temperature	Binary_Value	111	6296_1_1	RD	Active on Alarm
Chilled Water Circuit 2					
Chilled Water Flow Transducer Failure	Binary_Value	122	6294_1_2	RD	Active on Alarm
Chilled Water Inlet Temperature Sensor Failure	Binary_Value	123	6295_1_2	RD	Active on Alarm
Chilled Water High Inlet Temperature	Binary_Value	124	6296_1_2	RD	Active on Alarm
Customer Input 1	Binary_Value	135	4270_1	RD	Active on Alarm
Customer Input 2	Binary_Value	136	4271_1	RD	Active on Alarm
Customer Input 3	Binary_Value	137	4272_1	RD	Active on Alarm
Customer Input 4	Binary_Value	138	4273_1	RD	Active on Alarm
Smoke Detected	Binary_Value	139	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	140	4723_1	RD	Active on Alarm
Service Required	Binary_Value	141	4726_1	RD	Active on Alarm
Ext Over Temperature	Binary_Value	142	5104_1	RD	Active on Alarm
Ext Loss of Flow	Binary_Value	143	5105_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	144	5106_1	RD	Active on Alarm
Ext Standby Glycol Pump On	Binary_Value	145	5107_1	RD	Active on Alarm
External Fire Detected	Binary_Value	146	5108_1	RD	Active on Alarm
Unit On	Binary_Value	147	5109_1	RD	Active on Alarm
Unit Off	Binary_Value	148	5110_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	149	5112_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	150	5113_1	RD	Active on Alarm
Water Leakage Detector Sensor Issue	Binary_Value	151	5114_1	RD	Active on Alarm
BMS Communications Timeout	Binary_Value	152	5115_1	RD	Active on Alarm
Maintenance Due	Binary_Value	153	5116_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	154	5117_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	155	5119_1	RD	Active on Alarm

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Table 5.56 Liebert® iCOM™ DCL—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Power Shutdown	Binary_Value	156	5121_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	157	5588_1	RD	Active on Alarm
Rack Doors Open	Binary_Value	158	6299_1	RD	Active on Alarm

Table 5.57 Liebert® iCOM™ DCL—Analog Data

Data Label	Object Type	Instace	Object Name	Access	Notes
Air Temperature					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Return Dew Point	Analog_Value	3	5004_1	RD	Units: deg C
Return Dew Point	Analog_Value	10003	5004_1_deg_F	RD	Units: deg F
Remote Sensor Minimum Temperature	Analog_Value	4	5005_1	RD	Units: deg C
Remote Sensor Minimum Temperature	Analog_Value	10004	5005_1_deg_F	RD	Units: deg F
Remote Sensor Maximum Temperature	Analog_Value	5	5006_1	RD	Units: deg C
Remote Sensor Maximum Temperature	Analog_Value	10005	5006_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	6	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10006	5007_1_deg_F	RD	Units: deg F
Air Temperature Set Point	Analog_Value	7	5008_1	RW	Units: deg C
Air Temperature Set Point	Analog_Value	10007	5008_1_deg_F	RW	Units: deg F
Cooling Proportional Band	Analog_Value	8	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10008	5009_1_deg_F	RW	Units: deg F
Air Temperature Dead Band	Analog_Value	9	5011_1	RW	Units: deg C
Air Temperature Dead Band	Analog_Value	10009	5011_1_deg_F	RW	Units: deg F
High Supply Air Temperature Threshold	Analog_Value	10	5014_1	RW	Units: deg C
High Supply Air Temperature Threshold	Analog_Value	10010	5014_1_deg_F	RW	Units: deg F
Unit Top Return Sensor Temperature	Analog_Value	11	6268_1	RD	Units: deg C
Unit Top Return Sensor Temperature	Analog_Value	10011	6268_1_deg_F	RD	Units: deg F
Unit Middle Return Sensor Temperature	Analog_Value	12	6269_1	RD	Units: deg C
Unit Middle Return Sensor Temperature	Analog_Value	10012	6269_1_deg_F	RD	Units: deg F
Unit Bottom Return Sensor Temperature	Analog_Value	13	6270_1	RD	Units: deg C
Unit Bottom Return Sensor Temperature	Analog_Value	10013	6270_1_deg_F	RD	Units: deg F

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Table 5.57 Liebert® iCOM™ DCL—Analog Data (continued)

Data Label	Object Type	Instace	Object Name	Access	Notes
Unit Top Supply Sensor Temperature	Analog_Value	14	6271_1	RD	Units: deg C
Unit Top Supply Sensor Temperature	Analog_Value	10014	6271_1_deg_F	RD	Units: deg F
Unit Middle First Supply Sensor Temperature	Analog_Value	15	6272_1	RD	Units: deg C
Unit Middle First Supply Sensor Temperature	Analog_Value	10015	6272_1_deg_F	RD	Units: deg F
Unit Middle Second Supply Sensor Temperature	Analog_Value	16	6283_1	RD	Units: deg C
Unit Middle Second Supply Sensor Temperature	Analog_Value	10016	6283_1_deg_F	RD	Units: deg F
Unit Bottom Supply Sensor Temperature	Analog_Value	17	6273_1	RD	Units: deg C
Unit Bottom Supply Sensor Temperature	Analog_Value	10017	6273_1_deg_F	RD	Units: deg F
Low Supply Air Temperature Threshold	Analog_Value	18	5018_1	RW	Units: deg C
Low Supply Air Temperature Threshold	Analog_Value	10018	5018_1_deg_F	RW	Units: deg F
High Return Air Temperature Threshold	Analog_Value	19	5022_1	RW	Units: deg C
High Return Air Temperature Threshold	Analog_Value	10019	5022_1_deg_F	RW	Units: deg F
Humidity					
Supply Humidity	Analog_Value	30	5027_1	RD	Units: % RH
Return Humidity	Analog_Value	31	5028_1	RD	Units: % RH
Humidity Set Point	Analog_Value	32	5029_1	RW	Units: % RH
High Return Humidity Threshold	Analog_Value	33	5033_1	RW	Units: % RH
Low Return Humidity Threshold	Analog_Value	34	5035_1	RW	Units: % RH
Unit Top Return Sensor Humidity	Analog_Value	35	6280_1	RD	Units: % RH
Unit Middle Return Sensor Humidity	Analog_Value	36	6281_1	RD	Units: % RH
Unit Bottom Return Sensor Humidity	Analog_Value	37	6282_1	RD	Units: % RH
Fans					
Fan Speed Proportional Band	Analog_Value	48	5048_1	RW	Units: deg C
Fan Speed Proportional Band	Analog_Value	10048	5048_1_deg_F	RW	Units: deg F
Fan Speed Manual Set Point	Analog_Value	49	5049_1	RW	Units: %
Fan Speed Maximum Set Point	Analog_Value	50	5050_1	RW	Units: %
Fan Speed Minimum Set Point	Analog_Value	51	5051_1	RW	Units: %
Pipe Temperature Set Point	Analog_Value	52	6359_1	RW	Units: deg C
Pipe Temperature Set Point	Analog_Value	10052	6359_1_deg_F	RW	Units: deg F
Pipe Temperature Dead Band	Analog_Value	53	6360_1	RW	Units: deg C
Pipe Temperature Dead Band	Analog_Value	10053	6360_1_deg_F	RW	Units: deg F
Remote Sensors 1					

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Table 5.57 Liebert® iCOM™ DCL—Analog Data (continued)

Data Label	Object Type	Instace	Object Name	Access	Notes
Remote Sensor Temperature	Analog_Value	64	5059_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10064	5059_1_deg_F	RD	Units: deg F
Remote Sensors 2					
Remote Sensor Temperature	Analog_Value	75	5059_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10075	5059_2_deg_F	RD	Units: deg F
Remote Sensors 4					
Remote Sensor Temperature	Analog_Value	97	5059_4	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10097	5059_4_deg_F	RD	Units: deg F
Chilled Water					
High Supply Fluid Temperature Threshold	Analog_Value	108	4625_1	RW	Units: deg C
High Supply Fluid Temperature Threshold	Analog_Value	10108	4625_1_deg_F	RW	Units: deg F
Chilled Water Valve Rotation Hour	Analog_Value	109	6289_1	RW	Units: hr
Chilled Water Inlet High Temperature Threshold	Analog_Value	110	6291_1	RW	Units: deg C
Chilled Water Inlet High Temperature Threshold	Analog_Value	10110	6291_1_deg_F	RW	Units: deg F
Chilled Water Valve Open Position	Analog_Value	111	5640_1	RW	Units: %
Chilled Water Inlet Temperature Hysteresis	Analog_Value	112	6292_1	RW	Units: deg C
Chilled Water Inlet Temperature Hysteresis	Analog_Value	10112	6292_1_deg_F	RW	Units: deg F
Chilled Water Circuit 1					
Chilled Water Outlet Temperature	Analog_Value	123	6312_1_1	RD	Units: deg C
Chilled Water Outlet Temperature	Analog_Value	10123	6312_1_1_deg_F	RD	Units: deg F
Chilled Water Inlet Temperature	Analog_Value	124	6311_1_1	RD	Units: deg C
Chilled Water Inlet Temperature	Analog_Value	10124	6311_1_1_deg_F	RD	Units: deg F
Chiled Water Circuit 2					
Chilled Water Outlet Temperature	Analog_Value	135	6312_1_2	RD	Units: deg C
Chilled Water Outlet Temperature	Analog_Value	10135	6312_1_2_deg_F	RD	Units: deg F
Chilled Water Inlet Temperature	Analog_Value	136	6311_1_2	RD	Units: deg C
Chilled Water Inlet Temperature	Analog_Value	10136	6311_1_2_deg_F	RD	Units: deg F
System Info					
BMS Timeout Period	Analog_Value	147	5075_1	RW	Units: min
Auto Restart Delay	Analog_Value	148	4710_1	RW	Units: sec
System Operations					
Cooling Capacity	Analog_Value	159	5490_1	RD	Units: %

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Table 5.57 Liebert® iCOM™ DCL—Analog Data (continued)

Data Label	Object Type	Instace	Object Name	Access	Notes
Fan Speed	Analog_Value	160	5077_1	RD	Units: %
Dehumidifier Utilization	Analog_Value	161	5079_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	162	4868_1	RD	—
Calculated Next Maintenance Year	Analog_Value	163	4869_1	RD	—
Maintenance Ramp	Analog_Value	164	4870_1	RD	Units: %
Rack Door Open High Supply Air Temperature Threshold	Analog_Value	165	6298_1	RW	Units: deg C
Rack Door Open High Supply Air Temperature Threshold	Analog_Value	10165	6298_1_deg_F	RW	Units: deg F
Time					
System Date and Time	Analog_Value	176	4293_1	RW	—
Power Measurement					
Power Meter Status	Analog_Value	187	5675_1	RD	—
System Input RMS A-B	Analog_Value	188	4097_1	RD	Units: VAC
System Input RMS A-N	Analog_Value	189	4096_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	190	4113_1	RD	Units: A AC
System Input RMS B-C	Analog_Value	191	4099_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	192	4098_1	RD	Units: VAC
System Input RMS Current Phase B	Analog_Value	193	4114_1	RD	Units: A AC
System Input RMS C-A	Analog_Value	194	4101_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	195	4100_1	RD	Units: VAC
System Input RMS Current Phase C	Analog_Value	196	4115_1	RD	Units: A AC
Energy Consumption	Analog_Value	197	5900_1	RD	Units: kWH
Instantaneous Power	Analog_Value	198	5901_1	RD	Units: W

Table 5.58 Liebert® iCOM™ DCL—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Air Temperature					
Air Temperature Control Sensor	MultiState_Value	12	5012_1	RW	1 = Supply 2 = Remote 3 = Return

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Table 5.58 Liebert® iCOM™ DCL—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Temperature Calculation	MultiState_Value	13	5013_1	RW	1 = Average 2 = Maximum
Return Temperature/Humidity Sensor Control Type	MultiState_Value	14	6266_1	RW	1 = Average 2 = Maximum 3 = Top Sensor 4 = Middle Sensor 5 = Bottom Sensor
Supply Temperature Sensor Control Type	MultiState_Value	15	6267_1	RW	1 = Average 2 = Maximum 3 = Top Sensor 4 = Middle Sensor 1 5 = Middle Sensor 2 6 = Bottom Sensor
Humidity					
Dehumidifier State	MultiState_Value	26	5387_1	RW	1 = off 2 = on
Fans					
Fan Control Mode	MultiState_Value	37	5047_1	RW	1 = Internal (Auto) 2 = External (Manual)
Fan Control Sensor	MultiState_Value	38	6449_1	RW	1 = Supply Sensor 2 = Remote Sensor 3 = Return Sensor 4 = Delta Ret-Sup 5 = Delta Remote 6 = Pipe Sensor
Remote Sensors 1					
Remote Sensor Function	MultiState_Value	49	5058_1	RW	1 = Disable 2 = Reference 3 = Control
Remote Sensors 2					
Remote Sensor Function	MultiState_Value	60	5058_2	RW	1 = Disable 2 = Reference 3 = Control
Remote Sensors 4					
Remote Sensor Function	MultiState_Value	82	5058_4	RW	1 = Disable 2 = Reference 3 = Control
Chilled Water					
Chilled Water Valve Control	MultiState_Value	93	6286_1	RW	1 = Single 2 = 2 Parallel 3 = 2 Alternate 4 = 2 Cascade
Chilled Water Main Valve	MultiState_Value	94	6287_1	RW	—

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Table 5.58 Liebert® iCOM™ DCL—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Chilled Water Auto Valve Rotation	MultiState_Value	95	6288_1	RW	1 = disabled 2 = enabled
Chilled Water Inlet Temperature Control	MultiState_Value	96	6290_1	RW	1 = disabled 2 = enabled
System Info					
System Status	MultiState_Value	107	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_Value	108	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_Value	109	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Operating State Reason	MultiState_Value	110	5074_1	RD	1 = Reason Unknown 2 = Network Display 3 = Alarm 4 = Schedule 5 = Remote System 6 = External Input 7 = Local Display
System Operations					
System On/Off Control	MultiState_Value	121	5143_1	RW	1 = off 2 = on
Rack Door Open Sensor Selection	MultiState_Value	122	6361_1	RD	1 = Supply Sensor 2 = Rack Sensor 1 3 = Rack Sensor 2 4 = Rack Sensor 3 5 = Rack Sensor 4
Event Configuration					
System Event Acknowledge/Reset	MultiState_Value	133	4717_1	WO	1 = Reset 2 = Acknowledge
Smoke Detected - Event Control	MultiState_Value	134	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_Value	135	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_Value	136	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_Value	137	4725_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.58 Liebert® iCOM™ DCL—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Customer Input 1 - Event Control	MultiState_Value	138	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_Value	139	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 2 - Event Control	MultiState_Value	140	5098_1	RW	1 = disabled 2 = enabled
Customer Input 2 - Event Type	MultiState_Value	141	5099_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 3 - Event Control	MultiState_Value	142	5100_1	RW	1 = disabled 2 = enabled
Customer Input 3 - Event Type	MultiState_Value	143	5101_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 4 - Event Control	MultiState_Value	144	5102_1	RW	1 = disabled 2 = enabled
Customer Input 4 - Event Type	MultiState_Value	145	5103_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_Value	146	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_Value	147	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Flow - Event Control	MultiState_Value	148	5082_1	RW	1 = disabled 2 = enabled
Ext Loss of Flow - Event Type	MultiState_Value	149	5083_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Over Temperature - Event Control	MultiState_Value	150	5090_1	RW	1 = disabled 2 = enabled
Ext Over Temperature - Event Type	MultiState_Value	151	5091_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.59 Liebert® iCOM™ DCL—Glossary

Data Label	Data Description
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Bottom Fan Issue	The bottom fan is not operating within its normal parameters.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Auto Valve Rotation	If enabled, the priority of the chilled water valves will change daily.
Chilled Water Control Active	Chilled water inlet temperature control function is enabled due to 'bad' water.
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Flow Transducer Failure	Chilled water flow transducer is disconnected or the signal is out of range.
Chilled Water High Inlet Temperature	Chilled water inlet temperature has exceeded an upper threshold.
Chilled Water Inlet High Temperature Threshold	Defines the threshold for considering the inlet water temperature too high.
Chilled Water Inlet Temperature Control	Enable/disable the function to switch off the fan and open the chilled water valve in case of 'bad' inlet water.
Chilled Water Inlet Temperature Hysteresis	Hysteresis used before returning to standard control mode when [Chilled Water Inlet Temperature Control] is enabled.
Chilled Water Inlet Temperature Sensor Failure	Chilled water inlet temperature sensor is disconnected or the signal is out of range. The sensor is mandatory for the chilled water flow function.
Chilled Water Inlet Temperature	Temperature of the water entering the hydraulic circuit of the chilled water unit.
Chilled Water Main Valve	Specifies which of the two chilled water valves is the main valve.
Chilled Water Outlet Temperature	Temperature of the water exiting the hydraulic circuit of the chilled water unit.
Chilled Water Valve	Method for controlling the chilled water cooling capacity. The options available are: single, parallel, alternate and cascade.

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Table 5.59 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Control	
Chilled Water Valve Open Position	Chilled water valve open position.
Chilled Water Valve Rotation Hour	Hour of the day for switching the priority of the valves.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1.
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer input 2.
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer input 3.
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer input 4.
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Energy Consumption	Energy consumption since the last reset of this value.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.

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Table 5.59 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Mode	Fan control mode. Allowable modes are: (0) Auto - Fan speed is controlled via the selected fan control sensor, and, (1) Manual - Fan will operate at a fixed speed.
Fan Control Sensor	Sensor from which air temperature measurements will be used for fan speed control.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Speed Manual Set Point	Manual fan speed.
Fan Speed Maximum Set Point	Maximum fan speed.
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Proportional Band	Temperature control band above the temperature set point calculated for proportional fan speed control. If measured air temperature is within this band, fan speed operations are proportionally controlled.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Humidity Set Point	Desired relative humidity.
Instantaneous Power	Total electrical power currently being consumed.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.

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Table 5.59 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Modbus 0-10V Module Communication Failure	Modbus 0-10V module for managing the second Chilled Water circuit valve is disconnected or the signal is out of range.
Pipe Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Pipe Temperature Set Point]. If measured air temperature is within this range, the fan speed will not change.
Pipe Temperature Sensor Failure	Air temperature sensor located in the pipe is not sending a valid value.
Pipe Temperature Set Point	This value will be used as a comparison against pipe air temperature measurements in order to manage the speed of the fans.
Power Meter Status	Power Meter Status
Rack Door Open High Supply Air Temperature Threshold	If the rack supply air temperature exceeds this threshold, the rack doors are opened.
Rack Door Open Sensor Selection	Specifies the temperature sensor to be used by the control to manage the automatic rack door opening function.
Rack Doors Open	Rack doors opened due to supply air temperature exceeding the [Rack Door Open High Supply Air Temperature Threshold].
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Function	Function assigned to remote sensor. Available values are: (0) Control - sensor will be used in calculation of remote sensor temperature that may be used for heating and cooling control, (1) Reference - sensor will not be used in calculation of remote sensor temperature, but is enabled, (2) Disable - sensor is disabled
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Minimum Temperature	Minimum value of remote sensor temperature measurements.
Remote Sensor Temperature Calculation	Calculation method applied to temperature readings from the remote sensors to determine a single temperature measurement value for cooling and heating control.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air

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Table 5.59 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Temperature/Humidity Sensor Control Type	Specifies whether the average, maximum, or only one of the return sensor values is to be used for return humidity and temperature control.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Temperature Sensor Control Type	Specifies whether the average, maximum, or only one of the supply sensor values is to be used for supply temperature control.
System Date and Time	The system date and time.
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.

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Table 5.59 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system.
Top Fan Issue	The top fan is not operating within its normal parameters.
Unit Bottom Return Air Sensor Failure	Return air sensor at the bottom of the unit is disconnected or the signal is out of range.
Unit Bottom Return Sensor Humidity	Return humidity as measured by the sensor located at the bottom of the unit.
Unit Bottom Return Sensor Temperature	Return air temperature as measured by the sensor located at the bottom of the unit.
Unit Bottom Supply Air Sensor Failure	Supply air sensor at the bottom of the unit is disconnected or the signal is out of range.
Unit Bottom Supply Sensor Temperature	Supply air temperature as measured by the sensor located at the bottom of the unit.
Unit Control Mode	Unit control mode.
Unit Middle First Supply Air Sensor Failure	First supply air sensor in the middle of the unit is disconnected or the signal is out of range.
Unit Middle First Supply Sensor Temperature	Supply air temperature as measured by the first sensor located in the middle of the unit.
Unit Middle Return Air Sensor Failure	Return air sensor in the middle of the unit is disconnected or the signal is out of range.
Unit Middle Return Sensor Humidity	Return humidity as measured by the sensor located in the middle of the unit.
Unit Middle Return Sensor Temperature	Return air temperature as measured by the sensor located in the middle of the unit.
Unit Middle Second Supply Air Sensor Failure	Second supply air sensor in the middle of the unit is disconnected or the signal is out of range.
Unit Middle Second Supply Sensor Temperature	Supply air temperature as measured by the second sensor located in the middle of the unit.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State Reason	The reason the unit is in the current operating state.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.

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Table 5.59 Liebert® iCOM™ DCL—Glossary (continued)

Data Label	Data Description
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Top Return Air Sensor Failure	Return air sensor at the top of the unit is disconnected or the signal is out of range.
Unit Top Return Sensor Humidity	Return humidity as measured by the sensor located at the top of the unit.
Unit Top Return Sensor Temperature	Return air temperature as measured by the sensor located at the top of the unit.
Unit Top Supply Air Sensor Failure	Supply air sensor at the top of the unit is disconnected or the signal is out of range.
Unit Top Supply Sensor Temperature	Supply air temperature as measured by the sensor located at the top of the unit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.

Table 5.60 Liebert® iCOM XDM - Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air					
Return Air Over Temperature	Binary_Value	14	5023_1_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	15	5335_1_1	RD	Active on Alarm
Return Air Sensor Issue	Binary_Value	16	5147_1_1	RD	Active on Alarm
Air - External Sensors					
Ext Air Sensor A Over Temperature	Binary_Value	27	4601_1_1	RD	Active on Alarm
Ext Air Sensor A Under Temperature	Binary_Value	28	4608_1_1	RD	Active on Alarm
Ext Air Sensor A Issue	Binary_Value	29	4618_1_1	RD	Active on Alarm
Ambient Air Sensor Issue	Binary_Value	30	5573_1_1	RD	Active on Alarm
External Air Sensor B Issue	Binary_Value	31	4621_1_1	RD	Active on Alarm
External Air Sensor C Issue	Binary_Value	32	6531_1_1	RD	Active on Alarm
External Air Sensor D Issue	Binary_Value	33	6532_1_1	RD	Active on Alarm
External Air Sensor E Issue	Binary_Value	34	6533_1_1	RD	Active on Alarm
Air - Auxiliary Air					

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Aux Air Temp Device Communication Lost	Binary_Value	1050	5966_1_1	RD	Active on Alarm
Humidity					
High Return Humidity	Binary_Value	41	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	42	5036_1	RD	Active on Alarm
Dew Point Over Temperature	Binary_Value	43	5578_1	RD	Active on Alarm
Dew Point Under Temperature	Binary_Value	44	5579_1	RD	Active on Alarm
Return Humidity Sensor Issue	Binary_Value	45	5902_1	RD	Active on Alarm
Humidity - External Sensors					
Ext Air Sensor A High Humidity	Binary_Value	53	5349_1_1	RD	Active on Alarm
Ext Air Sensor A Low Humidity	Binary_Value	54	5351_1_1	RD	Active on Alarm
Ext Dew Point Over Temperature	Binary_Value	55	4615_1_1	RD	Active on Alarm
Ext Dew Point Under Temperature	Binary_Value	56	5577_1_1	RD	Active on Alarm
Compressors					
Ext Compressor Lockout	Binary_Value	65	5067_1	RD	Active on Alarm
Compressor Capacity Reduced	Binary_Value	66	5513_1	RD	Active on Alarm
Compressors - Compressor 1					
Compressor Hours Exceeded	Binary_Value	77	5269_1_1	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	78	5270_1_1	RD	Active on Alarm
Compressor Low Suction Pressure	Binary_Value	79	5271_1_1	RD	Active on Alarm
Compressor Short Cycle	Binary_Value	80	5352_1_1	RD	Active on Alarm
Compressor Pump Down Issue	Binary_Value	81	5146_1_1	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	82	5272_1_1	RD	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	83	5354_1_1	RD	Active on Alarm
Dig Scroll Comp Over Temp	Binary_Value	84	5355_1_1	RD	Active on Alarm
Compressor Low Pressure Transducer Issue	Binary_Value	85	5514_1_1	RD	Active on Alarm
Compressor High Pressure Transducer Issue	Binary_Value	86	5148_1_1	RD	Active on Alarm
Compressor Superheat Over Threshold	Binary_Value	87	5604_1_1	RD	Active on Alarm
Compressor Low Differential Pressure Lockout	Binary_Value	88	5903_1_1	RD	Active on Alarm
Compressor Freeze Protection	Binary_Value	89	6758_1_1	RD	Active on Alarm
Compressors - Compressor 2					
Compressor Hours Exceeded	Binary_Value	97	5269_1_2	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	98	5270_1_2	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Low Suction Pressure	Binary_Value	99	5271_1_2	RD	Active on Alarm
Compressor Short Cycle	Binary_Value	100	5352_1_2	RD	Active on Alarm
Compressor Pump Down Issue	Binary_Value	101	5146_1_2	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	102	5272_1_2	RD	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	103	5354_1_2	RD	Active on Alarm
Dig Scroll Comp Over Temp	Binary_Value	104	5355_1_2	RD	Active on Alarm
Compressor Low Pressure Transducer Issue	Binary_Value	105	5514_1_2	RD	Active on Alarm
Compressor High Pressure Transducer Issue	Binary_Value	106	5148_1_2	RD	Active on Alarm
Compressor Superheat Over Threshold	Binary_Value	107	5604_1_2	RD	Active on Alarm
Compressor Low Differential Pressure Lockout	Binary_Value	108	5903_1_2	RD	Active on Alarm
Compressor Freeze Protection	Binary_Value	109	6758_1_2	RD	Active on Alarm
Compressors - Compressor 4					
Compressor Hours Exceeded	Binary_Value	1287	5269_1_4	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	1288	5270_1_4	RD	Active on Alarm
Compressor Low Suction Pressure	Binary_Value	1289	5271_1_4	RD	Active on Alarm
Compressor Short Cycle	Binary_Value	1290	5352_1_4	RD	Active on Alarm
Compressor Pump Down Issue	Binary_Value	1291	5146_1_4	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	1292	5272_1_4	RD	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	1293	5354_1_4	RD	Active on Alarm
Dig Scroll Comp Over Temp	Binary_Value	1294	5355_1_4	RD	Active on Alarm
Compressor Low Pressure Transducer Issue	Binary_Value	1295	5514_1_4	RD	Active on Alarm
Compressor High Pressure Transducer Issue	Binary_Value	1296	5148_1_4	RD	Active on Alarm
Compressor Superheat Over Threshold	Binary_Value	1297	5604_1_4	RD	Active on Alarm
Compressor Low Differential Pressure Lockout	Binary_Value	1298	5903_1_4	RD	Active on Alarm
Compressor Freeze Protection	Binary_Value	1299	6758_1_4	RD	Active on Alarm
Unit Events					
Customer Input 1	Binary_Value	253	4270_1	RD	Active on Alarm
Customer Input 2	Binary_Value	254	4271_1	RD	Active on Alarm
Customer Input 3	Binary_Value	255	4272_1	RD	Active on Alarm
Customer Input 4	Binary_Value	256	4273_1	RD	Active on Alarm
Ext Loss of Air Blower	Binary_Value	257	5415_1	RD	Active on Alarm
Ext Loss of Flow	Binary_Value	258	5105_1	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Standby Glycol Pump On	Binary_Value	259	5107_1	RD	Active on Alarm
BMS Communications Timeout	Binary_Value	260	5115_1	RD	Active on Alarm
Ext Standby Unit On	Binary_Value	261	5416_1	RD	Active on Alarm
Clogged Air Filter	Binary_Value	262	5118_1	RD	Active on Alarm
Loss of Air Flow	Binary_Value	263	5053_1	RD	Active on Alarm
Service Required	Binary_Value	264	4726_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	265	5120_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	266	5119_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	267	4714_1	RD	Active on Alarm
High Power Shutdown	Binary_Value	268	5121_1	RD	Active on Alarm
Smoke Detected	Binary_Value	269	4720_1	RD	Active on Alarm
Supply Chilled Water Over Temp	Binary_Value	271	4626_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	272	5418_1	RD	Active on Alarm
Unit Communication Lost	Binary_Value	273	5419_1	RD	Active on Alarm
Water Leakage Detector Sensor Issue	Binary_Value	274	5114_1	RD	Active on Alarm
Water Under Floor	Binary_Value	275	4723_1	RD	Active on Alarm
Ext Over Temperature	Binary_Value	276	5104_1	RD	Active on Alarm
External Fire Detected	Binary_Value	277	5108_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	278	5588_1	RD	Active on Alarm
Temperature Control Sensor Issue	Binary_Value	279	5617_1	RD	Active on Alarm
Airflow Sensor Issue	Binary_Value	280	5906_1	RD	Active on Alarm
Ext Air Damper Position Issue	Binary_Value	281	5907_1	RD	Active on Alarm
Ext Power Source A Failure	Binary_Value	282	5908_1	RD	Active on Alarm
Ext Power Source B Failure	Binary_Value	283	5909_1	RD	Active on Alarm
Mixed Mode Lockout	Binary_Value	284	5924_1	RD	Active on Alarm
Auto Tune License Expiring	Binary_Value	350	6541_1	RD	Active on Alarm
Auto Tune License Expired	Binary_Value	351	6542_1	RD	Active on Alarm
Unit In Standby Due To Cooling Loss	Binary_Value	352	6543_1	RD	Active on Alarm
Control Units Remote Shutdown Mismatch	Binary_Value	353	6544_1	RD	Active on Alarm
Slave Control Unit Communication Lost	Binary_Value	354	6545_1	RD	Active on Alarm
Control Units Unit Code Mismatch	Binary_Value	355	6546_1	RD	Active on Alarm
Door Open	Binary_Value	356	5471_1	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Water Leakage	Binary_Value	357	8192_1	RD	Active on Alarm
PHE Sup Tem Snsr Fail	Binary_Value	358	8231_1	RD	Active on Alarm
Unit Events - Chilled Water Valve 1					
Chilled Water Control Valve Failure	Binary_Value	288	4703_1_1	RD	Active on Alarm
Unit Events - Chilled Water Valve 2					
Chilled Water Control Valve Failure	Binary_Value	299	4703_1_2	RD	Active on Alarm
Unit Events - Messages					
Unit Off	Binary_Value	310	5110_1_1	RD	Active on Alarm
Unit On	Binary_Value	311	5109_1_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	312	5112_1_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	313	5113_1_1	RD	Active on Alarm
Unit Standby	Binary_Value	314	5111_1_1	RD	Active on Alarm
Maintenance Due	Binary_Value	315	5116_1_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	316	5117_1_1	RD	Active on Alarm
Unit Events - iCOM DO Board 1					
Digital Output Board Not Detected	Binary_Value	327	5417_1_1	RD	Active on Alarm
Unit Events - iCOM DO Board 2					
Digital Output Board Not Detected	Binary_Value	338	5417_1_2	RD	Active on Alarm
Unit Events - iCOM DO Board 3					
Digital Output Board Not Detected	Binary_Value	349	5417_1_3	RD	Active on Alarm
Remote Sensors					
Remote Sensor Average Over Temperature	Binary_Value	361	5593_1	RD	Active on Alarm
Remote Sensor Average Under Temperature	Binary_Value	362	5594_1	RD	Active on Alarm
Remote Sensor System Average Over Temperature	Binary_Value	363	5595_1	RD	Active on Alarm
Remote Sensor System Average Under Temperature	Binary_Value	364	5596_1	RD	Active on Alarm
Remote Sensors - Remote Sensor 1					
Remote Sensor Over Temperature	Binary_Value	376	5597_1_1	RD	Active on Alarm
Remote Sensor Under Temperature	Binary_Value	377	5598_1_1	RD	Active on Alarm
Remote Sensor Issue	Binary_Value	378	5060_1_1	RD	Active on Alarm
Remote Sensors - Remote Sensor 2					
Remote Sensor Over Temperature	Binary_Value	390	5597_1_2	RD	Active on Alarm
Remote Sensor Under Temperature	Binary_Value	391	5598_1_2	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Issue	Binary_Value	392	5060_1_2	RD	Active on Alarm
Remote Sensors - Remote Sensor 10					
Remote Sensor Over Temperature	Binary_Value	502	5597_1_10	RD	Active on Alarm
Remote Sensor Under Temperature	Binary_Value	503	5598_1_10	RD	Active on Alarm
Remote Sensor Issue	Binary_Value	504	5060_1_10	RD	Active on Alarm
Electronic Expansion Valves					
EEV Unspecified General Event	Binary_Value	540	5625_1	RD	Active on Alarm
PRE					
Pump Unspecified General Event	Binary_Value	623	5636_1	RD	Active on Alarm
Power Measurement 1					
Input Undervoltage	Binary_Value	1001	5568_1	RD	Active on Alarm
Modbus Power Meter Communication Lost	Binary_Value	1040	5967_1	RD	Active on Alarm
MC Condensers					
Condenser Unit Unspecified General Event	Binary_Value	643	5637_1	RD	Active on Alarm
MC Condensers - Condenser 1					
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1082	5536_1_1	RD	Active on Alarm
Condenser Control Board Issue	Binary_Value	1084	5537_1_1	RD	Active on Alarm
Condenser Outside Air Temp Sensor Issue	Binary_Value	1086	5535_1_1	RD	Active on Alarm
Condenser Communication Lost	Binary_Value	1088	5531_1_1	RD	Active on Alarm
Condenser Remote Shutdown	Binary_Value	1090	6100_1_1	RD	Active on Alarm
Condenser TVSS Issue	Binary_Value	218	5073_1_1	RD	Active on Alarm
MC Condensers - Condenser 2					
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1083	5536_1_2	RD	Active on Alarm
Condenser Control Board Issue	Binary_Value	1085	5537_1_2	RD	Active on Alarm
Condenser Outside Air Temp Sensor Issue	Binary_Value	1087	5535_1_2	RD	Active on Alarm
Condenser Communication Lost	Binary_Value	1089	5531_1_2	RD	Active on Alarm
Condenser Remote Shutdown	Binary_Value	1091	6100_1_2	RD	Active on Alarm
Condenser TVSS Issue	Binary_Value	1092	5073_1_2	RD	Active on Alarm
MC Condensers - Condenser 4					
Condenser TVSS Issue	Binary_Value	1366	5073_1_4	RD	Active on Alarm
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1335	5536_1_4	RD	Active on Alarm
Condenser Control Board Issue	Binary_Value	1336	5537_1_4	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser Outside Air Temp Sensor Issue	Binary_Value	1337	5535_1_4	RD	Active on Alarm
Condenser Communication Lost	Binary_Value	1338	5531_1_4	RD	Active on Alarm
Condenser Remote Shutdown	Binary_Value	1339	6100_1_4	RD	Active on Alarm
MC Condensers - Circuit 1					
Condenser Circuit Unspecified General Event	Binary_Value	644	5638_1_1	RD	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1104	5541_1_1	RD	Active on Alarm
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1106	5540_1_1	RD	Active on Alarm
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1108	5539_1_1	RD	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1110	5544_1_1	RD	Active on Alarm
Condenser Supply Refrigerant Under Temp	Binary_Value	1112	5543_1_1	RD	Active on Alarm
Condenser Supply Refrigerant Over Temp	Binary_Value	1114	5542_1_1	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	1116	5545_1_1	RD	Active on Alarm
MC Condensers - Circuit 2					
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1105	5541_1_2	RD	Active on Alarm
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1107	5540_1_2	RD	Active on Alarm
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1109	5539_1_2	RD	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1111	5544_1_2	RD	Active on Alarm
Condenser Supply Refrigerant Under Temp	Binary_Value	1113	5543_1_2	RD	Active on Alarm
Condenser Supply Refrigerant Over Temp	Binary_Value	1115	5542_1_2	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	1117	5545_1_2	RD	Active on Alarm
MC Condensers - Circuit 4					
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1376	5541_1_4	RD	Active on Alarm
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1377	5540_1_4	RD	Active on Alarm
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1378	5539_1_4	RD	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1379	5544_1_4	RD	Active on Alarm
Condenser Supply Refrigerant Under Temp	Binary_Value	1380	5543_1_4	RD	Active on Alarm
Condenser Supply Refrigerant Over Temp	Binary_Value	1381	5542_1_4	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	1382	5545_1_4	RD	Active on Alarm
MC Condensers - Condenser 1 Fan 1					
Condenser Fan Issue	Binary_Value	1128	5277_1_1_1	RD	Active on Alarm
MC Condensers - Condenser 1 Fan 2					
Condenser Fan Issue	Binary_Value	1129	5277_1_1_2	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MC Condensers - Condenser 1 Fan 4					
Condenser Fan Issue	Binary_Value	1131	5277_1_1_4	RD	Active on Alarm
MC Condensers - Condenser 2 Fan 1					
Condenser Fan Issue	Binary_Value	1132	5277_1_2_1	RD	Active on Alarm
MC Condensers - Condenser 2 Fan 2					
Condenser Fan Issue	Binary_Value	1133	5277_1_2_2	RD	Active on Alarm
MC Condensers - Condenser 2 Fan 4					
Condenser Fan Issue	Binary_Value	1135	5277_1_2_4	RD	Active on Alarm
MC Condensers - Condenser 4 Fan 1					
Condenser Fan Issue	Binary_Value	1482	5277_1_4_1	RD	Active on Alarm
MC Condensers - Condenser 4 Fan 2					
Condenser Fan Issue	Binary_Value	1502	5277_1_4_2	RD	Active on Alarm
MC Condensers - Condenser 4 Fan 4					
Condenser Fan Issue	Binary_Value	1542	5277_1_4_4	RD	Active on Alarm
Unit Operations - Group Independent Operation					
Group Independent On	Binary_Value	1554	6691_1_1	RD	Active on Alarm
Group Independent Off	Binary_Value	1555	6692_1_1	RD	Active on Alarm
Logs					
Audit Log Update	Binary_Value	1595	6822_1	RD	Active on Alarm
Automatic Transfer Switch					
Modbus Automatic Transfer Switch Communication Lost	Binary_Value	1606	7163_1	RD	Active on Alarm
Fluid Loop					
Supply Fluid Temp Sensor Issue	Binary_Value	1617	4651_1	RD	Active on Alarm
Return Fluid Temp Sensor Issue	Binary_Value	1618	5295_1	RD	Active on Alarm
Flow Sensor Failure	Binary_Value	1619	7474_1	RD	Active on Alarm
Supply Fluid Over Temp	Binary_Value	1621	4645_1	RD	Active on Alarm
Return Fluid Over Temp	Binary_Value	1622	5293_1	RD	Active on Alarm
Pump Operating Without Flow	Binary_Value	1623	7476_1	RD	Active on Alarm
Supply Fluid Low Temp	Binary_Value	1824	8180_1	RD	Active on Alarm
Return Fluid Low Temp	Binary_Value	1825	8181_1	RD	Active on Alarm
Fluid High Differential Pressure	Binary_Value	1826	8182_1	RD	Active on Alarm
Fluid Low Differential Pressure	Binary_Value	1827	8183_1	RD	Active on Alarm

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Table 5.60 Liebert® iCOM XDM - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fluid Flow Low Inlet Pressure	Binary_Value	1828	8184_1	RD	Active on Alarm
Fluid Flow High Supply Pressure	Binary_Value	1829	8185_1	RD	Active on Alarm
Fluid Low System Flow	Binary_Value	1830	8186_1	RD	Active on Alarm
Fluid Flow Blocked	Binary_Value	1831	8187_1	RD	Active on Alarm
Fluid Dewpoint Margin Control	Binary_Value	1832	8188_1	RD	Active on Alarm
Fluid Supply Pressure Sensor Issue	Binary_Value	1833	8189_1	RD	Active on Alarm
Fluid Return Pressure Sensor Issue	Binary_Value	1834	8190_1	RD	Active on Alarm
Fluid Inlet Pressure Sensor Issue	Binary_Value	1835	8191_1	RD	Active on Alarm
Fluid Loop - Fluid Pump 1					
Pump Inverter Failure	Binary_Value	1634	7483_1_1	RD	Active on Alarm
Pump Flow Failure	Binary_Value	1635	7484_1_1	RD	Active on Alarm
Fluid Loop - Fluid Pump Status 1					
XD Pump Communication Lost	Binary_Value	1846	8170_1_1	RD	Active on Alarm

Table 5.61 Liebert® iCOM XDM - Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Today's High Air Temperature	Analog_Value	5	5327_1	RD	Units: deg C
Today's High Air Temperature	Analog_Value	10005	5327_1_deg_F	RD	Units: deg F
Today's High Air Temperature Time	Analog_Value	6	5328_1	RD	Units: Seconds since Midnight
Today's Low Air Temperature	Analog_Value	7	5329_1	RD	Units: deg C
Today's Low Air Temperature	Analog_Value	10007	5329_1_deg_F	RD	Units: deg F
Today's Low Air Temperature Time	Analog_Value	8	5330_1	RD	Units: Seconds since Midnight
Air - Supply Air					
Supply Air Temperature	Analog_Value	19	5002_1_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10019	5002_1_1_deg_F	RD	Units: deg F
Air - Return Air					
High Return Air Temperature Threshold	Analog_Value	33	5022_1_1	RW	Units: deg C
High Return Air Temperature Threshold	Analog_Value	10033	5022_1_1_deg_F	RW	Units: deg F
Low Return Air Temperature Threshold	Analog_Value	34	5334_1_1	RW	Units: deg C
Low Return Air Temperature Threshold	Analog_Value	10034	5334_1_1_deg_F	RW	Units: deg F
Return Sensor Events Initial Delay	Analog_Value	35	6757_1_1	RW	Units: sec
Air - External Sensors					

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Air Sensor A Temperature	Analog_Value	45	4594_1_1	RD	Units: deg C
Ext Air Sensor A Temperature	Analog_Value	10045	4594_1_1_deg_F	RD	Units: deg F
Ext Air Sensor B Temperature	Analog_Value	46	4597_1_1	RD	Units: deg C
Ext Air Sensor B Temperature	Analog_Value	10046	4597_1_1_deg_F	RD	Units: deg F
Ext Air Sensor C Temperature	Analog_Value	47	5336_1_1	RD	Units: deg C
Ext Air Sensor C Temperature	Analog_Value	10047	5336_1_1_deg_F	RD	Units: deg F
Ext Air Sensor A Over Temp Threshold	Analog_Value	48	5337_1_1	RW	Units: deg C
Ext Air Sensor A Over Temp Threshold	Analog_Value	10048	5337_1_1_deg_F	RW	Units: deg F
Ext Air Sensor A Under Temp Threshold	Analog_Value	49	5338_1_1	RW	Units: deg C
Ext Air Sensor A Under Temp Threshold	Analog_Value	10049	5338_1_1_deg_F	RW	Units: deg F
Outside Air Temperature	Analog_Value	50	5574_1_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10050	5574_1_1_deg_F	RD	Units: deg F
Humidity					
Return Humidity	Analog_Value	60	5028_1	RD	Units: % RH
Humidity Set Point	Analog_Value	61	5029_1	RW	Units: % RH
Humidity Proportional Band	Analog_Value	63	5341_1	RW	Units: % RH
Humidity Dead Band	Analog_Value	64	5032_1	RW	Units: % RH
Humidity Control Integration Time	Analog_Value	65	5342_1	RW	Units: min
High Return Humidity Threshold	Analog_Value	66	5033_1	RW	Units: % RH
Low Return Humidity Threshold	Analog_Value	67	5035_1	RW	Units: % RH
Today's High Humidity	Analog_Value	68	5343_1	RD	Units: % RH
Today's High Humidity Time	Analog_Value	69	5344_1	RD	Units: Seconds since Midnight
Today's Low Humidity	Analog_Value	70	5345_1	RD	Units: % RH
Today's Low Humidity Time	Analog_Value	71	5346_1	RD	Units: Seconds since Midnight
Dew Point Proportional Band	Analog_Value	72	6258_1	RW	Units: deg C
Dew Point Proportional Band	Analog_Value	10072	6258_1_deg_F	RW	Units: deg F
Dew Point Dead Band	Analog_Value	73	6259_1	RW	Units: deg C
Dew Point Dead Band	Analog_Value	10073	6259_1_deg_F	RW	Units: deg F
Dew Point Over Temp Threshold	Analog_Value	74	6575_1	RW	Units: deg C
Dew Point Over Temp Threshold	Analog_Value	10074	6575_1_deg_F	RW	Units: deg F
Dew Point Under Temp Threshold	Analog_Value	75	6576_1	RW	Units: deg C
Dew Point Under Temp Threshold	Analog_Value	10075	6576_1_deg_F	RW	Units: deg F

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Humidity - External Sensors					
Ext Air Sensor A Humidity	Analog_Value	82	4595_1_1	RD	Units: % RH
Ext Air Sensor B Humidity	Analog_Value	83	4598_1_1	RD	Units: % RH
Ext Air Sensor C Humidity	Analog_Value	84	5347_1_1	RD	Units: % RH
Ext Air Sensor A High Humidity Threshold	Analog_Value	85	5348_1_1	RW	Units: % RH
Ext Air Sensor A Low Humidity Threshold	Analog_Value	86	5350_1_1	RW	Units: % RH
Ext Air Sensor A Dew Point Temp	Analog_Value	87	4596_1_1	RD	Units: deg C
Ext Air Sensor A Dew Point Temp	Analog_Value	10087	4596_1_1_deg_F	RD	Units: deg F
Ext Dew Point Over Temp Threshold	Analog_Value	88	4614_1_1	RW	Units: deg C
Ext Dew Point Over Temp Threshold	Analog_Value	10088	4614_1_1_deg_F	RW	Units: deg F
Ext Dew Point Under Temp Threshold	Analog_Value	89	5576_1_1	RW	Units: deg C
Ext Dew Point Under Temp Threshold	Analog_Value	10089	5576_1_1_deg_F	RW	Units: deg F
Compressors - Compressor 1					
Compressor Hours	Analog_Value	97	5267_1_1	RW	Units: hr
Compressor Hours Threshold	Analog_Value	98	5268_1_1	RW	Units: hr
Dig Scroll Comp Discharge Temp	Analog_Value	99	5353_1_1	RD	Units: deg C
Dig Scroll Comp Discharge Temp	Analog_Value	10099	5353_1_1_deg_F	RD	Units: deg F
Digital Scroll Compressor Loading	Analog_Value	100	5619_1_1	RD	Units: %
Tandem 'B' Compressor Hours	Analog_Value	101	6241_1_1	RW	Units: hr
Compressor Suction Pressure	Analog_Value	102	6688_1_1	RD	Units: bar
Compressors - Compressor 2					
Compressor Hours	Analog_Value	110	5267_1_2	RW	Units: hr
Compressor Hours Threshold	Analog_Value	111	5268_1_2	RW	Units: hr
Dig Scroll Comp Discharge Temp	Analog_Value	112	5353_1_2	RD	Units: deg C
Dig Scroll Comp Discharge Temp	Analog_Value	10112	5353_1_2_deg_F	RD	Units: deg F
Digital Scroll Compressor Loading	Analog_Value	113	5619_1_2	RD	Units: %
Tandem 'B' Compressor Hours	Analog_Value	114	6241_1_2	RW	Units: hr
Compressor Suction Pressure	Analog_Value	115	6688_1_2	RD	Units: bar
Compressors - Compressor 4					
Dig Scroll Comp Discharge Temp	Analog_Value	2250	5353_1_4	RD	Units: deg C
Dig Scroll Comp Discharge Temp	Analog_Value	12250	5353_1_4_deg_F	RD	Units: deg F
Digital Scroll Compressor Loading	Analog_Value	2251	5619_1_4	RD	Units: %

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Hours	Analog_Value	2252	5267_1_4	RW	Units: hr
Tandem 'B' Compressor Hours	Analog_Value	2253	6241_1_4	RW	Units: hr
Compressor Hours Threshold	Analog_Value	2254	5268_1_4	RW	Units: hr
Compressor Suction Pressure	Analog_Value	2255	6688_1_4	RD	Units: bar
Analog Inputs 12					
Analog Input Reading	Analog_Value	3007	5378_12	RD	
Unit Information					
BMS Timeout Period	Analog_Value	268	5075_1	RW	Units: min
Auto Restart Delay	Analog_Value	269	4710_1	RW	Units: sec
Standby Units	Analog_Value	270	5314_1	RW	
Unit to Unit Group	Analog_Value	271	6121_1	RD	
Unit to Unit Address	Analog_Value	272	6120_1	RD	
Unit Operations					
Return Air Temperature	Analog_Value	31	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10031	4291_1_deg_F	RD	Units: deg F
Fan Speed	Analog_Value	280	5077_1	RD	Units: %
Free Cooling Valve Open Position	Analog_Value	282	5379_1	RD	Units: %
Maintenance Ramp	Analog_Value	283	4870_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	284	4868_1	RD	
Calculated Next Maintenance Year	Analog_Value	285	4869_1	RD	
Hot Water / Hot Gas Valve Open Position	Analog_Value	286	5380_1	RD	Units: %
Reheat Utilization	Analog_Value	287	5080_1	RD	Units: %
Humidifier Utilization	Analog_Value	288	5081_1	RD	Units: %
Dehumidifier Utilization	Analog_Value	289	5079_1	RD	Units: %
Cooling Capacity	Analog_Value	290	5490_1	RD	Units: %
Adjusted Humidity	Analog_Value	291	5606_1	RD	Units: % RH
Return Dew Point	Analog_Value	292	5004_1	RD	Units: deg C
Return Dew Point	Analog_Value	10292	5004_1_deg_F	RD	Units: deg F
Actual Air Temperature Set Point	Analog_Value	293	5607_1	RD	Units: deg C
Actual Air Temperature Set Point	Analog_Value	10293	5607_1_deg_F	RD	Units: deg F
Actual Humidity Set Point	Analog_Value	294	5608_1	RD	Units: % RH
Dew Point Set Point	Analog_Value	295	5575_1	RW	Units: deg C

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Dew Point Set Point	Analog_Value	10295	5575_1_deg_F	RW	Units: deg F
Cooling Control Temperature	Analog_Value	296	5615_1	RD	Units: deg C
Cooling Control Temperature	Analog_Value	10296	5615_1_deg_F	RD	Units: deg F
Fan Speed Control Temperature	Analog_Value	297	5616_1	RD	Units: deg C
Fan Speed Control Temperature	Analog_Value	10297	5616_1_deg_F	RD	Units: deg F
Unit Cooling Load	Analog_Value	298	5904_1	RD	Units: kW
Unit Calculated Airflow	Analog_Value	299	6134_1	RD	Units: m3/h
Time					
System Date and Time	Analog_Value	300	4293_1	RW	Units: Secs since Epoch(UTC)
Remote Sensors					
Remote Sensor Over Temp Threshold	Analog_Value	312	5589_1	RW	Units: deg C
Remote Sensor Over Temp Threshold	Analog_Value	10312	5589_1_deg_F	RW	Units: deg F
Remote Sensor Under Temp Threshold	Analog_Value	313	5590_1	RW	Units: deg C
Remote Sensor Under Temp Threshold	Analog_Value	10313	5590_1_deg_F	RW	Units: deg F
Remote Sensor Average Temperature	Analog_Value	314	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10314	5007_1_deg_F	RD	Units: deg F
Remote Sensor Maximum Temperature	Analog_Value	315	5006_1	RD	Units: deg C
Remote Sensor Maximum Temperature	Analog_Value	10315	5006_1_deg_F	RD	Units: deg F
Remote Sensor System Average Temperature	Analog_Value	316	5591_1	RD	Units: deg C
Remote Sensor System Average Temperature	Analog_Value	10316	5591_1_deg_F	RD	Units: deg F
Remote Sensor System Maximum Temperature	Analog_Value	317	5592_1	RD	Units: deg C
Remote Sensor System Maximum Temperature	Analog_Value	10317	5592_1_deg_F	RD	Units: deg F
Remote Sensors - Remote Sensor 1					
Remote Sensor Temperature	Analog_Value	329	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10329	5059_1_1_deg_F	RD	Units: deg F
Remote Sensors - Remote Sensor 2					
Remote Sensor Temperature	Analog_Value	341	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10341	5059_1_2_deg_F	RD	Units: deg F
Remote Sensors - Remote Sensor 10					
Remote Sensor Temperature	Analog_Value	437	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10437	5059_1_10_deg_F	RD	Units: deg F
PRE					

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Pump Hours Threshold	Analog_Value	505	5299_1	RW	Units: hr
PRE - Pump 1					
Pump Hours	Analog_Value	523	5298_1_1	RW	Units: hr
Pump Speed	Analog_Value	522	5634_1_1	RD	Units: %
Pump Inlet Refrigerant Temperature	Analog_Value	535	5635_1_1	RD	Units: deg C
Pump Inlet Refrigerant Temperature	Analog_Value	10535	5635_1_1_deg_F	RD	Units: deg F
Pump Outlet Refrigerant Temperature	Analog_Value	537	5639_1_1	RD	Units: deg C
Pump Outlet Refrigerant Temperature	Analog_Value	10537	5639_1_1_deg_F	RD	Units: deg F
PRE - Pump 2					
Pump Hours	Analog_Value	526	5298_1_2	RW	Units: hr
Pump Speed	Analog_Value	525	5634_1_2	RD	Units: %
Pump Inlet Refrigerant Temperature	Analog_Value	538	5635_1_2	RD	Units: deg C
Pump Inlet Refrigerant Temperature	Analog_Value	10538	5635_1_2_deg_F	RD	Units: deg F
Pump Outlet Refrigerant Temperature	Analog_Value	540	5639_1_2	RD	Units: deg C
Pump Outlet Refrigerant Temperature	Analog_Value	10540	5639_1_2_deg_F	RD	Units: deg F
PRE - Pump 4					
Pump Hours	Analog_Value	2288	5298_1_4	RW	Units: hr
Pump Speed	Analog_Value	2289	5634_1_4	RD	Units: %
Pump Inlet Refrigerant Temperature	Analog_Value	2290	5635_1_4	RD	Units: deg C
Pump Inlet Refrigerant Temperature	Analog_Value	12290	5635_1_4_deg_F	RD	Units: deg F
Pump Outlet Refrigerant Temperature	Analog_Value	2291	5639_1_4	RD	Units: deg C
Pump Outlet Refrigerant Temperature	Analog_Value	12291	5639_1_4_deg_F	RD	Units: deg F
Power Measurement 1					
System Input RMS A-N	Analog_Value	810	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	811	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	812	4100_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	813	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	814	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	815	4115_1	RD	Units: A AC
Instantaneous Power	Analog_Value	816	5901_1	RD	Units: W
Energy Consumption	Analog_Value	817	5900_1	RW	Units: kWH
System Input RMS A-B	Analog_Value	1900	4097_1	RD	Units: VAC

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS B-C	Analog_Value	1901	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	1902	4101_1	RD	Units: VAC
Unit Operations - Cooling Load 1					
Circuit Cooling Load	Analog_Value	901	5905_1_1	RD	Units: kW
Unit Operations - Cooling Load 2					
Circuit Cooling Load	Analog_Value	911	5905_1_2	RD	Units: kW
Air - Auxiliary Air					
Raw Auxiliary Air Temperature	Analog_Value	1960	5964_1_1	RW	Units: deg C
Raw Auxiliary Air Temperature	Analog_Value	11960	5964_1_1_deg_F	RW	Units: deg F
Actual Auxiliary Air Temperature	Analog_Value	1961	5965_1_1	RD	Units: deg C
Actual Auxiliary Air Temperature	Analog_Value	11961	5965_1_1_deg_F	RD	Units: deg F
MC Condensers					
Expected Condenser Unit Count	Analog_Value	1981	6101_1	RD	
MC Condensers - Low Noise Mode					
Condenser Low Noise Mode Max Fan Speed	Analog_Value	529	5548_1_1	RW	Units: %
Condenser Normal Mode Max Fan Speed	Analog_Value	530	5549_1_1	RW	Units: %
Condenser Low Noise Mode Start Time	Analog_Value	531	5552_1_1	RW	Units: Seconds since Midnight
Condenser Low Noise Mode Stop Time	Analog_Value	532	5553_1_1	RW	Units: Seconds since Midnight
Condenser Low Noise Mode - Interval Days	Analog_Value	533	5550_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode - Full Days	Analog_Value	534	5551_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
MC Condensers - Condenser 1					
Condenser Outside Air Temperature	Analog_Value	1992	5534_1_1	RD	Units: deg C

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser Outside Air Temperature	Analog_Value	11992	5534_1_1_deg_F	RD	Units: deg F
MC Condensers - Condenser 2					
Condenser Outside Air Temperature	Analog_Value	1993	5534_1_2	RD	Units: deg C
Condenser Outside Air Temperature	Analog_Value	11993	5534_1_2_deg_F	RD	Units: deg F
MC Condensers - Condenser 4					
Condenser Outside Air Temperature	Analog_Value	2318	5534_1_4	RD	Units: deg C
Condenser Outside Air Temperature	Analog_Value	12318	5534_1_4_deg_F	RD	Units: deg F
MC Condensers - Circuit 1					
Condenser Refrigerant Pressure	Analog_Value	2004	6103_1_1	RD	Units: bar
Condenser Supply Refrigerant Temperature	Analog_Value	2006	6102_1_1	RD	Units: deg C
Condenser Supply Refrigerant Temperature	Analog_Value	12006	6102_1_1_deg_F	RD	Units: deg F
MC Condensers - Circuit 2					
Condenser Refrigerant Pressure	Analog_Value	2005	6103_1_2	RD	Units: bar
Condenser Supply Refrigerant Temperature	Analog_Value	2007	6102_1_2	RD	Units: deg C
Condenser Supply Refrigerant Temperature	Analog_Value	12007	6102_1_2_deg_F	RD	Units: deg F
MC Condensers - Circuit 4					
Condenser Refrigerant Pressure	Analog_Value	2350	6103_1_4	RD	Units: bar
Condenser Supply Refrigerant Temperature	Analog_Value	2351	6102_1_4	RD	Units: deg C
Condenser Supply Refrigerant Temperature	Analog_Value	12351	6102_1_4_deg_F	RD	Units: deg F
MC Condensers - Condenser 1 Fan 1					
Condenser Fan Speed	Analog_Value	2018	5276_1_1_1	RD	Units: %
Condenser Fan Power	Analog_Value	2026	5538_1_1_1	RD	Units: W
Condenser Fan Current	Analog_Value	2034	6244_1_1_1	RD	Units: A AC
MC Condensers - Condenser 1 Fan 2					
Condenser Fan Speed	Analog_Value	2019	5276_1_1_2	RD	Units: %
Condenser Fan Power	Analog_Value	2027	5538_1_1_2	RD	Units: W
Condenser Fan Current	Analog_Value	2035	6244_1_1_2	RD	Units: A AC
MC Condensers - Condenser 1 Fan 4					
Condenser Fan Speed	Analog_Value	2021	5276_1_1_4	RD	Units: %
Condenser Fan Power	Analog_Value	2029	5538_1_1_4	RD	Units: W
Condenser Fan Current	Analog_Value	2037	6244_1_1_4	RD	Units: A AC
MC Condensers - Condenser 2 Fan 1					

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser Fan Speed	Analog_Value	2022	5276_1_2_1	RD	Units: %
Condenser Fan Power	Analog_Value	2030	5538_1_2_1	RD	Units: W
Condenser Fan Current	Analog_Value	2038	6244_1_2_1	RD	Units: A AC
MC Condensers - Condenser 2 Fan 2					
Condenser Fan Speed	Analog_Value	2023	5276_1_2_2	RD	Units: %
Condenser Fan Power	Analog_Value	2031	5538_1_2_2	RD	Units: W
Condenser Fan Current	Analog_Value	2039	6244_1_2_2	RD	Units: A AC
MC Condensers - Condenser 2 Fan 4					
Condenser Fan Speed	Analog_Value	2025	5276_1_2_4	RD	Units: %
Condenser Fan Power	Analog_Value	2033	5538_1_2_4	RD	Units: W
Condenser Fan Current	Analog_Value	2041	6244_1_2_4	RD	Units: A AC
MC Condensers - Condenser 4 Fan 1					
Condenser Fan Speed	Analog_Value	2423	5276_1_4_1	RD	Units: %
Condenser Fan Power	Analog_Value	2424	5538_1_4_1	RD	Units: W
Condenser Fan Current	Analog_Value	2425	6244_1_4_1	RD	Units: A AC
MC Condensers - Condenser 4 Fan 2					
Condenser Fan Speed	Analog_Value	2436	5276_1_4_2	RD	Units: %
Condenser Fan Power	Analog_Value	2437	5538_1_4_2	RD	Units: W
Condenser Fan Current	Analog_Value	2438	6244_1_4_2	RD	Units: A AC
MC Condensers - Condenser 4 Fan 4					
Condenser Fan Speed	Analog_Value	2462	5276_1_4_4	RD	Units: %
Condenser Fan Power	Analog_Value	2463	5538_1_4_4	RD	Units: W
Condenser Fan Current	Analog_Value	2464	6244_1_4_4	RD	Units: A AC
EconoPhase					
EconoPhase Proportional Band Switchover	Analog_Value	2476	6797_1	RW	Units: %
Logs					
Event Log Record Counter	Analog_Value	2501	6820_1	RD	
Audit Log Record Counter	Analog_Value	2502	6821_1	RD	
Unit Control - Teamwork					
Unit Cascade On Delay	Analog_Value	2526	6780_1_1	RW	Units: min
Quick Start Unit Cascade On Delay	Analog_Value	2527	6781_1_1	RW	Units: sec
Unit Cascade Control Delay	Analog_Value	2528	6779_1_1	RW	Units: min

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Teamwork Average Calculation Unit Count	Analog_Value	2529	6783_1_1	RW	
Unit Control - Standby/Rotation					
Networked Unit Rotation Time	Analog_Value	2542	6122_1_1	RW	Units: Seconds since Midnight
Networked Unit Rotation Count	Analog_Value	2543	6123_1_1	RW	
Automatic Transfer Switch - Power Source 1					
Power Source: L1-L2 voltage	Analog_Value	2554	7130_1_1	RD	Units: VAC
Power Source: L2-L3 voltage	Analog_Value	2555	7131_1_1	RD	Units: VAC
Power Source: L3-L1 voltage	Analog_Value	2556	7132_1_1	RD	Units: VAC
Power Source: Line Frequency	Analog_Value	2557	7133_1_1	RD	Units: Hz
Power Source: Breaker Operation Count	Analog_Value	2558	7134_1_1	RD	
Automatic Transfer Switch - Power Source 2					
Power Source: L1-L2 voltage	Analog_Value	2569	7130_1_2	RD	Units: VAC
Power Source: L2-L3 voltage	Analog_Value	2570	7131_1_2	RD	Units: VAC
Power Source: L3-L1 voltage	Analog_Value	2571	7132_1_2	RD	Units: VAC
Power Source: Line Frequency	Analog_Value	2572	7133_1_2	RD	Units: Hz
Power Source: Breaker Operation Count	Analog_Value	2573	7134_1_2	RD	
Fluid Loop					
Supply Fluid Temperature	Analog_Value	2584	4643_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	12584	4643_1_deg_F	RD	Units: deg F
Return Fluid Temperature	Analog_Value	2585	5288_1	RD	Units: deg C
Return Fluid Temperature	Analog_Value	12585	5288_1_deg_F	RD	Units: deg F
Flow Rate	Analog_Value	2586	7468_1	RD	Units: l/min
Cooling Capacity	Analog_Value	2587	5491_1	RD	Units: kW
Pump Speed	Analog_Value	2588	7469_1	RD	Units: %
Supply Fluid Over Temp Threshold	Analog_Value	2593	4644_1	RW	Units: deg C
Supply Fluid Over Temp Threshold	Analog_Value	12593	4644_1_deg_F	RW	Units: deg F
Return Fluid Over Temp Threshold	Analog_Value	2594	5289_1	RW	Units: deg C
Return Fluid Over Temp Threshold	Analog_Value	12594	5289_1_deg_F	RW	Units: deg F
Fluid Loop - Fluid Pump 1					
Pump Speed	Analog_Value	2605	7480_1_1	RD	Units: %
Pump Run Time	Analog_Value	2607	7482_1_1	RD	Units: hr
Fluid Loop - Fluid Pump Status 1					

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Pump Motor Power	Analog_Value	2904	8167_1_1	RD	Units: kW
Pump Motor Amps	Analog_Value	2905	8168_1_1	RD	Units: A AC
Inverter Temperature	Analog_Value	2906	8169_1_1	RD	Units: deg C
Inverter Temperature	Analog_Value	12906	8169_1_1_deg_F	RD	Units: deg F
Chiller Fluid					
Unit Fluid Supply Temperature	Analog_Value	2823	8132_1	RD	Units: deg C
Unit Fluid Supply Temperature	Analog_Value	12823	8132_1_deg_F	RD	Units: deg F
Unit Fluid Return Temperature	Analog_Value	2824	8133_1	RD	Units: deg C
Unit Fluid Return Temperature	Analog_Value	12824	8133_1_deg_F	RD	Units: deg F
Unit Fluid Supply Pressure	Analog_Value	2825	8134_1	RD	Units: bar
Unit Fluid Return Pressure	Analog_Value	2826	8135_1	RD	Units: bar
Unit Fluid Pump Speed	Analog_Value	2827	8136_1	RD	Units: %
Unit Fluid Flow	Analog_Value	2828	8137_1	RD	Units: l/min
Unit Fluid Diff Pressure	Analog_Value	2829	8138_1	RD	Units: bar
Unit Fluid Cooling Capacity	Analog_Value	2830	8139_1	RD	Units: kW
System Fluid Flow	Analog_Value	2831	8140_1	RD	Units: l/min
System Fluid Diff Pressure	Analog_Value	2832	8141_1	RD	Units: bar
System Fluid Cooling Capacity	Analog_Value	2833	8142_1	RD	Units: kW
Chiller Fluid - Fluid Control Temperature					
Fluid Temperature Set Point	Analog_Value	2844	8143_1_1	RW	Units: deg C
Fluid Temperature Set Point	Analog_Value	12844	8143_1_1_deg_F	RW	Units: deg F
Fluid Temperature Proportional Band	Analog_Value	2845	8145_1_1	RW	Units: deg C
Fluid Temperature Proportional Band	Analog_Value	12845	8145_1_1_deg_F	RW	Units: deg F
Fluid Temperature Dead Band	Analog_Value	2846	8146_1_1	RW	Units: deg C
Fluid Temperature Dead Band	Analog_Value	12846	8146_1_1_deg_F	RW	Units: deg F
Fluid Temperature Control Integration Time	Analog_Value	2847	8147_1_1	RW	Units: min
Chiller Fluid - Fluid Pump Flow					
Fluid Flow Set Point	Analog_Value	2858	8149_1_1	RW	Units: l/min
Fluid Flow Proportional Band	Analog_Value	2859	8150_1_1	RW	Units: l/min
Fluid Flow Dead Band	Analog_Value	2860	8151_1_1	RW	Units: l/min
Fluid Flow Control Integration Time	Analog_Value	2861	8152_1_1	RW	Units: sec
Fluid Diff Prs Set Point	Analog_Value	2862	8153_1_1	RW	Units: bar

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Table 5.61 Liebert® iCOM XDM - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fluid Diff Prs Prop Band	Analog_Value	2863	8154_1_1	RW	Units: bar
Flow Diff Prs Dead Band	Analog_Value	2864	8155_1_1	RW	Units: bar
Fluid Diff Prs Control Integration Time	Analog_Value	2865	8156_1_1	RW	Units: sec
Flow Manual Pump Speed	Analog_Value	2866	8157_1_1	RW	Units: %
Chiller Fluid - Fluid Pump Periodic Op					
Pump Operation Period	Analog_Value	2867	8158_1_1	RW	Units: day
Pump Operation Duration	Analog_Value	2868	8159_1_1	RW	Units: min
Pump Operation Speed	Analog_Value	2869	8160_1_1	RW	Units: %
Chiller Fluid - Fluid Dew Point Margin					
Dew Point Max Adjust	Analog_Value	2880	8163_1_1	RW	Units: deg C
Dew Point Max Adjust	Analog_Value	12880	8163_1_1_deg_F	RW	Units: deg F
System Dew Point	Analog_Value	2881	8164_1_1	RD	Units: deg C
System Dew Point	Analog_Value	12881	8164_1_1_deg_F	RD	Units: deg F
Unit Dew Point	Analog_Value	2882	8165_1_1	RD	Units: deg C
Unit Dew Point	Analog_Value	12882	8165_1_1_deg_F	RD	Units: deg F

Table 5.62 Liebert® iCOM XDM - Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_ Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Humidity					
Humidity Control Type	MultiState_ Value	35	5603_1	RW	1 = Relative 2 = Compensated 3 = Predictive 4 = Dew Point
Humidity Control Sensor	MultiState_ Value	36	5618_1	RW	1 = Supply 2 = Remote 3 = Return
Compressors - Compressor 1					
Compressor State	MultiState_ Value	45	5264_1_1	RD	1 = off

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = on
Compressor Capacity Control State	MultiState_ Value	46	5265_1_1	RD	1 = off 2 = on
Tandem 'B' Compressor State	MultiState_ Value	47	6243_1_1	RD	1 = off 2 = on
Compressors - Compressor 2					
Compressor State	MultiState_ Value	57	5264_1_2	RD	1 = off 2 = on
Compressor Capacity Control State	MultiState_ Value	58	5265_1_2	RD	1 = off 2 = on
Tandem 'B' Compressor State	MultiState_ Value	59	6243_1_2	RD	1 = off 2 = on
Compressors - Compressor 4					
Compressor State	MultiState_ Value	556	5264_1_4	RD	1 = off 2 = on
Compressor Capacity Control State	MultiState_ Value	557	5265_1_4	RD	1 = off 2 = on
Tandem 'B' Compressor State	MultiState_ Value	558	6243_1_4	RD	1 = off 2 = on
Unit Information					
System Status	MultiState_ Value	93	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_ Value	94	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_ Value	95	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Off Reason	MultiState_ Value	96	5074_1	RD	1 = None 2 = User 3 = Alarm 4 = Timer 5 = Monitoring

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					6 = Remote Off 7 = HCS12 Off
Unit Operations					
Fan State	MultiState_ Value	107	5381_1	RD	1 = off 2 = on
Cooling State	MultiState_ Value	108	5382_1	RD	1 = off 2 = on
Free Cooling State	MultiState_ Value	109	5383_1	RD	1 = off 2 = on
Maintenance Tracking State	MultiState_ Value	110	5384_1	RD	1 = off 2 = on
Hot Water / Hot Gas State	MultiState_ Value	111	5385_1	RD	1 = off 2 = on
Electric Reheat State	MultiState_ Value	112	5386_1	RD	1 = off 2 = on
Dehumidifier State	MultiState_ Value	113	5387_1	RD	1 = off 2 = on
Humidifier State	MultiState_ Value	114	5388_1	RD	1 = off 2 = on
System On/Off Control	MultiState_ Value	115	5143_1	RW	1 = off 2 = on
Local Fan Override	MultiState_ Value	500	6175_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Cooling Override	MultiState_ Value	501	6176_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Electric Heat Override	MultiState_ Value	502	6177_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Humidifier Override	MultiState_ Value	503	6178_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Dehumidifier Override	MultiState_ Value	504	6179_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Automatic Transfer Switch - Active Power Supply	MultiState_ Value	506	6524_1	RD	1 = Power Supply 1 2 = Power Supply 2
Automatic Transfer Switch - Power Supply 1 Status	MultiState_ Value	507	6525_1	RD	1 = OK 2 = Not OK
Automatic Transfer Switch - Power Supply 2 Status	MultiState_ Value	508	6526_1	RD	1 = OK 2 = Not OK
System Event Configuration					
Customer Input 1 - Event Control	MultiState_ Value	126	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_ Value	127	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 2 - Event Control	MultiState_ Value	128	5098_1	RW	1 = disabled 2 = enabled
Customer Input 2 - Event Type	MultiState_ Value	129	5099_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 3 - Event Control	MultiState_ Value	130	5100_1	RW	1 = disabled 2 = enabled
Customer Input 3 - Event Type	MultiState_ Value	131	5101_1	RW	1 = Message 2 = Warning

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Alarm
Customer Input 4 - Event Control	MultiState_ Value	132	5102_1	RW	1 = disabled 2 = enabled
Customer Input 4 - Event Type	MultiState_ Value	133	5103_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Free Cooling Lockout - Event Control	MultiState_ Value	134	5389_1	RW	1 = disabled 2 = enabled
Ext Free Cooling Lockout - Event Type	MultiState_ Value	135	5390_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Condenser Pump High Water - Event Control	MultiState_ Value	136	5122_1	RW	1 = disabled 2 = enabled
Ext Condenser Pump High Water - Event Type	MultiState_ Value	137	5123_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Standby Glycol Pump On - Event Control	MultiState_ Value	138	5129_1	RW	1 = disabled 2 = enabled
Ext Standby Glycol Pump On - Event Type	MultiState_ Value	139	5130_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Standby Unit On - Event Control	MultiState_ Value	140	5391_1	RW	1 = disabled 2 = enabled
Ext Standby Unit On - Event Type	MultiState_ Value	141	5392_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Humidifier Lockout - Event Control	MultiState_ Value	142	5086_1	RW	1 = disabled 2 = enabled
Ext Humidifier Lockout - Event Type	MultiState_ Value	143	5087_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Flow - Event Control	MultiState_ Value	144	5082_1	RW	1 = disabled 2 = enabled
Ext Loss of Flow - Event Type	MultiState_ Value	145	5083_1	RW	1 = Message 2 = Warning

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Alarm
Ext Over Temperature - Event Control	MultiState_ Value	146	5090_1	RW	1 = disabled 2 = enabled
Ext Over Temperature - Event Type	MultiState_ Value	147	5091_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Reheat Lockout - Event Control	MultiState_ Value	148	5084_1	RW	1 = disabled 2 = enabled
Ext Reheat Lockout - Event Type	MultiState_ Value	149	5085_1	RW	1 = Message 2 = Warning 3 = Alarm
High Power Shutdown - Event Control	MultiState_ Value	150	5141_1	RW	1 = disabled 2 = enabled
High Power Shutdown - Event Type	MultiState_ Value	151	5142_1	RW	1 = Message 2 = Warning 3 = Alarm
Humidifier Issue - Event Control	MultiState_ Value	152	5131_1	RW	1 = disabled 2 = enabled
Humidifier Issue - Event Type	MultiState_ Value	153	5132_1	RW	1 = Message 2 = Warning 3 = Alarm
Master Unit Communication Lost - Event Control	MultiState_ Value	154	5133_1	RW	1 = disabled 2 = enabled
Master Unit Communication Lost - Event Type	MultiState_ Value	155	5134_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_ Value	156	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_ Value	157	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Shutdown - Loss Of Power - Event Control	MultiState_ Value	158	4715_1	RW	1 = disabled 2 = enabled
Shutdown - Loss Of Power - Event Type	MultiState_ Value	159	4716_1	RW	1 = Message 2 = Warning

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Alarm
Smoke Detected - Event Control	MultiState_ Value	160	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_ Value	161	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_ Value	162	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_ Value	163	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Compressor Lockout - Event Control	MultiState_ Value	164	5088_1	RW	1 = disabled 2 = enabled
Ext Compressor Lockout - Event Type	MultiState_ Value	165	5089_1	RW	1 = Message 2 = Warning 3 = Alarm
Clogged Air Filter - Event Control	MultiState_ Value	166	5135_1	RW	1 = disabled 2 = enabled
Clogged Air Filter - Event Type	MultiState_ Value	167	5136_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Air Blower - Event Control	MultiState_ Value	168	5393_1	RW	1 = disabled 2 = enabled
Ext Loss of Air Blower - Event Type	MultiState_ Value	169	5394_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Compressor 1					
Compressor High Head Pressure - Event Control	MultiState_ Value	180	5316_1_1	RW	1 = disabled 2 = enabled
Compressor High Head Pressure - Event Type	MultiState_ Value	181	5317_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Low Suction Pressure - Event Control	MultiState_ Value	182	5318_1_1	RW	1 = disabled 2 = enabled

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Low Suction Pressure - Event Type	MultiState_ Value	183	5319_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Pump Down Issue - Event Control	MultiState_ Value	184	5395_1_1	RW	1 = disabled 2 = enabled
Compressor Pump Down Issue - Event Type	MultiState_ Value	185	5396_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Short Cycle - Event Control	MultiState_ Value	186	5397_1_1	RW	1 = disabled 2 = enabled
Compressor Short Cycle - Event Type	MultiState_ Value	187	5398_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Thermal Overload - Event Control	MultiState_ Value	188	5320_1_1	RW	1 = disabled 2 = enabled
Compressor Thermal Overload - Event Type	MultiState_ Value	189	5321_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Ctrl	MultiState_ Value	190	5399_1_1	RW	1 = disabled 2 = enabled
Dig Scroll Comp Discharge Over Temp - Event Type	MultiState_ Value	191	5400_1_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Compressor 2					
Compressor High Head Pressure - Event Control	MultiState_ Value	202	5316_1_2	RW	1 = disabled 2 = enabled
Compressor High Head Pressure - Event Type	MultiState_ Value	203	5317_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Low Suction Pressure - Event Control	MultiState_ Value	204	5318_1_2	RW	1 = disabled 2 = enabled
Compressor Low Suction Pressure - Event Type	MultiState_ Value	205	5319_1_2	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Pump Down Issue - Event Control	MultiState_ Value	206	5395_1_2	RW	1 = disabled 2 = enabled
Compressor Pump Down Issue - Event Type	MultiState_ Value	207	5396_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Short Cycle - Event Control	MultiState_ Value	208	5397_1_2	RW	1 = disabled 2 = enabled
Compressor Short Cycle - Event Type	MultiState_ Value	209	5398_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Thermal Overload - Event Control	MultiState_ Value	210	5320_1_2	RW	1 = disabled 2 = enabled
Compressor Thermal Overload - Event Type	MultiState_ Value	211	5321_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Ctrl	MultiState_ Value	212	5399_1_2	RW	1 = disabled 2 = enabled
Dig Scroll Comp Discharge Over Temp - Event Type	MultiState_ Value	213	5400_1_2	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Air					
Ext Air Sensor A Event Control	MultiState_ Value	224	5401_1_1	RW	1 = disabled 2 = enabled
Return Air Sensor Event Control	MultiState_ Value	225	5402_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A High Humidity - Event Control	MultiState_ Value	226	5403_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A High Humidity - Event Type	MultiState_ Value	227	5404_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Low Humidity - Event Control	MultiState_ Value	228	5405_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Low Humidity - Event Type	MultiState_ Value	229	5406_1_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Air Sensor A Over Temp - Event Control	MultiState_ Value	230	4602_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Over Temp - Event Type	MultiState_ Value	231	4603_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Under Temp - Event Control	MultiState_ Value	232	4609_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Under Temp - Event Type	MultiState_ Value	233	4610_1_1	RW	1 = Message 2 = Warning 3 = Alarm
High Return Humidity - Event Control	MultiState_ Value	234	5137_1_1	RW	1 = disabled 2 = enabled
High Return Humidity - Event Type	MultiState_ Value	235	5138_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Low Return Humidity - Event Control	MultiState_ Value	236	5139_1_1	RW	1 = disabled 2 = enabled
Low Return Humidity - Event Type	MultiState_ Value	237	5140_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Return Air Over Temp - Event Control	MultiState_ Value	238	5024_1_1	RW	1 = disabled 2 = enabled
Return Air Over Temp - Event Type	MultiState_ Value	239	5025_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Return Air Under Temp - Event Control	MultiState_ Value	240	5407_1_1	RW	1 = disabled 2 = enabled
Return Air Under Temp - Event Type	MultiState_ Value	241	5408_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Air Over/Under Temperature - Event Control	MultiState_ Value	242	5587_1_1	RW	1 = disabled 2 = enabled
System Event Configuration - Fan					
Fan Hours Exceeded - Event Control	MultiState_ Value	252	5409_1_1	RW	1 = disabled 2 = enabled

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fan Hours Exceeded - Event Type	MultiState_ Value	253	5410_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Main Fan Overload - Event Control	MultiState_ Value	256	5411_1_1	RW	1 = disabled 2 = enabled
Main Fan Overload - Event Type	MultiState_ Value	257	5412_1_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Condenser					
Condenser Issue - Event Control	MultiState_ Value	268	5413_1_1	RW	1 = disabled 2 = enabled
Condenser Issue - Event Type	MultiState_ Value	269	5414_1_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Condenser					
Condenser Issue - Event Control	MultiState_ Value	280	5413_1_2	RW	1 = disabled 2 = enabled
Condenser Issue - Event Type	MultiState_ Value	281	5414_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Unit Events					
System Event Acknowledge/Reset	MultiState_ Value	292	4717_1	WO	1 = Reset 2 = Acknowledge
Compressors					
Compressor Lockout	MultiState_ Value	304	5580_1	RW	1 = disabled 2 = enabled
PRE - Pump 1					
PRE Operational Mode	MultiState_ Value	363	5632_1_1	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test
Pump State	MultiState_ Value	364	5633_1_1	RD	1 = off 2 = on

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
PRE - Pump 2					
PRE Operational Mode	MultiState_ Value	368	5632_1_2	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test
Pump State	MultiState_ Value	369	5633_1_2	RD	1 = off 2 = on
PRE - Pump 4					
Pump State	MultiState_ Value	589	5633_1_4	RD	1 = off 2 = on
PRE Operational Mode	MultiState_ Value	590	5632_1_4	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test
MC Condensers					
Condenser Refrigerant Type	MultiState_ Value	395	5533_1	RD	1 = R22 2 = R407C 3 = R410A
MC Condensers - Low Noise Mode					
Condenser Low Noise Mode State	MultiState_ Value	374	5546_1_1	RD	1 = Inactive 2 = Active (Interval) 3 = Active (Full Day)
Condenser Low Noise Mode Schedule Control	MultiState_ Value	375	5547_1_1	RW	1 = disabled 2 = enabled
MC Condensers - Condenser 1					
Condenser Fan Reversal Requested	MultiState_ Value	406	6104_1_1	RW	1 = false 2 = true
MC Condensers - Condenser 2					
Condenser Fan Reversal Requested	MultiState_ Value	407	6104_1_2	RW	1 = false 2 = true
MC Condensers - Condenser 4					
Condenser Fan Reversal Requested	MultiState_ Value	623	6104_1_4	RW	1 = false

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = true
Unit Operations - Group Independent Operation					
Group Independent Operation Enable	MultiState_ Value	635	6695_1_1	RW	1 = disabled 2 = enabled
Group Independent Operation	MultiState_ Value	636	6690_1_1	RW	1 = No override (default) 2 = Override, forced on 3 = Override, forced off
Unit Control					
Auto Restart Enable	MultiState_ Value	648	6775_1	RW	1 = disabled 2 = enabled
Virtual Master Enable	MultiState_ Value	649	6777_1	RW	1 = disabled 2 = enabled
Unit Control - Teamwork					
Unit Cascade Type	MultiState_ Value	662	6778_1_1	RW	1 = None 2 = Temp/Humidity 3 = Cool/Heat 4 = Cooling 5 = Fan PI 6 = Fan Speed
Teamwork Temperature Calculation Method	MultiState_ Value	663	6782_1_1	RW	1 = Average 2 = Maximum
Unit Control - Standby/Rotation					
Networked Unit Daily Rotation Frequency	MultiState_ Value	675	6130_1_1	RW	1 = Every 24 hours 2 = Every 12 hours
Force Networked Unit Rotation	MultiState_ Value	676	6131_1_1	RW	1 = no 2 = yes
Networked Unit Rotation Frequency	MultiState_ Value	677	6129_1_1	RW	1 = None 2 = Daily 3 = Weekly Monday 4 = Weekly Tuesday 5 = Weekly Wednesday 6 = Weekly Thursday 7 = Weekly Friday 8 = Weekly Saturday 9 = Weekly Sunday

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					10 = Monthly Monday 11 = Monthly Tuesday 12 = Monthly Wednesday 13 = Monthly Thursday 14 = Monthly Friday 15 = Monthly Saturday 16 = Monthly Sunday
Start Standby Units on High Temperature	MultiState_ Value	678	6823_1_1	RW	1 = false 2 = true
Automatic Transfer Switch					
ATS Switch Mode	MultiState_ Value	700	7127_1	RD	1 = Off 2 = Manual 3 = Automatic 4 = Test
ATS Load Not Powered Timeout	MultiState_ Value	701	7128_1	RD	1 = false 2 = true
ATS Non Priority Load Breaker Timeout	MultiState_ Value	702	7129_1	RD	1 = false 2 = true
Automatic Transfer Switch - Power Source 1					
Power Source: All status are okay	MultiState_ Value	713	7135_1_1	RD	1 = false 2 = true
Power Source: Voltage Is Too Low	MultiState_ Value	714	7136_1_1	RD	1 = false 2 = true
Power Source: Voltage Is Too High	MultiState_ Value	715	7137_1_1	RD	1 = false 2 = true
Power Source: Voltages Are Asymmetric	MultiState_ Value	716	7138_1_1	RD	1 = false 2 = true
Power Source: Voltage Phase Loss	MultiState_ Value	717	7139_1_1	RD	1 = false 2 = true
Power Source: Phase Sequence Issue	MultiState_ Value	718	7140_1_1	RD	1 = false 2 = true
Power Source: Frequency Is Too Low	MultiState_ Value	719	7141_1_1	RD	1 = false 2 = true
Power Source: Frequency Is Too High	MultiState_ Value	720	7142_1_1	RD	1 = false 2 = true

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Source: Breaker is closed	MultiState_ Value	721	7143_1_1	RD	1 = false 2 = true
Power Source: Breaker command status closed	MultiState_ Value	722	7144_1_1	RD	1 = false 2 = true
Power Source: Breaker withdrawn issue	MultiState_ Value	723	7145_1_1	RD	1 = false 2 = true
Power Source: Breaker Timeout Issue	MultiState_ Value	724	7146_1_1	RD	1 = false 2 = true
Power Source: Line Operating Hour Exceeded	MultiState_ Value	725	7147_1_1	RD	1 = false 2 = true
Power Source: Breaker Operating Hour Exceeded	MultiState_ Value	726	7148_1_1	RD	1 = false 2 = true
Automatic Transfer Switch - Power Source 2					
Power Source: All status are okay	MultiState_ Value	737	7135_1_2	RD	1 = false 2 = true
Power Source: Voltage Is Too Low	MultiState_ Value	738	7136_1_2	RD	1 = false 2 = true
Power Source: Voltage Is Too High	MultiState_ Value	739	7137_1_2	RD	1 = false 2 = true
Power Source: Voltages Are Asymmetric	MultiState_ Value	740	7138_1_2	RD	1 = false 2 = true
Power Source: Voltage Phase Loss	MultiState_ Value	741	7139_1_2	RD	1 = false 2 = true
Power Source: Phase Sequence Issue	MultiState_ Value	742	7140_1_2	RD	1 = false 2 = true
Power Source: Frequency Is Too Low	MultiState_ Value	743	7141_1_2	RD	1 = false 2 = true
Power Source: Frequency Is Too High	MultiState_ Value	744	7142_1_2	RD	1 = false 2 = true
Power Source: Breaker is closed	MultiState_ Value	745	7143_1_2	RD	1 = false 2 = true
Power Source: Breaker command status closed	MultiState_ Value	746	7144_1_2	RD	1 = false 2 = true
Power Source: Breaker withdrawn issue	MultiState_ Value	747	7145_1_2	RD	1 = false

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Table 5.62 Liebert® iCOM XDM - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = true
Power Source: Breaker Timeout Issue	MultiState_ Value	748	7146_1_2	RD	1 = false 2 = true
Power Source: Line Operating Hour Exceeded	MultiState_ Value	749	7147_1_2	RD	1 = false 2 = true
Power Source: Breaker Operating Hour Exceeded	MultiState_ Value	750	7148_1_2	RD	1 = false 2 = true
Fluid Loop - Fluid Pump 1					
Pump Operating State	MultiState_ Value	773	7479_1_1	RD	1 = off 2 = on
Chiller Fluid - Fluid Control Temperature					
Fluid Temperature Control Type	MultiState_ Value	1209	8144_1_1	RW	1 = Proportional 2 = Prop+Integral 3 = Adaptive PID 4 = Intelligent
Chiller Fluid - Fluid Pump Flow					
Fluid Control Type	MultiState_ Value	1220	8148_1_1	RW	1 = Flow Rate 2 = Differential Pressure 3 = Flow Rate with DP Limit 4 = Diff Prs with Flo Limit 5 = Manual
Chiller Fluid - Fluid Pump Periodic Op					
Pump Operation Type	MultiState_ Value	1231	8161_1_1	RW	1 = Unit On or Standby 2 = Unit On, Off, or Standby
Chiller Fluid - Fluid Dew Point Margin					
Fluid Dew Pnt Margin	MultiState_ Value	1242	8162_1_1	RW	

Table 5.63 Liebert® iCOM XDM - Glossary

Data Label	Data Description
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
ATS Load Not Powered Timeout	Automatic Transfer Switch Load not powered timeout
ATS Non Priority Load Breaker Timeout	Automatic Transfer Switch Non-priority load breaker timeout
ATS Switch Mode	ATS Switch Mode
Audit Log Record Counter	Number of audit log records that have been sent to the client.
Audit Log Update	Audit log has been updated.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart Enable	Enable/disable automatic restart of unit after a power cycle.
Auto Tune License Expired	License for the AutoTune feature has expired.
Auto Tune License Expiring	License for the AutoTune feature has not been refreshed in 30 days and will be expiring soon.
Automatic Transfer Switch - Active Power Supply	Indicates which power supply is in use by the Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 1 Status	Status of power supply 1 in Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 2 Status	Status of power supply 2 in Automatic Transfer Switch.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor Freeze Protection	Compressor has entered the freeze protection phase.
Compressor High Head Pressure - Event Control	Enable/disable the activation of the [Compressor High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor High Head Pressure - Event Type	The event type for the [Compressor High Head Pressure] event.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor High Pressure Transducer Issue	Compressor high pressure transducer is disconnected or the signal is out of range.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Lockout	Enable/disable the use of the compressor.
Compressor Low Differential Pressure Lockout	Compressor exceeded maximum startup attempts due to low differential pressure. Compressor is shutdown and has been disabled.
Compressor Low Pressure Transducer Issue	Compressor low pressure transducer is disconnected or the signal is out of range.
Compressor Low Suction Pressure - Event Control	Enable/disable the activation of the [Compressor Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Compressor Low Suction Pressure - Event Type	The event type for the [Compressor Low Suction Pressure] event.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Pump Down Issue - Event Control	Enable/disable the activation of the [Compressor Pump Down Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Pump Down Issue - Event Type	The event type for the [Compressor Pump Down Issue] event.
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Compressor Short Cycle - Event Control	Enable/disable the activation of the [Compressor Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Short Cycle - Event Type	The event type for the [Compressor Short Cycle] event.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor State	Compressor operational state.
Compressor Suction Pressure	Refrigerant pressure at the input of the compressor.
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload - Event Control	Enable/disable the activation of the [Compressor Thermal Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Thermal Overload - Event Type	The event type for the [Compressor Thermal Overload] event.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Communication Lost	Communication with condenser unit has been lost.
Condenser Control Board Issue	The condenser control board is reporting an issue.
Condenser Fan Current	Condenser fan's measured input current.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Reversal Requested	Request the condenser fans to rotate in the reverse direction.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Issue - Event Control	Enable/disable the activation of the [Condenser Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser Issue - Event Type	The event type for the [Condenser Issue] event.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.
Condenser Outside Air Temp Out of Operating Range	[Condenser Outside Air Temperature] is either above an upper threshold or below a lower threshold.
Condenser Outside Air Temp Sensor Issue	Condenser outside air temperature sensor is disconnected or the signal is out of range.
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Pressure Over Threshold	Condenser refrigerant pressure has exceeded a threshold.
Condenser Refrigerant Pressure Sensor Issue	Condenser refrigerant pressure sensor is disconnected or the signal is out of range.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Condenser Refrigerant Pressure Under Threshold	Condenser refrigerant pressure has dropped below a threshold.
Condenser Refrigerant Pressure	Pressure of the refrigerant in a condenser circuit.
Condenser Refrigerant Type	Condenser refrigerant type.
Condenser Remote Shutdown	Condenser is shut down by a remote signal.
Condenser Supply Refrigerant Over Temp	Condenser supply refrigerant temperature has exceeded a threshold.
Condenser Supply Refrigerant Temp Sensor Issue	Condenser supply refrigerant temperature sensor is disconnected or the signal is out of range.
Condenser Supply Refrigerant Temperature	Temperature of the supply refrigerant in a condenser circuit.
Condenser Supply Refrigerant Under Temp	Condenser supply refrigerant temperature has dropped below a specified threshold.
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Control Units Remote Shutdown Mismatch	The remote shutdown status of the master control unit does not match the remote shutdown status of the slave control unit.
Control Units Unit Code Mismatch	Unit codes for the master and slave control units do not match.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Max Adjust	Dew Point Margin Maximum Set Point Adjust
Dew Point Over Temp Threshold	Threshold value used in the [Dew Point Over Temperature] event.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temp Threshold	Threshold value used in the [Dew Point Under Temperature] event.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Dig Scroll Comp Discharge Over Temp - Event Ctrl	Enable/disable the activation of the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Over Temp - Event Type	The event type for the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Temp Sensor Issue	Digital scroll compressor discharge temperature sensor is disconnected or the signal is out of range.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Dig Scroll Comp Discharge Temp	Digital scroll compressor discharge temperature.
Dig Scroll Comp Over Temp	Digital scroll compressor is shut down due to head temperature exceeding an upper threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Digital Scroll Compressor Loading	Present digital scroll compressor utilization expressed as a percentage of the maximum rated capacity.
Door Open	An open door was detected
EconoPhase Proportional Band Switchover	After entering EconoPhase mode, the threshold for continuing EconoPhase operation is gradually reduced to this percentage of [Air Temperature Proportional Band]. If the air temperature cannot be maintained within this reduced proportional band, the system will switch over to compressor control.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Electric Reheat State	Electric reheater operational state.
Energy Consumption	Energy consumption since the last reset of this value.
Event Log Record Counter	Number of event log records that have been sent to the client.
Expected Condenser Unit Count	Number of physical condenser units that are expected to be connected to the system.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Flow Diff Prs Dead Band	Flow Diff Pressure Dead Band
Flow Manual Pump Speed	Flow Manual Pump Speed
Flow Rate	Fluid measured flow volume rate

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Flow Sensor Failure	Fluid flow sensor failure
Fluid Control Type	Fluid flow algorithm control type
Fluid Dew Pnt Margin	Fluid Dew Point Margin Control Operation
Fluid Dewpoint Margin Control	Fluid Loop Dewpoint Margin Control is active
Fluid Diff Prs Control Integration Time	Fluid Diff Pressure Control Integration Time
Fluid Diff Prs Prop Band	Flow Diff Pressure Proportional Band
Fluid Diff Prs Set Point	Fluid Diff Pressure Set Point
Fluid Flow Blocked	Fluid Loop Flow Blocked (Loss of Flow with High Supply Pressure)
Fluid Flow Control Integration Time	Fluid Flow Control Integration Time
Fluid Flow Dead Band	Fluid Flow Dead Band; evenly split above/below set point
Fluid Flow High Supply Pressure	Fluid Loop Flow High Supply Pressure
Fluid Flow Low Inlet Pressure	Fluid Loop Flow Low Inlet Pressure
Fluid Flow Proportional Band	Fluid Flow Proportional Band; evenly split above/below set point
Fluid Flow Set Point	Fluid Flow Set Point
Fluid High Differential Pressure	Fluid Loop High Differential Pressure (Supply - Return)
Fluid Inlet Pressure Sensor Issue	Fluid Loop Inlet Pressure Sensor Issue
Fluid Low Differential Pressure	Fluid Loop Low Differential Pressure (Supply - Return)
Fluid Low System Flow	Fluid Loop Low System Flow (Low total flow for units in group)
Fluid Return Pressure Sensor Issue	Fluid Loop Return Pressure Sensor Issue
Fluid Supply Pressure Sensor Issue	Fluid Loop Supply Pressure Sensor Issue
Fluid Temperature Control Integration Time	Time value used when system is under integral fluid temperature control.
Fluid Temperature Control Type	Type of algorithm used to control the system's output fluid temperature.
Fluid Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fluid Temperature Set Point].

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Fluid Temperature Proportional Band	Value that is divided evenly to form proportional temperature control.
Fluid Temperature Set Point	Desired chiller fluid temperature.
Force Networked Unit Rotation	If networked units are configured to rotate between standby and running, force the rotation to occur immediately.
Free Cooling State	Free cooling operational state.
Free Cooling Valve Open Position	Free cooling valve open position.
Group Independent Off	The group standby/cascade state for this unit has been overridden. The unit has been forced off.
Group Independent On	The group standby/cascade state for this unit has been overridden. The unit has been forced on.
Group Independent Operation Enable	Enable/disable group independent operation. If enabled, the user can override the unit's on/off state being controlled by its standby/cascade group.
Group Independent Operation	If this unit is part of a standby/cascade group, this value can be used to override the group control of the unit's on/off state.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier State	Humidifier operational state.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.
Inverter Temperature	Inverter Temperature
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Maintenance Completed	Maintenance has been completed on the unit.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.
Modbus Automatic Transfer Switch Communication Lost	Communications with Modbus Automatic Transfer Switch has been lost
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Networked Unit Daily Rotation Frequency	If [Networked Unit Rotation Frequency] is set to 'Daily', this sets the frequency of rotation within each day.
Networked Unit Rotation Count	If networked units are configured to rotate between standby and running, this is the number of units that will rotate at the selected rotation time.
Networked Unit Rotation Frequency	Configures the frequency with which networked units will rotate between a running state and a standby state.
Networked Unit Rotation Time	If networked units are configured to rotate between standby and running, this is the time the rotation will occur on the day specified by [Networked Unit Rotation Frequency].
Outside Air Temperature	Ambient outside air temperature.
PHE Sup Tem Snsr Fail	Plate Heat Exchanger Supply Temperature Sensor Fail
Power Source: All status are okay	Automatic Transfer Switch Power Source: All status are okay
Power Source: Breaker command status closed	Automatic Transfer Switch Power Source: Breaker command status closed
Power Source: Breaker is closed	Automatic Transfer Switch Power Source: Breaker is closed
Power Source: Breaker Operating Hour Exceeded	Automatic Transfer Switch Power Source: Breaker operating hour exceeded

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Power Source: Breaker Operation Count	Automatic Transfer Switch Power Source: Breaker Operation Count
Power Source: Breaker Timeout Issue	Automatic Transfer Switch Power Source: Breaker timeout issue
Power Source: Breaker withdrawn issue	Automatic Transfer Switch Power Source: Breaker withdrawn issue
Power Source: Frequency Is Too High	Automatic Transfer Switch Power Source: Frequency is too high
Power Source: Frequency Is Too Low	Automatic Transfer Switch Power Source: Frequency is too low
Power Source: L1-L2 voltage	Automatic Transfer Switch Power Source: L1-L2 voltage
Power Source: L2-L3 voltage	Automatic Transfer Switch Power Source: L2-L3 voltage
Power Source: L3-L1 voltage	Automatic Transfer Switch Power Source: L3-L1 voltage
Power Source: Line Frequency	Automatic Transfer Switch Power Source: Line Frequency
Power Source: Line Operating Hour Exceeded	Automatic Transfer Switch Power Source: Line operating hour exceeded
Power Source: Phase Sequence Issue	Automatic Transfer Switch Power Source: Phase sequence issue
Power Source: Voltage Is Too High	Automatic Transfer Switch Power Source: Voltage is too high
Power Source: Voltage Is Too Low	Automatic Transfer Switch Power Source: Voltage is too low
Power Source: Voltage Phase Loss	Automatic Transfer Switch Power Source: Voltage phase loss
Power Source: Voltages Are Asymmetric	Automatic Transfer Switch Power Source: Voltages are asymmetric
PRE Operational Mode	Pumped Refrigerant Economizer operational mode.
Pump Flow Failure	Fluid pump flow failure
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Inlet Refrigerant Temperature	Refrigerant temperature at the inlet of the pump.
Pump Inverter Failure	Fluid pump inverter failure

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Pump Motor Amps	Pump Motor Amps
Pump Motor Power	Pump Motor Power
Pump Operating State	Fluid pump operating state
Pump Operating Without Flow	Fluid pump operation with no flow
Pump Operation Duration	Pump periodic operation duration
Pump Operation Period	Pump shall periodically operate if off for too long
Pump Operation Speed	Pump periodic operation speed
Pump Operation Type	Pump periodic operation type
Pump Outlet Refrigerant Temperature	Refrigerant temperature at the outlet of the pump.
Pump Run Time	Fluid pump run time
Pump Speed	Fluid pump speed
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump State	Pump operational state.
Pump Unspecified General Event	One or more unspecified pump events active. See local unit display for further details.
Quick Start Unit Cascade On Delay	When a Teamwork unit restarts after a power cycle, this value is used instead of [Unit Cascade On Delay]. The system will return to the use of [Unit Cascade On Delay] after a period of time determined by a predefined algorithm.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Remote Sensor Average Over Temperature	[Remote Sensor Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Average Under Temperature	[Remote Sensor Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Over Temp Threshold	Threshold value used in the remote air sensor over temperature events.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Over Temperature	[Remote Sensor System Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Temperature	Average value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor System Average Under Temperature	[Remote Sensor System Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor System Maximum Temperature	Maximum value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temp Threshold	Threshold value used in the remote air sensor under temperature events.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Fluid Low Temp	[Return Fluid Temperature] below Return Fluid Low Temp Threshold.
Return Fluid Over Temp Threshold	Threshold value used in the [Return Fluid Over Temp] event.
Return Fluid Over Temp	[Return Fluid Temperature] has exceeded a specified threshold.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any return sensor events are detected and annunciated.
Slave Control Unit Communication Lost	The master control unit has lost Ethernet communications with the slave control unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Standby Units	The number of standby units.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Start Standby Units on High Temperature	Force the system to start all standby units if any unit in operation reports a high air temperature warning.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Fluid Low Temp	[Supply Fluid Temperature] below Supply Fluid Low Temp Threshold.
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply fluid temperature.
System Date and Time	The system date and time
System Dew Point	System aggregated dew point
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Fluid Cooling Capacity	Chiller system-level cooling capacity in use, expressed in kilowatts.
System Fluid Diff Pressure	Chiller system-level fluid differential pressure
System Fluid Flow	Chiller system-level fluid measured flow volume rate
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Tandem 'B' Compressor Hours	Operating hours for the 'B' compressor in a tandem configuration since last reset of this value.
Tandem 'B' Compressor State	Operational state for the 'B' compressor in a tandem configuration.
Teamwork Average Calculation Unit Count	If [Teamwork Temperature Calculation Method] is set to Average, this value specifies the maximum number of units in the Teamwork group used to calculate the average.
Teamwork Temperature Calculation Method	Method used for calculating the single Teamwork Mode air temperature from the temperature sensor values provided by the units in the Teamwork group. Each unit provides a single air temperature sensor value.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Cascade Control Delay	When a Teamwork unit transitions from 'standby' to 'running' due to cascading, its local control operations are delayed for this amount of time. Control operations can include, but are not limited to, heating, cooling, humidification, and/or dehumidification.
Unit Cascade On Delay	If [Unit Cascade Type] is set to anything other than 'No', and the measured value has reached the transition threshold, a Teamwork unit in 'standby' will transition to 'running' after delaying this amount of time.
Unit Cascade Type	If a unit is a member of a Teamwork group, it can be configured to cascade, i.e. automatically transition between 'standby' and 'running'. The decision of when to perform the transition is determined by comparing the value of this parameter type against a given transition threshold.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit Dew Point	Unit aggregated dew point
Unit Fluid Cooling Capacity	Chiller unit-level cooling capacity in use, expressed in kilowatts.
Unit Fluid Diff Pressure	Chiller unit-level fluid differential pressure
Unit Fluid Flow	Chiller unit-level fluid measured flow volume rate
Unit Fluid Pump Speed	Chiller unit-level fluid pump speed
Unit Fluid Return Pressure	Chiller unit-level fluid return pressure
Unit Fluid Return Temperature	Chiller unit-level entering return fluid temperature
Unit Fluid Supply Pressure	Chiller unit-level fluid supply pressure
Unit Fluid Supply Temperature	Chiller unit-level leaving supply fluid temperature
Unit In Standby Due To Cooling Loss	Unit forced into standby because it is unable to provide any cooling.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unit to Unit Address	If the unit is part of a networked group, this is the address of the unit within the group, known as the U2U address.
Unit to Unit Group	If the unit is part of a networked group, this is the address of the unit's group, known as the U2U group.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Virtual Master Enable	Enable/disable the virtual master feature.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Leakage	Water Leakage - Typically indicates unit internal water leakage
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.63 Liebert® iCOM XDM - Glossary (continued)

Data Label	Data Description
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Pump Communication Lost	Communications with XD Pump has been lost

Table 5.64 Liebert® Liqui-tect™ LP3000—BACnet Object Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Leak Alarm	Binary Input	1	—	—	—
Location of Leak	Analog Input	1	—	—	—
Virtual Zone # in Alarm	Multi-state Value	1	—	—	—
Cable Break Alarm	Binary Input	2	—	—	—
Leakage Current on Cable	Analog Input	2	—	—	—
Contamination Alarm	Binary Input	3	—	—	—
Length of Cable	Analog Input	3	—	—	—
Unit of Measure	Binary Input	4	—	—	true = ft false = meters
Virtual Zone # in Alarm	Analog Input	4	—	—	—
Trend-log Leakage Current	Trend Log	2	—	—	ma 0.xxx
Trend-log Leakage Current	Trend Log	3	—	—	ua xxx
Zone 2-16 Summary Alarm	Binary Input	5	—	—	—
Zone 2 Enabled	Binary Input	201	—	—	—
Zone 2 Location of Leak	Analog Input	201	—	—	—
Zone 2 Leak Detected	Binary Input	202	—	—	—
Zone 2 Leakage Current	Analog Input	202	—	—	—
Zone 2 Cable Break	Binary Input	203	—	—	—
Zone 2 Length of Cable	Analog Input	203	—	—	—
Zone 2 Contamination	Binary Input	204	—	—	—
Zone 2 Comm Loss	Binary Input	205	—	—	—
. . .					
Zone 16 Location of Leak	Analog Input	1601	—	—	—
Zone 16 Leak Detected	Binary Input	1602	—	—	—
Zone 16 Leakage Current	Analog Input	1602	—	—	—
Zone 16 Cable Break	Binary Input	1603	—	—	—

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Table 5.64 Liebert® Liqui-tect™ LP3000—BACnet Object Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Zone 16 Length of Cable	Analog Input	1603	—	—	—
Zone 16 Contamination	Binary Input	1604	—	—	—
Zone 16 Comm Loss	Binary Input	1605	—	—	—

Table 5.65 Liebert® Liqui-tect™ LP6000—BACnet Object Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Leak Alarm	Binary Input	1	—	—	—
Location of Leak	Analog Input	1	—	—	—
Virtual Zone # in Alarm	Multi-state Value	1	—	—	IP only
Cable Break Alarm	Binary Input	2	—	—	—
Leakage Current on Cable	Analog Input	2	—	—	—
Contamination Alarm	Binary Input	3	—	—	—
Length of Cable	Analog Input	3	—	—	—
Unit of Measure	Binary Input	4	—	—	true = ft false = meters
Virtual Zone # in Alarm	Analog Value	1	—	—	—
Trend-log Leakage Current	Trend Log	2	—	—	ma 0.xxx
Trend-log Leakage Current	Trend Log	3	—	—	ua xxx
Zone 2 Enabled	Binary Input	201	—	—	—
Zone 2 Location of Leak	Analog Input	201	—	—	—
Zone 2 Leak Detected	Binary Input	202	—	—	—
Zone 2 Leakage Current	Analog Input	202	—	—	—
Zone 2 Cable Break	Binary Input	203	—	—	—
Zone 2 Length of Cable	Analog Input	203	—	—	—
Zone 2 Contamination	Binary Input	204	—	—	—
Zone 2 Comm Loss	Binary Input	205	—	—	—
. . .					
Zone 128 Enabled	Binary Input	12801	—	—	—
Zone 128 Location of Leak	Analog Input	12801	—	—	—
Zone 128 Leak Detected	Binary Input	12802	—	—	—
Zone 128 Leakage Current	Analog Input	12802	—	—	—
Zone 128 Cable Break	Binary Input	12803	—	—	—

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Table 5.65 Liebert® Liqui-tect™ LP6000—BACnet Object Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Zone 128 Length of Cable	Analog Input	12803	—	—	—
Zone 128 Contamination	Binary Input	12804	—	—	—
Zone 128 Comm Loss	Binary Input	12805	—	—	—

Table 5.66 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Events					
Internal Communications Failure	Binary_Value	1	ba21_1	RD	Active on Alarm
High Temperature	Binary_Value	7	ba27_1	RD	Active on Alarm
Low Temperature	Binary_Value	8	ba28_1	RD	Active on Alarm
High Return Humidity	Binary_Value	9	ba29_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	10	ba30_1	RD	Active on Alarm
Humidifier Problem	Binary_Value	11	ba31_1	RD	Active on Alarm
Loss of Air Flow	Binary_Value	4	ba24_1	RD	Active on Alarm
Clogged Air Filter	Binary_Value	6	ba26_1	RD	Active on Alarm
Smoke Detected	Binary_Value	12	ba32_1	RD	Active on Alarm
Ext Standby Glycol Pump On	Binary_Value	5	ba25_1	RD	Active on Alarm
Ext Standby Unit On (Not in 1-5 ton unit)	Binary_Value	14	ba34_1	RD	Active on Alarm
Supply Chilled Water Loss of Flow	Binary_Value	13	ba33_1	RD	Active on Alarm
Loss Of Power	Binary_Value	16	ba36_1	RD	Active on Alarm
Custom Alarm #1	Binary_Value	17	ba37_1	RD	Active on Alarm
Custom Alarm #2	Binary_Value	18	ba38_1	RD	Active on Alarm
Custom Alarm #3 (Not in 1-5 ton unit)	Binary_Value	19	ba39_1	RD	Active on Alarm
Custom Alarm #4 (Not in 1-5 ton unit)	Binary_Value	20	ba40_1	RD	Active on Alarm
Compressor 1 High Pressure	Binary_Value	2	ba22_1	RD	Active on Alarm
Compressor 2 High Pressure (Not in 1-5 ton unit)	Binary_Value	3	ba23_1	RD	Active on Alarm
Compressor Short Cycle	Binary_Value	15	ba35_1	RD	Active on Alarm

Table 5.67 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Combined Data					
Communications Failure	Analog Value	1	ba01_1	RD	Bit 0
Local Off	Analog Value	1	ba01_1	RD	Bit 1
Remote Off	Analog Value	1	ba01_1	RD	Bit 2

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Table 5.67 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Head Pressure 1	Analog Value	1	ba01_1	RD	Bit 3 This event is not latching
High Head Pressure 2 (Not in 1-5 ton unit)	Analog Value	1	ba01_1	RD	Bit 4 This event is not latching
Loss of Air Flow	Analog Value	1	ba01_1	RD	Bit 5
Standby Glycol Unit On (Not in 1-5 ton unit)	Analog Value	1	ba01_1	RD	Bit 6
Clogged Air Filter	Analog Value	1	ba01_1	RD	Bit 8
High Temperature	Analog Value	1	ba01_1	RD	Bit 9
Low Temperature	Analog Value	1	ba01_1	RD	Bit 10
High Humidity	Analog Value	2	ba02_1	RD	Bit 0
Low Humidity	Analog Value	2	ba02_1	RD	Bit 1
Humidifier Problem	Analog Value	2	ba02_1	RD	Bit 2
Compressor 1 Thermal Overload	Analog Value	2	ba02_1	RD	Bit 4
Compressor 2 Thermal Overload (Not in 1-5 ton unit)	Analog Value	2	ba02_1	RD	Bit 5
Main Fan Overload	Analog Value	2	ba02_1	RD	Bit 6
Smoke Detected	Analog Value	2	ba02_1	RD	Bit 8
Loss of Water	Analog Value	2	ba02_1	RD	Bit 9
Standby Unit On (Not in 1-5 ton unit)	Analog Value	2	ba02_1	RD	Bit 10
Low Suction Pressure	Analog Value	3	ba03_1	RD	Bit 0
Short Cycle	Analog Value	3	ba03_1	RD	Bit 1
Loss of Power	Analog Value	3	ba03_1	RD	Bit 2
Local Alarm 1	Analog Value	3	ba03_1	RD	Bit 6
Local Alarm 2	Analog Value	3	ba03_1	RD	Bit 7
EPO Shutdown	Analog Value	3	ba03_1	RD	Bit 8
High Water (1-5 Ton) Local Alarm 3 (8 Ton)	Analog Value	3	ba03_1	RD	Bit 9
High Water (8 Ton) (Not in 1-5 ton unit)	Analog Value	3	ba03_1	RD	Bit 10
Unit On/Off	Analog Value	4	bc01_1	RW	Bit 0 On=unit Off Bit 1 On= Unit ON (W)
Reheat Lockout	Analog Value	4	bc01_1	RW	Bit 2 On=RH Off Bit 3 On=RH On
Humidifier Lockout	Analog Value	4	bc01_1	RW	Bit 4 On= HL Off Bit 5 On=HL On
Temperature and Tolerance	Analog Value	4	bc01_1	RW	0= No change (W)

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Table 5.67 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Humidity and Tolerance	Analog Value	4	bc01_1	RW	0= No change (W)
Cooling State	Analog Value	13	bs03_1	RD	1=On / 0=Off
Heating State	Analog Value	14	bs04_1	RD	1=On / 0=Off
Humidifier State	Analog Value	15	bs05_1	RD	1=On / 0=Off
Dehumidifier State	Analog Value	16	bs06_1	RD	1=On / 0=Off
System					
Inlet Air Temperature	Analog_Value	5	bs01_1 bs01_1_deg_F	RD	Units: deg C deg F
Return Humidity	Analog_Value	6	bs02_1	RD	Units: % RH
Temperature Control Capacity	Analog_Value	8	bs09_1	RD	Units: %
Cool/Heat Stages	Analog_Value	7	bs08_1	RD	0 = None 1 = Stage 1 2 = Stage 2
Glyco Pump On	Analog _Value	17	bs07_1	RD	0 = off 1 = on
Settings					
Return Air Temperature Set Point	Analog_Value	9	bs10_1 bs10_1_deg_F	RW	Units: deg C deg F
Return Air Temperature Set Point	Analog_Value	11	bc02_1 bc02_1_deg_F	RW	Units: deg C deg F
Air Temperature Proportional Band	Analog_Value	22	bc25_1	RW	Units: deg C
Air Temperature Proportional Band	Analog_Value	22	bc25_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	10	bs12_1	RW	Units: % RH
Humidity Set Point	Analog_Value	12	bc03_1	RW	Units: % RH
Humidity Proportional Band	Analog_Value	24	bc27_1	RW	Units: % RH
System On/Off Control	Analog_Value	18	bs18_1	RW	0: off 1: on

Table 5.68 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System					
Temp Control State	MultiState_Value	6	bs23_1	RD	1 = Idle 2 = Heating 3 = Cooling
Glyco Pump On	MultiState _Value	9	bs26_1	RD	1 = off 2 = on
Managed Device Operation State	MultiState_Value	10	bs27_1	RD	1 = UnitOn

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Table 5.68 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Reboot 3 = Unit Power Off 4 = RsdOff 5 = CommsOff
Humidifier State	Multi State Value	7	bs24_1	RD	1 = off 2 = on
Dehumidifier State	Multi State Value	8	bs25_1	RD	1 = off 2 = on
Settings					
System On/Off Control	MultiState_Value	3	bc21_1	RW	1 = off 2 = on
Reheater Lockout	MultiState_Value	4	bc22_1	RW	1 = disabled 2 = enabled
Humidifier Lockout	MultiState_Value	5	bc23_1	RW	1 = disabled 2 = enabled

Table 5.69 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Glossary

Data Label	Data Description
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor 1 High Pressure	Compressor 1 High Pressure.
Compressor 2 High Pressure	Compressor 2 High Pressure.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Cool/Heat Stages	Cool/Heat Stages.
Custom Alarm #1	The external input contact 1.
Custom Alarm #2	The external input contact 2.
Custom Alarm #3	Humidifier Problem.
Custom Alarm #4	The external input contact 4.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
Glyco Pump On	Glyco Pump On.
High Temperature	[Return Air Temperature] has exceeded [High Return Air Temperature Threshold].
Humidifier Lockout	Enable/disable the use of the humidifier.

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Table 5.69 Liebert® Mini-Mate2 1-Ton to 5-Ton and 8-Ton for Liebert® IntelliSlot™ Unity Cards—Glossary (continued)

Data Label	Data Description
Humidifier Problem	Humidifier issue detected, causing it to be locked out.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Inlet Air Temperature	The temperature of the inlet air.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Loss Of Power	Power supply failure.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Low Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Managed Device Operation State	Managed Device Operation State.
Reheater Lockout	Enable/disable the use of the reheater.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Humidity	Relative humidity measured at the inlet of the unit.
Smoke Detected	Smoke detected.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
System On/Off Control	Turn system functionality on or off.
Temp Control State System	Temperature control state.
Temperature Control Capacity	Temperature Control Capacity.

Table 5.70 Liebert® Mini-Mate2 8-Ton—L8T (ADPT-only)

Controller	L8T			
Liebert Products	Liebert Mini-Mate2 8 Ton			
Data Description	Object Type	Instance	Object Name	Notes
Status Points (View)				
Temperature	Analog_Value	5	bs01_1	—
Humidity	Analog_Value	6	bs02_1	—

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Table 5.70 Liebert® Mini-Mate2 8-Ton—L8T (ADPT-only) (continued)

Controller	L8T			
Liebert Products	Liebert Mini-Mate2 8 Ton			
Data Description	Object Type	Instance	Object Name	Notes
Cooling	Analog_Value	13	bs03_1	0 = Off 1 = On
Heating	Analog_Value	14	bs04_1	0 = Off 1 = On
Humidification	Analog_Value	15	bs05_1	0 = Off 1 = On
Dehumidification	Analog_Value	16	bs06_1	0 = Off 1 = On
Econ-O-Cycle	Analog_Value	17	bs07_1	0 = Off 1 = On
Stages	Analog_Value	7	bs08_1	—
% Capacity	Analog_Value	8	bs09_1	—
Unit Status (On/Off)	Analog_Value	18	bs18_1	0 = Off 1 = On
Alarm Points				
Communications	Analog_Value	1	ba01_1:00	—
Local Off	Analog_Value	1	ba01_1:01	—
Remote Off	Analog_Value	1	ba01_1:02	—
High Head Pressure 1	Analog_Value	1	ba01_1:03	—
High Head Pressure 2	Analog_Value	1	ba01_1:04	—
Loss of Airflow	Analog_Value	1	ba01_1:05	—
Standby Glycol Unit On	Analog_Value	1	ba01_1:06	—
Change Filters	Analog_Value	1	ba01_1:08	—
High Temperature	Analog_Value	1	ba01_1:09	—
Low Temperature	Analog_Value	1	ba01_1:10	—
High Humidity	Analog_Value	2	ba02_1:00	—
Low Humidity	Analog_Value	2	ba02_1:01	—
Humidifier Problem	Analog_Value	2	ba02_1:02	—
Smoke Detected	Analog_Value	2	ba02_1:08	—
Loss of Water Flow	Analog_Value	2	ba02_1:09	—
Standby Unit On	Analog_Value	2	ba02_1:10	—
Short Cycle	Analog_Value	3	ba03_1:01	—

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Table 5.70 Liebert® Mini-Mate2 8-Ton—L8T (ADPT-only) (continued)

Controller	L8T			
Liebert Products	Liebert Mini-Mate2 8 Ton			
Data Description	Object Type	Instance	Object Name	Notes
Loss of Power	Analog_Value	3	ba03_1:02	—
Local Alarm 1	Analog_Value	3	ba03_1:06	—
Local Alarm 2	Analog_Value	3	ba03_1:07	—
High Water	Analog_Value	3	ba03_1:08	—
Local Alarm 3	Analog_Value	3	ba03_1:09	—
Setpoints (View)				
Temperature	Analog_Value	9	bs10_1	—
Humidity	Analog_Value	10	bs12_1	—
Control Points				
Unit On/Off	Analog_Value	4	bc01_1	Bit 0 - ON = Unit Off Bit 1 - ON = Unit On
Temperature Setpoint	Analog_Value	11	bc02_1	—
Humidity Setpoint	Analog_Value	12	bc03_1	—
Reheat Lockout	Analog_Value	4	bc01_1	Bit 2 - ON = Reheat Lockout Off Bit 3 - ON = Reheat Lockout On*
Humidifier Lockout	Analog_Value	4	bc01_1	Bit 4 - ON = Humidifier Lockout Off Bit 5 - ON = Humidifier Lockout On*

* These bit pairs use exclusive or'ing. Both bits in the pair cannot be set or unset. Multiple pairs may be set/unset in a single write, as long as exclusive or'ing is appropriately recognized.

Table 5.71 Liebert® Mini-Mate2 8-ton—L8T (iCOM CMS only)

Controller	L8T			
Liebert Products	Liebert Mini-Mate2 8 Ton			
Data Description	Object Type	Instance	Object Name	Notes
Status Points (View)				
Temperature	Analog_Value	5	bs01_1	—
Humidity	Analog_Value	6	bs02_1	—
Cooling	Analog_Value	13	bs03_1	0 = Off 1 = On

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Table 5.71 Liebert® Mini-Mate2 8-ton—L8T (iCOM CMS only) (continued)

Controller	L8T			
Liebert Products	**Liebert Mini-Mate2 8 Ton**			
Data Description	**Object Type**	**Instance**	**Object Name**	**Notes**
Heating	Analog_Value	14	bs04_1	0 = Off 1 = On
Humidification	Analog_Value	15	bs05_1	0 = Off 1 = On
Dehumidification	Analog_Value	16	bs06_1	0 = Off 1 = On
Econ-O-Cycle	Analog_Value	17	bs07_1	0 = Off 1 = On
Stages	Analog_Value	7	bs08_1	—
% Capacity	Analog_Value	8	bs09_1	—
Unit Status (On/Off)	Analog_Value	18	bs18_1	0 = Off 1 = On
Cooling/Heating Status	MultiState_Value	6	bs23_1	1 = Idle 2 = Heating 3 = Cooling
Humidifier Status	MultiState_Value	7	bs24_1	1 = Off 2 = On
Dehumidifying Status	MultiState_Value	8	bs25_1	1 = Off 2 = On
Econocycle Status	MultiState_Value	9	bs26_1	1 = Off 2 = On
Unit Status	MultiState_Value	10	bs27_1	1 = On 2 = On but in Restart Delay 3 = Off by I/O Key 4 = Off by Remote Shutdown 5 = Off by Remote Control
Alarm Points				
Communications	Analog_Value	1	ba01_1:00	—
Local Off	Analog_Value	1	ba01_1:01	—
Remote Off	Analog_Value	1	ba01_1:02	—
High Head Pressure 1	Analog_Value	1	ba01_1:03	—
High Head Pressure 2	Analog_Value	1	ba01_1:04	—
Loss of Airflow	Analog_Value	1	ba01_1:05	—
Standby Glycol Unit On	Analog_Value	1	ba01_1:06	—
Change Filters	Analog_Value	1	ba01_1:08	—
High Temperature	Analog_Value	1	ba01_1:09	—

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Table 5.71 Liebert® Mini-Mate2 8-ton—L8T (iCOM CMS only) (continued)

Controller	L8T			
Liebert Products	Liebert Mini-Mate2 8 Ton			
Data Description	Object Type	Instance	Object Name	Notes
Low Temperature	Analog_Value	1	ba01_1:10	—
High Humidity	Analog_Value	2	ba02_1:00	—
Low Humidity	Analog_Value	2	ba02_1:01	—
Humidifier Problem	Analog_Value	2	ba02_1:02	—
Smoke Detected	Analog_Value	2	ba02_1:08	—
Loss of Water Flow	Analog_Value	2	ba02_1:09	—
Standby Unit On	Analog_Value	2	ba02_1:10	—
Short Cycle	Analog_Value	3	ba03_1:01	—
Loss of Power	Analog_Value	3	ba03_1:02	—
Local Alarm 1	Analog_Value	3	ba03_1:06	—
Local Alarm 2	Analog_Value	3	ba03_1:07	—
High Water	Analog_Value	3	ba03_1:08	—
Local Alarm 3	Analog_Value	3	ba03_1:09	—
Communications	Binary_Value	1	ba21_1	0 = Off 1 = On
High Head Pressure 1	Binary_Value	2	ba22_1	0 = Off 1 = On
High Head Pressure 2	Binary_Value	3	ba23_1	0 = Off 1 = On
Loss of Airflow	Binary_Value	4	ba24_1	0 = Off 1 = On
Standby Glycol Unit On	Binary_Value	5	ba25_1	0 = Off 1 = On
Change Filters	Binary_Value	6	ba26_1	0 = Off 1 = On
High Temperature	Binary_Value	7	ba27_1	0 = Off 1 = On
Low Temperature	Binary_Value	8	ba28_1	0 = Off 1 = On
High Humidity	Binary_Value	9	ba29_1	0 = Off 1 = On
Low Humidity	Binary_Value	10	ba30_1	0 = Off 1 = On
Humidifer Problem	Binary_Value	11	ba31_1	0 = Off 1 = On

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Table 5.71 Liebert® Mini-Mate2 8-ton—L8T (iCOM CMS only) (continued)

Controller	L8T			
Liebert Products	**Liebert Mini-Mate2 8 Ton**			
Data Description	**Object Type**	**Instance**	**Object Name**	**Notes**
Smoke Detected	Binary_Value	12	ba32_1	0 = Off 1 = On
Loss of Water Flow	Binary_Value	13	ba33_1	0 = Off 1 = On
Standby Unit On	Binary_Value	14	ba34_1	0 = Off 1 = On
Short Cycle	Binary_Value	15	ba35_1	0 = Off 1 = On
Loss of Power	Binary_Value	16	ba36_1	0 = Off 1 = On
Custom Alarm 1	Binary_Value	17	ba37_1	0 = Off 1 = On
Custom Alarm 2	Binary_Value	18	ba38_1	0 = Off 1 = On
Custom Alarm 3	Binary_Value	20	ba40_1	0 = Off 1 = On
High Water	Binary_Value	21	ba41_1	0 = Off 1 = On
Setpoints (View)				
Temperature	Analog_Value	9	bs10_1	—
Humidity	Analog_Value	10	bs12_1	—
Control Points				
Unit On/Off	Analog_Value	4	bc01_1	Bit 0 - ON = Unit Off Bit 1 - ON = Unit On
Temperature Setpoint	Analog_Value	11	bc02_1	—
Humidity Setpoint	Analog_Value	12	bc03_1	—
Reheat Lockout	Analog_Value	4	bc01_1	Bit 2 - ON = Reheat Lockout Off Bit 3 - ON = Reheat Lockout On
Humidifier Lockout	Analog_Value	4	bc01_1	Bit 4 - ON = Humidifier Lockout Off Bit 5 - ON = Humidifier Lockout On
On/Off Control	MultiState_Value	3	bc21_1	1 = Off 2 = On
Reheat Lockout	MultiState_Value	4	bc22_1	1 = Off 2 = On

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Table 5.71 Liebert® Mini-Mate2 8-ton—L8T (iCOM CMS only) (continued)

Controller	L8T			
Liebert Products	Liebert Mini-Mate2 8 Ton			
Data Description	Object Type	Instance	Object Name	Notes
Humidifier Lockout	MultiState_Value	5	bc23_1	1 = Off 2 = On
Temperature Tolerance	Analog_Value	22	bc25_1	—
Humidity Tolerance	Analog_Value	24	bc27_1	—

Table 5.72 Liebert® Mini-Mate3—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Supply Air					
Supply Air Over Temperature	Binary_Value	1	5015_1_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	2	5019_1_1	RD	Active on Alarm
Supply Air Sensor Issue	Binary_Value	3	5026_1_1	RD	Active on Alarm
Supply NTC Air Sensor Issue	Binary_Value	4	6530_1_1	RD	Active on Alarm
Air - Return Air					
Return Air Over Temperature	Binary_Value	14	5023_1_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	15	5335_1_1	RD	Active on Alarm
Return Air Sensor Issue	Binary_Value	16	5147_1_1	RD	Active on Alarm
Air - External Sensors					
Ext Air Sensor A Over Temperature	Binary_Value	27	4601_1_1	RD	Active on Alarm
Ext Air Sensor A Under Temperature	Binary_Value	28	4608_1_1	RD	Active on Alarm
Ext Air Sensor A Issue	Binary_Value	29	4618_1_1	RD	Active on Alarm
Ambient Air Sensor Issue	Binary_Value	30	5573_1_1	RD	Active on Alarm
External Air Sensor B Issue	Binary_Value	31	4621_1_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
External Air Sensor C Issue	Binary_Value	32	6531_1_1	RD	Active on Alarm
External Air Sensor D Issue	Binary_Value	33	6532_1_1	RD	Active on Alarm
External Air Sensor E Issue	Binary_Value	34	6533_1_1	RD	Active on Alarm
Humidity					
High Return Humidity	Binary_Value	41	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	42	5036_1	RD	Active on Alarm
Dew Point Over Temperature	Binary_Value	43	5578_1	RD	Active on Alarm
Dew Point Under Temperature	Binary_Value	44	5579_1	RD	Active on Alarm
Return Humidity Sensor Issue	Binary_Value	45	5902_1	RD	Active on Alarm
Humidity - External Sensors					
Ext Air Sensor A High Humidity	Binary_Value	53	5349_1_1	RD	Active on Alarm
Ext Air Sensor A Low Humidity	Binary_Value	54	5351_1_1	RD	Active on Alarm
Ext Dew Point Over Temperature	Binary_Value	55	4615_1_1	RD	Active on Alarm
Ext Dew Point Under Temperature	Binary_Value	56	5577_1_1	RD	Active on Alarm
Compressors					
Ext Compressor Lockout	Binary_Value	65	5067_1	RD	Active on Alarm
Compressor Capacity Reduced	Binary_Value	66	5513_1	RD	Active on Alarm
Compressors - Compressor 1					
Compressor Hours Exceeded	Binary_Value	77	5269_1_1	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	78	5270_1_1	RD	Active on Alarm
Compressor Low Suction Pressure	Binary_Value	79	5271_1_1	RD	Active on Alarm
Compressor Short Cycle	Binary_Value	80	5352_1_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Pump Down Issue	Binary_Value	81	5146_1_1	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	82	5272_1_1	RD	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	83	5354_1_1	RD	Active on Alarm
Dig Scroll Comp Over Temp	Binary_Value	84	5355_1_1	RD	Active on Alarm
Compressor Low Pressure Transducer Issue	Binary_Value	85	5514_1_1	RD	Active on Alarm
Compressor High Pressure Transducer Issue	Binary_Value	86	5148_1_1	RD	Active on Alarm
Compressor Superheat Over Threshold	Binary_Value	87	5604_1_1	RD	Active on Alarm
Compressor Low Differential Pressure Lockout	Binary_Value	88	5903_1_1	RD	Active on Alarm
Compressors - Compressor 2					
Compressor Hours Exceeded	Binary_Value	97	5269_1_2	RD	Active on Alarm
Compressor High Head Pressure	Binary_Value	98	5270_1_2	RD	Active on Alarm
Compressor Low Suction Pressure	Binary_Value	99	5271_1_2	RD	Active on Alarm
Compressor Short Cycle	Binary_Value	100	5352_1_2	RD	Active on Alarm
Compressor Pump Down Issue	Binary_Value	101	5146_1_2	RD	Active on Alarm
Compressor Thermal Overload	Binary_Value	102	5272_1_2	RD	Active on Alarm
Dig Scroll Comp Discharge Temp Sensor Issue	Binary_Value	103	5354_1_2	RD	Active on Alarm
Dig Scroll Comp Over Temp	Binary_Value	104	5355_1_2	RD	Active on Alarm
Compressor Low Pressure Transducer Issue	Binary_Value	105	5514_1_2	RD	Active on Alarm
Compressor High Pressure Transducer Issue	Binary_Value	106	5148_1_2	RD	Active on Alarm
Compressor Superheat Over Threshold	Binary_Value	107	5604_1_2	RD	Active on Alarm
Compressor Low Differential Pressure Lockout	Binary_Value	108	5903_1_2	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Free Cooling / Chilled Water					
Free Cooling Valve Hours Exceeded	Binary_Value	117	5306_1	RD	Active on Alarm
Ext Free Cooling Lockout	Binary_Value	118	5361_1	RD	Active on Alarm
Free Cooling Temp Sensor Issue	Binary_Value	119	5362_1	RD	Active on Alarm
Reheat					
Hot Water / Hot Gas Valve Hours Exceeded	Binary_Value	130	5365_1	RD	Active on Alarm
Reheater Over Temperature	Binary_Value	131	5068_1	RD	Active on Alarm
Ext Reheat Lockout	Binary_Value	132	5070_1	RD	Active on Alarm
Reheat - Electric Reheater 1					
Electric Reheater Hours Exceeded	Binary_Value	143	5368_1_1	RD	Active on Alarm
Reheat - Electric Reheater 2					
Electric Reheater Hours Exceeded	Binary_Value	154	5368_1_2	RD	Active on Alarm
Reheat - Electric Reheater 3					
Electric Reheater Hours Exceeded	Binary_Value	165	5368_1_3	RD	Active on Alarm
Humidifier					
Humidifier Hours Exceeded	Binary_Value	176	5037_1	RD	Active on Alarm
Ext Humidifier Lockout	Binary_Value	177	5044_1	RD	Active on Alarm
Humidifier Control Board Not Detected	Binary_Value	178	5045_1	RD	Active on Alarm
Humidifier Cylinder Worn	Binary_Value	179	5042_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	180	5043_1	RD	Active on Alarm
Humidifier Low Water	Binary_Value	181	5041_1	RD	Active on Alarm
Humidifier Over Current	Binary_Value	182	5040_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Humidifier Under Current	Binary_Value	183	5039_1	RD	Active on Alarm
Dehumidifier					
Dehumidifier Hours Exceeded	Binary_Value	194	5038_1	RD	Active on Alarm
Fan					
Fan Hours Exceeded	Binary_Value	205	5054_1	RD	Active on Alarm
Main Fan Overload	Binary_Value	206	5376_1	RD	Active on Alarm
Fan Issue	Binary_Value	207	4729_1	RD	Active on Alarm
Condensers					
Ext Condenser Pump High Water	Binary_Value	220	5106_1	RD	Active on Alarm
External Condenser TVSS Issue	Binary_Value	1060	6105_1	RD	Active on Alarm
External Condenser VFD Issue	Binary_Value	1061	6106_1	RD	Active on Alarm
Condensers - Condenser 1					
Condenser Issue	Binary_Value	231	5377_1_1	RD	Active on Alarm
Condensers - Condenser 2					
Condenser Issue	Binary_Value	242	5377_1_2	RD	Active on Alarm
Unit Events					
Customer Input 1	Binary_Value	253	4270_1	RD	Active on Alarm
Customer Input 2	Binary_Value	254	4271_1	RD	Active on Alarm
Customer Input 3	Binary_Value	255	4272_1	RD	Active on Alarm
Customer Input 4	Binary_Value	256	4273_1	RD	Active on Alarm
Ext Loss of Air Blower	Binary_Value	257	5415_1	RD	Active on Alarm
Ext Loss of Flow	Binary_Value	258	5105_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Standby Glycol Pump On	Binary_Value	259	5107_1	RD	Active on Alarm
BMS Communications Timeout	Binary_Value	260	5115_1	RD	Active on Alarm
Ext Standby Unit On	Binary_Value	261	5416_1	RD	Active on Alarm
Clogged Air Filter	Binary_Value	262	5118_1	RD	Active on Alarm
Loss of Air Flow	Binary_Value	263	5053_1	RD	Active on Alarm
Service Required	Binary_Value	264	4726_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	265	5120_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	266	5119_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	267	4714_1	RD	Active on Alarm
High Power Shutdown	Binary_Value	268	5121_1	RD	Active on Alarm
Smoke Detected	Binary_Value	269	4720_1	RD	Active on Alarm
Supply Chilled Water Loss of Flow	Binary_Value	270	4980_1	RD	Active on Alarm
Supply Chilled Water Over Temp	Binary_Value	271	4626_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	272	5418_1	RD	Active on Alarm
Unit Communication Lost	Binary_Value	273	5419_1	RD	Active on Alarm
Water Leakage Detector Sensor Issue	Binary_Value	274	5114_1	RD	Active on Alarm
Water Under Floor	Binary_Value	275	4723_1	RD	Active on Alarm
Ext Over Temperature	Binary_Value	276	5104_1	RD	Active on Alarm
External Fire Detected	Binary_Value	277	5108_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	278	5588_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Temperature Control Sensor Issue	Binary_Value	279	5617_1	RD	Active on Alarm
Airflow Sensor Issue	Binary_Value	280	5906_1	RD	Active on Alarm
Ext Air Damper Position Issue	Binary_Value	281	5907_1	RD	Active on Alarm
Ext Power Source A Failure	Binary_Value	282	5908_1	RD	Active on Alarm
Ext Power Source B Failure	Binary_Value	283	5909_1	RD	Active on Alarm
Mixed Mode Lockout	Binary_Value	284	5924_1	RD	Active on Alarm
Unit Events - Chilled Water Valve 1					
Chilled Water Control Valve Failure	Binary_Value	288	4703_1_1	RD	Active on Alarm
Unit Events - Chilled Water Valve 2					
Chilled Water Control Valve Failure	Binary_Value	299	4703_1_2	RD	Active on Alarm
Unit Events - Messages					
Unit Off	Binary_Value	310	5110_1_1	RD	Active on Alarm
Unit On	Binary_Value	311	5109_1_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	312	5112_1_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	313	5113_1_1	RD	Active on Alarm
Unit Standby	Binary_Value	314	5111_1_1	RD	Active on Alarm
Maintenance Due	Binary_Value	315	5116_1_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	316	5117_1_1	RD	Active on Alarm
Unit Events - iCOM DO Board 1					
Digital Output Board Not Detected	Binary_Value	327	5417_1_1	RD	Active on Alarm
Unit Events - iCOM DO Board 2					
Digital Output Board Not Detected	Binary_Value	338	5417_1_2	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unit Events - iCOM DO Board 3					
Digital Output Board Not Detected	Binary_Value	349	5417_1_3	RD	Active on Alarm
Remote Sensors					
Remote Sensor Average Over Temperature	Binary_Value	361	5593_1	RD	Active on Alarm
Remote Sensor Average Under Temperature	Binary_Value	362	5594_1	RD	Active on Alarm
Remote Sensor System Average Over Temperature	Binary_Value	363	5595_1	RD	Active on Alarm
Remote Sensor System Average Under Temperature	Binary_Value	364	5596_1	RD	Active on Alarm
Remote Sensors - Remote Sensor 1					
Remote Sensor Over Temperature	Binary_Value	376	5597_1_1	RD	Active on Alarm
Remote Sensor Under Temperature	Binary_Value	377	5598_1_1	RD	Active on Alarm
Remote Sensor Issue	Binary_Value	378	5060_1_1	RD	Active on Alarm
Remote Sensors - Remote Sensor 2					
Remote Sensor Over Temperature	Binary_Value	390	5597_1_2	RD	Active on Alarm
Remote Sensor Under Temperature	Binary_Value	391	5598_1_2	RD	Active on Alarm
Remote Sensor Issue	Binary_Value	392	5060_1_2	RD	Active on Alarm
. . .					
Remote Sensors - Remote Sensor 10					
Remote Sensor Over Temperature	Binary_Value	502	5597_1_10	RD	Active on Alarm
Remote Sensor Under Temperature	Binary_Value	503	5598_1_10	RD	Active on Alarm
Remote Sensor Issue	Binary_Value	504	5060_1_10	RD	Active on Alarm
Air Economizer					
Air Economizer Emergency Override	Binary_Value	516	5600_1	RD	Active on Alarm
Air Economizer Reduced Airflow	Binary_Value	517	5601_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Electronic Expansion Valves					
EEV Unspecified General Event	Binary_Value	540	5625_1	RD	Active on Alarm
Static Pressure					
Static Pressure Sensor Issue	Binary_Value	563	5629_1	RD	Active on Alarm
High Static Pressure	Binary_Value	564	5630_1	RD	Active on Alarm
Low Static Pressure	Binary_Value	565	5631_1	RD	Active on Alarm
Static Pressure Sensor Out of Range	Binary_Value	566	5910_1	RD	Active on Alarm
EconoPhase					
Pump Unspecified General Event	Binary_Value	623	5636_1	RD	Active on Alarm
Power Measurement 1					
Input Undervoltage	Binary_Value	1001	5568_1	RD	Active on Alarm
Modbus Power Meter Communication Lost	Binary_Value	1040	5967_1	RD	Active on Alarm
Power Measurement 2					
Input Undervoltage	Binary_Value	1002	5568_2	RD	Active on Alarm
Modbus Power Meter Communication Lost	Binary_Value	1041	5967_2	RD	Active on Alarm
. . .					
Power Measurement 6					
Input Undervoltage	Binary_Value	1006	5568_6	RD	Active on Alarm
Modbus Power Meter Communication Lost	Binary_Value	1045	5967_6	RD	Active on Alarm
Fluid 1					
Fluid Temperature Sensor Issue	Binary_Value	1021	5911_1	RD	Active on Alarm
Fluid Flow Sensor Issue	Binary_Value	1022	5912_1	RD	Active on Alarm
Fluid 2					
Fluid Temperature Sensor Issue	Binary_Value	1031	5911_2	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fluid Flow Sensor Issue	Binary_Value	1032	5912_2	RD	Active on Alarm
Air - Auxiliary Air					
Aux Air Temp Device Communication Lost	Binary_Value	1050	5966_1_1	RD	Active on Alarm
Liebert® Condensers					
Condenser Unit Unspecified General Event	Binary_Value	643	5637_1	RD	Active on Alarm
Liebert® Condensers - Condenser 1					
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1082	5536_1_1	RD	Active on Alarm
Condenser Control Board Issue	Binary_Value	1084	5537_1_1	RD	Active on Alarm
Condenser Outside Air Temp Sensor Issue	Binary_Value	1086	5535_1_1	RD	Active on Alarm
Condenser Communication Lost	Binary_Value	1088	5531_1_1	RD	Active on Alarm
Condenser Remote Shutdown	Binary_Value	1090	6100_1_1	RD	Active on Alarm
Condenser TVSS Issue	Binary_Value	218	5073_1_1	RD	Active on Alarm
MC Condensers - Condenser 2					
Condenser Outside Air Temp Out of Operating Range	Binary_Value	1083	5536_1_2	RD	Active on Alarm
Condenser Control Board Issue	Binary_Value	1085	5537_1_2	RD	Active on Alarm
Condenser Outside Air Temp Sensor Issue	Binary_Value	1087	5535_1_2	RD	Active on Alarm
Condenser Communication Lost	Binary_Value	1089	5531_1_2	RD	Active on Alarm
Condenser Remote Shutdown	Binary_Value	1091	6100_1_2	RD	Active on Alarm
Condenser TVSS Issue	Binary_Value	1092	5073_1_2	RD	Active on Alarm
MC Condensers - Circuit 1					
Condenser Circuit Unspecified General Event	Binary_Value	644	5638_1_1	RD	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1104	5541_1_1	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1106	5540_1_1	RD	Active on Alarm
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1108	5539_1_1	RD	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1110	5544_1_1	RD	Active on Alarm
Condenser Supply Refrigerant Under Temp	Binary_Value	1112	5543_1_1	RD	Active on Alarm
Condenser Supply Refrigerant Over Temp	Binary_Value	1114	5542_1_1	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	1116	5545_1_1	RD	Active on Alarm
MC Condensers - Circuit 2					
Condenser Circuit Unspecified General Event	Binary_Value	896	5638_1_2	RD	Active on Alarm
Condenser Refrigerant Pressure Sensor Issue	Binary_Value	1105	5541_1_2	RD	Active on Alarm
Condenser Refrigerant Pressure Under Threshold	Binary_Value	1107	5540_1_2	RD	Active on Alarm
Condenser Refrigerant Pressure Over Threshold	Binary_Value	1109	5539_1_2	RD	Active on Alarm
Condenser Supply Refrigerant Temp Sensor Issue	Binary_Value	1111	5544_1_2	RD	Active on Alarm
Condenser Supply Refrigerant Under Temp	Binary_Value	1113	5543_1_2	RD	Active on Alarm
Condenser Supply Refrigerant Over Temp	Binary_Value	1115	5542_1_2	RD	Active on Alarm
Condenser Max Fan Speed Override	Binary_Value	1117	5545_1_2	RD	Active on Alarm
MC Condensers - Condenser 1 Fan 1					
Condenser Fan Issue	Binary_Value	1128	5277_1_1_1	RD	Active on Alarm
MC Condensers - Condenser 1 Fan 2					
Condenser Fan Issue	Binary_Value	1129	5277_1_1_2	RD	Active on Alarm
. . .					
MC Condensers - Condenser 1 Fan 4					
Condenser Fan Issue	Binary_Value	1131	5277_1_1_4	RD	Active on Alarm

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Table 5.72 Liebert® Mini-Mate3—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MC Condensers - Condenser 2 Fan 1					
Condenser Fan Issue	Binary_Value	1132	5277_1_2_1	RD	Active on Alarm
MC Condensers - Condenser 2 Fan 2					
Condenser Fan Issue	Binary_Value	1133	5277_1_2_2	RD	Active on Alarm
MC Condensers - Condenser 2 Fan 4					
Condenser Fan Issue	Binary_Value	1135	5277_1_2_4	RD	Active on Alarm

Table 5.73 Liebert® Mini-Mate3—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Air Temperature Set Point	Analog_Value	1	5008_1	RW	Units: deg C
Air Temperature Set Point	Analog_Value	10001	5008_1_deg_F	RW	Units: deg F
Air Temperature Proportional Band	Analog_Value	2	5325_1	RW	Units: deg C
Air Temperature Proportional Band	Analog_Value	10002	5325_1_deg_F	RW	Units: deg F
Air Temperature Dead Band	Analog_Value	3	5011_1	RW	Units: deg C
Air Temperature Dead Band	Analog_Value	10003	5011_1_deg_F	RW	Units: deg F
Air Temperature Control Integration Time	Analog_Value	4	5326_1	RW	Units: min
Today's High Air Temperature	Analog_Value	5	5327_1	RD	Units: deg C
Today's High Air Temperature	Analog_Value	10005	5327_1_deg_F	RD	Units: deg F
Today's High Air Temperature Time	Analog_Value	6	5328_1	RD	Units: Seconds since Midnight
Today's Low Air Temperature	Analog_Value	7	5329_1	RD	Units: deg C
Today's Low Air Temperature	Analog_Value	10007	5329_1_deg_F	RD	Units: deg F
Today's Low Air Temperature Time	Analog_Value	8	5330_1	RD	Units: Seconds since Midnight
Air - Supply Air					
Supply Air Temperature	Analog_Value	19	5002_1_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10019	5002_1_1_deg_F	RD	Units: deg F
High Supply Air Temperature Threshold	Analog_Value	21	5014_1_1	RW	Units: deg C
High Supply Air Temperature Threshold	Analog_Value	10021	5014_1_1_deg_F	RW	Units: deg F
Low Supply Air Temperature Threshold	Analog_Value	22	5018_1_1	RW	Units: deg C
Low Supply Air Temperature Threshold	Analog_Value	10022	5018_1_1_deg_F	RW	Units: deg F
Air - Return Air					

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Return Air Temperature Threshold	Analog_Value	33	5022_1_1	RW	Units: deg C
High Return Air Temperature Threshold	Analog_Value	10033	5022_1_1_deg_F	RW	Units: deg F
Low Return Air Temperature Threshold	Analog_Value	34	5334_1_1	RW	Units: deg C
Low Return Air Temperature Threshold	Analog_Value	10034	5334_1_1_deg_F	RW	Units: deg F
Air - External Sensors					
Ext Air Sensor A Temperature	Analog_Value	45	4594_1_1	RD	Units: deg C
Ext Air Sensor A Temperature	Analog_Value	10045	4594_1_1_deg_F	RD	Units: deg F
Ext Air Sensor B Temperature	Analog_Value	46	4597_1_1	RD	Units: deg C
Ext Air Sensor B Temperature	Analog_Value	10046	4597_1_1_deg_F	RD	Units: deg F
Ext Air Sensor C Temperature	Analog_Value	47	5336_1_1	RD	Units: deg C
Ext Air Sensor C Temperature	Analog_Value	10047	5336_1_1_deg_F	RD	Units: deg F
Ext Air Sensor A Over Temp Threshold	Analog_Value	48	5337_1_1	RW	Units: deg C
Ext Air Sensor A Over Temp Threshold	Analog_Value	10048	5337_1_1_deg_F	RW	Units: deg F
Ext Air Sensor A Under Temp Threshold	Analog_Value	49	5338_1_1	RW	Units: deg C
Ext Air Sensor A Under Temp Threshold	Analog_Value	10049	5338_1_1_deg_F	RW	Units: deg F
Outside Air Temperature	Analog_Value	50	5574_1_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10050	5574_1_1_deg_F	RD	Units: deg F
Humidity					
Return Humidity	Analog_Value	60	5028_1	RD	Units: % RH
Humidity Set Point	Analog_Value	61	5029_1	RW	Units: % RH
Humidity Proportional Band	Analog_Value	63	5341_1	RW	Units: % RH
Humidity Dead Band	Analog_Value	64	5032_1	RW	Units: % RH
Humidity Control Integration Time	Analog_Value	65	5342_1	RW	Units: min
High Return Humidity Threshold	Analog_Value	66	5033_1	RW	Units: % RH
Low Return Humidity Threshold	Analog_Value	67	5035_1	RW	Units: % RH
Today's High Humidity	Analog_Value	68	5343_1	RD	Units: % RH
Today's High Humidity Time	Analog_Value	69	5344_1	RD	Units: Seconds since Midnight
Today's Low Humidity	Analog_Value	70	5345_1	RD	Units: % RH
Today's Low Humidity Time	Analog_Value	71	5346_1	RD	Units: Seconds since Midnight
Dew Point Proportional Band	Analog_Value	72	6258_1	RW	Units: deg C
Dew Point Proportional Band	Analog_Value	10072	6258_1_deg_F	RW	Units: deg F
Dew Point Dead Band	Analog_Value	73	6259_1	RW	Units: deg C

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Dew Point Dead Band	Analog_Value	10073	6259_1_deg_F	RW	Units: deg F
Humidity - External Sensors					
Ext Air Sensor A Humidity	Analog_Value	82	4595_1_1	RD	Units: % RH
Ext Air Sensor B Humidity	Analog_Value	83	4598_1_1	RD	Units: % RH
Ext Air Sensor C Humidity	Analog_Value	84	5347_1_1	RD	Units: % RH
Ext Air Sensor A High Humidity Threshold	Analog_Value	85	5348_1_1	RW	Units: % RH
Ext Air Sensor A Low Humidity Threshold	Analog_Value	86	5350_1_1	RW	Units: % RH
Ext Air Sensor A Dew Point Temp	Analog_Value	87	4596_1_1	RD	Units: deg C
Ext Air Sensor A Dew Point Temp	Analog_Value	10087	4596_1_1_deg_F	RD	Units: deg F
Ext Dew Point Over Temp Threshold	Analog_Value	88	4614_1_1	RW	Units: deg C
Ext Dew Point Over Temp Threshold	Analog_Value	10088	4614_1_1_deg_F	RW	Units: deg F
Ext Dew Point Under Temp Threshold	Analog_Value	89	5576_1_1	RW	Units: deg C
Ext Dew Point Under Temp Threshold	Analog_Value	10089	5576_1_1_deg_F	RW	Units: deg F
Compressors - Compressor 1					
Compressor Hours	Analog_Value	97	5267_1_1	RW	Units: hr
Compressor Hours Threshold	Analog_Value	98	5268_1_1	RW	Units: hr
Dig Scroll Comp Discharge Temp	Analog_Value	99	5353_1_1	RD	Units: deg C
Dig Scroll Comp Discharge Temp	Analog_Value	10099	5353_1_1_deg_F	RD	Units: deg F
Digital Scroll Compressor Loading	Analog_Value	100	5619_1_1	RD	Units: %
Tandem 'B' Compressor Hours	Analog_Value	101	6241_1_1	RW	Units: hr
Compressors - Compressor 2					
Compressor Hours	Analog_Value	110	5267_1_2	RW	Units: hr
Compressor Hours Threshold	Analog_Value	111	5268_1_2	RW	Units: hr
Dig Scroll Comp Discharge Temp	Analog_Value	112	5353_1_2	RD	Units: deg C
Dig Scroll Comp Discharge Temp	Analog_Value	10112	5353_1_2_deg_F	RD	Units: deg F
Digital Scroll Compressor Loading	Analog_Value	113	5619_1_2	RD	Units: %
Tandem 'B' Compressor Hours	Analog_Value	114	6241_1_2	RW	Units: hr
Free Cooling / Chilled Water					
Free Cooling Internal Temperature Delta	Analog_Value	123	5356_1	RW	Units: deg C
Free Cooling Internal Temperature Delta	Analog_Value	10123	5356_1_deg_F	RW	Units: deg F
Free Cooling Fluid Temperature	Analog_Value	124	5358_1	RD	Units: deg C
Free Cooling Fluid Temperature	Analog_Value	10124	5358_1_deg_F	RD	Units: deg F

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Minimum Chilled Water Temp Set Point	Analog_Value	125	5360_1	RW	Units: deg C
Minimum Chilled Water Temp Set Point	Analog_Value	10125	5360_1_deg_F	RW	Units: deg F
Free Cooling Valve Hours	Analog_Value	126	5304_1	RW	Units: hr
Free Cooling Valve Hours Threshold	Analog_Value	127	5305_1	RW	Units: hr
Chilled Water Valve Hours	Analog_Value	128	5614_1	RW	Units: hr
Chilled Water Valve Operating Hours Threshold	Analog_Value	129	6452_1	RW	Units: hr
Reheat					
Hot Water / Hot Gas Valve Hours	Analog_Value	138	5363_1	RW	Units: hr
Hot Water / Hot Gas Valve Hours Threshold	Analog_Value	139	5364_1	RW	Units: hr
Reheat - Electric Reheater 1					
Electric Reheater Hours	Analog_Value	150	5366_1_1	RW	Units: hr
Electric Reheater Hours Threshold	Analog_Value	151	5367_1_1	RW	Units: hr
Reheat - Electric Reheater 2					
Electric Reheater Hours	Analog_Value	162	5366_1_2	RW	Units: hr
Electric Reheater Hours Threshold	Analog_Value	163	5367_1_2	RW	Units: hr
Reheat - Electric Reheater 3					
Electric Reheater Hours	Analog_Value	174	5366_1_3	RW	Units: hr
Electric Reheater Hours Threshold	Analog_Value	175	5367_1_3	RW	Units: hr
Humidifier					
Humidifier Hours	Analog_Value	186	5369_1	RW	Units: hr
Humidifier Hours Threshold	Analog_Value	187	5370_1	RW	Units: hr
Infrared Humidifier Flush Rate	Analog_Value	188	5445_1	RW	Units: %
Dehumidifier					
Dehumidifier Hours	Analog_Value	199	5371_1	RW	Units: hr
Dehumidifier Hours Threshold	Analog_Value	200	5372_1	RW	Units: hr
Fan					
Fan Speed Maximum Set Point	Analog_Value	211	5050_1	RW	Units: %
Fan Hours	Analog_Value	212	5374_1	RW	Units: hr
Fan Hours Threshold	Analog_Value	213	5375_1	RW	Units: hr
Fan Speed Minimum Set Point	Analog_Value	214	5051_1	RW	Units: %
Fan Speed Temperature Set Point	Analog_Value	215	5585_1	RW	Units: deg C
Fan Speed Temperature Set Point	Analog_Value	10215	5585_1_deg_F	RW	Units: deg F

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Analog Inputs 1					
Analog Input Reading	Analog_Value	224	5378_1	RD	
Analog Inputs 2					
Analog Input Reading	Analog_Value	235	5378_2	RD	
. . .					
Analog Inputs 4					
Analog Input Reading	Analog_Value	257	5378_4	RD	—
Unit Information					
BMS Timeout Period	Analog_Value	268	5075_1	RW	Units: min
Auto Restart Delay	Analog_Value	269	4710_1	RW	Units: sec
Standby Units	Analog_Value	270	5314_1	RW	—
Unit Operations					
Return Air Temperature	Analog_Value	31	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10031	4291_1_deg_F	RD	Units: deg F
Fan Speed	Analog_Value	280	5077_1	RD	Units: %
Free Cooling Valve Open Position	Analog_Value	282	5379_1	RD	Units: %
Maintenance Ramp	Analog_Value	283	4870_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	284	4868_1	RD	—
Calculated Next Maintenance Year	Analog_Value	285	4869_1	RD	—
Hot Water / Hot Gas Valve Open Position	Analog_Value	286	5380_1	RD	Units: %
Reheat Utilization	Analog_Value	287	5080_1	RD	Units: %
Humidifier Utilization	Analog_Value	288	5081_1	RD	Units: %
Dehumidifier Utilization	Analog_Value	289	5079_1	RD	Units: %
Cooling Capacity	Analog_Value	290	5490_1	RD	Units: %
Adjusted Humidity	Analog_Value	291	5606_1	RD	Units: % RH
Return Dew Point	Analog_Value	292	5004_1	RD	Units: deg C
Return Dew Point	Analog_Value	10292	5004_1_deg_F	RD	Units: deg F
Actual Air Temperature Set Point	Analog_Value	293	5607_1	RD	Units: deg C
Actual Air Temperature Set Point	Analog_Value	10293	5607_1_deg_F	RD	Units: deg F
Actual Humidity Set Point	Analog_Value	294	5608_1	RD	Units: % RH
Dew Point Set Point	Analog_Value	295	5575_1	RW	Units: deg C
Dew Point Set Point	Analog_Value	10295	5575_1_deg_F	RW	Units: deg F

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Cooling Control Temperature	Analog_Value	296	5615_1	RD	Units: deg C
Cooling Control Temperature	Analog_Value	10296	5615_1_deg_F	RD	Units: deg F
Fan Speed Control Temperature	Analog_Value	297	5616_1	RD	Units: deg C
Fan Speed Control Temperature	Analog_Value	10297	5616_1_deg_F	RD	Units: deg F
Unit Cooling Load	Analog_Value	298	5904_1	RD	Units: kW
Unit Calculated Airflow	Analog_Value	299	6134_1	RD	Units: m3/h
Time					
System Date and Time	Analog_Value	300	4293_1	RW	Units: Secs since Epoch(UTC)
Remote Sensors					
Remote Sensor Over Temp Threshold	Analog_Value	312	5589_1	RW	Units: deg C
Remote Sensor Over Temp Threshold	Analog_Value	10312	5589_1_deg_F	RW	Units: deg F
Remote Sensor Under Temp Threshold	Analog_Value	313	5590_1	RW	Units: deg C
Remote Sensor Under Temp Threshold	Analog_Value	10313	5590_1_deg_F	RW	Units: deg F
Remote Sensor Average Temperature	Analog_Value	314	5007_1	RD	Units: deg C
Remote Sensor Average Temperature	Analog_Value	10314	5007_1_deg_F	RD	Units: deg F
Remote Sensor Maximum Temperature	Analog_Value	315	5006_1	RD	Units: deg C
Remote Sensor Maximum Temperature	Analog_Value	10315	5006_1_deg_F	RD	Units: deg F
Remote Sensor System Average Temperature	Analog_Value	316	5591_1	RD	Units: deg C
Remote Sensor System Average Temperature	Analog_Value	10316	5591_1_deg_F	RD	Units: deg F
Remote Sensor System Maximum Temperature	Analog_Value	317	5592_1	RD	Units: deg C
Remote Sensor System Maximum Temperature	Analog_Value	10317	5592_1_deg_F	RD	Units: deg F
Remote Sensors - Remote Sensor 1					
Remote Sensor Temperature	Analog_Value	329	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10329	5059_1_1_deg_F	RD	Units: deg F
Remote Sensors - Remote Sensor 2					
Remote Sensor Temperature	Analog_Value	341	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10341	5059_1_2_deg_F	RD	Units: deg F
. . .					
Remote Sensors - Remote Sensor 10					
Remote Sensor Temperature	Analog_Value	437	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10437	5059_1_10_deg_F	RD	Units: deg F
Static Pressure					

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Static Pressure Set Point	Analog_Value	461	5626_1	RW	Units: Pa
Unit Static Pressure	Analog_Value	462	5627_1	RD	Units: Pa
System Static Pressure	Analog_Value	463	5628_1	RD	Units: Pa
Static Pressure Set Point	Analog_Value	2121	5626_1_inWC	RW	Units: Pa
Unit Static Pressure	Analog_Value	2122	5627_1_inWC	RD	Units: Pa
System Static Pressure	Analog_Value	2123	5628_1_inWC	RD	Units: Pa
EconoPhase - Pump 1					
Pump Hours	Analog_Value	523	5298_1_1	RW	Units: hr
Pump Speed	Analog_Value	522	5634_1_1	RD	Units: %
Pump Inlet Refrigerant Temperature	Analog_Value	535	5635_1_1	RD	Units: deg C
Pump Inlet Refrigerant Temperature	Analog_Value	10535	5635_1_1_deg_F	RD	Units: deg F
Pump Outlet Refrigerant Temperature	Analog_Value	537	5639_1_1	RD	Units: deg C
Pump Outlet Refrigerant Temperature	Analog_Value	10537	5639_1_1_deg_F	RD	Units: deg F
EconoPhase - Pump 2					
Pump Hours	Analog_Value	526	5298_1_2	RW	Units: hr
Pump Speed	Analog_Value	525	5634_1_2	RD	Units: %
Pump Inlet Refrigerant Temperature	Analog_Value	538	5635_1_2	RD	Units: deg C
Pump Inlet Refrigerant Temperature	Analog_Value	10538	5635_1_2_deg_F	RD	Units: deg F
Pump Outlet Refrigerant Temperature	Analog_Value	540	5639_1_2	RD	Units: deg C
Pump Outlet Refrigerant Temperature	Analog_Value	10540	5639_1_2_deg_F	RD	Units: deg F
Power Measurement 1					
System Input RMS A-N	Analog_Value	810	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	811	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	812	4100_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	813	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	814	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	815	4115_1	RD	Units: A AC
Instantaneous Power	Analog_Value	816	5901_1	RD	Units: W
Energy Consumption	Analog_Value	817	5900_1	RW	Units: kWH
System Input RMS A-B	Analog_Value	1900	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	1901	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	1902	4101_1	RD	Units: VAC

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Measurement 2					
System Input RMS A-N	Analog_Value	820	4096_2	RD	Units: VAC
System Input RMS B-N	Analog_Value	821	4098_2	RD	Units: VAC
System Input RMS C-N	Analog_Value	822	4100_2	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	823	4113_2	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	824	4114_2	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	825	4115_2	RD	Units: A AC
Instantaneous Power	Analog_Value	826	5901_2	RD	Units: W
Energy Consumption	Analog_Value	827	5900_2	RW	Units: kWH
System Input RMS A-B	Analog_Value	1910	4097_2	RD	Units: VAC
System Input RMS B-C	Analog_Value	1911	4099_2	RD	Units: VAC
System Input RMS C-A	Analog_Value	1912	4101_2	RD	Units: VAC
. . .					
Power Measurement 6					
System Input RMS A-N	Analog_Value	860	4096_6	RD	Units: VAC
System Input RMS B-N	Analog_Value	861	4098_6	RD	Units: VAC
System Input RMS C-N	Analog_Value	862	4100_6	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	863	4113_6	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	864	4114_6	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	865	4115_6	RD	Units: A AC
Instantaneous Power	Analog_Value	866	5901_6	RD	Units: W
Energy Consumption	Analog_Value	867	5900_6	RW	Units: kWH
System Input RMS A-B	Analog_Value	1950	4097_6	RD	Units: VAC
System Input RMS B-C	Analog_Value	1951	4099_6	RD	Units: VAC
System Input RMS C-A	Analog_Value	1952	4101_6	RD	Units: VAC
Fluid 1					
Fluid Input Temperature	Analog_Value	871	5897_1	RD	Units: deg C
Fluid Input Temperature	Analog_Value	10871	5897_1_deg_F	RD	Units: deg F
Fluid Output Temperature	Analog_Value	872	5898_1	RD	Units: deg C
Fluid Output Temperature	Analog_Value	10872	5898_1_deg_F	RD	Units: deg F
Fluid 2					
Fluid Input Temperature	Analog_Value	1871	5897_2	RD	Units: deg C

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fluid Input Temperature	Analog_Value	11871	5897_2_deg_F	RD	Units: deg F
Fluid Output Temperature	Analog_Value	1872	5898_2	RD	Units: deg C
Fluid Output Temperature	Analog_Value	11872	5898_2_deg_F	RD	Units: deg F
Circuit					
Fluid Flow Rate	Analog_Value	881	5899_1	RD	Units: l/min
Circuit 2					
Fluid Flow Rate	Analog_Value	891	5899_2	RD	Units: l/min
Unit Operations - Cooling Load 1					
Circuit Cooling Load	Analog_Value	901	5905_1_1	RD	Units: kW
Unit Operations - Cooling Load 2					
Circuit Cooling Load	Analog_Value	911	5905_1_2	RD	Units: kW
Air - Auxiliary Air					
Raw Auxiliary Air Temperature	Analog_Value	1960	5964_1_1	RW	Units: deg C
Raw Auxiliary Air Temperature	Analog_Value	11960	5964_1_1_deg_F	RW	Units: deg F
Actual Auxiliary Air Temperature	Analog_Value	1961	5965_1_1	RD	Units: deg C
Actual Auxiliary Air Temperature	Analog_Value	11961	5965_1_1_deg_F	RD	Units: deg F
MC Condensers					
Expected Condenser Unit Count	Analog_Value	1981	6101_1	RD	—
MC Condensers - Low Noise Mode					
Condenser Low Noise Mode Max Fan Speed	Analog_Value	529	5548_1_1	RW	Units: %
Condenser Normal Mode Max Fan Speed	Analog_Value	530	5549_1_1	RW	Units: %
Condenser Low Noise Mode Start Time	Analog_Value	531	5552_1_1	RW	Units: Seconds since Midnight
Condenser Low Noise Mode Stop Time	Analog_Value	532	5553_1_1	RW	Units: Seconds since Midnight
Condenser Low Noise Mode - Interval Days	Analog_Value	533	5550_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday
Condenser Low Noise Mode - Full Days	Analog_Value	534	5551_1_1	RW	1 = Monday 2 = Tuesday 4 = Wednesday 8 = Thursday 16 = Friday 32 = Saturday 64 = Sunday

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MC Condensers - Condenser 1					
Condenser Outside Air Temperature	Analog_Value	1992	5534_1_1	RD	Units: deg C
Condenser Outside Air Temperature	Analog_Value	11992	5534_1_1_deg_F	RD	Units: deg F
MC Condensers - Condenser 2					
Condenser Outside Air Temperature	Analog_Value	1993	5534_1_2	RD	Units: deg C
Condenser Outside Air Temperature	Analog_Value	11993	5534_1_2_deg_F	RD	Units: deg F
MC Condensers - Circuit 1					
Condenser Refrigerant Pressure	Analog_Value	2004	6103_1_1	RD	Units: bar
Condenser Supply Refrigerant Temperature	Analog_Value	2006	6102_1_1	RD	Units: deg C
Condenser Supply Refrigerant Temperature	Analog_Value	12006	6102_1_1_deg_F	RD	Units: deg F
MC Condensers - Circuit 2					
Condenser Refrigerant Pressure	Analog_Value	2005	6103_1_2	RD	Units: bar
Condenser Supply Refrigerant Temperature	Analog_Value	2007	6102_1_2	RD	Units: deg C
Condenser Supply Refrigerant Temperature	Analog_Value	12007	6102_1_2_deg_F	RD	Units: deg F
MC Condensers - Condenser 1 Fan 1					
Condenser Fan Speed	Analog_Value	2018	5276_1_1_1	RD	Units: %
Condenser Fan Power	Analog_Value	2026	5538_1_1_1	RD	Units: W
Condenser Fan Current	Analog_Value	2034	6244_1_1_1	RD	Units: A AC
MC Condensers - Condenser 1 Fan 2					
Condenser Fan Speed	Analog_Value	2019	5276_1_1_2	RD	Units: %
Condenser Fan Power	Analog_Value	2027	5538_1_1_2	RD	Units: W
Condenser Fan Current	Analog_Value	2035	6244_1_1_2	RD	Units: A AC
. . .					
MC Condensers - Condenser 1 Fan 4					
Condenser Fan Speed	Analog_Value	2021	5276_1_1_4	RD	Units: %
Condenser Fan Power	Analog_Value	2029	5538_1_1_4	RD	Units: W
Condenser Fan Current	Analog_Value	2037	6244_1_1_4	RD	Units: A AC
MC Condensers - Condenser 2 Fan 1					
Condenser Fan Speed	Analog_Value	2022	5276_1_2_1	RD	Units: %
Condenser Fan Power	Analog_Value	2030	5538_1_2_1	RD	Units: W
Condenser Fan Current	Analog_Value	2038	6244_1_2_1	RD	Units: A AC
MC Condensers - Condenser 2 Fan 2					

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Table 5.73 Liebert® Mini-Mate3—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser Fan Speed	Analog_Value	2023	5276_1_2_2	RD	Units: %
Condenser Fan Power	Analog_Value	2031	5538_1_2_2	RD	Units: W
Condenser Fan Current	Analog_Value	2039	6244_1_2_2	RD	Units: A AC
. . .					
MC Condensers - Condenser 2 Fan 4					
Condenser Fan Speed	Analog_Value	2025	5276_1_2_4	RD	Units: %
Condenser Fan Power	Analog_Value	2033	5538_1_2_4	RD	Units: W
Condenser Fan Current	Analog_Value	2041	6244_1_2_4	RD	Units: A AC
Super Saver					
Super Saver Call For Cooling	Analog_Value	2100	6234_1	RD	Units: %
Thermal Control Override					
Thermal Control Override - Temperature Call	Analog_Value	2135	6236_1	RW	Units: %
Thermal Control Override - Humidity Call	Analog_Value	2136	6265_1	RW	Units: %
EconoPhase					
Pump Hours Threshold	Analog_Value	505	5299_1	RW	Units: hr

Table 5.74 Liebert® Mini-Mate3—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_ Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Air					
Air Temperature Control Type	MultiState_ Value	12	5324_1	RW	1 = Proportional 2 = Prop+Integral 3 = Adaptive PID 4 = Intelligent
Air Temperature Control Sensor	MultiState_ Value	13	5012_1	RW	1 = Supply 2 = Remote 3 = Return
Humidity					
Humidity Control Type	MultiState_ Value	35	5603_1	RW	1 = Relative 2 = Compensated 3 = Predictive 4 = Dew Point
Humidity Control Sensor	MultiState_ Value	36	5618_1	RW	1 = Remote 2 = Return

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressors - Compressor 1					
Compressor State	MultiState_ Value	45	5264_1_1	RD	1 = off 2 = on
Compressor Capacity Control State	MultiState_ Value	46	5265_1_1	RD	1 = off 2 = on
Tandem 'B' Compressor State	MultiState_ Value	47	6243_1_1	RD	1 = off 2 = on
Compressors - Compressor 2					
Compressor State	MultiState_ Value	57	5264_1_2	RD	1 = off 2 = on
Compressor Capacity Control State	MultiState_ Value	58	5265_1_2	RD	1 = off 2 = on
Tandem 'B' Compressor State	MultiState_ Value	59	6243_1_2	RD	1 = off 2 = on
Free Cooling / Chilled Water					
Free Cooling Internal Control Mode	MultiState_ Value	70	5581_1	RW	1 = Disabled 2 = Contact 3 = Temperature 4 = Set Point
Minimum Chilled Water Temp Set Point Enable	MultiState_ Value	71	5359_1	RW	1 = disabled 2 = enabled
Main Chilled Water Valve	MultiState_ Value	72	5605_1	RW	1 = Valve 1 2 = Valve 2
Free Cooling Status	MultiState_ Value	69	6260_1	RD	1 = off 2 = start 3 = on
Fan					
Fan Control Sensor	MultiState_ Value	83	5586_1	RW	1 = Supply 2 = Remote 3 = Return 4 = Manual
Unit Information					
System Status	MultiState_ Value	93	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_ Value	94	4706_1	RD	1 = off 2 = on 3 = standby

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unit Control Mode	MultiState_ Value	95	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Operating State Reason	MultiState_ Value	96	5074_1	RD	1 = Reason Unknown 2 = Network Display 3 = Alarm 4 = Schedule 5 = Remote System 6 = External Input 7 = Local Display
Unit Operations					
Fan State	MultiState_ Value	107	5381_1	RD	1 = off 2 = on
Cooling State	MultiState_ Value	108	5382_1	RD	1 = off 2 = on
Free Cooling State	MultiState_ Value	109	5383_1	RD	1 = off 2 = on
Maintenance Tracking State	MultiState_ Value	110	5384_1	RD	1 = off 2 = on
Hot Water / Hot Gas State	MultiState_ Value	111	5385_1	RD	1 = off 2 = on
Electric Reheat State	MultiState_ Value	112	5386_1	RD	1 = off 2 = on
Dehumidifier State	MultiState_ Value	113	5387_1	RD	1 = off 2 = on
Humidifier State	MultiState_ Value	114	5388_1	RD	1 = off 2 = on
System On/Off Control	MultiState_ Value	115	5143_1	RW	1 = off 2 = on
Local Fan Override	MultiState_ Value	500	6175_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Cooling Override	MultiState_ Value	501	6176_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Local Electric Heat Override	MultiState_ Value	502	6177_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Humidifier Override	MultiState_ Value	503	6178_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Dehumidifier Override	MultiState_ Value	504	6179_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
System Event Configuration					
Customer Input 1 - Event Control	MultiState_ Value	126	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_ Value	127	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 2 - Event Control	MultiState_ Value	128	5098_1	RW	1 = disabled 2 = enabled
Customer Input 2 - Event Type	MultiState_ Value	129	5099_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 3 - Event Control	MultiState_ Value	130	5100_1	RW	1 = disabled 2 = enabled
Customer Input 3 - Event Type	MultiState_ Value	131	5101_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 4 - Event Control	MultiState_ Value	132	5102_1	RW	1 = disabled 2 = enabled
Customer Input 4 - Event Type	MultiState_ Value	133	5103_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Free Cooling Lockout - Event Control	MultiState_ Value	134	5389_1	RW	1 = disabled 2 = enabled
Ext Free Cooling Lockout - Event Type	MultiState_ Value	135	5390_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Condenser Pump High Water - Event Control	MultiState_ Value	136	5122_1	RW	1 = disabled 2 = enabled
Ext Condenser Pump High Water - Event Type	MultiState_ Value	137	5123_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Standby Glycol Pump On - Event Control	MultiState_ Value	138	5129_1	RW	1 = disabled 2 = enabled
Ext Standby Glycol Pump On - Event Type	MultiState_ Value	139	5130_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Standby Unit On - Event Control	MultiState_ Value	140	5391_1	RW	1 = disabled 2 = enabled
Ext Standby Unit On - Event Type	MultiState_ Value	141	5392_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Humidifier Lockout - Event Control	MultiState_ Value	142	5086_1	RW	1 = disabled 2 = enabled
Ext Humidifier Lockout - Event Type	MultiState_ Value	143	5087_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Flow - Event Control	MultiState_ Value	144	5082_1	RW	1 = disabled 2 = enabled
Ext Loss of Flow - Event Type	MultiState_ Value	145	5083_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Over Temperature - Event Control	MultiState_ Value	146	5090_1	RW	1 = disabled 2 = enabled
Ext Over Temperature - Event Type	MultiState_ Value	147	5091_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Reheat Lockout - Event Control	MultiState_ Value	148	5084_1	RW	1 = disabled 2 = enabled
Ext Reheat Lockout - Event Type	MultiState_ Value	149	5085_1	RW	1 = Message 2 = Warning 3 = Alarm
High Power Shutdown - Event Control	MultiState_ Value	150	5141_1	RW	1 = disabled 2 = enabled
High Power Shutdown - Event Type	MultiState_ Value	151	5142_1	RW	1 = Message 2 = Warning 3 = Alarm
Humidifier Issue - Event Control	MultiState_ Value	152	5131_1	RW	1 = disabled 2 = enabled

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Humidifier Issue - Event Type	MultiState_ Value	153	5132_1	RW	1 = Message 2 = Warning 3 = Alarm
Master Unit Communication Lost - Event Control	MultiState_ Value	154	5133_1	RW	1 = disabled 2 = enabled
Master Unit Communication Lost - Event Type	MultiState_ Value	155	5134_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_ Value	156	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_ Value	157	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Shutdown - Loss Of Power - Event Control	MultiState_ Value	158	4715_1	RW	1 = disabled 2 = enabled
Shutdown - Loss Of Power - Event Type	MultiState_ Value	159	4716_1	RW	1 = Message 2 = Warning 3 = Alarm
Smoke Detected - Event Control	MultiState_ Value	160	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_ Value	161	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_ Value	162	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_ Value	163	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Compressor Lockout - Event Control	MultiState_ Value	164	5088_1	RW	1 = disabled 2 = enabled
Ext Compressor Lockout - Event Type	MultiState_ Value	165	5089_1	RW	1 = Message 2 = Warning 3 = Alarm
Clogged Air Filter - Event Control	MultiState_ Value	166	5135_1	RW	1 = disabled 2 = enabled
Clogged Air Filter - Event Type	MultiState_ Value	167	5136_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Air Blower - Event Control	MultiState_ Value	168	5393_1	RW	1 = disabled 2 = enabled
Ext Loss of Air Blower - Event Type	MultiState_ Value	169	5394_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Event Configuration - Compressor 1					
Compressor High Head Pressure - Event Control	MultiState_ Value	180	5316_1_1	RW	1 = disabled 2 = enabled
Compressor High Head Pressure - Event Type	MultiState_ Value	181	5317_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Low Suction Pressure - Event Control	MultiState_ Value	182	5318_1_1	RW	1 = disabled 2 = enabled
Compressor Low Suction Pressure - Event Type	MultiState_ Value	183	5319_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Pump Down Issue - Event Control	MultiState_ Value	184	5395_1_1	RW	1 = disabled 2 = enabled
Compressor Pump Down Issue - Event Type	MultiState_ Value	185	5396_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Short Cycle - Event Control	MultiState_ Value	186	5397_1_1	RW	1 = disabled 2 = enabled
Compressor Short Cycle - Event Type	MultiState_ Value	187	5398_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Thermal Overload - Event Control	MultiState_ Value	188	5320_1_1	RW	1 = disabled 2 = enabled
Compressor Thermal Overload - Event Type	MultiState_ Value	189	5321_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Ctrl	MultiState_ Value	190	5399_1_1	RW	1 = disabled 2 = enabled
Dig Scroll Comp Discharge Over Temp - Event Type	MultiState_ Value	191	5400_1_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Compressor 2					
Compressor High Head Pressure - Event Control	MultiState_ Value	202	5316_1_2	RW	1 = disabled 2 = enabled
Compressor High Head Pressure - Event Type	MultiState_ Value	203	5317_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Low Suction Pressure - Event Control	MultiState_ Value	204	5318_1_2	RW	1 = disabled 2 = enabled
Compressor Low Suction Pressure - Event Type	MultiState_ Value	205	5319_1_2	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor Pump Down Issue - Event Control	MultiState_ Value	206	5395_1_2	RW	1 = disabled 2 = enabled
Compressor Pump Down Issue - Event Type	MultiState_ Value	207	5396_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Short Cycle - Event Control	MultiState_ Value	208	5397_1_2	RW	1 = disabled 2 = enabled
Compressor Short Cycle - Event Type	MultiState_ Value	209	5398_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Compressor Thermal Overload - Event Control	MultiState_ Value	210	5320_1_2	RW	1 = disabled 2 = enabled
Compressor Thermal Overload - Event Type	MultiState_ Value	211	5321_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Dig Scroll Comp Discharge Over Temp - Event Ctrl	MultiState_ Value	212	5399_1_2	RW	1 = disabled 2 = enabled
Dig Scroll Comp Discharge Over Temp - Event Type	MultiState_ Value	213	5400_1_2	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Air					
Ext Air Sensor A Event Control	MultiState_ Value	224	5401_1_1	RW	1 = disabled 2 = enabled
Return Air Sensor Event Control	MultiState_ Value	225	5402_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A High Humidity - Event Control	MultiState_ Value	226	5403_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A High Humidity - Event Type	MultiState_ Value	227	5404_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Low Humidity - Event Control	MultiState_ Value	228	5405_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Low Humidity - Event Type	MultiState_ Value	229	5406_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Over Temp - Event Control	MultiState_ Value	230	4602_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Over Temp - Event Type	MultiState_ Value	231	4603_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Under Temp - Event Control	MultiState_ Value	232	4609_1_1	RW	1 = disabled 2 = enabled

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Air Sensor A Under Temp - Event Type	MultiState_ Value	233	4610_1_1	RW	1 = Message 2 = Warning 3 = Alarm
High Return Humidity - Event Control	MultiState_ Value	234	5137_1_1	RW	1 = disabled 2 = enabled
High Return Humidity - Event Type	MultiState_ Value	235	5138_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Low Return Humidity - Event Control	MultiState_ Value	236	5139_1_1	RW	1 = disabled 2 = enabled
Low Return Humidity - Event Type	MultiState_ Value	237	5140_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Return Air Over Temp - Event Control	MultiState_ Value	238	5024_1_1	RW	1 = disabled 2 = enabled
Return Air Over Temp - Event Type	MultiState_ Value	239	5025_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Return Air Under Temp - Event Control	MultiState_ Value	240	5407_1_1	RW	1 = disabled 2 = enabled
Return Air Under Temp - Event Type	MultiState_ Value	241	5408_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Air Over/Under Temperature - Event Control	MultiState_ Value	242	5587_1_1	RW	1 = disabled 2 = enabled
System Event Configuration - Fan					
Fan Hours Exceeded - Event Control	MultiState_ Value	252	5409_1_1	RW	1 = disabled 2 = enabled
Fan Hours Exceeded - Event Type	MultiState_ Value	253	5410_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Main Fan Overload - Event Control	MultiState_ Value	256	5411_1_1	RW	1 = disabled 2 = enabled
Main Fan Overload - Event Type	MultiState_ Value	257	5412_1_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Condenser					
Condenser Issue - Event Control	MultiState_ Value	268	5413_1_1	RW	1 = disabled 2 = enabled
Condenser Issue - Event Type	MultiState_ Value	269	5414_1_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Event Configuration - Condenser					
Condenser Issue - Event Control	MultiState_ Value	280	5413_1_2	RW	1 = disabled 2 = enabled
Condenser Issue - Event Type	MultiState_ Value	281	5414_1_2	RW	1 = Message 2 = Warning 3 = Alarm
Unit Events					
System Event Acknowledge/Reset	MultiState_ Value	292	4717_1	WO	1 = Reset 2 = Acknowledge
Compressors					
Compressor Lockout	MultiState_ Value	304	5580_1	RW	1 = disabled 2 = enabled
Reheat					
Reheater Lockout	MultiState_ Value	316	5582_1	RW	1 = disabled 2 = enabled
Humidifier					
Humidifier Lockout	MultiState_ Value	328	5583_1	RW	1 = disabled 2 = enabled
Air Economizer					
Air Economizer Availability	MultiState_ Value	340	5599_1	RD	1 = Not Available 2 = Available
Air Economizer Control Source	MultiState_ Value	341	5602_1	RW	1 = disabled 2 = internal 3 = external
EconoPhase - Pump 1					
Pump State	MultiState_ Value	364	5633_1_1	RD	1 = off 2 = on
PRE Operational Mode	MultiState_ Value	363	5632_1_1	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test
EconoPhase - Pump 2					
Pump State	MultiState_ Value	369	5633_1_2	RD	1 = off 2 = on
PRE Operational Mode	MultiState_ Value	368	5632_1_2	RD	1 = Bootup 2 = Idle 3 = Manual 4 = Pump Automatic 5 = Test
MC Condensers					

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Table 5.74 Liebert® Mini-Mate3—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Condenser Refrigerant Type	MultiState_ Value	395	5533_1	RD	1 = R22 2 = R407C 3 = R410A
MC Condensers - Low Noise Mode					
Condenser Low Noise Mode State	MultiState_ Value	374	5546_1_1	RD	1 = Inactive 2 = Active (Interval) 3 = Active (Full Day)
Condenser Low Noise Mode Schedule Control	MultiState_ Value	375	5547_1_1	RW	1 = disabled 2 = enabled
MC Condensers - Condenser 1					
Condenser Fan Reversal Requested	MultiState_ Value	406	6104_1_1	RD	1 = false 2 = true
MC Condensers - Condenser 2					
Condenser Fan Reversal Requested	MultiState_ Value	407	6104_1_2	RD	1 = false 2 = true
Thermal Control Override					
Thermal Control Override	MultiState_ Value	516	6261_1	RW	1 = disabled 2 = enabled
Thermal Control Override - Temperature Control Type	MultiState_ Value	517	6262_1	RW	1 = Cooling 2 = Heating
Thermal Control Override - Humidity Control Type	MultiState_ Value	518	6264_1	RW	1 = Dehumidification 2 = Humidification

Table 5.75 Liebert® Mini-Mate3 – Glossary

Data Label	Data Description
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Air Economizer Availability	Indicates if the outside air conditions are appropriate for cooling with the air economizer or glycol freecooling.
Air Economizer Control Source	Source of control of the air economizer.
Air Economizer Emergency Override	Indoor room temperature has exceeded its upper threshold and the outdoor air damper has been opened for emergency cooling.
Air Economizer Reduced Airflow	Air economizer filter is dirty and needs to be cleaned or replaced.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Air Temperature Control Integration Time	Time value used when system is under integral air temperature control.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Control Type	Type of algorithm used to control the system's output air temperature.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Valve Hours	Operating hours for chilled water valve since last reset of this value.
Chilled Water Valve Operating Hours Threshold	Operating hours threshold for the chilled water valve. When the number of operating hours reaches this threshold, an event is generated.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Capacity Control State	Compressor capacity control state. When 'ON', the cooling capacity of the compressor has been reduced.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Compressor Capacity Reduced	Compressor capacity has been reduced.
Compressor High Head Pressure - Event Control	Enable/disable the activation of the [Compressor High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor High Head Pressure - Event Type	The event type for the [Compressor High Head Pressure] event.
Compressor High Head Pressure	Compressor is shut down due to high head pressure.
Compressor High Pressure Transducer Issue	Compressor high pressure transducer is disconnected or the signal is out of range.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Lockout	Enable/disable the use of the compressor.
Compressor Low Differential Pressure Lockout	Compressor exceeded maximum startup attempts due to low differential pressure. Compressor is shutdown and has been disabled.
Compressor Low Pressure Transducer Issue	Compressor low pressure transducer is disconnected or the signal is out of range.
Compressor Low Suction Pressure - Event Control	Enable/disable the activation of the [Compressor Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Low Suction Pressure - Event Type	The event type for the [Compressor Low Suction Pressure] event.
Compressor Low Suction Pressure	Compressor is shut down due to low suction pressure.
Compressor Pump Down Issue - Event Control	Enable/disable the activation of the [Compressor Pump Down Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Pump Down Issue - Event Type	The event type for the [Compressor Pump Down Issue] event.
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Compressor Short Cycle - Event Control	Enable/disable the activation of the [Compressor Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Short Cycle - Event Type	The event type for the [Compressor Short Cycle] event.
Compressor Short Cycle	Compressor short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor State	Compressor operational state.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Compressor Superheat Over Threshold	Compressor discharge refrigerant superheat temperature has exceeded an upper threshold.
Compressor Thermal Overload - Event Control	Enable/disable the activation of the [Compressor Thermal Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor Thermal Overload - Event Type	The event type for the [Compressor Thermal Overload] event.
Compressor Thermal Overload	Compressor is shut down due to thermal overload.
Condenser Circuit Unspecified General Event	One or more unspecified condenser circuit events active. See local unit display for further details.
Condenser Communication Lost	Communication with condenser unit has been lost.
Condenser Control Board Issue	The condenser control board is reporting an issue.
Condenser Fan Current	Condenser fan's measured input current.
Condenser Fan Issue	Condenser fan is not operating within its operational parameters.
Condenser Fan Power	Condenser fan's measured input power.
Condenser Fan Reversal Requested	Request the condenser fans to rotate in the reverse direction.
Condenser Fan Speed	Condenser fan speed expressed as a percentage of the maximum rated speed.
Condenser Issue - Event Control	Enable/disable the activation of the [Condenser Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Condenser Issue - Event Type	The event type for the [Condenser Issue] event.
Condenser Issue	Condenser is not operating within its operational parameters.
Condenser Low Noise Mode - Full Days	Days of the week selected for low noise mode full day scheduling.
Condenser Low Noise Mode - Interval Days	Days of the week selected for low noise mode interval scheduling.
Condenser Low Noise Mode Max Fan Speed	Maximum fan speed when condenser is placed in low noise mode.
Condenser Low Noise Mode Schedule Control	Enable/disable scheduled control of condenser low noise mode.
Condenser Low Noise Mode Start Time	The time of day at which the condenser will transition into low noise mode.
Condenser Low Noise Mode State	State of condenser low noise mode scheduler control.
Condenser Low Noise Mode Stop Time	The time of day at which the condenser will transition out of low noise mode.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Condenser Max Fan Speed Override	Fan speed exceeding the maximum set point in order to alleviate a high temperature or pressure condition.
Condenser Normal Mode Max Fan Speed	Maximum fan speed when condenser is not in low noise mode.
Condenser Outside Air Temp Out of Operating Range	[Condenser Outside Air Temperature] is either above an upper threshold or below a lower threshold.
Condenser Outside Air Temp Sensor Issue	Condenser outside air temperature sensor is disconnected or the signal is out of range.
Condenser Outside Air Temperature	Condenser ambient outside air temperature.
Condenser Refrigerant Pressure Over Threshold	Condenser refrigerant pressure has exceeded a threshold.
Condenser Refrigerant Pressure Sensor Issue	Condenser refrigerant pressure sensor is disconnected or the signal is out of range.
Condenser Refrigerant Pressure Under Threshold	Condenser refrigerant pressure has dropped below a threshold.
Condenser Refrigerant Pressure	Pressure of the refrigerant in a condenser circuit.
Condenser Refrigerant Type	Condenser refrigerant type.
Condenser Remote Shutdown	Condenser is shut down by a remote signal.
Condenser Supply Refrigerant Over Temp	Condenser supply refrigerant temperature has exceeded a threshold.
Condenser Supply Refrigerant Temp Sensor Issue	Condenser supply refrigerant temperature sensor is disconnected or the signal is out of range.
Condenser Supply Refrigerant Temperature	Temperature of the supply refrigerant in a condenser circuit.
Condenser Supply Refrigerant Under Temp	Condenser supply refrigerant temperature has dropped below a specified threshold.
Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed.
Condenser Unit Unspecified General Event	One or more unspecified condenser unit events active. See local unit display for further details.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4
Dehumidifier Hours Exceeded	Operating hours for the dehumidifier have exceeded the threshold.
Dehumidifier Hours Threshold	Threshold value used in the [Dehumidifier Hours Exceeded] event.
Dehumidifier Hours	Operating hours for dehumidifier since last reset of this value.
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Dig Scroll Comp Discharge Over Temp - Event Ctrl	Enable/disable the activation of the [Dig Scroll Comp Discharge Over Temp] event.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Dig Scroll Comp Discharge Over Temp - Event Type	The event type for the [Dig Scroll Comp Discharge Over Temp] event.
Dig Scroll Comp Discharge Temp Sensor Issue	Digital scroll compressor discharge temperature sensor is disconnected or the signal is out of range.
Dig Scroll Comp Discharge Temp	Digital scroll compressor discharge temperature.
Dig Scroll Comp Over Temp	Digital scroll compressor is shut down due to head temperature exceeding an upper threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Digital Scroll Compressor Loading	Present digital scroll compressor utilization expressed as a percentage of the maximum rated capacity.
EEV Unspecified General Event	One or more unspecified electronic expansion valve events active. See local unit display for further details.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours Exceeded	[Electric Reheater Hours] has exceeded [Electric Reheaters Hours Threshold].
Electric Reheater Hours Threshold	Threshold value used in the [Electric Reheater Hours Exceeded] event.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Energy Consumption	Energy consumption since the last reset of this value.
Expected Condenser Unit Count	Number of physical condenser units that are expected to be connected to the system.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Free Cooling Lockout	Free cooling is disabled by an external input signal.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Humidifier Lockout	The humidifier is shut down and disabled by an external input signal.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Reheat Lockout	The reheater is shut down and disabled by an external input signal.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed, as indicated by an external input signal.
External Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Control Sensor	Sensor to be used for fan speed control.
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours Threshold	Threshold value used in the [Fan Hours Exceeded] event.
Fan Hours	Operating hours for fan since last reset of this value.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed Maximum Set Point	Maximum fan speed. This value may only be modified if iCOM is enabled to allow fan speed changes by the BMS.
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Temperature Set Point	If fan is in decoupled mode and not under manual control, the fan speed will vary depending on the delta between the selected fan control sensor temperature and this set point.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan State	Fan operational state.
Fluid Flow Rate	Flow rate of fluid used for cooling.
Fluid Flow Sensor Issue	The fluid flow sensor is disconnected or the signal is out of range.
Fluid Input Temperature	Temperature of the fluid entering the cooling coil.
Fluid Output Temperature	Temperature of the fluid exiting the cooling coil.
Fluid Temperature Sensor Issue	The fluid temperature sensor is disconnected or the signal is out of range.
Free Cooling Fluid Temperature	Free cooling fluid temperature.
Free Cooling Internal Control Mode	Free cooling internal control mode
Free Cooling Internal Temperature Delta	Minimum temperature delta required between supply fluid and internal ambient air temperatures in order to enable free cooling.
Free Cooling State	Free cooling operational state.
Free Cooling Status	Free cooling status.
Free Cooling Temp Sensor Issue	The free cooling fluid temperature sensor is disconnected or the signal is out of range.
Free Cooling Valve Hours Exceeded	[Free Cooling Valve Hours] has exceeded [Free Cooling Valve Hours Threshold].
Free Cooling Valve Hours Threshold	Threshold value used in the [Free Cooling Valve Hours Exceeded] event.
Free Cooling Valve Hours	Operating hours for free cooling valve since last reset of this value.
Free Cooling Valve Open Position	Free cooling valve open position.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.
High Static Pressure	High static pressure event.
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Hours Exceeded	[Hot Water / Hot Gas Valve Hours] has exceeded [Hot Water / Hot Gas Valve Hours Threshold].
Hot Water / Hot Gas Valve Hours Threshold	Threshold value used in the [Hot Water / Hot Gas Valve Hours Exceeded] event.
Hot Water / Hot Gas Valve Hours	Operating hours for hot water / hot gas valve since last reset of this value.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidifier Control Board Not Detected	Humidifier control board is required to be connected, but no signal is detected.
Humidifier Cylinder Worn	Humidifier cylinder is not operating properly and needs to be replaced.
Humidifier Hours Exceeded	Operating hours for the humidifier have exceeded the threshold.
Humidifier Hours Threshold	Threshold value used in the [Humidifier Hours Exceeded] event.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier Lockout	Enable/disable the use of the humidifier.
Humidifier Low Water	The water level in the humidifier has dropped below its threshold.
Humidifier Over Current	The electrical current to the humidifier has exceeded its upper threshold.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Humidifier State	Humidifier operational state.
Humidifier Under Current	The electrical current to the humidifier has dropped below its lower threshold.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Infrared Humidifier Flush Rate	A multiple of an internal time constant that determines the flush duration of the infrared humidifier water pan.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Instantaneous Power	Total electrical power currently being consumed.
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Static Pressure	Low static pressure event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Main Chilled Water Valve	The master valve in a dual valve chilled water system.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Main Fan Overload	Main fan is shut down due to thermal overload.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Chilled Water Temp Set Point Enable	Enable/disable the activation of [Minimum Chilled Water Temp Set Point].
Minimum Chilled Water Temp Set Point	Minimum desired chilled water temperature.
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.
Modbus Power Meter Communication Lost	Communication with Modbus power meter has been lost.
Outside Air Temperature	Ambient outside air temperature.
PRE Operational Mode	Pumped Refrigerant Economizer operational mode.
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Inlet Refrigerant Temperature	Refrigerant temperature at the inlet of the pump.
Pump Outlet Refrigerant Temperature	Refrigerant temperature at the outlet of the pump.
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Pump State	Pump operational state.
Pump Unspecified General Event	One or more unspecified pump events active. See local unit display for further details.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reheater Lockout	Enable/disable the use of the reheater.
Reheater Over Temperature	The temperature of the reheater has exceeded its threshold.
Remote Sensor Average Over Temperature	[Remote Sensor Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Average Under Temperature	[Remote Sensor Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor Issue	Remote sensor is disconnected or the signal is out of range.
Remote Sensor Maximum Temperature	Maximum value of remote sensor temperature measurements.
Remote Sensor Over Temp Threshold	Threshold value used in the remote air sensor over temperature events.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Over Temperature	[Remote Sensor System Average Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor System Average Temperature	Average value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor System Average Under Temperature	[Remote Sensor System Average Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Remote Sensor System Maximum Temperature	Maximum value of remote sensor temperature measurements among a group of interconnected units in a single system.
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temp Threshold	Threshold value used in the remote air sensor under temperature events.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Dew Point	Dew point temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Standby Units	The number of standby units.
Static Pressure Sensor Issue	The static pressure sensor is disconnected or the signal is out of range.
Static Pressure Sensor Out of Range	Static pressure sensor signal is out of its configured range.
Static Pressure Set Point	Desired static pressure.
Super Saver Call For Cooling	Call for cooling value used for Super Saver functionality. A higher call for cooling value indicates a need for a lower coolant temperature.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Loss of Flow	Supply chilled water or glycol flow is too low.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply NTC Air Sensor Issue	The supply NTC air sensor is disconnected or the signal is out of range.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System On/Off Control	Turn system functionality on or off.
System Static Pressure	Static pressure measurement among a group of interconnected units in a single system.
System Status	The operating status for the system
Tandem 'B' Compressor Hours	Operating hours for the 'B' compressor in a tandem configuration since last reset of this value.
Tandem 'B' Compressor State	Operational state for the 'B' compressor in a tandem configuration.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Thermal Control Override - Humidity Call	If [Thermal Control Override] is enabled, this value sets the percent call for humidification or dehumidification.
Thermal Control Override - Humidity Control Type	If [Thermal Control Override] is enabled, this value selects if the humidity override is applied to humidification or dehumidification.
Thermal Control Override - Temperature Call	If [Thermal Control Override] is enabled, this value sets the percent call for cooling or heating.
Thermal Control Override - Temperature Control Type	If [Thermal Control Override] is enabled, this value selects if the temperature override is applied to cooling or heating.
Thermal Control Override	Override internal programmatic control of thermal conditions. This includes, but may not be limited to, temperature and humidity. The ability to enable this override may require additional system configuration.
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State Reason	The reason the unit is in the current operating state.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.

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Table 5.75 Liebert® Mini-Mate3 – Glossary (continued)

Data Label	Data Description
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unit Static Pressure	Static pressure measurement for a single unit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.

Table 5.76 Liebert® PEX4—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Remote Sensor Under Temperature	Binary_Value	1	5598_1	RD	Active on Alarm
Supply Air Over Temperature	Binary_Value	2	5015_1	RD	Active on Alarm
Loss of Airflow Sensor Failure	Binary_Value	3	7559_1	RD	Active on Alarm
High Return Humidity	Binary_Value	4	5034_1	RD	Active on Alarm
Remote Sensor Over Temperature	Binary_Value	5	5597_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	6	5036_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	7	5335_1	RD	Active on Alarm
Loss of Airflow	Binary_Value	11	7522_1	RD	Active on Alarm
Low Remote Air Humidity	Binary_Value	14	7491_1	RD	Active on Alarm
High Remote Air Humidity	Binary_Value	15	7492_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	16	5019_1	RD	Active on Alarm
Return Air Over Temperature	Binary_Value	17	5023_1	RD	Active on Alarm
Air - Airfilter					
Clogged Air Filter	Binary_Value	8	5118_1_1	RD	Active on Alarm
Filter Maintenance Due	Binary_Value	9	7537_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Issue	Binary_Value	28	5026_1_1	RD	Active on Alarm
Air - Supply Air Temp Sensor 2					

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Table 5.76 Liebert® PEX4—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Supply Air Sensor Issue	Binary_Value	39	5026_1_2	RD	Active on Alarm
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Issue	Binary_Value	55	5026_1_4	RD	Active on Alarm
Air - Return Air Temp Sensor 1					
Return Air Sensor Issue	Binary_Value	61	5147_1_1	RD	Active on Alarm
Air - Return Air Temp Sensor 2					
Return Air Sensor Issue	Binary_Value	72	5147_1_2	RD	Active on Alarm
Air - Return Air Temp Sensor 3					
Return Air Sensor Issue	Binary_Value	83	5147_1_3	RD	Active on Alarm
Air - Remote Temp Sensor 1					
External Air Sensor Issue	Binary_Value	94	7495_1_1	RD	Active on Alarm
Air - Remote Temp Sensor 2					
External Air Sensor Issue	Binary_Value	105	7495_1_2	RD	Active on Alarm
. . .					
Air - Remote Temp Sensor 10					
External Air Sensor Issue	Binary_Value	193	7495_1_10	RD	Active on Alarm
Air - Supply Air Humidity Sensor 1					
Supply Humidity Sensor Issue	Binary_Value	204	7493_1_1	RD	Active on Alarm
Air - Supply Air Humidity Sensor 2					
Supply Humidity Sensor Issue	Binary_Value	215	7493_1_2	RD	Active on Alarm
Air - Supply Air Humidity Sensor 3					
Supply Humidity Sensor Issue	Binary_Value	226	7493_1_3	RD	Active on Alarm
Air - Return Air Humidity Sensor 1					
Return Humidity Sensor Issue	Binary_Value	237	5902_1_1	RD	Active on Alarm
Air - Return Air Humidity Sensor 2					
Return Humidity Sensor Issue	Binary_Value	248	5902_1_2	RD	Active on Alarm
Air - Return Air Humidity Sensor 3					
Return Humidity Sensor Issue	Binary_Value	259	5902_1_3	RD	Active on Alarm
Air - Remote Humidity Sensor 1					
External Humidity Sensor Issue	Binary_Value	270	7494_1_1	RD	Active on Alarm
Air - Remote Humidity Sensor 2					
External Humidity Sensor Issue	Binary_Value	281	7494_1_2	RD	Active on Alarm

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Table 5.76 Liebert® PEX4—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
. . .					
Air - Remote Humidity Sensor 10					
External Humidity Sensor Issue	Binary_Value	369	7494_1_10	RD	Active on Alarm
Compressor - CompressorInfo 1					
Compressor Pressure Difference Lockout	Binary_Value	434	7499_1_1	RD	Active on Alarm
Compressor Pressure Difference	Binary_Value	436	7501_1_1	RD	Active on Alarm
Low Compressor Pressure Abnormal	Binary_Value	421	7550_1_1	RD	Active on Alarm
High Compressor Pressure Abnormal	Binary_Value	422	7549_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	419	7548_1_1	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	420	7547_1_1	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	426	7544_1_1	RD	Active on Alarm
High Compressor Discharge Temperature	Binary_Value	427	7543_1_1	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	428	7542_1_1	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	424	7541_1_1	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	429	7540_1_1	RD	Active on Alarm
High Compressor Pressure	Binary_Value	430	7539_1_1	RD	Active on Alarm
Compressor Driver Failure	Binary_Value	432	7497_1_1	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	431	7496_1_1	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	435	7500_1_1	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	433	7498_1_1	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	418	7553_1_1	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	417	7554_1_1	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	415	7556_1_1	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	414	7557_1_1	RD	Active on Alarm
Compressor - CompressorInfo 2					
Compressor Pressure Difference Lockout	Binary_Value	778	7499_1_2	RD	Active on Alarm
Compressor Pressure Difference	Binary_Value	780	7501_1_2	RD	Active on Alarm
Low Compressor Pressure Abnormal	Binary_Value	765	7550_1_2	RD	Active on Alarm
High Compressor Pressure Abnormal	Binary_Value	766	7549_1_2	RD	Active on Alarm
Low Compressor Discharge Superheat Lockout	Binary_Value	763	7548_1_2	RD	Active on Alarm
Low Compressor Discharge Superheat	Binary_Value	764	7547_1_2	RD	Active on Alarm
High Compressor Discharge Temperature Lockout	Binary_Value	770	7544_1_2	RD	Active on Alarm

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Table 5.76 Liebert® PEX4—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Compressor Discharge Temperature	Binary_Value	771	7543_1_2	RD	Active on Alarm
Low Compressor Pressure Lockout	Binary_Value	772	7542_1_2	RD	Active on Alarm
Low Compressor Pressure	Binary_Value	768	7541_1_2	RD	Active on Alarm
High Compressor Presssure Lockout	Binary_Value	773	7540_1_2	RD	Active on Alarm
High Compressor Pressure	Binary_Value	774	7539_1_2	RD	Active on Alarm
Compressor Driver Failure	Binary_Value	776	7497_1_2	RD	Active on Alarm
Compressor Driver Failure Lockout	Binary_Value	775	7496_1_2	RD	Active on Alarm
Compressor Driver Communication Failure	Binary_Value	779	7500_1_2	RD	Active on Alarm
Compressor Driver Communication Failure Lockout	Binary_Value	777	7498_1_2	RD	Active on Alarm
High Compressor Pressure Sensor Failure	Binary_Value	762	7553_1_2	RD	Active on Alarm
Low Compressor Pressure Sensor Failure	Binary_Value	761	7554_1_2	RD	Active on Alarm
Compressor Discharge Temperature Sensor Failure	Binary_Value	759	7556_1_2	RD	Active on Alarm
Compressor Suction Temperature Sensor Failure	Binary_Value	758	7557_1_2	RD	Active on Alarm
Fan - Fan Issue 1					
Fan Issue	Binary_Value	480	4729_1_1	RD	Active on Alarm
Fan - Fan Issue 2					
Fan Issue	Binary_Value	491	4729_1_2	RD	Active on Alarm
Fan - Static Pressure 1					
Fan Static Pressure Sensor Failure	Binary_Value	590	7563_1_1	RD	Active on Alarm
Fan - Static Pressure 2					
Fan Static Pressure Sensor Failure	Binary_Value	601	7563_1_2	RD	Active on Alarm
Power Measurement					
Input Undervoltage	Binary_Value	612	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	613	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	615	6186_1	RD	Active on Alarm
Power Opposite Phase	Binary_Value	618	7519_1	RD	Active on Alarm
Power Loss Of Phase	Binary_Value	619	7520_1	RD	Active on Alarm
Reheater					
Electrical Heater Failure	Binary_Value	630	7503_1	RD	Active on Alarm
System Events					
Repeated Teamwork Address	Binary_Value	642	7525_1	RD	Active on Alarm
Loss of Teamwork Slave	Binary_Value	643	7524_1	RD	Active on Alarm

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Table 5.76 Liebert® PEX4—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Teamwork Master is offline or not connected to the network	Binary_Value	644	7523_1	RD	Active on Alarm
Smoke Detected	Binary_Value	645	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	646	4723_1	RD	Active on Alarm
External Fire Detected	Binary_Value	647	5108_1	RD	Active on Alarm
Humidifier Issue	Binary_Value	648	5043_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	653	4300_1	RD	Active on Alarm
Ext Condenser Pump High Water	Binary_Value	656	5106_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	657	5500_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	658	4714_1	RD	Active on Alarm
Emergency Cooling	Binary_Value	659	8178_1	RD	Active on Alarm
System Events - Custom Alarm 1					
Custom Alarm	Binary_Value	691	7561_1_1	RD	Active on Alarm
System Events - Custom Alarm 2					
Custom Alarm	Binary_Value	702	7561_1_2	RD	Active on Alarm
. . .					
System Events - Custom Alarm 4					
Custom Alarm	Binary_Value	724	7561_1_4	RD	Active on Alarm
System Events - EEVDrive 1					
EEV Driver Communication Failure	Binary_Value	650	7551_1_1	RD	Active on Alarm
EEV Driver Failure	Binary_Value	651	7552_1_1	RD	Active on Alarm
System Events - EEVDrive 2					
EEV Driver Communication Failure	Binary_Value	661	7551_1_2	RD	Active on Alarm
EEV Driver Failure	Binary_Value	662	7552_1_2	RD	Active on Alarm

Table 5.77 Liebert® PEX4—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Supply Air Temperature	Analog_Value	1	5002_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10001	5002_1_deg_F	RD	Units: deg F
Return Air Temperature	Analog_Value	2	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10002	4291_1_deg_F	RD	Units: deg F
Remote Sensor Average Temperature	Analog_Value	3	5007_1	RD	Units: deg C

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Table 5.77 Liebert® PEX4—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Remote Sensor Average Temperature	Analog_Value	10003	5007_1_deg_F	RD	Units: deg F
Supply Humidity	Analog_Value	4	5027_1	RD	Units: % RH
Supply Air Theoretical Humidity	Analog_Value	5	8090_1	RD	Units: % RH
Return Humidity	Analog_Value	6	5028_1	RD	Units: % RH
Average Relative Humidity	Analog_Value	7	8081_1	RD	Units: % RH
Supply Air Temperature Set Point	Analog_Value	8	5331_1	RW	Units: deg C
Supply Air Temperature Set Point	Analog_Value	10008	5331_1_deg_F	RW	Units: deg F
Return Air Temperature Set Point	Analog_Value	9	5333_1	RW	Units: deg C
Return Air Temperature Set Point	Analog_Value	10009	5333_1_deg_F	RW	Units: deg F
Remote Sensor Air Temperature Set Point	Analog_Value	10	8082_1	RW	Units: deg C
Remote Sensor Air Temperature Set Point	Analog_Value	10010	8082_1_deg_F	RW	Units: deg F
Humidity Set Point	Analog_Value	11	5029_1	RW	Units: % RH
Cooling Proportional Band	Analog_Value	12	5009_1	RW	Units: deg C
Cooling Proportional Band	Analog_Value	10012	5009_1_deg_F	RW	Units: deg F
Humidification Proportional Band	Analog_Value	13	5030_1	RW	Units: % RH
Air - AirfilterInfo					
Air Filter Hours	Analog_Value	14	7521_1_1	RW	Units: hr
Air - Supply Air Temp Sensor 1					
Supply Air Sensor Temperature	Analog_Value	25	8077_1_1	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10025	8077_1_1_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 2					
Supply Air Sensor Temperature	Analog_Value	36	8077_1_2	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10036	8077_1_2_deg_F	RD	Units: deg F
Air - Supply Air Temp Sensor 4					
Supply Air Sensor Temperature	Analog_Value	50	8077_1_4	RD	Units: deg C
Supply Air Sensor Temperature	Analog_Value	10050	8077_1_4_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 1					
Return Air Sensor Temperature	Analog_Value	58	8078_1_1	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10058	8078_1_1_deg_F	RD	Units: deg F
Air - Return Air Temp Sensor 2					
Return Air Sensor Temperature	Analog_Value	69	8078_1_2	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10069	8078_1_2_deg_F	RD	Units: deg F

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Table 5.77 Liebert® PEX4—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air Temp Sensor 3					
Return Air Sensor Temperature	Analog_Value	80	8078_1_3	RD	Units: deg C
Return Air Sensor Temperature	Analog_Value	10080	8078_1_3_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 1					
Remote Sensor Temperature	Analog_Value	91	5059_1_1	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10091	5059_1_1_deg_F	RD	Units: deg F
Air - Remote Temp Sensor 2					
Remote Sensor Temperature	Analog_Value	102	5059_1_2	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10102	5059_1_2_deg_F	RD	Units: deg F
. . .					
Air - Remote Temp Sensor 10					
Remote Sensor Temperature	Analog_Value	190	5059_1_10	RD	Units: deg C
Remote Sensor Temperature	Analog_Value	10190	5059_1_10_deg_F	RD	Units: deg F
Air - Supply Air Humidity Sensor 1					
Supply Sensor Humidity	Analog_Value	201	8079_1_1	RD	Units: % RH
Air - Supply Air Humidity Sensor 2					
Supply Sensor Humidity	Analog_Value	212	8079_1_2	RD	Units: % RH
Air - Supply Air Humidity Sensor 3					
Supply Sensor Humidity	Analog_Value	223	8079_1_3	RD	Units: % RH
Air - Return Air Humidity Sensor 1					
Return Sensor Humidity	Analog_Value	234	8080_1_1	RD	Units: % RH
Air - Return Air Humidity Sensor 2					
Return Sensor Humidity	Analog_Value	245	8080_1_2	RD	Units: % RH
Air - Return Air Humidity Sensor 3					
Return Sensor Humidity	Analog_Value	256	8080_1_3	RD	Units: % RH
Air - Remote Humidity Sensor 1					
Relative Humidity	Analog_Value	267	4587_1_1	RD	Units: % RH
Air - Remote Humidity Sensor 2					
Relative Humidity	Analog_Value	278	4587_1_2	RD	Units: % RH
. . .					
Air - Remote Humidity Sensor 10					
Relative Humidity	Analog_Value	366	4587_1_10	RD	Units: % RH

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Table 5.77 Liebert® PEX4—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Compressor - CompressorInfo 1					
Compressor Suction Superheat	Analog_Value	406	7534_1_1	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10406	7534_1_1_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	407	7535_1_1	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10407	7535_1_1_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	405	7533_1_1	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10405	7533_1_1_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	404	7532_1_1	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10404	7532_1_1_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	408	7531_1_1	RD	Units: bar
Compressor High Pressure	Analog_Value	409	7530_1_1	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	487	5078_1_1	RD	Units: %
Compressor Hours	Analog_Value	410	5267_1_1	RW	Units: hr
Compressor - CompressorInfo 2					
Compressor Suction Superheat	Analog_Value	500	7534_1_2	RD	Units: deg C
Compressor Suction Superheat	Analog_Value	10500	7534_1_2_deg_F	RD	Units: deg F
Compressor Discharge Superheat	Analog_Value	501	7535_1_2	RD	Units: deg C
Compressor Discharge Superheat	Analog_Value	10501	7535_1_2_deg_F	RD	Units: deg F
Compressor Suction Temperature	Analog_Value	499	7533_1_2	RD	Units: deg C
Compressor Suction Temperature	Analog_Value	10499	7533_1_2_deg_F	RD	Units: deg F
Compressor Discharge Temperature	Analog_Value	498	7532_1_2	RD	Units: deg C
Compressor Discharge Temperature	Analog_Value	10498	7532_1_2_deg_F	RD	Units: deg F
Compressor Low Pressure	Analog_Value	502	7531_1_2	RD	Units: bar
Compressor High Pressure	Analog_Value	503	7530_1_2	RD	Units: bar
Cooling Capacity (Master)	Analog_Value	581	5078_1_2	RD	Units: %
Compressor Hours	Analog_Value	504	5267_1_2	RW	Units: hr
Fan - FanInfo 1					
Fan Speed	Analog_Value	423	5077_1_1	RD	Units: %
Fan Hours	Analog_Value	422	5374_1_1	RW	Units: hr
Fan - FanInfo 2					
Fan Speed	Analog_Value	511	5077_1_2	RD	Units: %
Fan Hours	Analog_Value	510	5374_1_2	RW	Units: hr

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Table 5.77 Liebert® PEX4—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Fan - Static Pressure 1					
Fan Static Pressure	Analog_Value	435	7527_1_1	RD	Units: Pa
Fan - Static Pressure 2					
Fan Static Pressure	Analog_Value	446	7527_1_2	RD	Units: Pa
Power Measurement					
System Input RMS A-N	Analog_Value	457	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	459	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	461	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	465	4105_1	RD	Units: Hz
Fan Power Consumption	Analog_Value	471	8443_1	RD	Units: kW
Reheater - ReheaterInfo 1					
Electric Reheater Hours	Analog_Value	476	5366_1_1	RW	Units: hr
Reheater - ReheaterInfo 2					
Electric Reheater Hours	Analog_Value	481	5366_1_2	RW	Units: hr
Humidifier - HumidifierInfo					
Humidifier Hours	Analog_Value	488	5369_1_1	RW	Units: hr

Table 5.78 Liebert® PEX4—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Compressor					
Compressor Control Mode	MultiState_Value	23	7502_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp 5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp
Fan					
Fan Control Mode	MultiState_Value	34	7516_1	RW	1 = ReturnAirAverageTemp 2 = ReturnAirMaxTemp 3 = ReturnAirMinTemp 4 = SupplyAirAverageTemp

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Table 5.78 Liebert® PEX4—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					5 = SupplyAirMaxTemp 6 = SupplyAirMinTemp 7 = RemoteAverageTemp 8 = RemoteMaxTemp 9 = RemoteMinTemp 10 = TemperatureDiff 11 = StaticPressure
Humidifier					
Humidifier State	MultiState_Value	56	5388_1	RD	1 = off 2 = on
Dehumidifier					
Dehumidifier State	MultiState_Value	57	5387_1	RD	1 = off 2 = on
Reheater					
Electric Reheat State	MultiState_Value	45	5386_1	RD	1 = off 2 = on
System Operations					
Cooling State	MultiState_Value	58	5382_1	RD	1 = off 2 = on
Teamwork Status	MultiState_Value	59	7529_1	RD	1 = Single 2 = TeamworkMode0 3 = TeamworkMode1 4 = TeamworkMode2 5 = TeamworkMode3
Monitoring ON/OFF	MultiState_Value	60	7536_1	RW	1 = on 2 = off
System Info					
System Operating State	MultiState_Value	71	7528_1	RD	1 = Run 2 = Standby 3 = Display Off 4 = Remote Off 5 = Monitoring Off 6 = Lockout
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

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Table 5.79 Liebert® PEX4—Glossary

Data Label	Data Description
Air Filter Hours	Operating hours for the air filter since last reset of this value.
Average Relative Humidity	Average value of humidity sensor measurements.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Compressor Control Mode	Compressor Control Mode.
Compressor Discharge Superheat	Compressor discharge superheat value.
Compressor Discharge Temperature Sensor Failure	Compressor discharge temperature sensor is disconnected or the signal is out of range.
Compressor Discharge Temperature	Compressor discharge temperature value.
Compressor Driver Communication Failure Lockout	Compressor lockout occurred due to multiple communication failures with the compressor driver board.
Compressor Driver Communication Failure	A communication failure occurred with the compressor driver board.
Compressor Driver Failure Lockout	Compressor lockout occurred due to multiple failures of the compressor driver board.
Compressor Driver Failure	Compressor driver board failure detected.
Compressor High Pressure	Compressor high pressure detected.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Low Pressure	Compressor low pressure detected.
Compressor Pressure Difference Lockout	Compressor lockout occurred due to multiple compressor pressure differences.
Compressor Pressure Difference	Compressor pressure difference is out of range.
Compressor Suction Superheat	Compressor suction superheat value.
Compressor Suction Temperature Sensor Failure	Compressor suction temperature sensor is disconnected or the signal is out of range.
Compressor Suction Temperature	Compressor suction temperature value.
Cooling Capacity (Master)	Compressor utilization or chilled water valve position, based on unit type.
Cooling Proportional Band	Temperature control band above [Air Temperature Set Point]. If measured air temperature is within this band, cooling operations are proportionally controlled.
Cooling State	Cooling operational state.
Custom Alarm	Custom Alarm.
Dehumidifier State	Dehumidifier operational state.
EEV Driver Communication Failure	A communication failure occurred with the EEV driver board.
EEV Driver	Failure EEV driver board failure detected.
Electric Reheat State	Electric reheater operational state.
Electric Reheater Hours	Operating hours for electric reheater since last reset of this value.
Electrical Heater Failure	The electric heater temperature exceeded a threshold.
Emergency Cooling	Emergency Cooling

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Table 5.79 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Remote Shutdown	Unit is shut down by a remote signal.
External Air Sensor Issue	The external air sensor is disconnected or the signal is out of range.
External Fire Detected	Fire detected, as indicated by an external input signal.
External Humidity Sensor Issue	The external humidity sensor is disconnected or the signal is out of range.
Fan Control Mode	Fan Control Mode.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.
Fan Static Pressure Sensor Failure	Fan static pressure sensor is disconnected or the signal is out of range.
Fan Static Pressure	Fan Static Pressure Measurement.
Filter Maintenance Due	The operating hours of the filter has exceeded the threshold and needs to be maintained or replaced.
High Compressor Discharge Temperature Lockout Compressor	Lockout occurred due to high compressor discharge temperature.
High Compressor Discharge Temperature	Compressor discharge temperature has exceeded a threshold.
High Compressor Presssure Lockout	Compressor lockout occurred due to high compressor pressure.
High Compressor Pressure Abnormal	Compressor pressure has exceeded a normal threshold.
High Compressor Pressure Sensor Failure	High compressor pressure sensor is disconnected or the signal is out of range.
High Compressor Pressure	Compressor pressure has exceeded a threshold.
High Remote Air Humidity	Remote air humidity has exceeded a threshold.
High Return Humidity	[Return Humidity] has exceeded [High Return Humidity Threshold].
Humidification Proportional Band	Humidity control band below [Humidity Set Point]. If measured humidity is within this band, humidification operations are proportionally controlled.
Humidifier Hours	Operating hours for humidifier since last reset of this value.
Humidifier Issue	Humidifier issue detected, causing it to be locked out.
Humidifier State	Humidifier operational state.
Humidity Set Point	Desired relative humidity.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Loss of Airflow Sensor Failure	Airflow sensor is disconnected or the signal is out of range.
Loss of Airflow	Loss of airflow detected.

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Table 5.79 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Loss of Teamwork Slave	Teamwork Slave is offline or not connected to the network
Low Compressor Discharge Superheat Lockout	Compressor lockout occurred due to low compressor discharge superheat temperature.
Low Compressor Discharge Superheat	Compressor discharge superheat has dropped below a threshold.
Low Compressor Pressure Abnormal	Compressor pressure has dropped below a normal threshold.
Low Compressor Pressure Lockout	Compressor lockout occurred due to low compressor pressure.
Low Compressor Pressure Sensor Failure	Low compressor pressure sensor is disconnected or the signal is out of range.
Low Compressor Pressure	Compressor pressure has dropped below a threshold.
Low Remote Air Humidity	Remote air humidity has dropped below a threshold.
Low Return Humidity	[Return Humidity] has dropped below [Low Return Humidity Threshold].
Monitoring ON/OFF	Monitoring ON/OFF.
Power Loss Of Phase	One of the input phases has been lost.
Power Opposite Phase	The power input phases are incorrectly connected.
Relative Humidity Relative	Humidity measured at the humidity sensor
Remote Sensor Air Temperature Set Point	Desired temperature monitored by the remote air temperature sensors.
Remote Sensor Average Temperature	Average value of remote sensor temperature measurements.
Remote Sensor Over Temperature	[Remote Sensor Temperature] has exceeded [Remote Sensor Over Temp Threshold].
Remote Sensor Temperature	Air temperature as measured by remote sensor.
Remote Sensor Under Temperature	[Remote Sensor Temperature] has dropped below [Remote Sensor Under Temp Threshold].
Repeated Teamwork Address	The network address of two or more units in a teamwork are the same.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Sensor Temperature	Air temperature measured at an inlet sensor.
Return Air Temperature Set Point	Desired air temperature at the inlet of the unit.
Return Air Temperature	The temperature of the inlet air.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Humidity	Relative humidity measured at an inlet sensor.
Server Class	The general classification for this system
Shutdown - Loss of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected	Smoke detected.

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Table 5.79 Liebert® PEX4—Glossary (continued)

Data Label	Data Description
Supply Air Over Temperature	[Supply Air Temperature] has exceeded [High Supply Air Temperature Threshold].
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Sensor Temperature	Air temperature measured at an outlet sensor.
Supply Air Temperature Set Point	Desired supply air temperature.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Theoretical Humidity	This is a theoretical supply air humidity value which is calculated based on other values and is not a measurement directly from a humidity sensor.
Supply Air Under Temperature	Supply air low temperature event.
Supply Humidity Sensor Issue	The humidity sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Humidity	Relative humidity at the outlet of the unit.
Supply Sensor Humidity	Relative humidity measured at an outlet sensor.
System Input Frequency	The system input frequency.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Operating State	System Operating State.
System Status	The operating status for the system.
Teamwork Master is offline or not connected to the network	Loss of Teamwork Master.
Teamwork Status	Teamwork Status.
Water Under Floor	Water under the floor is detected.

Table 5.80 Liebert® SRC—Liebert® iCOM™ CMS

Conroller	Liebert iCOM-CMS					
Liebert® Products	Liebert® SRC					
Data Description	Device ID	Object Type	Instance	Object Name	Access	Notes
Status Points (View)						
Device Address	1	Analog_Value	101	bs01_1	RD	1
State	1	MultiState_Value	101	bs02_1	RD	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	1	Analog_Value	102	bs03_1	RD	—
Device Address	2	Analog_Value	201	bs01_2	RD	2
State	2	MultiState_Value	201	bs02_2	RD	Enabled=1

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Table 5.80 Liebert® SRC—Liebert® iCOM™ CMS (continued)

Conroller	Liebert iCOM-CMS					
Liebert® Products	Liebert® SRC					
Data Description	Device ID	Object Type	Instance	Object Name	Access	Notes
						StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	2	Analog_Value	202	bs03_2	RD	—
Device Address	3	Analog_Value	301	bs01_3	RD	3
State	3	MultiState_Value	301	bs02_3	RD	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	3	Analog_Value	302	bs03_3	RD	—
Device Address	4	Analog_Value	401	bs01_4	RD	4
State	4	MultiState_Value	401	bs02_4	RD	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	4	Analog_Value	402	bs03_4	RD	—
Device Address	5	Analog_Value	501	bs01_5	RD	5
State	5	MultiState_Value	501	bs02_5	RD	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	5	Analog_Value	502	bs03_5	RD	
Device Address	6	Analog_Value	601	bs01_6	RD	6
State	6	MultiState_Value	601	bs02_6	RD	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	6	Analog_Value	602	bs03_6	RD	—
Device Address	7	Analog_Value	701	bs01_7	RD	7
State	7	MultiState_Value	701	bs02_7	RD	Enabled=1 StandbyOffline=2 Absent=3 UnavailableOffline=4
Temperature	7	Analog_Value	702	bs03_7	RD	
Device Address	8	Analog_Value	801	bs01_8	RD	8
State	8	MultiState_Value	801	bs02_8	RD	Enabled=1 StandbyOffline=2 Absent=3

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Table 5.80 Liebert® SRC—Liebert® iCOM™ CMS (continued)

Conroller	Liebert iCOM-CMS					
Liebert® Products	Liebert® SRC					
Data Description	Device ID	Object Type	Instance	Object Name	Access	Notes
						UnavailableOffline=4
Temperature	8	Analog_Value	802	bs03_8	RD	—
Alarm Points						
Communications	1	Binary_Value	101	ba01_1	RD	Active=1 Inactive=0
High Temperature	1	Binary_Value	102	ba02_1	RD	Active=1 Inactive=0
Low Temperature	1	Binary_Value	103	ba03_1	RD	Active=1 Inactive=0
Error	1	Binary_Value	104	ba04_1	RD	Active=1 Inactive=0
Communications	2	Binary_Value	201	ba01_2	RD	Active=1 Inactive=0
High Temperature	2	Binary_Value	202	ba02_2	RD	Active=1 Inactive=0
Low Temperature	2	Binary_Value	203	ba03_2	RD	Active=1 Inactive=0
Error	2	Binary_Value	204	ba04_2	RD	Active=1 Inactive=0
Communications	3	Binary_Value	301	ba01_3	RD	Active=1 Inactive=0
High Temperature	3	Binary_Value	302	ba02_3	RD	Active=1 Inactive=0
Low Temperature	3	Binary_Value	303	ba03_3	RD	Active=1 Inactive=0
Error	3	Binary_Value	304	ba04_3	RD	Active=1 Inactive=0
Communications	4	Binary_Value	401	ba01_4	RD	Active=1 Inactive=0
High Temperature	4	Binary_Value	402	ba02_4	RD	Active=1 Inactive=0
Low Temperature	4	Binary_Value	403	ba03_4	RD	Active=1 Inactive=0
Error	4	Binary_Value	404	ba04_4	RD	Active=1 Inactive=0
Communications	5	Binary_Value	501	ba01_5	RD	Active=1 Inactive=0

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Table 5.80 Liebert® SRC—Liebert® iCOM™ CMS (continued)

Conroller	Liebert iCOM-CMS					
Liebert® Products	Liebert® SRC					
Data Description	Device ID	Object Type	Instance	Object Name	Access	Notes
High Temperature	5	Binary_Value	502	ba02_5	RD	Active=1 Inactive=0
Low Temperature	5	Binary_Value	503	ba03_5	RD	Active=1 Inactive=0
Error	5	Binary_Value	504	ba04_5	RD	Active=1 Inactive=0
Communications	6	Binary_Value	601	ba01_6	RD	Active=1 Inactive=0
High Temperature	6	Binary_Value	602	ba02_6	RD	Active=1 Inactive=0
Low Temperature	6	Binary_Value	603	ba03_6	RD	Active=1 Inactive=0
Error	6	Binary_Value	604	ba04_6	RD	Active=1 Inactive=0
Communications	7	Binary_Value	701	ba01_7	RD	Active=1 Inactive=0
High Temperature	7	Binary_Value	702	ba02_7	RD	Active=1 Inactive=0
Low Temperature	7	Binary_Value	703	ba03_7	RD	Active=1 Inactive=0
Error	7	Binary_Value	704	ba04_7	RD	Active=1 Inactive=0
Communications	8	Binary_Value	801	ba01_8	RD	Active=1 Inactive=0
High Temperature	8	Binary_Value	802	ba02_8	RD	Active=1 Inactive=0
Low Temperature	8	Binary_Value	803	ba03_8	RD	Active=1 Inactive=0
Error	8	Binary_Value	804	ba04_8	RD	Active=1 Inactive=0
Control Points						
Unit Status	1	MultiState_Value	102	bc01_1	RW	ON=1 OFF=2
Temperature Setpoint	1	Analog_Value	103	bc02_1	RW	—
Fan Speed	1	MultiState_Value	103	bc03_1	RW	Low=1 Middle=2 High=3 Auto=4 (r/o)

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Table 5.80 Liebert® SRC—Liebert® iCOM™ CMS (continued)

Conroller	Liebert iCOM-CMS					
Liebert® Products	Liebert® SRC					
Data Description	Device ID	Object Type	Instance	Object Name	Access	Notes
Operation Mode	1	MultiState_Value	104	bc04_1	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	2	MultiState_Value	202	bc01_2	RW	ON=1 OFF=2
Temperature Setpoint	2	Analog_Value	203	bc02_2	RW	—
Fan Speed	2	MultiState_Value	203	bc03_2	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	2	MultiState_Value	204	bc04_2	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	3	MultiState_Value	302	bc01_3	RW	ON=1 OFF=2
Temperature Setpoint	3	Analog_Value	303	bc02_3	RW	—
Fan Speed	3	MultiState_Value	303	bc03_3	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	3	MultiState_Value	304	bc04_3	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	4	MultiState_Value	402	bc01_4	RW	ON=1 OFF=2
Temperature Setpoint	4	Analog_Value	403	bc02_4	RW	—
Fan Speed	4	MultiState_Value	403	bc03_4	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	4	MultiState_Value	404	bc04_4	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	5	MultiState_Value	502	bc01_5	RW	ON=1 OFF=2
Temperature Setpoint	5	Analog_Value	503	bc02_5	RW	—

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Table 5.80 Liebert® SRC—Liebert® iCOM™ CMS (continued)

Conroller	Liebert iCOM-CMS					
Liebert® Products	Liebert® SRC					
Data Description	Device ID	Object Type	Instance	Object Name	Access	Notes
Fan Speed	5	MultiState_Value	503	bc03_5	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	5	MultiState_Value	504	bc04_5	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	6	MultiState_Value	602	bc01_6	RW	ON=1 OFF=2
Temperature Setpoint	6	Analog_Value	603	bc02_6	RW	—
Fan Speed	6	MultiState_Value	603	bc03_6	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	6	MultiState_Value	604	bc04_6	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	7	MultiState_Value	702	bc01_7	RW	ON=1 OFF=2
Temperature Setpoint	7	Analog_Value	703	bc02_7	RW	—
Fan Speed	7	MultiState_Value	703	bc03_7	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	7	MultiState_Value	704	bc04_7	RW	Cooling=1 Fan=2 AI=3 Heating=4
Unit Status	8	MultiState_Value	802	bc01_8	RW	ON=1 OFF=2
Temperature Setpoint	8	Analog_Value	803	bc02_8	RW	—
Fan Speed	8	MultiState_Value	803	bc03_8	RW	Low=1 Medium=2 High=3 Auto=4 (r/o)
Operation Mode	8	MultiState_Value	804	bc04_8	RW	Cooling=1 Fan=2 AI=3 Heating=4

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Table 5.81 Liebert® XDC—Binary Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Ext Air Sensor A Over Temperature	Binary_Value	1	4601_1	RD	Active on Alarm
Ext Air Sensor B Over Temperature	Binary_Value	2	4604_1	RD	Active on Alarm
Ext Air Sensor A Under Temperature	Binary_Value	3	4608_1	RD	Active on Alarm
Ext Air Sensor B Under Temperature	Binary_Value	4	4611_1	RD	Active on Alarm
Ext Dew Point Over Temperature	Binary_Value	5	4615_1	RD	Active on Alarm
Ext Air Sensor A Issue	Binary_Value	6	4618_1	RD	Active on Alarm
Ext Air Sensor B Issue	Binary_Value	7	4621_1	RD	Active on Alarm
Refrigerant					
Supply Refrigerant Over Temp	Binary_Value	31	4634_1	RD	Active on Alarm
Supply Refrigerant Under Temp	Binary_Value	32	4637_1	RD	Active on Alarm
Supply Refrigerant Temp Sensor Issue	Binary_Value	33	4640_1	RD	Active on Alarm
Pumps					
Pump 1 Loss of Flow	Binary_Value	57	4656_1	RD	Active on Alarm
Pump 2 Loss of Flow	Binary_Value	58	4659_1	RD	Active on Alarm
Pump Short Cycle	Binary_Value	59	4662_1	RD	Active on Alarm
Pumps - PumpHours					
Pump Hours Exceeded	Binary_Value	70	5300_1_1	RD	Active on Alarm
Pump Hours Exceeded	Binary_Value	81	5300_1_2	RD	Active on Alarm
Compressors					
Compressor 1A High Head Pressure	Binary_Value	92	4669_1	RD	Active on Alarm
Compressor 1B High Head Pressure	Binary_Value	93	4672_1	RD	Active on Alarm
Compressor 2A High Head Pressure	Binary_Value	94	4675_1	RD	Active on Alarm
Compressor 2B High Head Pressure	Binary_Value	95	4678_1	RD	Active on Alarm
Compressor 1A Short Cycle	Binary_Value	96	4681_1	RD	Active on Alarm
Compressor 1B Short Cycle	Binary_Value	97	4684_1	RD	Active on Alarm
Compressor 2A Short Cycle	Binary_Value	98	4687_1	RD	Active on Alarm
Compressor 2B Short Cycle	Binary_Value	99	4690_1	RD	Active on Alarm
Circuit 1 Low Suction Pressure	Binary_Value	100	4693_1	RD	Active on Alarm
Circuit 2 Low Suction Pressure	Binary_Value	101	4696_1	RD	Active on Alarm

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Table 5.81 Liebert® XDC—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Compressor Lockout	Binary_Value	102	5067_1	RD	Active on Alarm
XDSystem					
Ext System Condensation Detected	Binary_Value	112	5492_1	RD	Active on Alarm
Ext Fan Issue	Binary_Value	113	5495_1	RD	Active on Alarm
Sensor Issue	Binary_Value	114	5060_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	115	5500_1	RD	Active on Alarm
Hot Aisle Temp Out of Range	Binary_Value	116	5505_1	RD	Active on Alarm
Cold Aisle Temp Out of Range	Binary_Value	117	5508_1	RD	Active on Alarm
XD Module Communication Lost	Binary_Value	118	6535_1	RD	Active on Alarm
XDSystem 2					
Ext System Condensation Detected	Binary_Value	128	5492_2	RD	Active on Alarm
Ext Fan Issue	Binary_Value	129	5495_2	RD	Active on Alarm
Sensor Issue	Binary_Value	130	5060_2	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	131	5500_2	RD	Active on Alarm
Hot Aisle Temp Out of Range	Binary_Value	132	5505_2	RD	Active on Alarm
Cold Aisle Temp Out of Range	Binary_Value	133	5508_2	RD	Active on Alarm
XD Module Communication Lost	Binary_Value	134	6535_2	RD	Active on Alarm
System Events					
Customer Input 1	Binary_Value	432	4270_1	RD	Active on Alarm
System Condensation Detected	Binary_Value	433	4711_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	434	4714_1	RD	Active on Alarm
Smoke Detected	Binary_Value	435	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	436	4723_1	RD	Active on Alarm
Service Required	Binary_Value	437	4726_1	RD	Active on Alarm
Fan Issue	Binary_Value	438	4729_1	RD	Active on Alarm
Unit Communication Lost	Binary_Value	439	5419_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	440	5119_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	441	5120_1	RD	Active on Alarm
Remote Shutdown	Binary_Value	442	5512_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	443	5418_1	RD	Active on Alarm

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Table 5.81 Liebert® XDC—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
System Events - Messages					
Unit On	Binary_Value	454	5109_1_1	RD	Active on Alarm
Unit Off	Binary_Value	455	5110_1_1	RD	Active on Alarm
Unit Standby	Binary_Value	456	5111_1_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	457	5112_1_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	458	5113_1_1	RD	Active on Alarm
Maintenance Due	Binary_Value	459	5116_1_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	460	5117_1_1	RD	Active on Alarm
Compressors – Compressor Hours 1					
Compressor Hours Exceeded	Binary_Value	472	5269_1_1	RD	Active on Alarm
Compressors – Compressor Hours 2					
Compressor Hours Exceeded	Binary_Value	484	5269_1_2	RD	Active on Alarm
. . .					
Compressors – Compressor Hours 4					
Compressor Hours Exceeded	Binary_Value	508	5269_1_4	RD	Active on Alarm
Compressors – Tandem Pump Down 1					
Compressor Pump Down Issue	Binary_Value	520	5146_1_1	RD	Active on Alarm
Compressors – Tandem Pump Down 2					
Compressor Pump Down Issue	Binary_Value	532	5146_1_2	RD	Active on Alarm
SFA_Report					
SFA Reserved Event 1	Binary_Value	18000	5642_1	RD	Active on Alarm
SFA Reserved Event 2	Binary_Value	18001	5643_1	RD	Active on Alarm
SFA Reserved Event 3	Binary_Value	18002	5644_1	RD	Active on Alarm
SFA Reserved Event 4	Binary_Value	18003	5645_1	RD	Active on Alarm
SFA Reserved Event 5	Binary_Value	18004	5646_1	RD	Active on Alarm
SFA Reserved Event 6	Binary_Value	18005	5647_1	RD	Active on Alarm
SFA Reserved Event 7	Binary_Value	18006	5648_1	RD	Active on Alarm
SFA Reserved Event 8	Binary_Value	18007	5649_1	RD	Active on Alarm
SFA Reserved Event 9	Binary_Value	18008	5650_1	RD	Active on Alarm
SFA Reserved Event 10	Binary_Value	18009	5651_1	RD	Active on Alarm

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Table 5.81 Liebert® XDC—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA Reserved Event 11	Binary_Value	18010	5652_1	RD	Active on Alarm
SFA Reserved Event 12	Binary_Value	18011	5653_1	RD	Active on Alarm
SFA Reserved Event 13	Binary_Value	18012	5654_1	RD	Active on Alarm
SFA Reserved Event 14	Binary_Value	18013	5655_1	RD	Active on Alarm
SFA Reserved Event 15	Binary_Value	18014	5656_1	RD	Active on Alarm
SFA Reserved Event 16	Binary_Value	18015	5657_1	RD	Active on Alarm
SFA Reserved Event 17	Binary_Value	18016	5658_1	RD	Active on Alarm
SFA Reserved Event 18	Binary_Value	18017	5659_1	RD	Active on Alarm
SFA Reserved Event 19	Binary_Value	18018	5660_1	RD	Active on Alarm
SFA Reserved Event 20	Binary_Value	18019	5661_1	RD	Active on Alarm
SFA Reserved Event 21	Binary_Value	18020	5662_1	RD	Active on Alarm
SFA Reserved Event 22	Binary_Value	18021	5663_1	RD	Active on Alarm
SFA Reserved Event 23	Binary_Value	18022	5664_1	RD	Active on Alarm
SFA Reserved Event 24	Binary_Value	18023	5665_1	RD	Active on Alarm
SFA Reserved Event 25	Binary_Value	18024	5666_1	RD	Active on Alarm
Pumps – Pump 1					
Pump Thermal Overload	Binary_Value	71	6534_1_1	RD	Active on Alarm
Pumps – Pump 2					
Pump Thermal Overload	Binary_Value	82	6534_1_2	RD	Active on Alarm

Table 5.82 Liebert® XDC—Analog Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Dew Point Temperature	Analog_Value	1	4867_1	RD	Units: deg C
Dew Point Temperature	Analog_Value	10001	4867_1_deg_F	RD	Units: deg F
Minimum Room Temperature Set Point	Analog_Value	2	4709_1	RW	Units: deg C
Minimum Room Temperature Set Point	Analog_Value	10002	4709_1_deg_F	RW	Units: deg F
Ext Air Sensor A Temperature	Analog_Value	3	4594_1	RD	Units: deg C

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Table 5.82 Liebert® XDC—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Air Sensor A Temperature	Analog_Value	10003	4594_1_deg_F	RD	Units: deg F
Ext Air Sensor A Humidity	Analog_Value	4	4595_1	RD	Units: % RH
Ext Air Sensor A Dew Point Temp	Analog_Value	5	4596_1	RD	Units: deg C
Ext Air Sensor A Dew Point Temp	Analog_Value	10005	4596_1_deg_F	RD	Units: deg F
Ext Air Sensor B Temperature	Analog_Value	6	4597_1	RD	Units: deg C
Ext Air Sensor B Temperature	Analog_Value	10006	4597_1_deg_F	RD	Units: deg F
Ext Air Sensor B Humidity	Analog_Value	7	4598_1	RD	Units: % RH
Ext Air Sensor B Dew Point Temp	Analog_Value	8	4599_1	RD	Units: deg C
Ext Air Sensor B Dew Point Temp	Analog_Value	10008	4599_1_deg_F	RD	Units: deg F
Ext Air Over Temp Threshold	Analog_Value	9	4600_1	RW	Units: deg C
Ext Air Over Temp Threshold	Analog_Value	10009	4600_1_deg_F	RW	Units: deg F
Ext Air Under Temp Threshold	Analog_Value	10	4607_1	RW	Units: deg C
Ext Air Under Temp Threshold	Analog_Value	10010	4607_1_deg_F	RW	Units: deg F
Ext Dew Point Over Temp Threshold	Analog_Value	11	4614_1	RW	Units: deg C
Ext Dew Point Over Temp Threshold	Analog_Value	10011	4614_1_deg_F	RW	Units: deg F
Refrigerant					
Supply Refrigerant Temperature	Analog_Value	34	4632_1	RD	Units: deg C
Supply Refrigerant Temperature	Analog_Value	10034	4632_1_deg_F	RD	Units: deg F
Supply Refrig Over Temp Threshold	Analog_Value	35	4633_1	RW	Units: deg C
External Air					
Supply Refrig Over Temp Threshold	Analog_Value	10035	4633_1_deg_F	RW	Units: deg F
Pumps - PumpHours					
Pump Hours	Analog_Value	58	5298_1_1	RW	Units: hr
Pump Hours Threshold	Analog_Value	59	5299_1_1	RW	Units: hr
Pump Hours	Analog_Value	70	5298_1_2	RW	Units: hr

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Table 5.82 Liebert® XDC—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Pump Hours Threshold	Analog_Value	71	5299_1_2	RW	Units: hr
Hot Gas					
Hot Gas Valve 1 Open Position	Analog_Value	82	4699_1	RD	Units: %
Hot Gas Valve 2 Open Position	Analog_Value	83	4700_1	RD	Units: %
XDSystem					
Cooling Capacity	Analog_Value	94	5490_1	RD	Units: %
Cooling Capacity	Analog_Value	95	5491_1	RD	Units: kW
Hot Aisle Over Temp Threshold	Analog_Value	96	5503_1	RW	Units: deg C
Hot Aisle Over Temp Threshold	Analog_Value	10096	5503_1_deg_F	RW	Units: deg F
Hot Aisle Under Temp Threshold	Analog_Value	97	5504_1	RW	Units: deg C
Hot Aisle Under Temp Threshold	Analog_Value	10097	5504_1_deg_F	RW	Units: deg F
Cold Aisle Over Temp Threshold	Analog_Value	98	5506_1	RW	Units: deg C
Cold Aisle Over Temp Threshold	Analog_Value	10098	5506_1_deg_F	RW	Units: deg F
Cold Aisle Under Temp Threshold	Analog_Value	99	5507_1	RW	Units: deg C
Cold Aisle Under Temp Threshold	Analog_Value	10099	5507_1_deg_F	RW	Units: deg F
XDSystem – Temperature Sensor 1					
Sensor Temperature	Analog_Value	110	5059_1_1	RD	Units: deg C
Sensor Temperature	Analog_Value	10110	5059_1_1_deg_F	RD	Units: deg F
XDSystem – Temperature Sensor 2					
Sensor Temperature	Analog_Value	121	5059_1_2	RD	Units: deg C
Sensor Temperature	Analog_Value	10121	5059_1_2_deg_F	RD	Units: deg F
. . .					
XDSystem – Temperature Sensor 4					
Sensor Temperature	Analog_Value	143	5059_1_4	RD	Units: deg C
Sensor Temperature	Analog_Value	10143	5059_1_4_deg_F	RD	Units: deg F
XDSystem 2					

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Table 5.82 Liebert® XDC—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Cooling Capacity	Analog_Value	154	5490_2	RD	Units: %
Cooling Capacity	Analog_Value	155	5491_2	RD	Units: kW
Hot Aisle Over Temp Threshold	Analog_Value	156	5503_2	RW	Units: deg C
Hot Aisle Over Temp Threshold	Analog_Value	10156	5503_2_deg_F	RW	Units: deg F
Hot Aisle Under Temp Threshold	Analog_Value	157	5504_2	RW	Units: deg C
Hot Aisle Under Temp Threshold	Analog_Value	10157	5504_2_deg_F	RW	Units: deg F
Cold Aisle Over Temp Threshold	Analog_Value	158	5506_2	RW	Units: deg C
Cold Aisle Over Temp Threshold	Analog_Value	10158	5506_2_deg_F	RW	Units: deg F
Cold Aisle Under Temp Threshold	Analog_Value	159	5507_2	RW	Units: deg C
Cold Aisle Under Temp Threshold	Analog_Value	10159	5507_2_deg_F	RW	Units: deg F
XDSystem – Temperature Sensor 1					
Sensor Temperature	Analog_Value	170	5059_2_1	RD	Units: deg C
Sensor Temperature	Analog_Value	10170	5059_2_1_deg_F	RD	Units: deg F
XDSystem – Temperature Sensor 2					
Sensor Temperature	Analog_Value	181	5059_2_2	RD	Units: deg C
Sensor Temperature	Analog_Value	10181	5059_2_2_deg_F	RD	Units: deg F
. . .					
XDSystem – Temperature Sensor 4					
Sensor Temperature	Analog_Value	203	5059_2_4	RD	Units: deg C
Sensor Temperature	Analog_Value	10203	5059_2_4_deg_F	RD	Units: deg F
System Information					
Auto Restart Delay	Analog_Value	1294	4710_1	RW	Units: sec
Maintenance Ramp	Analog_Value	1295	4870_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	1296	4868_1	RD	
Calculated Next Maintenance Year	Analog_Value	1297	4869_1	RD	
Time					

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Table 5.82 Liebert® XDC—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
System Date and Time	Analog_Value	1308	4293_1	RW	Units: Secs since Epoch (UTC)
Compressors – Compressor Hours 1					
Compressor Hours	Analog_Value	1320	5267_1_1	RW	Units: hr
Compressor Hours Threshold	Analog_Value	1321	5268_1_1	RW	Units: hr
Compressors – Compressor Hours 2					
Compressor Hours	Analog_Value	1333	5267_1_2	RW	Units: hr
Compressor Hours Threshold	Analog_Value	1334	5268_1_2	RW	Units: hr
. . .					
Compressors – Compressor Hours 4					
Compressor Hours	Analog_Value	1359	5267_1_4	RW	Units: hr
Compressor Hours Threshold	Analog_Value	1360	5268_1_4	RW	Units: hr
SFA_Report					
SFA ID Number	Analog_Value	18000	5641_1	RD	Units: Generic
SFA 16bit Read Only Value 1	Analog_Value	18001	5667_1	RD	Units: Generic
SFA 16bit Read Only Value 2	Analog_Value	18002	5668_1	RD	Units: Generic
SFA 16bit Read Only Value 3	Analog_Value	18003	5669_1	RD	Units: Generic
SFA 16bit Read Only Value 4	Analog_Value	18004	5670_1	RD	Units: Generic
SFA 16bit Read Only Value 5	Analog_Value	18005	5671_1	RD	Units: Generic
SFA 16bit Read Only Value 6	Analog_Value	18006	5672_1	RD	Units: Generic
SFA 16bit Read Only Value 7	Analog_Value	18007	5673_1	RD	Units: Generic
SFA 16bit Read Only Value 8	Analog_Value	18008	5674_1	RD	Units: Generic
SFA 16bit Read Only Value 9	Analog_Value	18009	5675_1	RD	Units: Generic

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Table 5.82 Liebert® XDC—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA 16bit Read Only Value 10	Analog_Value	18010	5676_1	RD	Units: Generic
SFA 32bit Read Only Value 1	Analog_Value	18011	5692_1	RD	Units: Generic
SFA 32bit Read Only Value 2	Analog_Value	18012	5693_1	RD	Units: Generic
SFA 32bit Read Only Value 3	Analog_Value	18013	5694_1	RD	Units: Generic
SFA 32bit Read Only Value 4	Analog_Value	18014	5695_1	RD	Units: Generic
SFA 32bit Read Only Value 5	Analog_Value	18015	5696_1	RD	Units: Generic
SFA 32bit Read Only Value 6	Analog_Value	18016	5697_1	RD	Units: Generic
SFA 32bit Read Only Value 7	Analog_Value	18017	5698_1	RD	Units: Generic
SFA 32bit Read Only Value 8	Analog_Value	18018	5699_1	RD	Units: Generic
SFA 32bit Read Only Value 9	Analog_Value	18019	5700_1	RD	Units: Generic
SFA 32bit Read Only Value 10	Analog_Value	18020	5701_1	RD	Units: Generic
SFA 16bit Writable Value 1	Analog_Value	18021	5717_1	RW	Units: Generic
SFA 16bit Writable Value 2	Analog_Value	18022	5718_1	RW	Units: Generic
SFA 16bit Writable Value 3	Analog_Value	18023	5719_1	RW	Units: Generic
SFA 16bit Writable Value 4	Analog_Value	18024	5720_1	RW	Units: Generic
SFA 16bit Writable Value 5	Analog_Value	18025	5721_1	RW	Units: Generic
SFA 16bit Writable Value 6	Analog_Value	18026	5722_1	RW	Units: Generic
SFA 16bit Writable Value 7	Analog_Value	18027	5723_1	RW	Units: Generic
SFA 16bit Writable Value 8	Analog_Value	18028	5724_1	RW	Units: Generic

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Table 5.82 Liebert® XDC—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA 16bit Writable Value 9	Analog_Value	18029	5725_1	RW	Units: Generic
SFA 16bit Writable Value 10	Analog_Value	18030	5726_1	RW	Units: Generic
SFA 32bit Writable Value 1	Analog_Value	18031	5742_1	RW	Units: Generic
SFA 32bit Writable Value 2	Analog_Value	18032	5743_1	RW	Units: Generic
SFA 32bit Writable Value 3	Analog_Value	18033	5744_1	RW	Units: Generic
SFA 32bit Writable Value 4	Analog_Value	18034	5745_1	RW	Units: Generic
SFA 32bit Writable Value 5	Analog_Value	18035	5746_1	RW	Units: Generic
SFA 32bit Writable Value 6	Analog_Value	18036	5747_1	RW	Units: Generic
SFA 32bit Writable Value 7	Analog_Value	18037	5748_1	RW	Units: Generic
SFA 32bit Writable Value 8	Analog_Value	18038	5749_1	RW	Units: Generic
SFA 32bit Writable Value 9	Analog_Value	18039	5750_1	RW	Units: Generic
SFA 32bit Writable Value 10	Analog_Value	18040	5751_1	RW	Units: Generic

Table 5.83 Liebert® XDC—MultiState Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Ext Air Sensor A Over Temp - Event Control	MultiState_Value	1	4602_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Over Temp - Event Type	MultiState_Value	2	4603_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Over Temp - Event Control	MultiState_Value	3	4605_1	RW	1 = disabled 2 = enabled

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Air Sensor B Over Temp - Event Type	MultiState_Value	4	4606_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Under Temp - Event Control	MultiState_Value	5	4609_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Under Temp - Event Type	MultiState_Value	6	4610_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Under Temp - Event Control	MultiState_Value	7	4612_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Under Temp - Event Type	MultiState_Value	8	4613_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Dew Point Over Temp - Event Control	MultiState_Value	9	4616_1	RW	1 = disabled 2 = enabled
Ext Dew Point Over Temp - Event Type	MultiState_Value	10	4617_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Issue - Event Control	MultiState_Value	11	4619_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Issue - Event Type	MultiState_Value	12	4620_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Issue - Event Control	MultiState_Value	13	4622_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Issue - Event Type	MultiState_Value	14	4623_1	RW	1 = Message 2 = Warning 3 = Alarm
Refrigerant					
Supply Refrig Over Temp - Event Control	MultiState_Value	41	4635_1	RW	1 = disabled 2 = enabled
Supply Refrig Over Temp - Event Type	MultiState_Value	42	4636_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Refrig Under Temp - Event Control	MultiState_Value	43	4638_1	RW	1 = disabled 2 = enabled
Supply Refrig Under Temp - Event Type	MultiState_Value	44	4639_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Supply Refrig Temp Sensor Issue - Event Control	MultiState_Value	45	4641_1	RW	1 = disabled 2 = enabled
Supply Refrig Temp Sensor Issue - Event Type	MultiState_Value	46	4642_1	RW	1 = Message 2 = Warning 3 = Alarm
Pumps					
Pump 1 State	MultiState_Value	73	4654_1	RD	1 = off 2 = on
Pump 2 State	MultiState_Value	74	4655_1	RD	1 = off 2 = on
Pump 1 Loss of Flow - Event Control	MultiState_Value	75	4657_1	RW	1 = disabled 2 = enabled
Pump 1 Loss of Flow - Event Type	MultiState_Value	76	4658_1	RW	1 = Message 2 = Warning 3 = Alarm
Pump 2 Loss of Flow - Event Control	MultiState_Value	77	4660_1	RW	1 = disabled 2 = enabled
Pump 2 Loss of Flow - Event Type	MultiState_Value	78	4661_1	RW	1 = Message 2 = Warning 3 = Alarm
Pump Short Cycle - Event Control	MultiState_Value	79	4663_1	RW	1 = disabled 2 = enabled
Pump Short Cycle - Event Type	MultiState_Value	80	4664_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressors					
Compressor 1A State	MultiState_Value	91	4665_1	RD	1 = off 2 = on
Compressor 1B State	MultiState_Value	92	4666_1	RD	1 = off 2 = on
Compressor 2A State	MultiState_Value	93	4667_1	RD	1 = off 2 = on
Compressor 2B State	MultiState_Value	94	4668_1	RD	1 = off 2 = on
Compressor 1A High Head Pressure - Event Control	MultiState_Value	95	4670_1	RW	1 = disabled 2 = enabled
Compressor 1A High Head Pressure - Event Type	MultiState_Value	96	4671_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Compressor 1B High Head Pressure - Event Control	MultiState_Value	97	4673_1	RW	1 = disabled 2 = enabled
Compressor 1B High Head Pressure - Event Type	MultiState_Value	98	4674_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor 2A High Head Pressure - Event Control	MultiState_Value	99	4676_1	RW	1 = disabled 2 = enabled
Compressor 2A High Head Pressure - Event Type	MultiState_Value	100	4677_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor 2B High Head Pressure - Event Control	MultiState_Value	101	4679_1	RW	1 = disabled 2 = enabled
Compressor 2B High Head Pressure - Event Type	MultiState_Value	102	4680_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor 1A Short Cycle - Event Control	MultiState_Value	103	4682_1	RW	1 = disabled 2 = enabled
Compressor 1A Short Cycle - Event Type	MultiState_Value	104	4683_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor 1B Short Cycle - Event Control	MultiState_Value	105	4685_1	RW	1 = disabled 2 = enabled
Compressor 1B Short Cycle - Event Type	MultiState_Value	106	4686_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor 2A Short Cycle - Event Control	MultiState_Value	107	4688_1	RW	1 = disabled 2 = enabled
Compressor 2A Short Cycle - Event Type	MultiState_Value	108	4689_1	RW	1 = Message 2 = Warning 3 = Alarm
Compressor 2B Short Cycle - Event Control	MultiState_Value	109	4691_1	RW	1 = disabled 2 = enabled
Compressor 2B Short Cycle - Event Type	MultiState_Value	110	4692_1	RW	1 = Message 2 = Warning 3 = Alarm
Circuit 1 Low Suction Pressure - Event Control	MultiState_Value	111	4694_1	RW	1 = disabled 2 = enabled
Circuit 1 Low Suction Pressure - Event Type	MultiState_Value	112	4695_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Circuit 2 Low Suction Pressure - Event Control	MultiState_Value	113	4697_1	RW	1 = disabled 2 = enabled
Circuit 2 Low Suction Pressure - Event Type	MultiState_Value	114	4698_1	RW	1 = Message 2 = Warning 3 = Alarm
Hot Gas					
Hot Gas Solenoid Valve 1 Position	MultiState_Value	125	4701_1	RD	1 = closed 2 = open
Hot Gas Solenoid Valve 2 Position	MultiState_Value	126	4702_1	RD	1 = closed 2 = open
XDSystem					
Communication Status	MultiState_Value	137	5486_1	RD	1 = Connected 2 = Not Connected
Fan On/Off Control	MultiState_Value	138	5487_1	RW	1 = off 2 = on
Master Fan Group State	MultiState_Value	139	5509_1	RD	1 = off 2 = on 3 = economy
Fan Button Control	MultiState_Value	140	5488_1	RW	1 = enabled 2 = disabled
Visual ID Control	MultiState_Value	141	5489_1	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Control	MultiState_Value	142	5493_1	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Type	MultiState_Value	143	5494_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Fan Issue - Event Control	MultiState_Value	144	5496_1	RW	1 = disabled 2 = enabled
Ext Fan Issue - Event Type	MultiState_Value	145	5497_1	RW	1 = Message 2 = Warning 3 = Alarm
Sensor Issue - Event Control	MultiState_Value	146	5498_1	RW	1 = disabled 2 = enabled
Sensor Issue - Event Type	MultiState_Value	147	5499_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Remote Shutdown - Event Control	MultiState_Value	148	5501_1	RW	1 = disabled 2 = enabled

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Remote Shutdown - Event Type	MultiState_Value	149	5502_1	RW	1 = Message 2 = Warning 3 = Alarm
XDSystem – Slave Fans 1					
Fan State	MultiState_Value	160	5510_1_1	RD	1 = off 2 = on 3 = economy
Fan Economy Mode	MultiState_Value	161	5511_1_1	RW	1 = disabled 2 = automatic 3 = manual
XDSystem 2					
Communication Status	MultiState_Value	172	5486_2	RD	1 = Connected 2 = Not Connected
Fan On/Off Control	MultiState_Value	173	5487_2	RW	1 = off 2 = on
Master Fan Group State	MultiState_Value	174	5509_2	RD	1 = off 2 = on 3 = economy
Fan Button Control	MultiState_Value	175	5488_2	RW	1 = enabled 2 = disabled
Visual ID Control	MultiState_Value	176	5489_2	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Control	MultiState_Value	177	5493_2	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Type	MultiState_Value	178	5494_2	RW	1 = Message 2 = Warning 3 = Alarm
Ext Fan Issue - Event Control	MultiState_Value	179	5496_2	RW	1 = disabled 2 = enabled
Ext Fan Issue - Event Type	MultiState_Value	180	5497_2	RW	1 = Message 2 = Warning 3 = Alarm
Sensor Issue - Event Control	MultiState_Value	181	5498_2	RW	1 = disabled 2 = enabled
Sensor Issue - Event Type	MultiState_Value	182	5499_2	RW	1 = Message 2 = Warning 3 = Alarm
Ext Remote Shutdown - Event Control	MultiState_Value	183	5501_2	RW	1 = disabled 2 = enabled

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Ext Remote Shutdown - Event Type	MultiState_Value	184	5502_2	RW	1 = Message 2 = Warning 3 = Alarm
XDSystem – Slave Fans 1					
Fan State	MultiState_Value	195	5510_2_1	RD	1 = off 2 = on 3 = economy
Fan Economy Mode	MultiState_Value	196	5511_2_1	RW	1 = disabled 2 = automatic 3 = manual
System Information					
System Status	MultiState_Value	837	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_Value	838	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_Value	839	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Off Reason	MultiState_Value	840	5074_1	RD	1 = None 2 = User 3 = Alarm 4 = Timer 5 = Monitoring 6 = Remote Off 7 = HCS12 Off
System On/Off Control	MultiState_Value	841	5143_1	RW	1 = off 2 = on
System Event Configuration					
Customer Input 1 - Event Control	MultiState_Value	852	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_Value	853	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
System Condensation Detected - Event Control	MultiState_Value	854	4712_1	RW	1 = disabled 2 = enabled
System Condensation Detected - Event Type	MultiState_Value	855	4713_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.83 Liebert® XDC—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Shutdown - Loss Of Power - Event Control	MultiState_Value	856	4715_1	RW	1 = disabled 2 = enabled
Shutdown - Loss Of Power - Event Type	MultiState_Value	857	4716_1	RW	1 = Message 2 = Warning 3 = Alarm
Smoke Detected - Event Control	MultiState_Value	858	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_Value	859	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_Value	860	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_Value	861	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_Value	862	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_Value	863	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Fan Issue - Event Control	MultiState_Value	864	4730_1	RW	1 = disabled 2 = enabled
Fan Issue - Event Type	MultiState_Value	865	4731_1	RW	1 = Message 2 = Warning 3 = Alarm
System Events					
System Event Acknowledge/Reset	MultiState_Value	876	4717_1	WO	1 = Reset 2 = Acknowledge

Table 5.84 Liebert® XDC—Glossary

Data Label	Data Description
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Cntrl Valve Pos - Event Control	Enable/disable the activation of the [Chilled Water Control Valve Position] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Chilled Water Cntrl Valve Pos - Event Type	The event type for the [Chilled Water Control Valve Position] event.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Chilled Water Valve Open Position	Chilled water valve open position.
Circuit 1 Low Suction Pressure - Event Control	Enable/disable the activation of the [Circuit 1 Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Circuit 1 Low Suction Pressure - Event Type	The event type for the [Circuit 1 Low Suction Pressure] event.
Circuit 1 Low Suction Pressure	Compressor circuit 1 low suction pressure.
Circuit 2 Low Suction Pressure - Event Control	Enable/disable the activation of the [Circuit 2 Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Circuit 2 Low Suction Pressure - Event Type	The event type for the [Circuit 2 Low Suction Pressure] event.
Circuit 2 Low Suction Pressure	Compressor circuit 2 low suction pressure.
Cold Aisle Over Temp Threshold	Upper threshold value used in the [Cold Aisle Temp Out of Range] event.
Cold Aisle Temp Out of Range	The air temperature in the cold aisle is either above [Cold Aisle Over Temp Threshold] or below [Cold Aisle Under Temp Threshold].
Cold Aisle Under Temp Threshold	Lower threshold value used in the [Cold Aisle Temp Out of Range] event.
Communication Status	Communication status of remote device.
Compressor 1A High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 1A High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1A High Head Pressure - Event Type	The event type for the [Compressor 1A High Head Pressure] event.
Compressor 1A High Head Pressure	Compressor 1A high head pressure.
Compressor 1A Short Cycle - Event Control	Enable/disable the activation of the [Compressor 1A Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1A Short Cycle - Event Type	The event type for the [Compressor 1A Short Cycle] event.
Compressor 1A Short Cycle	Compressor 1A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1A State	Compressor 1A operational state.
Compressor 1B High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 1B High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1B High Head Pressure - Event Type	The event type for the [Compressor 1B High Head Pressure] event.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Compressor 1B High Head Pressure	Compressor 1B high head pressure.
Compressor 1B Short Cycle - Event Control	Enable/disable the activation of the [Compressor 1B Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1B Short Cycle - Event Type	The event type for the [Compressor 1B Short Cycle] event.
Compressor 1B Short Cycle	Compressor 1B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1B State	Compressor 1B operational state.
Compressor 2A High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 2A High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2A High Head Pressure - Event Type	The event type for the [Compressor 2A High Head Pressure] event.
Compressor 2A High Head Pressure	Compressor 2A high head pressure.
Compressor 2A Short Cycle - Event Control	Enable/disable the activation of the [Compressor 2A Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2A Short Cycle - Event Type	The event type for the [Compressor 2A Short Cycle] event.
Compressor 2A Short Cycle	Compressor 2A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2A State	Compressor 2A operational state.
Compressor 2B High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 2B High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2B High Head Pressure - Event Type	The event type for the [Compressor 2B High Head Pressure] event.
Compressor 2B High Head Pressure	Compressor 2B high head pressure.
Compressor 2B Short Cycle - Event Control	Enable/disable the activation of the [Compressor 2B Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2B Short Cycle - Event Type	The event type for the [Compressor 2B Short Cycle] event.
Compressor 2B Short Cycle	Compressor 2B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2B State	Compressor 2B operational state.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer input 1.
Dew Point Temperature	Dew point temperature, using the highest reading from all sensors.
Ext Air Over Temp Threshold	Threshold value used in the ([Ext Air Sensor A Over Temperature], [Ext Air Sensor B Over Temperature]...) events.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue - Event Control	Enable/disable the activation of the [Ext Air Sensor A Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Issue - Event Type	The event type for the [Ext Air Sensor A Issue] event.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [Ext Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Sensor B Dew Point Temp	Dew point temperature as measured by external air sensor B.
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Issue - Event Control	Enable/disable the activation of the [Ext Air Sensor B Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Ext Air Sensor B Issue - Event Type	The event type for the [Ext Air Sensor B Issue] event.
Ext Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
Ext Air Sensor B Over Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor B Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Over Temp - Event Type	The event type for the [Ext Air Sensor B Over Temperature] event.
Ext Air Sensor B Over Temperature	[Ext Air Sensor B Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor B Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor B Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Under Temp - Event Type	The event type for the [Ext Air Sensor B Under Temperature] event.
Ext Air Sensor B Under Temperature	[Ext Air Sensor B Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Under Temp Threshold	Threshold value used in the ([Ext Air Sensor A Under Temperature], [Ext Air Sensor B Under Temperature]...) events.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Dew Point Over Temp - Event Control	Enable/disable the activation of the [Ext Dew Point Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Dew Point Over Temp - Event Type	The event type for the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Fan Issue - Event Control	Enable/disable the activation of the [Ext Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Fan Issue - Event Type	The event type for the [Ext Fan Issue] event.
Ext Fan Issue	One or more fans are not operating within their operational parameters.
Ext Remote Shutdown - Event Control	Enable/disable the activation of the [Remote Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Remote Shutdown - Event Type	The event type for the [Remote Shutdown] event.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Ext System Condensation Detected - Event Control	Enable/disable the activation of the [Ext System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Ext System Condensation Detected - Event Type	The event type for the [Ext System Condensation Detected] event.
Ext System Condensation Detected	External system condensation detected.
Fan Button Control	Enable or disable the buttons from controlling the state of the fans.
Fan Economy Mode	Mode in which system slave fans are to be controlled.
Fan Issue - Event Control	Enable/disable the activation of the [Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Issue - Event Type	The event type for the [Fan Issue] event.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan On/Off Control	Turn system fans on or off.
Fan State	Current operational state of a group of fans.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Hot Aisle Over Temp Threshold	Upper threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Aisle Temp Out of Range	The air temperature in the Hot aisle is either above [Hot Aisle Over Temp Threshold] or below [Hot Aisle Under Temp Threshold].
Hot Aisle Under Temp Threshold	Lower threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Gas Solenoid Valve 1 Position	Hot gas solenoid valve 1 position.
Hot Gas Solenoid Valve 2 Position	Hot gas solenoid valve 2 position
Hot Gas Valve 1 Open Position	Hot gas valve 1 open position.
Hot Gas Valve 2 Open Position	Hot gas valve 2 open position.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Room Temperature Set Point	Minimum desired room air temperature. If the room air temperature falls below this set point, the unit will reduce the cooling.
Master Fan Group State	Current operational state of the master fan group.
Pump 1 Loss of Flow - Event Control	Enable/disable the activation of the [Pump 1 Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Pump 1 Loss of Flow - Event Type	The event type for the [Pump 1 Loss of Flow] event.
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow - Event Control	Enable/disable the activation of the [Pump 2 Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump 2 Loss of Flow - Event Type	The event type for the [Pump 2 Loss of Flow] event.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Short Cycle - Event Control	Enable/disable the activation of the [Pump Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump Short Cycle - Event Type	The event type for the [Pump Short Cycle] event.
Pump Short Cycle	Pumps have short cycled. A short cycle is defined as turning on and off a number of times over a set time period.
Pump Thermal Overload	Pump is shut down due to thermal overload.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Shutdown	Unit is shut down by a remote signal.
Sensor Issue - Event Control	Enable/disable the activation of the [Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Sensor Issue - Event Type	The event type for the [Sensor Issue] event.
Sensor Issue	One or more sensors are disconnected or the signals are out of range.
Sensor Temperature	Temperature as measured by sensor.
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
SFA 16bit Read Only Value 1	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 10	Reserved 16bit value for SFA use.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
SFA 16bit Read Only Value 2	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 3	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 4	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 5	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 6	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 7	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 8	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 9	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 1	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 10	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 2	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 3	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 4	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 5	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 6	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 7	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 8	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 9	Reserved 16bit value for SFA use.
SFA 32bit Read Only Value 1	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 10	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 2	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 3	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 4	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 5	Reserved 32bit value for SFA use.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
SFA 32bit Read Only Value 6	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 7	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 8	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 9	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 1	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 10	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 2	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 3	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 4	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 5	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 6	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 7	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 8	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 9	Reserved 32bit value for SFA use.
SFA ID Number	This is a unique value identifying a specific SFA.
SFA Reserved Event 1	Reserved event for SFA use.
SFA Reserved Event 10	Reserved event for SFA use.
SFA Reserved Event 11	Reserved event for SFA use.
SFA Reserved Event 12	Reserved event for SFA use.
SFA Reserved Event 13	Reserved event for SFA use.
SFA Reserved Event 14	Reserved event for SFA use.
SFA Reserved Event 15	Reserved event for SFA use.
SFA Reserved Event 16	Reserved event for SFA use.
SFA Reserved Event 17	Reserved event for SFA use.
SFA Reserved Event 18	Reserved event for SFA use.
SFA Reserved Event 19	Reserved event for SFA use.
SFA Reserved Event 2	Reserved event for SFA use.
SFA Reserved Event 20	Reserved event for SFA use.
SFA Reserved Event 21	Reserved event for SFA use.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
SFA Reserved Event 22	Reserved event for SFA use.
SFA Reserved Event 23	Reserved event for SFA use.
SFA Reserved Event 24	Reserved event for SFA use.
SFA Reserved Event 25	Reserved event for SFA use.
SFA Reserved Event 3	Reserved event for SFA use.
SFA Reserved Event 4	Reserved event for SFA use.
SFA Reserved Event 5	Reserved event for SFA use.
SFA Reserved Event 6	Reserved event for SFA use.
SFA Reserved Event 7	Reserved event for SFA use.
SFA Reserved Event 8	Reserved event for SFA use.
SFA Reserved Event 9	Reserved event for SFA use.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Chilled Water Temp Sensor Issue	The supply chilled water temperature sensor is disconnected or the signal is out of range.
Supply CW Over Temp - Event Control	Enable/disable the activation of the [Supply Chilled Water Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply CW Over Temp - Event Type	The event type for the [Supply Chilled Water Over Temp] event.
Supply CW Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Chilled Water Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply CW Temp Sensor Issue - Event Type	The event type for the [Supply Chilled Water Temp Sensor Issue] event.
Supply Fluid Over Temp - Event Control	Enable/disable the activation of the [Supply Fluid Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Over Temp - Event Type	The event type for the [Supply Fluid Over Temp] event.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Fluid Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Temp Sensor Issue - Event Type	The event type for the [Supply Fluid Temp Sensor Issue] event.
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Fluid Temperature	Supply fluid temperature.
Supply Fluid Under Temp - Event Control	Enable/disable the activation of the [Supply Fluid Under Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Under Temp - Event Type	The event type for the [Supply Fluid Under Temp] event.
Supply Fluid Under Temp	[Supply Fluid Temperature] has dropped below a specified threshold.
Supply Refrig Over Temp - Event Control	Enable/disable the activation of the [Supply Refrigerant Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Over Temp - Event Type	The event type for the [Supply Refrigerant Over Temp] event.
Supply Refrig Over Temp Threshold	Threshold value used in the [Supply Refrigerant Over Temp] event.
Supply Refrig Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Refrigerant Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Temp Sensor Issue - Event Type	The event type for the [Supply Refrigerant Temp Sensor Issue] event.
Supply Refrig Under Temp - Event Control	Enable/disable the activation of the [Supply Refrigerant Under Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Under Temp - Event Type	The event type for the [Supply Refrigerant Under Temp] event.
Supply Refrigerant Over Temp	Event that is activated when [Supply Refrigerant Temperature] exceeds [Supply Refrig Over Temp Threshold]. The event is deactivated when the temperature drops below the threshold.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
Supply Refrigerant Temperature	Supply refrigerant temperature.
Supply Refrigerant Under Temp	[Supply Refrigerant Temperature] has dropped below a specified threshold.

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Table 5.84 Liebert® XDC—Glossary (continued)

Data Label	Data Description
System Condensation Detected - Event Control	Enable/disable the activation of the [System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
System Condensation Detected - Event Type	The event type for the [System Condensation Detected] event.
System Condensation Detected	System condensation detected.
System Date and Time	The system date and time.
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Visual ID Control	Visual identification control to display an LED flashing sequence, allowing it to be visually located.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Module Communication Lost	Communication with XD Module has been lost.

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Table 5.85 Liebert® XDP—Binary Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Ext Air Sensor A Over Temperature	Binary_Value	1	4601_1	RD	Active on Alarm
Ext Air Sensor B Over Temperature	Binary_Value	2	4604_1	RD	Active on Alarm
Ext Air Sensor A Under Temperature	Binary_Value	3	4608_1	RD	Active on Alarm
Ext Air Sensor B Under Temperature	Binary_Value	4	4611_1	RD	Active on Alarm
Ext Dew Point Over Temperature	Binary_Value	5	4615_1	RD	Active on Alarm
Ext Air Sensor A Issue	Binary_Value	6	4618_1	RD	Active on Alarm
Ext Air Sensor B Issue	Binary_Value	7	4621_1	RD	Active on Alarm
Chilled Water					
Supply Chilled Water Over Temp	Binary_Value	18	4626_1	RD	Active on Alarm
Supply Chilled Water Temp Sensor Issue	Binary_Value	19	4629_1	RD	Active on Alarm
Chilled Water Control Valve Failure	Binary_Value	20	4703_1	RD	Active on Alarm
Refrigerant					
Supply Refrigerant Over Temp	Binary_Value	31	4634_1	RD	Active on Alarm
Supply Refrigerant Under Temp	Binary_Value	32	4637_1	RD	Active on Alarm
Supply Refrigerant Temp Sensor Issue	Binary_Value	33	4640_1	RD	Active on Alarm
Pumps					
Pump 1 Loss of Flow	Binary_Value	57	4656_1	RD	Active on Alarm
Pump 2 Loss of Flow	Binary_Value	58	4659_1	RD	Active on Alarm
Pump Short Cycle	Binary_Value	59	4662_1	RD	Active on Alarm
Pumps - PumpHours					
Pump Hours Exceeded	Binary_Value	70	5300_1_1	RD	Active on Alarm
Pump Hours Exceeded	Binary_Value	81	5300_1_2	RD	Active on Alarm
XDSystem					
Ext System Condensation Detected	Binary_Value	112	5492_1	RD	Active on Alarm
Ext Fan Issue	Binary_Value	113	5495_1	RD	Active on Alarm
Sensor Issue	Binary_Value	114	5060_1	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	115	5500_1	RD	Active on Alarm
Hot Aisle Temp Out of Range	Binary_Value	116	5505_1	RD	Active on Alarm
Cold Aisle Temp Out of Range	Binary_Value	117	5508_1	RD	Active on Alarm

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Table 5.85 Liebert® XDP—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
XD Module Communication Lost	Binary_Value	118	6535_1	RD	Active on Alarm
XDSystem 2					
Ext System Condensation Detected	Binary_Value	128	5492_2	RD	Active on Alarm
Ext Fan Issue	Binary_Value	129	5495_2	RD	Active on Alarm
Sensor Issue	Binary_Value	130	5060_2	RD	Active on Alarm
Ext Remote Shutdown	Binary_Value	131	5500_2	RD	Active on Alarm
Hot Aisle Temp Out of Range	Binary_Value	132	5505_2	RD	Active on Alarm
Cold Aisle Temp Out of Range	Binary_Value	133	5508_2	RD	Active on Alarm
XD Module Communication Lost	Binary_Value	134	6535_2	RD	Active on Alarm
System Events					
Customer Input 1	Binary_Value	432	4270_1	RD	Active on Alarm
System Condensation Detected	Binary_Value	433	4711_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	434	4714_1	RD	Active on Alarm
Smoke Detected	Binary_Value	435	4720_1	RD	Active on Alarm
Water Under Floor	Binary_Value	436	4723_1	RD	Active on Alarm
Service Required	Binary_Value	437	4726_1	RD	Active on Alarm
Fan Issue	Binary_Value	438	4729_1	RD	Active on Alarm
Unit Communication Lost	Binary_Value	439	5419_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	440	5119_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	441	5120_1	RD	Active on Alarm
Remote Shutdown	Binary_Value	442	5512_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	443	5418_1	RD	Active on Alarm
System Events - Messages					
Unit On	Binary_Value	454	5109_1_1	RD	Active on Alarm
Unit Off	Binary_Value	455	5110_1_1	RD	Active on Alarm
Unit Standby	Binary_Value	456	5111_1_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	457	5112_1_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	458	5113_1_1	RD	Active on Alarm
Maintenance Due	Binary_Value	459	5116_1_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	460	5117_1_1	RD	Active on Alarm

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Table 5.85 Liebert® XDP—Binary Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA_Report					
SFA Reserved Event 1	Binary_Value	18000	5642_1	RD	Active on Alarm
SFA Reserved Event 2	Binary_Value	18001	5643_1	RD	Active on Alarm
SFA Reserved Event 3	Binary_Value	18002	5644_1	RD	Active on Alarm
SFA Reserved Event 4	Binary_Value	18003	5645_1	RD	Active on Alarm
SFA Reserved Event 5	Binary_Value	18004	5646_1	RD	Active on Alarm
SFA Reserved Event 6	Binary_Value	18005	5647_1	RD	Active on Alarm
SFA Reserved Event 7	Binary_Value	18006	5648_1	RD	Active on Alarm
SFA Reserved Event 8	Binary_Value	18007	5649_1	RD	Active on Alarm
SFA Reserved Event 9	Binary_Value	18008	5650_1	RD	Active on Alarm
SFA Reserved Event 10	Binary_Value	18009	5651_1	RD	Active on Alarm
SFA Reserved Event 11	Binary_Value	18010	5652_1	RD	Active on Alarm
SFA Reserved Event 12	Binary_Value	18011	5653_1	RD	Active on Alarm
SFA Reserved Event 13	Binary_Value	18012	5654_1	RD	Active on Alarm
SFA Reserved Event 14	Binary_Value	18013	5655_1	RD	Active on Alarm
SFA Reserved Event 15	Binary_Value	18014	5656_1	RD	Active on Alarm
SFA Reserved Event 16	Binary_Value	18015	5657_1	RD	Active on Alarm
SFA Reserved Event 17	Binary_Value	18016	5658_1	RD	Active on Alarm
SFA Reserved Event 18	Binary_Value	18017	5659_1	RD	Active on Alarm
SFA Reserved Event 19	Binary_Value	18018	5660_1	RD	Active on Alarm
SFA Reserved Event 20	Binary_Value	18019	5661_1	RD	Active on Alarm
SFA Reserved Event 21	Binary_Value	18020	5662_1	RD	Active on Alarm
SFA Reserved Event 22	Binary_Value	18021	5663_1	RD	Active on Alarm
SFA Reserved Event 23	Binary_Value	18022	5664_1	RD	Active on Alarm
SFA Reserved Event 24	Binary_Value	18023	5665_1	RD	Active on Alarm
SFA Reserved Event 25	Binary_Value	18024	5666_1	RD	Active on Alarm
Pumps – Pump 1					
Pump Thermal Overload	Binary_Value	71	6534_1_1	RD	Active on Alarm
Pumps – Pumps 2					
Pump Thermal Overload	Binary_Value	82	6534_1_2	RD	Active on Alarm

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Table 5.86 Liebert® XDP—Analog Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Dew Point Temperature	Analog_Value	1	4867_1	RD	Units: deg C
Dew Point Temperature	Analog_Value	10001	4867_1_deg_F	RD	Units: deg F
Minimum Room Temperature Set Point	Analog_Value	2	4709_1	RW	Units: deg C
Minimum Room Temperature Set Point	Analog_Value	10002	4709_1_deg_F	RW	Units: deg F
Ext Air Sensor A Temperature	Analog_Value	3	4594_1	RD	Units: deg C
Ext Air Sensor A Temperature	Analog_Value	10003	4594_1_deg_F	RD	Units: deg F
Ext Air Sensor A Humidity	Analog_Value	4	4595_1	RD	Units: % RH
Ext Air Sensor A Dew Point Temp	Analog_Value	5	4596_1	RD	Units: deg C
Ext Air Sensor A Dew Point Temp	Analog_Value	10005	4596_1_deg_F	RD	Units: deg F
Ext Air Sensor B Temperature	Analog_Value	6	4597_1	RD	Units: deg C
Ext Air Sensor B Temperature	Analog_Value	10006	4597_1_deg_F	RD	Units: deg F
Ext Air Sensor B Humidity	Analog_Value	7	4598_1	RD	Units: % RH
Ext Air Sensor B Dew Point Temp	Analog_Value	8	4599_1	RD	Units: deg C
Ext Air Sensor B Dew Point Temp	Analog_Value	10008	4599_1_deg_F	RD	Units: deg F
Ext Air Over Temp Threshold	Analog_Value	9	4600_1	RW	Units: deg C
Ext Air Over Temp Threshold	Analog_Value	10009	4600_1_deg_F	RW	Units: deg F
Ext Air Under Temp Threshold	Analog_Value	10	4607_1	RW	Units: deg C
Ext Air Under Temp Threshold	Analog_Value	10010	4607_1_deg_F	RW	Units: deg F
Ext Dew Point Over Temp Threshold	Analog_Value	11	4614_1	RW	Units: deg C
Ext Dew Point Over Temp Threshold	Analog_Value	10011	4614_1_deg_F	RW	Units: deg F
Chilled Water					
Supply Fluid Temperature	Analog_Value	22	4624_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	10022	4624_1_deg_F	RD	Units: deg F
High Supply Fluid Temperature Threshold	Analog_Value	23	4625_1	RW	Units: deg C
High Supply Fluid Temperature Threshold	Analog_Value	10023	4625_1_deg_F	RW	Units: deg F
Chilled Water Valve Open Position	Analog_Value	24	5640_1	RD	
Refrigerant					
Supply Refrigerant Temperature	Analog_Value	34	4632_1	RD	Units: deg C
Supply Refrigerant Temperature	Analog_Value	10034	4632_1_deg_F	RD	Units: deg F

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Table 5.86 Liebert® XDP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Supply Refrig Over Temp Threshold	Analog_Value	35	4633_1	RW	Units: deg C
Supply Refrig Over Temp Threshold	Analog_Value	10035	4633_1_deg_F	RW	Units: deg F
Fluid					
Supply Fluid Temperature	Analog_Value	46	4643_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	10046	4643_1_deg_F	RD	Units: deg F
Supply Fluid Over Temp Threshold	Analog_Value	47	4644_1	RW	Units: deg C
Supply Fluid Over Temp Threshold	Analog_Value	10047	4644_1_deg_F	RW	Units: deg F
Pumps - PumpHours					
Pump Hours	Analog_Value	58	5298_1_1	RW	Units: hr
Pump Hours Threshold	Analog_Value	59	5299_1_1	RW	Units: hr
Pump Hours	Analog_Value	70	5298_1_2	RW	Units: hr
Pump Hours Threshold	Analog_Value	71	5299_1_2	RW	Units: hr
XDSystem					
Cooling Capacity	Analog_Value	94	5490_1	RD	Units: %
Cooling Capacity	Analog_Value	95	5491_1	RD	Units: kW
Hot Aisle Over Temp Threshold	Analog_Value	96	5503_1	RW	Units: deg C
Hot Aisle Over Temp Threshold	Analog_Value	10096	5503_1_deg_F	RW	Units: deg F
Hot Aisle Under Temp Threshold	Analog_Value	97	5504_1	RW	Units: deg C
Hot Aisle Under Temp Threshold	Analog_Value	10097	5504_1_deg_F	RW	Units: deg F
Cold Aisle Over Temp Threshold	Analog_Value	98	5506_1	RW	Units: deg C
Cold Aisle Over Temp Threshold	Analog_Value	10098	5506_1_deg_F	RW	Units: deg F
Cold Aisle Under Temp Threshold	Analog_Value	99	5507_1	RW	Units: deg C
Cold Aisle Under Temp Threshold	Analog_Value	10099	5507_1_deg_F	RW	Units: deg F
XDSystem – Temperature Sensor 1					
Sensor Temperature	Analog_Value	110	5059_1_1	RD	Units: deg C
Sensor Temperature	Analog_Value	10110	5059_1_1_deg_F	RD	Units: deg F
XDSystem – Temperature Sensor 2					
Sensor Temperature	Analog_Value	121	5059_1_2	RD	Units: deg C
Sensor Temperature	Analog_Value	10121	5059_1_2_deg_F	RD	Units: deg F
. . .					

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Table 5.86 Liebert® XDP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
XDSystem – Temperature Sensor 4					
Sensor Temperature	Analog_Value	143	5059_1_4	RD	Units: deg C
Sensor Temperature	Analog_Value	10143	5059_1_4_deg_F	RD	Units: deg F
XDSystem 2					
Cooling Capacity	Analog_Value	154	5490_2	RD	Units: %
Cooling Capacity	Analog_Value	155	5491_2	RD	Units: kW
Hot Aisle Over Temp Threshold	Analog_Value	156	5503_2	RW	Units: deg C
Hot Aisle Over Temp Threshold	Analog_Value	10156	5503_2_deg_F	RW	Units: deg F
Hot Aisle Under Temp Threshold	Analog_Value	157	5504_2	RW	Units: deg C
Hot Aisle Under Temp Threshold	Analog_Value	10157	5504_2_deg_F	RW	Units: deg F
Cold Aisle Over Temp Threshold	Analog_Value	158	5506_2	RW	Units: deg C
Cold Aisle Over Temp Threshold	Analog_Value	10158	5506_2_deg_F	RW	Units: deg F
Cold Aisle Under Temp Threshold	Analog_Value	159	5507_2	RW	Units: deg C
Cold Aisle Under Temp Threshold	Analog_Value	10159	5507_2_deg_F	RW	Units: deg F
XDSystem – Temperature Sensor 1					
Sensor Temperature	Analog_Value	170	5059_2_1	RD	Units: deg C
Sensor Temperature	Analog_Value	10170	5059_2_1_deg_F	RD	Units: deg F
XDSystem – Temperature Sensor 2					
Sensor Temperature	Analog_Value	10181	5059_2_2_deg_F	RD	Units: deg F
. . .					
XDSystem – Temperature Sensor 4					
Sensor Temperature	Analog_Value	203	5059_2_4	RD	Units: deg C
Sensor Temperature	Analog_Value	10203	5059_2_4_deg_F	RD	Units: deg F
System Information					
Auto Restart Delay	Analog_Value	1294	4710_1	RW	Units: sec
Maintenance Ramp	Analog_Value	1295	4870_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	1296	4868_1	RD	
Calculated Next Maintenance Year	Analog_Value	1297	4869_1	RD	
Time					
System Date and Time	Analog_Value	1308	4293_1	RW	Units: Secs since Epoch(UTC)

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Table 5.86 Liebert® XDP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA_Report					
SFA ID Number	Analog_Value	18000	5641_1	RD	Units: Generic
SFA 16bit Read Only Value 1	Analog_Value	18001	5667_1	RD	Units: Generic
SFA 16bit Read Only Value 2	Analog_Value	18002	5668_1	RD	Units: Generic
SFA 16bit Read Only Value 3	Analog_Value	18003	5669_1	RD	Units: Generic
SFA 16bit Read Only Value 4	Analog_Value	18004	5670_1	RD	Units: Generic
SFA 16bit Read Only Value 5	Analog_Value	18005	5671_1	RD	Units: Generic
SFA 16bit Read Only Value 6	Analog_Value	18006	5672_1	RD	Units: Generic
SFA 16bit Read Only Value 7	Analog_Value	18007	5673_1	RD	Units: Generic
SFA 16bit Read Only Value 8	Analog_Value	18008	5674_1	RD	Units: Generic
SFA 16bit Read Only Value 9	Analog_Value	18009	5675_1	RD	Units: Generic
SFA 16bit Read Only Value 10	Analog_Value	18010	5676_1	RD	Units: Generic
SFA 32bit Read Only Value 1	Analog_Value	18011	5692_1	RD	Units: Generic
SFA 32bit Read Only Value 2	Analog_Value	18012	5693_1	RD	Units: Generic
SFA 32bit Read Only Value 3	Analog_Value	18013	5694_1	RD	Units: Generic
SFA 32bit Read Only Value 4	Analog_Value	18014	5695_1	RD	Units: Generic
SFA 32bit Read Only Value 5	Analog_Value	18015	5696_1	RD	Units: Generic
SFA 32bit Read Only Value 6	Analog_Value	18016	5697_1	RD	Units: Generic
SFA 32bit Read Only Value 7	Analog_Value	18017	5698_1	RD	Units: Generic
SFA 32bit Read Only Value 8	Analog_Value	18018	5699_1	RD	Units: Generic
SFA 32bit Read Only Value 9	Analog_Value	18019	5700_1	RD	Units: Generic
SFA 32bit Read Only Value 10	Analog_Value	18020	5701_1	RD	Units: Generic
SFA 16bit Writable Value 1	Analog_Value	18021	5717_1	RW	Units: Generic
SFA 16bit Writable Value 2	Analog_Value	18022	5718_1	RW	Units: Generic
SFA 16bit Writable Value 3	Analog_Value	18023	5719_1	RW	Units: Generic
SFA 16bit Writable Value 4	Analog_Value	18024	5720_1	RW	Units: Generic
SFA 16bit Writable Value 5	Analog_Value	18025	5721_1	RW	Units: Generic
SFA 16bit Writable Value 6	Analog_Value	18026	5722_1	RW	Units: Generic
SFA 16bit Writable Value 7	Analog_Value	18027	5723_1	RW	Units: Generic
SFA 16bit Writable Value 8	Analog_Value	18028	5724_1	RW	Units: Generic

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Table 5.86 Liebert® XDP—Analog Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
SFA 16bit Writable Value 9	Analog_Value	18029	5725_1	RW	Units: Generic
SFA 16bit Writable Value 10	Analog_Value	18030	5726_1	RW	Units: Generic
SFA 32bit Writable Value 1	Analog_Value	18031	5742_1	RW	Units: Generic
SFA 32bit Writable Value 2	Analog_Value	18032	5743_1	RW	Units: Generic
SFA 32bit Writable Value 3	Analog_Value	18033	5744_1	RW	Units: Generic
SFA 32bit Writable Value 4	Analog_Value	18034	5745_1	RW	Units: Generic
SFA 32bit Writable Value 5	Analog_Value	18035	5746_1	RW	Units: Generic
SFA 32bit Writable Value 6	Analog_Value	18036	5747_1	RW	Units: Generic
SFA 32bit Writable Value 7	Analog_Value	18037	5748_1	RW	Units: Generic
SFA 32bit Writable Value 8	Analog_Value	18038	5749_1	RW	Units: Generic
SFA 32bit Writable Value 9	Analog_Value	18039	5750_1	RW	Units: Generic
SFA 32bit Writable Value 10	Analog_Value	18040	5751_1	RW	Units: Generic

Table 5.87 Liebert® XDP—MultiState Data

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
External Air					
Ext Air Sensor A Over Temp - Event Control	MultiState_Value	1	4602_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Over Temp - Event Type	MultiState_Value	2	4603_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Over Temp - Event Control	MultiState_Value	3	4605_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Over Temp - Event Type	MultiState_Value	4	4606_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Under Temp - Event Control	MultiState_Value	5	4609_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Under Temp - Event Type	MultiState_Value	6	4610_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Under Temp - Event Control	MultiState_Value	7	4612_1	RW	1 = disabled 2 = enabled

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Table 5.87 Liebert® XDP—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Air Sensor B Under Temp - Event Type	MultiState_Value	8	4613_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Dew Point Over Temp - Event Control	MultiState_Value	9	4616_1	RW	1 = disabled 2 = enabled
Ext Dew Point Over Temp - Event Type	MultiState_Value	10	4617_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Issue - Event Control	MultiState_Value	11	4619_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Issue - Event Type	MultiState_Value	12	4620_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor B Issue - Event Control	MultiState_Value	13	4622_1	RW	1 = disabled 2 = enabled
Ext Air Sensor B Issue - Event Type	MultiState_Value	14	4623_1	RW	1 = Message 2 = Warning 3 = Alarm
Chilled Water					
Supply CW Over Temp - Event Control	MultiState_Value	25	4627_1	RW	1 = disabled 2 = enabled
Supply CW Over Temp - Event Type	MultiState_Value	26	4628_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply CW Temp Sensor Issue - Event Control	MultiState_Value	27	4630_1	RW	1 = disabled 2 = enabled
Supply CW Temp Sensor Issue - Event Type	MultiState_Value	28	4631_1	RW	1 = Message 2 = Warning 3 = Alarm
Chilled Water Cntrl Valve Pos - Event Control	MultiState_Value	29	4704_1	RW	1 = disabled 2 = enabled
Chilled Water Cntrl Valve Pos - Event Type	MultiState_Value	30	4705_1	RW	1 = Message 2 = Warning 3 = Alarm
Refrigerant					
Supply Refrig Over Temp - Event Control	MultiState_Value	41	4635_1	RW	1 = disabled 2 = enabled
Supply Refrig Over Temp - Event Type	MultiState_Value	42	4636_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.87 Liebert® XDP—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Supply Refrig Under Temp - Event Control	MultiState_Value	43	4638_1	RW	1 = disabled 2 = enabled
Supply Refrig Under Temp - Event Type	MultiState_Value	44	4639_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Refrig Temp Sensor Issue - Event Control	MultiState_Value	45	4641_1	RW	1 = disabled 2 = enabled
Supply Refrig Temp Sensor Issue - Event Type	MultiState_Value	46	4642_1	RW	1 = Message 2 = Warning 3 = Alarm
Fluid					
Supply Fluid Over Temp - Event Control	MultiState_Value	57	4646_1	RW	1 = disabled 2 = enabled
Supply Fluid Over Temp - Event Type	MultiState_Value	58	4647_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Fluid Under Temp - Event Control	MultiState_Value	59	4649_1	RW	1 = disabled 2 = enabled
Supply Fluid Under Temp - Event Type	MultiState_Value	60	4650_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Fluid Temp Sensor Issue - Event Control	MultiState_Value	61	4652_1	RW	1 = disabled 2 = enabled
Supply Fluid Temp Sensor Issue - Event Type	MultiState_Value	62	4653_1	RW	1 = Message 2 = Warning 3 = Alarm
Pumps					
Pump 1 State	MultiState_Value	73	4654_1	RD	1 = off 2 = on
Pump 2 State	MultiState_Value	74	4655_1	RD	1 = off 2 = on
Pump 1 Loss of Flow - Event Control	MultiState_Value	75	4657_1	RW	1 = disabled 2 = enabled
Pump 1 Loss of Flow - Event Type	MultiState_Value	76	4658_1	RW	1 = Message 2 = Warning 3 = Alarm
Pump 2 Loss of Flow - Event Control	MultiState_Value	77	4660_1	RW	1 = disabled 2 = enabled

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Table 5.87 Liebert® XDP—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Pump 2 Loss of Flow - Event Type	MultiState_Value	78	4661_1	RW	1 = Message 2 = Warning 3 = Alarm
Pump Short Cycle - Event Control	MultiState_Value	79	4663_1	RW	1 = disabled 2 = enabled
Pump Short Cycle - Event Type	MultiState_Value	80	4664_1	RW	1 = Message 2 = Warning 3 = Alarm
XDSystem					
Communication Status	MultiState_Value	137	5486_1	RD	1 = Connected 2 = Not Connected
Fan On/Off Control	MultiState_Value	138	5487_1	RW	1 = off 2 = on
Master Fan Group State	MultiState_Value	139	5509_1	RD	1 = off 2 = on 3 = economy
Fan Button Control	MultiState_Value	140	5488_1	RW	1 = enabled 2 = disabled
Visual ID Control	MultiState_Value	141	5489_1	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Control	MultiState_Value	142	5493_1	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Type	MultiState_Value	143	5494_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Fan Issue - Event Control	MultiState_Value	144	5496_1	RW	1 = disabled 2 = enabled
Ext Fan Issue - Event Type	MultiState_Value	145	5497_1	RW	1 = Message 2 = Warning 3 = Alarm
Sensor Issue - Event Control	MultiState_Value	146	5498_1	RW	1 = disabled 2 = enabled
Sensor Issue - Event Type	MultiState_Value	147	5499_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Remote Shutdown - Event Control	MultiState_Value	148	5501_1	RW	1 = disabled 2 = enabled
Ext Remote Shutdown - Event Type	MultiState_Value	149	5502_1	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.87 Liebert® XDP—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
XDSystem – Slave Fans 1					
Fan State	MultiState_Value	160	5510_1_1	RD	1 = off 2 = on 3 = economy
Fan Economy Mode	MultiState_Value	161	5511_1_1	RW	1 = disabled 2 = automatic 3 = manual
XDSystem 2					
Communication Status	MultiState_Value	172	5486_2	RD	1 = Connected 2 = Not Connected
Fan On/Off Control	MultiState_Value	173	5487_2	RW	1 = off 2 = on
Master Fan Group State	MultiState_Value	174	5509_2	RD	1 = off 2 = on 3 = economy
Fan Button Control	MultiState_Value	175	5488_2	RW	1 = enabled 2 = disabled
Visual ID Control	MultiState_Value	176	5489_2	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Control	MultiState_Value	177	5493_2	RW	1 = disabled 2 = enabled
Ext System Condensation Detected - Event Type	MultiState_Value	178	5494_2	RW	1 = Message 2 = Warning 3 = Alarm
Ext Fan Issue - Event Control	MultiState_Value	179	5496_2	RW	1 = disabled 2 = enabled
Ext Fan Issue - Event Type	MultiState_Value	180	5497_2	RW	1 = Message 2 = Warning 3 = Alarm
Sensor Issue - Event Control	MultiState_Value	181	5498_2	RW	1 = disabled 2 = enabled
Sensor Issue - Event Type	MultiState_Value	182	5499_2	RW	1 = Message 2 = Warning 3 = Alarm
Ext Remote Shutdown - Event Control	MultiState_Value	183	5501_2	RW	1 = disabled 2 = enabled
Ext Remote Shutdown - Event Type	MultiState_Value	184	5502_2	RW	1 = Message 2 = Warning 3 = Alarm

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Table 5.87 Liebert® XDP—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
XDSystem – Slave Fans 1					
Fan State	MultiState_Value	195	5510_2_1	RD	1 = off 2 = on 3 = economy
Fan Economy Mode	MultiState_Value	196	5511_2_1	RW	1 = disabled 2 = automatic 3 = manual
System Information					
System Status	MultiState_Value	837	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_Value	838	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_Value	839	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Off Reason	MultiState_Value	840	5074_1	RD	1 = None 2 = User 3 = Alarm 4 = Timer 5 = Monitoring 6 = Remote Off7 = HCS12 Off
System On/Off Control	MultiState_Value	841	5143_1	RW	1 = off 2 = on
System Event Configuration					
Customer Input 1 - Event Control	MultiState_Value	852	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_Value	853	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
System Condensation Detected - Event Control	MultiState_Value	854	4712_1	RW	1 = disabled 2 = enabled
System Condensation Detected - Event Type	MultiState_Value	855	4713_1	RW	1 = Message 2 = Warning 3 = Alarm
Shutdown - Loss Of Power - Event Control	MultiState_Value	856	4715_1	RW	1 = disabled 2 = enabled

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Table 5.87 Liebert® XDP—MultiState Data (continued)

Controller	Liebert® iCOM™ v4				
Data Label	Object Type	Instance	Object Name	Access	Notes
Shutdown - Loss Of Power - Event Type	MultiState_Value	857	4716_1	RW	1 = Message 2 = Warning 3 = Alarm
Smoke Detected - Event Control	MultiState_Value	858	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_Value	859	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_Value	860	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_Value	861	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_Value	862	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_Value	863	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Fan Issue - Event Control	MultiState_Value	864	4730_1	RW	1 = disabled 2 = enabled
Fan Issue - Event Type	MultiState_Value	865	4731_1	RW	1 = Message 2 = Warning 3 = Alarm
System Events					
System Event Acknowledge/Reset	MultiState_Value	876	4717_1	WO	1 = Reset 2 = Acknowledge

Table 5.88 Liebert® XDP—Glossary

Data Label	Data Description
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Chilled Water Cntrl Valve Pos - Event Control	Enable/disable the activation of the [Chilled Water Control Valve Position] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Chilled Water Cntrl Valve Pos - Event Type	The event type for the [Chilled Water Control Valve Position] event.
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Chilled Water Valve Open Position	Chilled water valve open position.
Circuit 1 Low Suction Pressure - Event Control	Enable/disable the activation of the [Circuit 1 Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Circuit 1 Low Suction Pressure - Event Type	The event type for the [Circuit 1 Low Suction Pressure] event.
Circuit 1 Low Suction Pressure	Compressor circuit 1 low suction pressure.
Circuit 2 Low Suction Pressure - Event Control	Enable/disable the activation of the [Circuit 2 Low Suction Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Circuit 2 Low Suction Pressure - Event Type	The event type for the [Circuit 2 Low Suction Pressure] event.
Circuit 2 Low Suction Pressure	Compressor circuit 2 low suction pressure.
Cold Aisle Over Temp Threshold	Upper threshold value used in the [Cold Aisle Temp Out of Range] event.
Cold Aisle Temp Out of Range	The air temperature in the cold aisle is either above [Cold Aisle Over Temp Threshold] or below [Cold Aisle Under Temp Threshold].
Cold Aisle Under Temp Threshold	Lower threshold value used in the [Cold Aisle Temp Out of Range] event.
Communication Status	Communication status of remote device.
Compressor 1A High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 1A High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1A High Head Pressure - Event Type	The event type for the [Compressor 1A High Head Pressure] event.
Compressor 1A High Head Pressure	Compressor 1A high head pressure.
Compressor 1A Short Cycle - Event Control	Enable/disable the activation of the [Compressor 1A Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1A Short Cycle - Event Type	The event type for the [Compressor 1A Short Cycle] event.
Compressor 1A Short Cycle	Compressor 1A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1A State	Compressor 1A operational state.
Compressor 1B High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 1B High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1B High Head Pressure - Event Type	The event type for the [Compressor 1B High Head Pressure] event.
Compressor 1B High Head Pressure	Compressor 1B high head pressure.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Compressor 1B Short Cycle - Event Control	Enable/disable the activation of the [Compressor 1B Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 1B Short Cycle - Event Type	The event type for the [Compressor 1B Short Cycle] event.
Compressor 1B Short Cycle	Compressor 1B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 1B State	Compressor 1B operational state.
Compressor 2A High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 2A High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2A High Head Pressure - Event Type	The event type for the [Compressor 2A High Head Pressure] event.
Compressor 2A High Head Pressure	Compressor 2A high head pressure.
Compressor 2A Short Cycle - Event Control	Enable/disable the activation of the [Compressor 2A Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2A Short Cycle - Event Type	The event type for the [Compressor 2A Short Cycle] event.
Compressor 2A Short Cycle	Compressor 2A short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2A State	Compressor 2A operational state.
Compressor 2B High Head Pressure - Event Control	Enable/disable the activation of the [Compressor 2B High Head Pressure] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2B High Head Pressure - Event Type	The event type for the [Compressor 2B High Head Pressure] event.
Compressor 2B High Head Pressure	Compressor 2B high head pressure.
Compressor 2B Short Cycle - Event Control	Enable/disable the activation of the [Compressor 2B Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Compressor 2B Short Cycle - Event Type	The event type for the [Compressor 2B Short Cycle] event.
Compressor 2B Short Cycle	Compressor 2B short cycle. A short cycle is defined as turning on and off a number of times over a set time period.
Compressor 2B State	Compressor 2B operational state.
Compressor Hours Exceeded	[Compressor Hours] has exceeded [Compressor Hours Threshold].
Compressor Hours Threshold	Threshold value used in the [Compressor Hours Exceeded] event.
Compressor Hours	Operating hours for compressor since last reset of this value.
Compressor Pump Down Issue	Unable to pump down suction-side pressure during compressor shutdown.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer input 1.
Dew Point Temperature	Dew point temperature, using the highest reading from all sensors.
Ext Air Over Temp Threshold	Threshold value used in the ([Ext Air Sensor A Over Temperature], [Ext Air Sensor B Over Temperature]...) events.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue - Event Control	Enable/disable the activation of the [Ext Air Sensor A Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Issue - Event Type	The event type for the [Ext Air Sensor A Issue] event.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [Ext Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Sensor B Dew Point Temp	Dew point temperature as measured by external air sensor B.
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.
Ext Air Sensor B Issue - Event Control	Enable/disable the activation of the [Ext Air Sensor B Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Issue - Event Type	The event type for the [Ext Air Sensor B Issue] event.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Ext Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
Ext Air Sensor B Over Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor B Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Over Temp - Event Type	The event type for the [Ext Air Sensor B Over Temperature] event.
Ext Air Sensor B Over Temperature	[Ext Air Sensor B Temperature] has exceeded [Ext Air Over Temp Threshold].
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor B Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor B Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor B Under Temp - Event Type	The event type for the [Ext Air Sensor B Under Temperature] event.
Ext Air Sensor B Under Temperature	[Ext Air Sensor B Temperature] has dropped below [Ext Air Under Temp Threshold].
Ext Air Under Temp Threshold	Threshold value used in the ([Ext Air Sensor A Under Temperature], [Ext Air Sensor B Under Temperature]...) events.
Ext Compressor Lockout	The compressor is shut down and disabled by an external input signal.
Ext Dew Point Over Temp - Event Control	Enable/disable the activation of the [Ext Dew Point Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Dew Point Over Temp - Event Type	The event type for the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Fan Issue - Event Control	Enable/disable the activation of the [Ext Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Fan Issue - Event Type	The event type for the [Ext Fan Issue] event.
Ext Fan Issue	One or more fans are not operating within their operational parameters.
Ext Remote Shutdown - Event Control	Enable/disable the activation of the [Remote Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Remote Shutdown - Event Type	The event type for the [Remote Shutdown] event.
Ext Remote Shutdown	Unit is shut down by a remote signal.
Ext System Condensation Detected - Event Control	Enable/disable the activation of the [Ext System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext System Condensation Detected - Event Type	The event type for the [Ext System Condensation Detected] event.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Ext System Condensation Detected	External system condensation detected.
Fan Button Control	Enable or disable the buttons from controlling the state of the fans.
Fan Economy Mode	Mode in which system slave fans are to be controlled.
Fan Issue - Event Control	Enable/disable the activation of the [Fan Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Issue - Event Type	The event type for the [Fan Issue] event.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan On/Off Control	Turn system fans on or off.
Fan State	Current operational state of a group of fans.
High Supply Fluid Temperature Threshold	Threshold value used in the [Supply Chilled Water Over Temp] event.
Hot Aisle Over Temp Threshold	Upper threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Aisle Temp Out of Range	The air temperature in the Hot aisle is either above [Hot Aisle Over Temp Threshold] or below [Hot Aisle Under Temp Threshold].
Hot Aisle Under Temp Threshold	Lower threshold value used in the [Hot Aisle Temp Out of Range] event.
Hot Gas Solenoid Valve 1 Position	Hot gas solenoid valve 1 position.
Hot Gas Solenoid Valve 2 Position	Hot gas solenoid valve 2 position
Hot Gas Valve 1 Open Position	Hot gas valve 1 open position.
Hot Gas Valve 2 Open Position	Hot gas valve 2 open position.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Master Unit Communication Lost	Communication with master unit has been lost.
Minimum Room Temperature Set Point	Minimum desired room air temperature. If the room air temperature falls below this set point, the unit will reduce the cooling.
Master Fan Group State	Current operational state of the master fan group.
Pump 1 Loss of Flow - Event Control	Enable/disable the activation of the [Pump 1 Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump 1 Loss of Flow - Event Type	The event type for the [Pump 1 Loss of Flow] event.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Pump 1 Loss of Flow	Loss of flow is detected in pump 1. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 1 State	Pump 1 operational state.
Pump 2 Loss of Flow - Event Control	Enable/disable the activation of the [Pump 2 Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump 2 Loss of Flow - Event Type	The event type for the [Pump 2 Loss of Flow] event.
Pump 2 Loss of Flow	Loss of flow is detected in pump 2. The loss of flow condition occurs when no differential pressure is detected across the pump.
Pump 2 State	Pump 2 operational state.
Pump Hours Exceeded	[Pump Hours] has exceeded [Pump Hours Threshold].
Pump Hours Threshold	Threshold value used in the [Pump Hours Exceeded] event.
Pump Hours	Operating hours for pump since last reset of this value.
Pump Short Cycle - Event Control	Enable/disable the activation of the [Pump Short Cycle] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Pump Short Cycle - Event Type	The event type for the [Pump Short Cycle] event.
Pump Short Cycle	Pumps have short cycled. A short cycle is defined as turning on and off a number of times over a set time period.
Pump Thermal Overload	Pump is shut down due to thermal overload.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Remote Shutdown	Unit is shut down by a remote signal.
Sensor Issue - Event Control	Enable/disable the activation of the [Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Sensor Issue - Event Type	The event type for the [Sensor Issue] event.
Sensor Issue	One or more sensors are disconnected or the signals are out of range.
Sensor Temperature	Temperature as measured by sensor.
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
SFA 16bit Read Only Value 1	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 10	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 2	Reserved 16bit value for SFA use.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
SFA 16bit Read Only Value 3	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 4	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 5	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 6	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 7	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 8	Reserved 16bit value for SFA use.
SFA 16bit Read Only Value 9	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 1	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 10	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 2	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 3	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 4	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 5	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 6	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 7	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 8	Reserved 16bit value for SFA use.
SFA 16bit Writable Value 9	Reserved 16bit value for SFA use.
SFA 32bit Read Only Value 1	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 10	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 2	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 3	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 4	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 5	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 6	Reserved 32bit value for SFA use.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
SFA 32bit Read Only Value 7	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 8	Reserved 32bit value for SFA use.
SFA 32bit Read Only Value 9	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 1	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 10	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 2	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 3	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 4	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 5	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 6	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 7	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 8	Reserved 32bit value for SFA use.
SFA 32bit Writable Value 9	Reserved 32bit value for SFA use.
SFA ID Number	This is a unique value identifying a specific SFA.
SFA Reserved Event 1	Reserved event for SFA use.
SFA Reserved Event 10	Reserved event for SFA use.
SFA Reserved Event 11	Reserved event for SFA use.
SFA Reserved Event 12	Reserved event for SFA use.
SFA Reserved Event 13	Reserved event for SFA use.
SFA Reserved Event 14	Reserved event for SFA use.
SFA Reserved Event 15	Reserved event for SFA use.
SFA Reserved Event 16	Reserved event for SFA use.
SFA Reserved Event 17	Reserved event for SFA use.
SFA Reserved Event 18	Reserved event for SFA use.
SFA Reserved Event 19	Reserved event for SFA use.
SFA Reserved Event 2	Reserved event for SFA use.
SFA Reserved Event 20	Reserved event for SFA use.
SFA Reserved Event 21	Reserved event for SFA use.
SFA Reserved Event 22	Reserved event for SFA use.
SFA Reserved Event 23	Reserved event for SFA use.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
SFA Reserved Event 24	Reserved event for SFA use.
SFA Reserved Event 25	Reserved event for SFA use.
SFA Reserved Event 3	Reserved event for SFA use.
SFA Reserved Event 4	Reserved event for SFA use.
SFA Reserved Event 5	Reserved event for SFA use.
SFA Reserved Event 6	Reserved event for SFA use.
SFA Reserved Event 7	Reserved event for SFA use.
SFA Reserved Event 8	Reserved event for SFA use.
SFA Reserved Event 9	Reserved event for SFA use.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Chilled Water Temp Sensor Issue	The supply chilled water temperature sensor is disconnected or the signal is out of range.
Supply CW Over Temp - Event Control	Enable/disable the activation of the [Supply Chilled Water Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply CW Over Temp - Event Type	The event type for the [Supply Chilled Water Over Temp] event.
Supply CW Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Chilled Water Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply CW Temp Sensor Issue - Event Type	The event type for the [Supply Chilled Water Temp Sensor Issue] event.
Supply Fluid Over Temp - Event Control	Enable/disable the activation of the [Supply Fluid Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Over Temp - Event Type	The event type for the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
Supply Fluid Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Fluid Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Temp Sensor Issue - Event Type	The event type for the [Supply Fluid Temp Sensor Issue] event.
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply chilled water or glycol temperature.
Supply Fluid Temperature	Supply fluid temperature.
Supply Fluid Under Temp - Event Control	Enable/disable the activation of the [Supply Fluid Under Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Fluid Under Temp - Event Type	The event type for the [Supply Fluid Under Temp] event.
Supply Fluid Under Temp	[Supply Fluid Temperature] has dropped below a specified threshold.
Supply Refrig Over Temp - Event Control	Enable/disable the activation of the [Supply Refrigerant Over Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Over Temp - Event Type	The event type for the [Supply Refrigerant Over Temp] event.
Supply Refrig Over Temp Threshold	Threshold value used in the [Supply Refrigerant Over Temp] event.
Supply Refrig Temp Sensor Issue - Event Control	Enable/disable the activation of the [Supply Refrigerant Temp Sensor Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Temp Sensor Issue - Event Type	The event type for the [Supply Refrigerant Temp Sensor Issue] event.
Supply Refrig Under Temp - Event Control	Enable/disable the activation of the [Supply Refrigerant Under Temp] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Supply Refrig Under Temp - Event Type	The event type for the [Supply Refrigerant Under Temp] event.
Supply Refrigerant Over Temp	Event that is activated when [Supply Refrigerant Temperature] exceeds [Supply Refrig Over Temp Threshold]. The event is deactivated when the temperature drops below the threshold.
Supply Refrigerant Temp Sensor Issue	The supply refrigeramt temperature sensor is disconnected or the signal is out of range.
Supply Refrigerant Temperature	Supply refrigerant temperature.
Supply Refrigerant Under Temp	[Supply Refrigerant Temperature] has dropped below a specified threshold.
System Condensation Detected - Event Control	Enable/disable the activation of the [System Condensation Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
System Condensation Detected - Event Type	The event type for the [System Condensation Detected] event.

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Table 5.88 Liebert® XDP—Glossary (continued)

Data Label	Data Description
System Condensation Detected	System condensation detected.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Visual ID Control	Visual identification control to display an LED flashing sequence, allowing it to be visually located.
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Module Communication Lost	Communication with XD Module has been lost.

Table 5.89 Vertiv™ Liebert® XDU —Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
TSA Control Input Issue	Binary_Value	1245	6538_1	RD	Active on Alarm
Air - Supply Air					
Supply Air Over Temperature	Binary_Value	1	5015_1_1	RD	Active on Alarm
Supply Air Under Temperature	Binary_Value	2	5019_1_1	RD	Active on Alarm
Supply Air Sensor Issue	Binary_Value	3	5026_1_1	RD	Active on Alarm
Supply NTC Air Sensor Issue	Binary_Value	4	6530_1_1	RD	Active on Alarm

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Table 5.89 Vertiv™ Liebert® XDU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air - Return Air					
Return Air Over Temperature	Binary_Value	14	5023_1_1	RD	Active on Alarm
Return Air Under Temperature	Binary_Value	15	5335_1_1	RD	Active on Alarm
Return Air Sensor Issue	Binary_Value	16	5147_1_1	RD	Active on Alarm
Air - External Sensors					
Ext Air Sensor A Over Temperature	Binary_Value	27	4601_1_1	RD	Active on Alarm
Ext Air Sensor A Under Temperature	Binary_Value	28	4608_1_1	RD	Active on Alarm
Ext Air Sensor A Issue	Binary_Value	29	4618_1_1	RD	Active on Alarm
Ambient Air Sensor Issue	Binary_Value	30	5573_1_1	RD	Active on Alarm
External Air Sensor B Issue	Binary_Value	31	4621_1_1	RD	Active on Alarm
External Air Sensor C Issue	Binary_Value	32	6531_1_1	RD	Active on Alarm
External Air Sensor D Issue	Binary_Value	33	6532_1_1	RD	Active on Alarm
External Air Sensor E Issue	Binary_Value	34	6533_1_1	RD	Active on Alarm
Air - Auxiliary Air					
Aux Air Temp Device Communication Lost	Binary_Value	1050	5966_1_1	RD	Active on Alarm
Humidity					
High Return Humidity	Binary_Value	41	5034_1	RD	Active on Alarm
Low Return Humidity	Binary_Value	42	5036_1	RD	Active on Alarm
Dew Point Over Temperature	Binary_Value	43	5578_1	RD	Active on Alarm
Dew Point Under Temperature	Binary_Value	44	5579_1	RD	Active on Alarm
Return Humidity Sensor Issue	Binary_Value	45	5902_1	RD	Active on Alarm
Humidity - External Sensors					
Ext Air Sensor A High Humidity	Binary_Value	53	5349_1_1	RD	Active on Alarm
Ext Air Sensor A Low Humidity	Binary_Value	54	5351_1_1	RD	Active on Alarm
Ext Dew Point Over Temperature	Binary_Value	55	4615_1_1	RD	Active on Alarm
Ext Dew Point Under Temperature	Binary_Value	56	5577_1_1	RD	Active on Alarm
Fan					
Fan Hours Exceeded	Binary_Value	205	5054_1	RD	Active on Alarm
Main Fan Overload	Binary_Value	206	5376_1	RD	Active on Alarm
Fan Issue	Binary_Value	207	4729_1	RD	Active on Alarm
FSA Control Input Issue	Binary_Value	208	6540_1	RD	Active on Alarm
Condensers					

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Table 5.89 Vertiv™ Liebert® XDU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Condenser Pump High Water	Binary_Value	220	5106_1	RD	Active on Alarm
External Condenser TVSS Issue	Binary_Value	1060	6105_1	RD	Active on Alarm
External Condenser VFD Issue	Binary_Value	1061	6106_1	RD	Active on Alarm
Condensers - Condenser 1					
Condenser Issue	Binary_Value	231	5377_1_1	RD	Active on Alarm
Condensers - Condenser 2					
Condenser Issue	Binary_Value	242	5377_1_2	RD	Active on Alarm
Unit Events					
Customer Input 1	Binary_Value	253	4270_1	RD	Active on Alarm
Customer Input 2	Binary_Value	254	4271_1	RD	Active on Alarm
Customer Input 3	Binary_Value	255	4272_1	RD	Active on Alarm
Customer Input 4	Binary_Value	256	4273_1	RD	Active on Alarm
Ext Loss of Air Blower	Binary_Value	257	5415_1	RD	Active on Alarm
Ext Loss of Flow	Binary_Value	258	5105_1	RD	Active on Alarm
Ext Standby Glycol Pump On	Binary_Value	259	5107_1	RD	Active on Alarm
BMS Communications Timeout	Binary_Value	260	5115_1	RD	Active on Alarm
Ext Standby Unit On	Binary_Value	261	5416_1	RD	Active on Alarm
Clogged Air Filter	Binary_Value	262	5118_1	RD	Active on Alarm
Loss of Air Flow	Binary_Value	263	5053_1	RD	Active on Alarm
Service Required	Binary_Value	264	4726_1	RD	Active on Alarm
Master Unit Communication Lost	Binary_Value	265	5120_1	RD	Active on Alarm
RAM Battery Issue	Binary_Value	266	5119_1	RD	Active on Alarm
Shutdown - Loss Of Power	Binary_Value	267	4714_1	RD	Active on Alarm
High Power Shutdown	Binary_Value	268	5121_1	RD	Active on Alarm
Smoke Detected	Binary_Value	269	4720_1	RD	Active on Alarm
Supply Chilled Water Over Temp	Binary_Value	271	4626_1	RD	Active on Alarm
Unit Code Missing	Binary_Value	272	5418_1	RD	Active on Alarm
Unit Communication Lost	Binary_Value	273	5419_1	RD	Active on Alarm
Water Leakage Detector Sensor Issue	Binary_Value	274	5114_1	RD	Active on Alarm
Water Under Floor	Binary_Value	275	4723_1	RD	Active on Alarm
Ext Over Temperature	Binary_Value	276	5104_1	RD	Active on Alarm
External Fire Detected	Binary_Value	277	5108_1	RD	Active on Alarm

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Table 5.89 Vertiv™ Liebert® XDU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unspecified General Event	Binary_Value	278	5588_1	RD	Active on Alarm
Temperature Control Sensor Issue	Binary_Value	279	5617_1	RD	Active on Alarm
Airflow Sensor Issue	Binary_Value	280	5906_1	RD	Active on Alarm
Ext Air Damper Position Issue	Binary_Value	281	5907_1	RD	Active on Alarm
Ext Power Source A Failure	Binary_Value	282	5908_1	RD	Active on Alarm
Ext Power Source B Failure	Binary_Value	283	5909_1	RD	Active on Alarm
Mixed Mode Lockout	Binary_Value	284	5924_1	RD	Active on Alarm
Auto Tune License Expiring	Binary_Value	350	6541_1	RD	Active on Alarm
Auto Tune License Expired	Binary_Value	351	6542_1	RD	Active on Alarm
Unit In Standby Due To Cooling Loss	Binary_Value	352	6543_1	RD	Active on Alarm
Control Units Remote Shutdown Mismatch	Binary_Value	353	6544_1	RD	Active on Alarm
Slave Control Unit Communication Lost	Binary_Value	354	6545_1	RD	Active on Alarm
Control Units Unit Code Mismatch	Binary_Value	355	6546_1	RD	Active on Alarm
Door Open	Binary_Value	356	5471_1	RD	Active on Alarm
Water Leakage	Binary_Value	357	8192_1	RD	Active on Alarm
PHE Sup Tem Snsr Fail	Binary_Value	358	8231_1	RD	Active on Alarm
Unit Events - Chilled Water Valve 1					
Chilled Water Control Valve Failure	Binary_Value	288	4703_1_1	RD	Active on Alarm
Unit Events - Chilled Water Valve 2					
Chilled Water Control Valve Failure	Binary_Value	299	4703_1_2	RD	Active on Alarm
Unit Events - Messages					
Unit Off	Binary_Value	310	5110_1_1	RD	Active on Alarm
Unit On	Binary_Value	311	5109_1_1	RD	Active on Alarm
Unit Partial Shutdown	Binary_Value	312	5112_1_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	313	5113_1_1	RD	Active on Alarm
Unit Standby	Binary_Value	314	5111_1_1	RD	Active on Alarm
Maintenance Due	Binary_Value	315	5116_1_1	RD	Active on Alarm
Maintenance Completed	Binary_Value	316	5117_1_1	RD	Active on Alarm
Unit Events - iCOM DO Board 1					
Digital Output Board Not Detected	Binary_Value	327	5417_1_1	RD	Active on Alarm
Unit Events - iCOM DO Board 2					
Digital Output Board Not Detected	Binary_Value	338	5417_1_2	RD	Active on Alarm

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Table 5.89 Vertiv™ Liebert® XDU —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unit Events - iCOM DO Board 3					
Digital Output Board Not Detected	Binary_Value	349	5417_1_3	RD	Active on Alarm
Unit Operations - Group Independent Operation					
Group Independent On	Binary_Value	1554	6691_1_1	RD	Active on Alarm
Group Independent Off	Binary_Value	1555	6692_1_1	RD	Active on Alarm
Logs					
Audit Log Update	Binary_Value	1595	6822_1	RD	Active on Alarm
Fluid Loop					
Supply Fluid Temp Sensor Issue	Binary_Value	1617	4651_1	RD	Active on Alarm
Return Fluid Temp Sensor Issue	Binary_Value	1618	5295_1	RD	Active on Alarm
Flow Sensor Failure	Binary_Value	1619	7474_1	RD	Active on Alarm
Check Water System	Binary_Value	1620	7475_1	RD	Active on Alarm
Supply Fluid Over Temp	Binary_Value	1621	4645_1	RD	Active on Alarm
Return Fluid Over Temp	Binary_Value	1622	5293_1	RD	Active on Alarm
Pump Operating Without Flow	Binary_Value	1623	7476_1	RD	Active on Alarm
Fluid Loop - Fluid Pump 1					
Pump Inverter Failure	Binary_Value	1634	7483_1_1	RD	Active on Alarm
Pump Flow Failure	Binary_Value	1635	7484_1_1	RD	Active on Alarm
Fluid Loop - Fluid Pump 2					
Pump Inverter Failure	Binary_Value	1636	7483_1_2	RD	Active on Alarm
Pump Flow Failure	Binary_Value	1637	7484_1_2	RD	Active on Alarm
Fluid Loop - Fluid Pump Status 1					
XD Pump Communication Lost	Binary_Value	1846	8170_1_1	RD	Active on Alarm
Fluid Loop - Fluid Pump Status 2					
XD Pump Communication Lost	Binary_Value	1857	8170_1_2	RD	Active on Alarm

Table 5.90 Vertiv™ Liebert® XDU —Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Air					
Air Temperature Set Point	Analog_Value	1	5008_1	RW	Units: deg C
Air Temperature Set Point	Analog_Value	10001	5008_1_deg_F	RW	Units: deg F
Air Temperature Proportional Band	Analog_Value	2	5325_1	RW	Units: deg C

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Table 5.90 Vertiv™ Liebert® XDU —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Air Temperature Proportional Band	Analog_Value	10002	5325_1_deg_F	RW	Units: deg F
Air Temperature Dead Band	Analog_Value	3	5011_1	RW	Units: deg C
Air Temperature Dead Band	Analog_Value	10003	5011_1_deg_F	RW	Units: deg F
Air Temperature Control Integration Time	Analog_Value	4	5326_1	RW	Units: min
Today's High Air Temperature	Analog_Value	5	5327_1	RD	Units: deg C
Today's High Air Temperature	Analog_Value	10005	5327_1_deg_F	RD	Units: deg F
Today's High Air Temperature Time	Analog_Value	6	5328_1	RD	Units: Seconds since Midnight
Today's Low Air Temperature	Analog_Value	7	5329_1	RD	Units: deg C
Today's Low Air Temperature	Analog_Value	10007	5329_1_deg_F	RD	Units: deg F
Today's Low Air Temperature Time	Analog_Value	8	5330_1	RD	Units: Seconds since Midnight
Air - Supply Air					
Supply Air Temperature	Analog_Value	19	5002_1_1	RD	Units: deg C
Supply Air Temperature	Analog_Value	10019	5002_1_1_deg_F	RD	Units: deg F
High Supply Air Temperature Threshold	Analog_Value	21	5014_1_1	RW	Units: deg C
High Supply Air Temperature Threshold	Analog_Value	10021	5014_1_1_deg_F	RW	Units: deg F
Low Supply Air Temperature Threshold	Analog_Value	22	5018_1_1	RW	Units: deg C
Low Supply Air Temperature Threshold	Analog_Value	10022	5018_1_1_deg_F	RW	Units: deg F
Supply Sensor Events Initial Delay	Analog_Value	23	6756_1_1	RW	Units: sec
Air - Return Air					
High Return Air Temperature Threshold	Analog_Value	33	5022_1_1	RW	Units: deg C
High Return Air Temperature Threshold	Analog_Value	10033	5022_1_1_deg_F	RW	Units: deg F
Low Return Air Temperature Threshold	Analog_Value	34	5334_1_1	RW	Units: deg C
Low Return Air Temperature Threshold	Analog_Value	10034	5334_1_1_deg_F	RW	Units: deg F
Return Sensor Events Initial Delay	Analog_Value	35	6757_1_1	RW	Units: sec
Air - External Sensors					
Ext Air Sensor A Temperature	Analog_Value	45	4594_1_1	RD	Units: deg C
Ext Air Sensor A Temperature	Analog_Value	10045	4594_1_1_deg_F	RD	Units: deg F
Ext Air Sensor B Temperature	Analog_Value	46	4597_1_1	RD	Units: deg C
Ext Air Sensor B Temperature	Analog_Value	10046	4597_1_1_deg_F	RD	Units: deg F
Ext Air Sensor C Temperature	Analog_Value	47	5336_1_1	RD	Units: deg C

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Table 5.90 Vertiv™ Liebert® XDU —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Air Sensor C Temperature	Analog_Value	10047	5336_1_1_deg_F	RD	Units: deg F
Ext Air Sensor A Over Temp Threshold	Analog_Value	48	5337_1_1	RW	Units: deg C
Ext Air Sensor A Over Temp Threshold	Analog_Value	10048	5337_1_1_deg_F	RW	Units: deg F
Ext Air Sensor A Under Temp Threshold	Analog_Value	49	5338_1_1	RW	Units: deg C
Ext Air Sensor A Under Temp Threshold	Analog_Value	10049	5338_1_1_deg_F	RW	Units: deg F
Outside Air Temperature	Analog_Value	50	5574_1_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10050	5574_1_1_deg_F	RD	Units: deg F
Humidity					
Return Humidity	Analog_Value	60	5028_1	RD	Units: % RH
Humidity Set Point	Analog_Value	61	5029_1	RW	Units: % RH
Humidity Proportional Band	Analog_Value	63	5341_1	RW	Units: % RH
Humidity Dead Band	Analog_Value	64	5032_1	RW	Units: % RH
Humidity Control Integration Time	Analog_Value	65	5342_1	RW	Units: min
High Return Humidity Threshold	Analog_Value	66	5033_1	RW	Units: % RH
Low Return Humidity Threshold	Analog_Value	67	5035_1	RW	Units: % RH
Today's High Humidity	Analog_Value	68	5343_1	RD	Units: % RH
Today's High Humidity Time	Analog_Value	69	5344_1	RD	Units: Seconds since Midnight
Today's Low Humidity	Analog_Value	70	5345_1	RD	Units: % RH
Today's Low Humidity Time	Analog_Value	71	5346_1	RD	Units: Seconds since Midnight
Dew Point Proportional Band	Analog_Value	72	6258_1	RW	Units: deg C
Dew Point Proportional Band	Analog_Value	10072	6258_1_deg_F	RW	Units: deg F
Dew Point Dead Band	Analog_Value	73	6259_1	RW	Units: deg C
Dew Point Dead Band	Analog_Value	10073	6259_1_deg_F	RW	Units: deg F
Dew Point Over Temp Threshold	Analog_Value	74	6575_1	RW	Units: deg C
Dew Point Over Temp Threshold	Analog_Value	10074	6575_1_deg_F	RW	Units: deg F
Dew Point Under Temp Threshold	Analog_Value	75	6576_1	RW	Units: deg C
Dew Point Under Temp Threshold	Analog_Value	10075	6576_1_deg_F	RW	Units: deg F
Humidity - External Sensors					
Ext Air Sensor A Humidity	Analog_Value	82	4595_1_1	RD	Units: % RH
Ext Air Sensor B Humidity	Analog_Value	83	4598_1_1	RD	Units: % RH

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Table 5.90 Vertiv™ Liebert® XDU —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Air Sensor C Humidity	Analog_Value	84	5347_1_1	RD	Units: % RH
Ext Air Sensor A High Humidity Threshold	Analog_Value	85	5348_1_1	RW	Units: % RH
Ext Air Sensor A Low Humidity Threshold	Analog_Value	86	5350_1_1	RW	Units: % RH
Ext Air Sensor A Dew Point Temp	Analog_Value	87	4596_1_1	RD	Units: deg C
Ext Air Sensor A Dew Point Temp	Analog_Value	10087	4596_1_1_deg_F	RD	Units: deg F
Ext Dew Point Over Temp Threshold	Analog_Value	88	4614_1_1	RW	Units: deg C
Ext Dew Point Over Temp Threshold	Analog_Value	10088	4614_1_1_deg_F	RW	Units: deg F
Ext Dew Point Under Temp Threshold	Analog_Value	89	5576_1_1	RW	Units: deg C
Ext Dew Point Under Temp Threshold	Analog_Value	10089	5576_1_1_deg_F	RW	Units: deg F
Fan					
Fan Speed Maximum Set Point	Analog_Value	211	5050_1	RW	Units: %
Fan Hours	Analog_Value	212	5374_1	RW	Units: hr
Fan Hours Threshold	Analog_Value	213	5375_1	RW	Units: hr
Fan Speed Minimum Set Point	Analog_Value	214	5051_1	RW	Units: %
Fan Speed Temperature Set Point	Analog_Value	215	5585_1	RW	Units: deg C
Fan Speed Temperature Set Point	Analog_Value	10215	5585_1_deg_F	RW	Units: deg F
Fan Back Draft Speed Set Point	Analog_Value	216	6772_1	RW	Units: VDC
Fan Speed Temp Control Proportional Band	Analog_Value	217	6768_1	RW	Units: deg C
Fan Speed Temp Control Proportional Band	Analog_Value	10217	6768_1_deg_F	RW	Units: deg F
Fan Speed Temp Control Integration Time	Analog_Value	218	6769_1	RW	Units: min
Fan Speed Temperature Dead Band	Analog_Value	219	6770_1	RW	Units: deg C
Fan Speed Temperature Dead Band	Analog_Value	10219	6770_1_deg_F	RW	Units: deg F
Fan Speed Min Dehum	Analog_Value	220	8252_1	RW	Units: %
Analog Inputs 1					
Analog Input Reading	Analog_Value	224	5378_1	RD	
Analog Inputs 2					
Analog Input Reading	Analog_Value	235	5378_2	RD	
Analog Inputs 12					
Analog Input Reading	Analog_Value	3007	5378_12	RD	
Unit Information					

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Table 5.90 Vertiv™ Liebert® XDU —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
BMS Timeout Period	Analog_Value	268	5075_1	RW	Units: min
Auto Restart Delay	Analog_Value	269	4710_1	RW	Units: sec
Standby Units	Analog_Value	270	5314_1	RW	
Unit to Unit Group	Analog_Value	271	6121_1	RD	
Unit to Unit Address	Analog_Value	272	6120_1	RD	
Unit Operations					
Return Air Temperature	Analog_Value	31	4291_1	RD	Units: deg C
Return Air Temperature	Analog_Value	10031	4291_1_deg_F	RD	Units: deg F
Fan Speed	Analog_Value	280	5077_1	RD	Units: %
Free Cooling Valve Open Position	Analog_Value	282	5379_1	RD	Units: %
Maintenance Ramp	Analog_Value	283	4870_1	RD	Units: %
Calculated Next Maintenance Month	Analog_Value	284	4868_1	RD	
Calculated Next Maintenance Year	Analog_Value	285	4869_1	RD	
Hot Water / Hot Gas Valve Open Position	Analog_Value	286	5380_1	RD	Units: %
Reheat Utilization	Analog_Value	287	5080_1	RD	Units: %
Humidifier Utilization	Analog_Value	288	5081_1	RD	Units: %
Dehumidifier Utilization	Analog_Value	289	5079_1	RD	Units: %
Cooling Capacity	Analog_Value	290	5490_1	RD	Units: %
Adjusted Humidity	Analog_Value	291	5606_1	RD	Units: % RH
Return Dew Point	Analog_Value	292	5004_1	RD	Units: deg C
Return Dew Point	Analog_Value	10292	5004_1_deg_F	RD	Units: deg F
Actual Air Temperature Set Point	Analog_Value	293	5607_1	RD	Units: deg C
Actual Air Temperature Set Point	Analog_Value	10293	5607_1_deg_F	RD	Units: deg F
Actual Humidity Set Point	Analog_Value	294	5608_1	RD	Units: % RH
Dew Point Set Point	Analog_Value	295	5575_1	RW	Units: deg C
Dew Point Set Point	Analog_Value	10295	5575_1_deg_F	RW	Units: deg F
Cooling Control Temperature	Analog_Value	296	5615_1	RD	Units: deg C
Cooling Control Temperature	Analog_Value	10296	5615_1_deg_F	RD	Units: deg F
Fan Speed Control Temperature	Analog_Value	297	5616_1	RD	Units: deg C
Fan Speed Control Temperature	Analog_Value	10297	5616_1_deg_F	RD	Units: deg F
Unit Cooling Load	Analog_Value	298	5904_1	RD	Units: kW

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Table 5.90 Vertiv™ Liebert® XDU —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unit Calculated Airflow	Analog_Value	299	6134_1	RD	Units: m3/h
Time					
System Date and Time	Analog_Value	300	4293_1	RW	Units: Secs since Epoch (UTC)
Unit Operations - Cooling Load 1					
Circuit Cooling Load	Analog_Value	901	5905_1_1	RD	Units: kW
Unit Operations - Cooling Load 2					
Circuit Cooling Load	Analog_Value	911	5905_1_2	RD	Units: kW
Air - Auxiliary Air					
Raw Auxiliary Air Temperature	Analog_Value	1960	5964_1_1	RW	Units: deg C
Raw Auxiliary Air Temperature	Analog_Value	11960	5964_1_1_deg_F	RW	Units: deg F
Actual Auxiliary Air Temperature	Analog_Value	1961	5965_1_1	RD	Units: deg C
Actual Auxiliary Air Temperature	Analog_Value	11961	5965_1_1_deg_F	RD	Units: deg F
Logs					
Event Log Record Counter	Analog_Value	2501	6820_1	RD	
Audit Log Record Counter	Analog_Value	2502	6821_1	RD	
Unit Control - Teamwork					
Unit Cascade On Delay	Analog_Value	2526	6780_1_1	RW	Units: min
Quick Start Unit Cascade On Delay	Analog_Value	2527	6781_1_1	RW	Units: sec
Unit Cascade Control Delay	Analog_Value	2528	6779_1_1	RW	Units: min
Teamwork Average Calculation Unit Count	Analog_Value	2529	6783_1_1	RW	
Unit Control - Standby/Rotation					
Networked Unit Rotation Time	Analog_Value	2542	6122_1_1	RW	Units: Seconds since Midnight
Networked Unit Rotation Count	Analog_Value	2543	6123_1_1	RW	
Fluid Loop					
Supply Fluid Temperature	Analog_Value	2584	4643_1	RD	Units: deg C
Supply Fluid Temperature	Analog_Value	12584	4643_1_deg_F	RD	Units: deg F
Return Fluid Temperature	Analog_Value	2585	5288_1	RD	Units: deg C
Return Fluid Temperature	Analog_Value	12585	5288_1_deg_F	RD	Units: deg F
Flow Rate	Analog_Value	2586	7468_1	RD	Units: l/min
Cooling Capacity	Analog_Value	2587	5491_1	RD	Units: kW

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Table 5.90 Vertiv™ Liebert® XDU —Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Pump Speed	Analog_Value	2588	7469_1	RD	Units: %
Flow Set Point	Analog_Value	2589	7470_1	RW	Units: l/min
Flow Proportional Band	Analog_Value	2590	7471_1	RW	Units: l/min
Flow Dead Band	Analog_Value	2591	7472_1	RW	Units: l/min
Flow Integration Time	Analog_Value	2592	7473_1	RW	Units: sec
Supply Fluid Over Temp Threshold	Analog_Value	2593	4644_1	RW	Units: deg C
Supply Fluid Over Temp Threshold	Analog_Value	12593	4644_1_deg_F	RW	Units: deg F
Return Fluid Over Temp Threshold	Analog_Value	2594	5289_1	RW	Units: deg C
Return Fluid Over Temp Threshold	Analog_Value	12594	5289_1_deg_F	RW	Units: deg F
Fluid Loop - Fluid Pump 1					
Pump Speed	Analog_Value	2605	7480_1_1	RD	Units: %
Pump Expected Speed	Analog_Value	2606	7481_1_1	RD	Units: %
Pump Run Time	Analog_Value	2607	7482_1_1	RD	Units: hr
Fluid Loop - Fluid Pump 2					
Pump Speed	Analog_Value	2618	7480_1_2	RD	Units: %
Pump Expected Speed	Analog_Value	2619	7481_1_2	RD	Units: %
Pump Run Time	Analog_Value	2620	7482_1_2	RD	Units: hr
Fluid Loop - Fluid Pump Status 1					
Pump Motor Power	Analog_Value	2904	8167_1_1	RD	Units: kW
Pump Motor Amps	Analog_Value	2905	8168_1_1	RD	Units: A AC
Inverter Temperature	Analog_Value	2906	8169_1_1	RD	Units: deg C
Inverter Temperature	Analog_Value	12906	8169_1_1_deg_F	RD	Units: deg F
Fluid Loop - Fluid Pump Status 2					
Pump Motor Power	Analog_Value	2917	8167_1_2	RD	Units: kW
Pump Motor Amps	Analog_Value	2918	8168_1_2	RD	Units: A AC
Inverter Temperature	Analog_Value	2919	8169_1_2	RD	Units: deg C
Inverter Temperature	Analog_Value	12919	8169_1_2_deg_F	RD	Units: deg F

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_ Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Air					
Air Temperature Control Type	MultiState_ Value	12	5324_1	RW	1 = Proportional 2 = Prop+Integral 3 = Adaptive PID 4 = Intelligent
Air Temperature Control Sensor	MultiState_ Value	13	5012_1	RW	1 = Supply 2 = Remote 3 = Return
Humidity					
Humidity Control Type	MultiState_ Value	35	5603_1	RW	1 = Relative 2 = Compensated 3 = Predictive 4 = Dew Point
Humidity Control Sensor	MultiState_ Value	36	5618_1	RW	1 = Supply 2 = Remote 3 = Return
Fan					
Fan Control Sensor	MultiState_ Value	83	5586_1	RW	1 = Supply 2 = Remote 3 = Return 4 = Manual
Fan Back Draft Operation	MultiState_ Value	84	6736_1	RW	1 = Disabled 2 = Standby 3 = Outdoor Temp
Fan Back Draft Control Enable	MultiState_ Value	85	6771_1	RW	1 = disabled 2 = enabled
Fan Speed Temp Control Type	MultiState_ Value	86	6767_1	RW	1 = Proportional 2 = Prop+Integral 3 = Adaptive PID

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unit Information					
System Status	MultiState_ Value	93	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Unit Operating State	MultiState_ Value	94	4706_1	RD	1 = off 2 = on 3 = standby
Unit Control Mode	MultiState_ Value	95	4707_1	RD	1 = Internal (Auto) 2 = External (Manual)
Unit Off Reason	MultiState_ Value	96	5074_1	RD	1 = None 2 = User 3 = Alarm 4 = Timer 5 = Monitoring 6 = Remote Off 7 = HCS12 Off
Unit Operations					
Fan State	MultiState_ Value	107	5381_1	RD	1 = off 2 = on
Cooling State	MultiState_ Value	108	5382_1	RD	1 = off 2 = on
Free Cooling State	MultiState_ Value	109	5383_1	RD	1 = off 2 = on
Maintenance Tracking State	MultiState_ Value	110	5384_1	RD	1 = off 2 = on
Hot Water / Hot Gas State	MultiState_ Value	111	5385_1	RD	1 = off 2 = on
Electric Reheat State	MultiState_ Value	112	5386_1	RD	1 = off 2 = on
Dehumidifier State	MultiState_ Value	113	5387_1	RD	1 = off 2 = on
Humidifier State	MultiState_ Value	114	5388_1	RD	1 = off 2 = on

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System On/Off Control	MultiState_ Value	115	5143_1	RW	1 = off 2 = on
Local Fan Override	MultiState_ Value	500	6175_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Cooling Override	MultiState_ Value	501	6176_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Electric Heat Override	MultiState_ Value	502	6177_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Humidifier Override	MultiState_ Value	503	6178_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Local Dehumidifier Override	MultiState_ Value	504	6179_1	RD	1 = Normal operation 2 = Increased for internal protection 3 = Decreased for internal protection 4 = Disabled for internal protection 5 = Limited or disabled for low limit protection
Automatic Transfer Switch - Active Power Supply	MultiState_ Value	506	6524_1	RD	1 = Power Supply 1 2 = Power Supply 2
Automatic Transfer Switch - Power Supply 1 Status	MultiState_ Value	507	6525_1	RD	1 = OK 2 = Not OK
Automatic Transfer Switch - Power Supply 2 Status	MultiState_ Value	508	6526_1	RD	1 = OK

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Not OK
System Event Configuration					
Customer Input 1 - Event Control	MultiState_ Value	126	4718_1	RW	1 = disabled 2 = enabled
Customer Input 1 - Event Type	MultiState_ Value	127	4719_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 2 - Event Control	MultiState_ Value	128	5098_1	RW	1 = disabled 2 = enabled
Customer Input 2 - Event Type	MultiState_ Value	129	5099_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 3 - Event Control	MultiState_ Value	130	5100_1	RW	1 = disabled 2 = enabled
Customer Input 3 - Event Type	MultiState_ Value	131	5101_1	RW	1 = Message 2 = Warning 3 = Alarm
Customer Input 4 - Event Control	MultiState_ Value	132	5102_1	RW	1 = disabled 2 = enabled
Customer Input 4 - Event Type	MultiState_ Value	133	5103_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Free Cooling Lockout - Event Control	MultiState_ Value	134	5389_1	RW	1 = disabled 2 = enabled
Ext Free Cooling Lockout - Event Type	MultiState_ Value	135	5390_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Condenser Pump High Water - Event Control	MultiState_ Value	136	5122_1	RW	1 = disabled 2 = enabled
Ext Condenser Pump High Water - Event Type	MultiState_ Value	137	5123_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Standby Glycol Pump On - Event Control	MultiState_ Value	138	5129_1	RW	1 = disabled 2 = enabled

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ext Standby Glycol Pump On - Event Type	MultiState_ Value	139	5130_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Standby Unit On - Event Control	MultiState_ Value	140	5391_1	RW	1 = disabled 2 = enabled
Ext Standby Unit On - Event Type	MultiState_ Value	141	5392_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Humidifier Lockout - Event Control	MultiState_ Value	142	5086_1	RW	1 = disabled 2 = enabled
Ext Humidifier Lockout - Event Type	MultiState_ Value	143	5087_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Flow - Event Control	MultiState_ Value	144	5082_1	RW	1 = disabled 2 = enabled
Ext Loss of Flow - Event Type	MultiState_ Value	145	5083_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Over Temperature - Event Control	MultiState_ Value	146	5090_1	RW	1 = disabled 2 = enabled
Ext Over Temperature - Event Type	MultiState_ Value	147	5091_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Reheat Lockout - Event Control	MultiState_ Value	148	5084_1	RW	1 = disabled 2 = enabled
Ext Reheat Lockout - Event Type	MultiState_ Value	149	5085_1	RW	1 = Message 2 = Warning 3 = Alarm
High Power Shutdown - Event Control	MultiState_ Value	150	5141_1	RW	1 = disabled 2 = enabled
High Power Shutdown - Event Type	MultiState_ Value	151	5142_1	RW	1 = Message 2 = Warning 3 = Alarm
Humidifier Issue - Event Control	MultiState_ Value	152	5131_1	RW	1 = disabled 2 = enabled

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Humidifier Issue - Event Type	MultiState_ Value	153	5132_1	RW	1 = Message 2 = Warning 3 = Alarm
Master Unit Communication Lost - Event Control	MultiState_ Value	154	5133_1	RW	1 = disabled 2 = enabled
Master Unit Communication Lost - Event Type	MultiState_ Value	155	5134_1	RW	1 = Message 2 = Warning 3 = Alarm
Service Required - Event Control	MultiState_ Value	156	4727_1	RW	1 = disabled 2 = enabled
Service Required - Event Type	MultiState_ Value	157	4728_1	RW	1 = Message 2 = Warning 3 = Alarm
Shutdown - Loss Of Power - Event Control	MultiState_ Value	158	4715_1	RW	1 = disabled 2 = enabled
Shutdown - Loss Of Power - Event Type	MultiState_ Value	159	4716_1	RW	1 = Message 2 = Warning 3 = Alarm
Smoke Detected - Event Control	MultiState_ Value	160	4721_1	RW	1 = disabled 2 = enabled
Smoke Detected - Event Type	MultiState_ Value	161	4722_1	RW	1 = Message 2 = Warning 3 = Alarm
Water Under Floor - Event Control	MultiState_ Value	162	4724_1	RW	1 = disabled 2 = enabled
Water Under Floor - Event Type	MultiState_ Value	163	4725_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Compressor Lockout - Event Control	MultiState_ Value	164	5088_1	RW	1 = disabled 2 = enabled
Ext Compressor Lockout - Event Type	MultiState_ Value	165	5089_1	RW	1 = Message 2 = Warning 3 = Alarm
Clogged Air Filter - Event Control	MultiState_ Value	166	5135_1	RW	1 = disabled 2 = enabled

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Clogged Air Filter - Event Type	MultiState_ Value	167	5136_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Loss of Air Blower - Event Control	MultiState_ Value	168	5393_1	RW	1 = disabled 2 = enabled
Ext Loss of Air Blower - Event Type	MultiState_ Value	169	5394_1	RW	1 = Message 2 = Warning 3 = Alarm
System Event Configuration - Air					
Ext Air Sensor A Event Control	MultiState_ Value	224	5401_1_1	RW	1 = disabled 2 = enabled
Return Air Sensor Event Control	MultiState_ Value	225	5402_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A High Humidity - Event Control	MultiState_ Value	226	5403_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A High Humidity - Event Type	MultiState_ Value	227	5404_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Low Humidity - Event Control	MultiState_ Value	228	5405_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Low Humidity - Event Type	MultiState_ Value	229	5406_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Over Temp - Event Control	MultiState_ Value	230	4602_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Over Temp - Event Type	MultiState_ Value	231	4603_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Ext Air Sensor A Under Temp - Event Control	MultiState_ Value	232	4609_1_1	RW	1 = disabled 2 = enabled
Ext Air Sensor A Under Temp - Event Type	MultiState_ Value	233	4610_1_1	RW	1 = Message 2 = Warning 3 = Alarm
High Return Humidity - Event Control	MultiState_ Value	234	5137_1_1	RW	1 = disabled 2 = enabled

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Return Humidity - Event Type	MultiState_ Value	235	5138_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Low Return Humidity - Event Control	MultiState_ Value	236	5139_1_1	RW	1 = disabled 2 = enabled
Low Return Humidity - Event Type	MultiState_ Value	237	5140_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Return Air Over Temp - Event Control	MultiState_ Value	238	5024_1_1	RW	1 = disabled 2 = enabled
Return Air Over Temp - Event Type	MultiState_ Value	239	5025_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Return Air Under Temp - Event Control	MultiState_ Value	240	5407_1_1	RW	1 = disabled 2 = enabled
Return Air Under Temp - Event Type	MultiState_ Value	241	5408_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Supply Air Over/Under Temperature - Event Control	MultiState_ Value	242	5587_1_1	RW	1 = disabled 2 = enabled
System Event Configuration - Fan					
Fan Hours Exceeded - Event Control	MultiState_ Value	252	5409_1_1	RW	1 = disabled 2 = enabled
Fan Hours Exceeded - Event Type	MultiState_ Value	253	5410_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Main Fan Overload - Event Control	MultiState_ Value	256	5411_1_1	RW	1 = disabled 2 = enabled
Main Fan Overload - Event Type	MultiState_ Value	257	5412_1_1	RW	1 = Message 2 = Warning 3 = Alarm
Unit Events					
System Event Acknowledge/Reset	MultiState_ Value	292	4717_1	WO	1 = Reset 2 = Acknowledge

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Unit Operations - Group Independent Operation					
Group Independent Operation Enable	MultiState_ Value	635	6695_1_1	RW	1 = disabled 2 = enabled
Group Independent Operation	MultiState_ Value	636	6690_1_1	RW	1 = No override (default) 2 = Override, forced on 3 = Override, forced off
Unit Control					
Auto Restart Enable	MultiState_ Value	648	6775_1	RW	1 = disabled 2 = enabled
Virtual Master Enable	MultiState_ Value	649	6777_1	RW	1 = disabled 2 = enabled
Unit Control - Teamwork					
Teamwork Mode	MultiState_ Value	661	6784_1_1	RW	1 = No Teamwork Mode 2 = Mode 1 (parallel) 3 = Mode 2 (independent) 4 = Mode 3 (optimized aisle)
Unit Cascade Type	MultiState_ Value	662	6778_1_1	RW	1 = None 2 = Temp/Humidity 3 = Cool/Heat 4 = Cooling 5 = Fan PI 6 = Fan Speed
Teamwork Temperature Calculation Method	MultiState_ Value	663	6782_1_1	RW	1 = Average 2 = Maximum
Unit Control - Standby/Rotation					
Networked Unit Daily Rotation Frequency	MultiState_ Value	675	6130_1_1	RW	1 = Every 24 hours 2 = Every 12 hours
Force Networked Unit Rotation	MultiState_ Value	676	6131_1_1	RW	1 = no 2 = yes
Networked Unit Rotation Frequency	MultiState_ Value	677	6129_1_1	RW	1 = None 2 = Daily 3 = Weekly Monday 4 = Weekly Tuesday 5 = Weekly Wednesday 6 = Weekly Thursday

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Table 5.91 Vertiv™ Liebert® XDU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					7 = Weekly Friday 8 = Weekly Saturday 9 = Weekly Sunday 10 = Monthly Monday 11 = Monthly Tuesday 12 = Monthly Wednesday 13 = Monthly Thursday 14 = Monthly Friday 15 = Monthly Saturday 16 = Monthly Sunday
Start Standby Units on High Temperature	MultiState_ Value	678	6823_1_1	RW	1 = false 2 = true
Fluid Loop					
Force Pump Rotate	MultiState_ Value	761	7477_1	WO	1 = Rotate
Reset Pump Speed Calibration	MultiState_ Value	762	7478_1	WO	1 = Reset
Fluid Loop - Fluid Pump 1					
Pump Operating State	MultiState_ Value	773	7479_1_1	RD	1 = off 2 = on
Fluid Loop - Fluid Pump 2					
Pump Operating State	MultiState_ Value	784	7479_1_2	RD	1 = off 2 = on
Fan - Supply Fan Configuration					
Communicate At Fan Power Off	MultiState_ Value	795	8101_1_1	RW	1 = disabled 2 = enabled
Supply Fan Emergency Op	MultiState_ Value	796	8102_1_1	RW	1 = disabled 2 = enabled

Table 5.92 Vertiv™ Liebert® XDU—Glossary

Data Label	Data Description
Actual Air Temperature Set Point	The actual set point being used for air temperature control. This value may differ from [Air Temperature Set Point] if compensation is applied by the control.
Actual Auxiliary Air Temperature	Actual auxiliary air temperature value being used for control. This value may differ from the raw value received from the auxiliary device if filtering is applied.
Actual Humidity Set Point	The actual set point being used for humidity control. This value may differ from [Humidity Set Point] if compensation is applied by the control.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Adjusted Humidity	Humidity value being used for control. This value may differ from the actual measured [Return Humidity] based on several factors which may include, but are not limited to, selection of humidity control sensor and humidity control type.
Air Temperature Control Integration Time	Time value used when system is under integral air temperature control.
Air Temperature Control Sensor	Sensor from which air temperature measurements will be used for cooling and heating control.
Air Temperature Control Type	Type of algorithm used to control the system's output air temperature.
Air Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Air Temperature Set Point]. If measured air temperature is within this range, no heating or cooling will occur.
Air Temperature Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Air Temperature Set Point].
Air Temperature Set Point	Desired air temperature. This set point is dependent upon which sensor is selected for control.
Airflow Sensor Issue	Airflow sensor is disconnected or the signal is out of range.
Ambient Air Sensor Issue	Ambient air sensor is disconnected or the signal is out of range.
Analog Input Reading	Generic analog input reading (unitless).
Audit Log Record Counter	Number of audit log records that have been sent to the client.
Audit Log Update	Audit log has been updated.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart Enable	Enable/disable automatic restart of unit after a power cycle.
Auto Tune License Expired	License for the AutoTune feature has expired.
Auto Tune License Expiring	License for the AutoTune feature has not been refreshed in 30 days and will be expiring soon.
Automatic Transfer Switch - Active Power Supply	Indicates which power supply is in use by the Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 1 Status	Status of power supply 1 in Automatic Transfer Switch.
Automatic Transfer Switch - Power Supply 2 Status	Status of power supply 2 in Automatic Transfer Switch.
Aux Air Temp Device Communication Lost	Communication with external auxiliary device providing an air temperature value has been lost.
BMS Communications Timeout	Building Management System (or external monitoring system) has not communicated with the system within the expected timeframe.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
BMS Timeout Period	Timeframe within which the Building Management System (or external monitoring system) must communicate with the system to avoid a timeout.
Calculated Next Maintenance Month	Calculated month of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Year].
Calculated Next Maintenance Year	Calculated year of the next scheduled maintenance. Used in conjunction with [Calculated Next Maintenance Month].
Check Water System	Fluid check water system
Chilled Water Control Valve Failure	Chilled water valve out of position. Chilled water control valve position does not match expected value.
Circuit Cooling Load	The amount of heat energy currently being removed by a single refrigeration circuit.
Clogged Air Filter - Event Control	Enable/disable the activation of the [Clogged Air Filter] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Clogged Air Filter - Event Type	The event type for the [Clogged Air Filter] event.
Clogged Air Filter	Air filter is dirty and needs to be (cleaned or) replaced.
Communicate At Fan Power Off	Communicate with fans at power off
Condenser Issue	Condenser is not operating within its operational parameters.
Control Units Remote Shutdown Mismatch	The remote shutdown status of the master control unit does not match the remote shutdown status of the slave control unit.
Control Units Unit Code Mismatch	Unit codes for the master and slave control units do not match.
Cooling Capacity	Cooling capacity in use, expressed as a percentage of the maximum rated capacity.
Cooling Capacity	Cooling capacity in use, expressed in kilowatts.
Cooling Control Temperature	Temperature value being used for cooling capacity control. This value is compared against the temperature set point to determine the amount of cooling to be applied.
Cooling State	Cooling operational state.
Customer Input 1 - Event Control	Enable/disable the activation of the [Customer Input 1] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 1 - Event Type	The event type for the [Customer Input 1] event.
Customer Input 1	Customer Input 1
Customer Input 2 - Event Control	Enable/disable the activation of the [Customer Input 2] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 2 - Event Type	The event type for the [Customer Input 2] event.
Customer Input 2	Customer Input 2
Customer Input 3 - Event Control	Enable/disable the activation of the [Customer Input 3] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Customer Input 3 - Event Type	The event type for the [Customer Input 3] event.
Customer Input 3	Customer Input 3
Customer Input 4 - Event Control	Enable/disable the activation of the [Customer Input 4] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Customer Input 4 - Event Type	The event type for the [Customer Input 4] event.
Customer Input 4	Customer Input 4
Dehumidifier State	Dehumidifier operational state.
Dehumidifier Utilization	Present dehumidifier utilization expressed as a percentage of the maximum rated capacity.
Dew Point Dead Band	Value that is divided evenly to form a range above and below [Dew Point Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Over Temp Threshold	Threshold value used in the [Dew Point Over Temperature] event.
Dew Point Over Temperature	Dew point temperature reading has exceeded the upper threshold.
Dew Point Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Dew Point Set Point]. This parameter is used when [Humidity Control Type] is set to Dew Point.
Dew Point Set Point	Desired dew point temperature.
Dew Point Under Temp Threshold	Threshold value used in the [Dew Point Under Temperature] event.
Dew Point Under Temperature	Dew point temperature reading has dropped below the lower threshold.
Digital Output Board Not Detected	Digital output board is required to be connected, but no signal is detected.
Door Open	An open door was detected
Electric Reheat State	Electric reheater operational state.
Event Log Record Counter	Number of event log records that have been sent to the client.
Ext Air Damper Position Issue	Air damper position does not match expected value, as indicated by an external input signal.
Ext Air Sensor A Dew Point Temp	Dew point temperature as measured by external air sensor A.
Ext Air Sensor A Event Control	Enable/disable the activation of events related to measurements by the external air sensor A.
Ext Air Sensor A High Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A High Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Ext Air Sensor A High Humidity - Event Type	The event type for the [Ext Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity Threshold	Threshold value used in the [External Air Sensor A High Humidity] event.
Ext Air Sensor A High Humidity	[Ext Air Sensor A Humidity] has exceeded [Ext Air Sensor A High Humidity Threshold].
Ext Air Sensor A Humidity	Relative humidity as measured by external air sensor A.
Ext Air Sensor A Issue	The external air sensor A is disconnected or the signal is out of range.
Ext Air Sensor A Low Humidity - Event Control	Enable/disable the activation of the [Ext Air Sensor A Low Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Low Humidity - Event Type	The event type for the [Ext Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity Threshold	Threshold value used in the [External Air Sensor A Low Humidity] event.
Ext Air Sensor A Low Humidity	[Ext Air Sensor A Humidity] has dropped below [Ext Air Sensor A Low Humidity Threshold].
Ext Air Sensor A Over Temp - Event Control	Enable/disable the activation of the [External Air Sensor A Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Over Temp - Event Type	The event type for the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temp Threshold	Threshold value used in the [External Air Sensor A Over Temperature] event.
Ext Air Sensor A Over Temperature	[Ext Air Sensor A Temperature] has exceeded [External Air Sensor A Over Temp Threshold].
Ext Air Sensor A Temperature	Air temperature as measured by external air sensor A.
Ext Air Sensor A Under Temp - Event Control	Enable/disable the activation of the [Ext Air Sensor A Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Air Sensor A Under Temp - Event Type	The event type for the [Ext Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temp Threshold	Threshold value used in the [External Air Sensor A Under Temperature] event.
Ext Air Sensor A Under Temperature	[Ext Air Sensor A Temperature] has dropped below [Ext Air Sensor A Under Temp Threshold].
Ext Air Sensor B Humidity	Relative humidity as measured by external air sensor B.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Ext Air Sensor B Temperature	Air temperature as measured by external air sensor B.
Ext Air Sensor C Humidity	Relative humidity as measured by external air sensor C.
Ext Air Sensor C Temperature	Air temperature as measured by external air sensor C.
Ext Compressor Lockout - Event Control	Enable/disable the activation of the [Ext Compressor Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Compressor Lockout - Event Type	The event type for the [Ext Compressor Lockout] event.
Ext Condenser Pump High Water - Event Control	Enable/disable the activation of the [Ext Condenser Pump High Water] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Condenser Pump High Water - Event Type	The event type for the [Ext Condenser Pump High Water] event.
Ext Condenser Pump High Water	High water is detected in the condensate pump by the auxiliary float, as indicated by an external input signal.
Ext Dew Point Over Temp Threshold	Threshold value used in the [Ext Dew Point Over Temperature] event.
Ext Dew Point Over Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has exceeded [Ext Dew Point Over Temp Threshold].
Ext Dew Point Under Temp Threshold	Threshold value used in the [Ext Dew Point Under Temperature] event.
Ext Dew Point Under Temperature	At least one dew point temperature reading ([Ext Air Sensor A Dew Point Temp], [Ext Air Sensor B Dew Point Temp]...) has dropped below [Ext Dew Point Under Temp Threshold].
Ext Free Cooling Lockout - Event Control	Enable/disable the activation of the [Ext Free Cooling Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Free Cooling Lockout - Event Type	The event type for the [Ext Free Cooling Lockout] event.
Ext Humidifier Lockout - Event Control	Enable/disable the activation of the [Ext Humidifier Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Humidifier Lockout - Event Type	The event type for the [Ext Humidifier Lockout] event.
Ext Loss of Air Blower - Event Control	Enable/disable the activation of the [Ext Loss of Air Blower] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Air Blower - Event Type	The event type for the [Ext Loss of Air Blower] event.
Ext Loss of Air Blower	Loss of air blower is detected, as indicated by an external input signal.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Ext Loss of Flow - Event Control	Enable/disable the activation of the [Ext Loss of Flow] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Loss of Flow - Event Type	The event type for the [Ext Loss of Flow] event.
Ext Loss of Flow	Loss of flow is detected, as indicated by an external input signal.
Ext Over Temperature - Event Control	Enable/disable the activation of the [Ext Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Over Temperature - Event Type	The event type for the [Ext Over Temperature] event.
Ext Over Temperature	A temperature has exceeded its threshold, as indicated by an external input signal.
Ext Power Source A Failure	Unit main power source A failure, as indicated by an external input signal.
Ext Power Source B Failure	Unit main power source B failure, as indicated by an external input signal.
Ext Reheat Lockout - Event Control	Enable/disable the activation of the [Ext Reheat Lockout] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Reheat Lockout - Event Type	The event type for the [Ext Reheat Lockout] event.
Ext Standby Glycol Pump On - Event Control	Enable/disable the activation of the [Ext Standby Glycol Pump On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Glycol Pump On - Event Type	The event type for the [Ext Standby Glycol Pump On] event.
Ext Standby Glycol Pump On	The standby glycol pump is on, as indicated by an external input signal.
Ext Standby Unit On - Event Control	Enable/disable the activation of the [Ext Standby Unit On] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Ext Standby Unit On - Event Type	The event type for the [Ext Standby Unit On] event.
Ext Standby Unit On	Standby unit is on, as indicated by an external input signal.
External Air Sensor B Issue	The external air sensor B is disconnected or the signal is out of range.
External Air Sensor C Issue	The external air sensor C is disconnected or the signal is out of range.
External Air Sensor D Issue	The external air sensor D is disconnected or the signal is out of range.
External Air Sensor E Issue	The external air sensor E is disconnected or the signal is out of range.
External Condenser TVSS Issue	The condenser Transient Voltage Surge Suppressor or Surge Protection Device has failed, as indicated by an external input signal.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
External Condenser VFD Issue	The condenser fan Variable Frequency Drive is offline, as indicated by an external input signal.
External Fire Detected	Fire detected, as indicated by an external input signal.
Fan Back Draft Control Enable	Enable/disable fan back draft control.
Fan Back Draft Operation	Operational mode of the fan back draft control.
Fan Back Draft Speed Set Point	If [Fan Back Draft Control Enable] is enabled and unit is in standby, its evaporator fan will run at a fixed speed corresponding to this value.
Fan Control Sensor	Sensor to be used for fan speed control.
Fan Hours Exceeded - Event Control	Enable/disable the activation of the [Fan Hours Exceeded] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Fan Hours Exceeded - Event Type	The event type for the [Fan Hours Exceeded] event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.
Fan Hours Threshold	Threshold value used in the [Fan Hours Exceeded] event.
Fan Hours	Operating hours for fan since last reset of this value.
Fan Issue	One or more fans are not operating within their operational parameters.
Fan Speed Control Temperature	Temperature value being used for fan speed control. This value is compared against the fan speed temperature set point to determine the fan speed.
Fan Speed Maximum Set Point	Maximum fan speed. This value may only be modified if iCOM is enabled to allow fan speed changes by the BMS.
Fan Speed Min Dehum	Minimum fan speed for dehumidification operation
Fan Speed Minimum Set Point	Minimum fan speed.
Fan Speed Temp Control Integration Time	Integration time value used when [Fan Speed Temperature Control Type] contains an integral term.
Fan Speed Temp Control Proportional Band	Value that is divided evenly to form proportional temperature control bands above and below [Fan Speed Temperature Set Point].
Fan Speed Temp Control Type	Type of algorithm used to control the fan speed when in decoupled mode. The algorithm is applied to the difference between the selected fan control sensor temperature and [Fan Speed Temperature Set Point].
Fan Speed Temperature Dead Band	Value that is divided evenly to form a temperature range above and below [Fan Speed Temperature Set Point]. If the fan control air temperature sensor is within this range, no changes to the fan speed will occur (unless overridden for internal safeguards).
Fan Speed Temperature Set Point	If fan is in decoupled mode and not under manual control, the fan speed will vary depending on the delta between the selected fan control sensor temperature and this set point.
Fan Speed	Fan speed expressed as a percentage of the maximum rated speed.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Fan State	Fan operational state.
Flow Dead Band	Fluid flow dead band
Flow Integration Time	Fluid flow integration time
Flow Proportional Band	Fluid flow proportional band
Flow Rate	Fluid measured flow volume rate
Flow Sensor Failure	Fluid flow sensor failure
Flow Set Point	Fluid flow rate set point
Force Networked Unit Rotation	If networked units are configured to rotate between standby and running, force the rotation to occur immediately.
Force Pump Rotate	Fluid force pump rotation (swap pump lead/lag operation)
Free Cooling State	Free cooling operational state.
Free Cooling Valve Open Position	Free cooling valve open position.
FSA Control Input Issue	The analog input used to set the air temperature set point for fan speed control is disconnected or the signal is out of range.
Group Independent Off	The group standby/cascade state for this unit has been overridden. The unit has been forced off.
Group Independent On	The group standby/cascade state for this unit has been overridden. The unit has been forced on.
Group Independent Operation Enable	Enable/disable group independent operation. If enabled, the user can override the unit's on/off state being controlled by its standby/cascade group.
Group Independent Operation	If this unit is part of a standby/cascade group, this value can be used to override the group control of the unit's on/off state.
High Power Shutdown - Event Control	Enable/disable the activation of the [High Power Shutdown] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Power Shutdown - Event Type	The event type for the [High Power Shutdown] event.
High Power Shutdown	Supply to high power components has been shutdown.
High Return Air Temperature Threshold	Threshold value used in the [Return Air Over Temperature] event.
High Return Humidity - Event Control	Enable/disable the activation of the [High Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
High Return Humidity - Event Type	The event type for the [High Return Humidity] event.
High Return Humidity Threshold	Threshold value used in the [High Return Humidity] event.
High Return Humidity	Return air high humidity event.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
High Supply Air Temperature Threshold	Threshold value used in the [Supply Air Over Temperature] event.
Hot Water / Hot Gas State	Hot water / hot gas operational state.
Hot Water / Hot Gas Valve Open Position	Hot water / hot gas valve open position.
Humidifier Issue - Event Control	Enable/disable the activation of the [Humidifier Issue] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Humidifier Issue - Event Type	The event type for the [Humidifier Issue] event.
Humidifier State	Humidifier operational state.
Humidifier Utilization	Present humidifier utilization expressed as a percentage of the maximum rated capacity.
Humidity Control Integration Time	Time value used to add an integral term to humidity control. If set to 0, time will not be a factor in the control algorithm.
Humidity Control Sensor	Sensor from which humidity measurements will be used for humidification and dehumidification control.
Humidity Control Type	Type of algorithm to use for control of output humidity.
Humidity Dead Band	Value that is divided evenly to form a range above and below [Humidity Set Point]. If measured humidity is within this range, no humidification or dehumidification will occur.
Humidity Proportional Band	Value that is divided evenly to form proportional humidity control bands above and below [Humidity Set Point]. This setting applies to Relative, Predictive and Compensated [Humidity Control Type] selections.
Humidity Set Point	Desired relative humidity.
Inverter Temperature	Inverter Temperature
Local Cooling Override	The local unit override status for cooling capacity.
Local Dehumidifier Override	The local unit override status for the dehumidifier.
Local Electric Heat Override	The local unit override status for electric heat.
Local Fan Override	The local unit override status for fan speed.
Local Humidifier Override	The local unit override status for the humidifier.
Loss of Air Flow	No air flow through the unit due to failure of all fans.
Low Return Air Temperature Threshold	Threshold value used in the [Return Air Under Temperature] event.
Low Return Humidity - Event Control	Enable/disable the activation of the [Low Return Humidity] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Low Return Humidity - Event Type	The event type for the [Low Return Humidity] event.
Low Return Humidity Threshold	Threshold value used in the [Low Return Humidity] event.
Low Return Humidity	Return air low humidity event.
Low Supply Air Temperature Threshold	Threshold value used in the [Supply Air Under Temperature] event.
Main Fan Overload - Event Control	Enable/disable the activation of the [Main Fan Overload] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Main Fan Overload - Event Type	The event type for the [Main Fan Overload] event.
Main Fan Overload	Main fan is shut down due to thermal overload.
Maintenance Completed	Maintenance has been completed on the unit.
Maintenance Due	The calculated maintenance date has been reached.
Maintenance Ramp	The ratio of operations performed to the calculated operations available between maintenance intervals.
Maintenance Tracking State	Maintenance tracking operational state.
Master Unit Communication Lost - Event Control	Enable/disable the activation of the [Master Unit Communication Lost] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Master Unit Communication Lost - Event Type	The event type for the [Master Unit Communication Lost] event.
Master Unit Communication Lost	Communication with master unit has been lost.
Mixed Mode Lockout	Mixed mode has been entered too many times over a rolling time period and has been temporarily disabled. Mixed mode is defined as the use of a compressor on one refrigeration circuit and the use of a refrigerant pump on the other circuit.
Networked Unit Daily Rotation Frequency	If [Networked Unit Rotation Frequency] is set to 'Daily', this sets the frequency of rotation within each day.
Networked Unit Rotation Count	If networked units are configured to rotate between standby and running, this is the number of units that will rotate at the selected rotation time.
Networked Unit Rotation Frequency	Configures the frequency with which networked units will rotate between a running state and a standby state.
Networked Unit Rotation Time	If networked units are configured to rotate between standby and running, this is the time the rotation will occur on the day specified by [Networked Unit Rotation Frequency].
Outside Air Temperature	Ambient outside air temperature.
PHE Sup Tem Snsr Fail	Plate Heat Exchanger Supply Temperature Sensor Fail

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Pump Expected Speed	Fluid pump expected speed for flow set point
Pump Flow Failure	Fluid pump flow failure
Pump Inverter Failure	Fluid pump inverter failure
Pump Motor Amps	Pump Motor Amps
Pump Motor Power	Pump Motor Power
Pump Operating State	Fluid pump operating state
Pump Operating Without Flow	Fluid pump operation with no flow
Pump Run Time	Fluid pump run time
Pump Speed	Fluid pump speed
Pump Speed	Pump speed expressed as a percentage of the maximum rated speed.
Quick Start Unit Cascade On Delay	When a Teamwork unit restarts after a power cycle, this value is used instead of [Unit Cascade On Delay]. The system will return to the use of [Unit Cascade On Delay] after a period of time determined by a predefined algorithm.
RAM Battery Issue	RAM or RAM backup battery is not operating correctly.
Raw Auxiliary Air Temperature	Air temperature value sent by an external auxiliary device, with no additional filtering by the receiving system. This may be an aggregated value from multiple sensors.
Reheat Utilization	Present reheating utilization expressed as a percentage of the maximum rated capacity.
Reset Pump Speed Calibration	Fluid reset pump speed calibration
Return Air Over Temp - Event Control	Enable/disable the activation of the [Return Air Over Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Over Temp - Event Type	The event type for the [Return Air Over Temperature] event.
Return Air Over Temperature	Return air high temperature event.
Return Air Sensor Event Control	Enable/disable the activation of events related to measurements by the return air sensor.
Return Air Sensor Issue	The air sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Air Temperature	The temperature of the inlet air
Return Air Under Temp - Event Control	Enable/disable the activation of the [Return Air Under Temperature] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Return Air Under Temp - Event Type	The event type for the [Return Air Under Temperature] event.
Return Air Under Temperature	[Return Air Temperature] has dropped below [Low Return Air Temperature Threshold].
Return Dew Point	Dew point temperature measured at the inlet of the unit.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Return Fluid Over Temp Threshold	Threshold value used in the [Return Fluid Over Temp] event.
Return Fluid Over Temp	[Return Fluid Temperature] has exceeded a specified threshold.
Return Fluid Temp Sensor Issue	The return fluid temperature sensor is disconnected or the signal is out of range.
Return Fluid Temperature	Fluid temperature measured at the inlet of the unit.
Return Humidity Sensor Issue	The humidity sensor at the inlet of the unit is disconnected or the signal is out of range.
Return Humidity	Relative humidity measured at the inlet of the unit.
Return Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any return sensor events are detected and annunciated.
Slave Control Unit Communication Lost	The master control unit has lost Ethernet communications with the slave control unit.
Server Class	The general classification for this system
Service Required - Event Control	Enable/disable the activation of the [Service Required] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Service Required - Event Type	The event type for the [Service Required] event.
Service Required	Unit requires servicing.
Shutdown - Loss Of Power - Event Control	Enable/disable the activation of the [Shutdown - Loss Of Power] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Shutdown - Loss Of Power - Event Type	The event type for the [Shutdown - Loss Of Power] event.
Shutdown - Loss Of Power	System lost power. This event becomes active when the unit is powered on following an unexpected loss of power. This event remains active for 90 minutes.
Smoke Detected - Event Control	Enable/disable the activation of the [Smoke Detected] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Smoke Detected - Event Type	The event type for the [Smoke Detected] event.
Smoke Detected	Smoke detected.
Standby Units	The number of standby units.
Start Standby Units on High Temperature	Force the system to start all standby units if any unit in operation reports a high air temperature warning.
Supply Air Over Temperature	Supply air high temperature event.
Supply Air Over/Under Temperature - Event Control	Enable/disable the activation of the [Supply Air Over Temperature] and [Supply Air Under Temperature] events.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Supply Air Sensor Issue	The air sensor at the outlet of the unit is disconnected or the signal is out of range.
Supply Air Temperature	Air temperature measured at the outlet of the unit.
Supply Air Under Temperature	Supply air low temperature event.
Supply Chilled Water Over Temp	Chilled water temperature is too high, as indicated by an external input signal.
Supply Fan Emergency Op	Supply Fan Emergency Fan operate at communications disconnect
Supply Fluid Over Temp Threshold	Threshold value used in the [Supply Fluid Over Temp] event.
Supply Fluid Over Temp	[Supply Fluid Temperature] has exceeded [Supply Fluid Over Temp Threshold].
Supply Fluid Temp Sensor Issue	The supply fluid temperature sensor is disconnected or the signal is out of range.
Supply Fluid Temperature	Supply fluid temperature.
Supply NTC Air Sensor Issue	The supply NTC air sensor is disconnected or the signal is out of range.
Supply Sensor Events Initial Delay	Amount of time after the unit's evaporator fan has powered on before any supply sensor events are detected and annunciated.
System Date and Time	The system date and time
System Event Acknowledge/Reset	Reset and/or acknowledge all events.
System On/Off Control	Turn system functionality on or off.
System Status	The operating status for the system
Teamwork Average Calculation Unit Count	If [Teamwork Temperature Calculation Method] is set to Average, this value specifies the maximum number of units in the Teamwork group used to calculate the average.
Teamwork Mode	Teamwork mode. Provides the ability to group multiple networked units for the purpose of operating based on shared system parameters.
Teamwork Temperature Calculation Method	Method used for calculating the single Teamwork Mode air temperature from the temperature sensor values provided by the units in the Teamwork group. Each unit provides a single air temperature sensor value.
Temperature Control Sensor Issue	The air sensor selected for cooling control is disconnected or the signal is out of range.
Today's High Air Temperature Time	[Today's High Air Temperature] was measured at this time.
Today's High Air Temperature	The highest external air temperature measured since midnight.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Today's High Humidity Time	[Today's High Humidity] was measured at this time
Today's High Humidity	The highest external humidity measured since midnight.
Today's Low Air Temperature Time	[Today's Low Air Temperature] was measured at this time.
Today's Low Air Temperature	The lowest external air temperature measured since midnight.
Today's Low Humidity Time	[Today's Low Humidity] was measured at this time
Today's Low Humidity	The lowest external humidity measured since midnight.
TSA Control Input Issue	The analog input used to set the air temperature set point for cooling control is disconnected or the signal is out of range.
Unit Calculated Airflow	Total airflow calculated for the unit.
Unit Cascade Control Delay	When a Teamwork unit transitions from 'standby' to 'running' due to cascading, its local control operations are delayed for this amount of time. Control operations can include, but are not limited to, heating, cooling, humidification, and/or dehumidification.
Unit Cascade On Delay	If [Unit Cascade Type] is set to anything other than 'No', and the measured value has reached the transition threshold, a Teamwork unit in 'standby' will transition to 'running' after delaying this amount of time.
Unit Cascade Type	If a unit is a member of a Teamwork group, it can be configured to cascade, i.e. automatically transition between 'standby' and 'running'. The decision of when to perform the transition is determined by comparing the value of this parameter type against a given transition threshold.
Unit Code Missing	Unit code has not been entered and saved.
Unit Communication Lost	Master has lost communication with one or more networked units.
Unit Control Mode	Unit control mode.
Unit Cooling Load	The total amount of heat energy currently being removed by the unit.
Unit In Standby Due To Cooling Loss	Unit forced into standby because it is unable to provide any cooling.
Unit Off Reason	The reason the unit is turned off.
Unit Off	Unit was turned off.
Unit On	Unit was turned on.
Unit Operating State	Current operating state of the unit.
Unit Partial Shutdown	An event has occurred requiring some system components to be shutdown and disabled.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
Unit Standby	Unit was placed in standby mode.
Unit to Unit Address	If the unit is part of a networked group, this is the address of the unit within the group, known as the U2U address.
Unit to Unit Group	If the unit is part of a networked group, this is the address of the unit's group, known as the U2U group.

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Table 5.92 Vertiv™ Liebert® XDU—Glossary (continued)

Data Label	Data Description
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
Virtual Master Enable	Enable/disable the virtual master feature.
Water Leakage Detector Sensor Issue	The water leakage detector sensor is disconnected or the signal is out of range.
Water Leakage	Water Leakage - Typically indicates unit internal water leakage
Water Under Floor - Event Control	Enable/disable the activation of the [Water Under Floor] event. If set to 'disabled', the event will not be annunciated. This implies that the event will not be placed in any active event list or in any event history list.
Water Under Floor - Event Type	The event type for the [Water Under Floor] event.
Water Under Floor	Water under the floor is detected.
XD Pump Communication Lost	Communications with XD Pump has been lost

5.2 Power Distribution and Power Conditioning Products—BACnet Protocols

Table 5.93 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Input Power 1					
Phase Loss	Binary_Value	1	4122_1	RD	Active on Alarm
Phase Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
Input Power 2					
Phase Loss	Binary_Value	13	4122_2	RD	Active on Alarm
Phase Rotation Error	Binary_Value	14	4146_2	RD	Active on Alarm
Output Power 1					
Output Overvoltage	Binary_Value	25	5178_1	RD	Active on Alarm
Output Undervoltage	Binary_Value	26	5179_1	RD	Active on Alarm
Output Overcurrent	Binary_Value	27	5180_1	RD	Active on Alarm
Neutral Overcurrent	Binary_Value	28	5181_1	RD	Active on Alarm
Ground Overcurrent	Binary_Value	29	5182_1	RD	Active on Alarm
Output Voltage THD	Binary_Value	30	5183_1	RD	Active on Alarm
Frequency Deviation	Binary_Value	31	5184_1	RD	Active on Alarm
Transformer Overtemperature Power Off	Binary_Value	32	5432_1	RD	Active on Alarm

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Table 5.93 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Transformer Overtemperature	Binary_Value	33	5433_1	RD	Active on Alarm
Transformer Temperature Sensor Fail	Binary_Value	34	5434_1	RD	Active on Alarm
Output Power 2					
Output Overvoltage	Binary_Value	45	5178_2	RD	Active on Alarm
Output Undervoltage	Binary_Value	46	5179_2	RD	Active on Alarm
Output Overcurrent	Binary_Value	47	5180_2	RD	Active on Alarm
Neutral Overcurrent	Binary_Value	48	5181_2	RD	Active on Alarm
Ground Overcurrent	Binary_Value	49	5182_2	RD	Active on Alarm
Output Voltage THD	Binary_Value	50	5183_2	RD	Active on Alarm
Frequency Deviation	Binary_Value	51	5184_2	RD	Active on Alarm
Transformer Overtemperature Power Off	Binary_Value	52	5432_2	RD	Active on Alarm
Transformer Overtemperature	Binary_Value	53	5433_2	RD	Active on Alarm
Transformer Temperature Sensor Fail	Binary_Value	54	5434_2	RD	Active on Alarm
Panel 1					
Panel Summary Alarm	Binary_Value	65	5212_1	RD	Active on Alarm
Panel Overvoltage	Binary_Value	66	5213_1	RD	Active on Alarm
Panel Undervoltage	Binary_Value	67	5214_1	RD	Active on Alarm
Panel Phase Overcurrent	Binary_Value	68	5215_1	RD	Active on Alarm
Panel Neutral Overcurrent	Binary_Value	69	5216_1	RD	Active on Alarm
Panel Ground Overcurrent	Binary_Value	70	5217_1	RD	Active on Alarm
Panel 1 Branch 1					
Branch Overcurrent	Binary_Value	81	5226_1_1	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	82	5227_1_1	RD	Active on Alarm
Panel 1 Branch 2					
Branch Overcurrent	Binary_Value	93	5226_1_2	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	94	5227_1_2	RD	Active on Alarm
Panel 1 Branch 84					
Branch Overcurrent	Binary_Value	1077	5226_1_84	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	1078	5227_1_84	RD	Active on Alarm
Panel 2					

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Table 5.93 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Panel Summary Alarm	Binary_Value	1089	5212_2	RD	Active on Alarm
Panel Overvoltage	Binary_Value	1090	5213_2	RD	Active on Alarm
Panel Undervoltage	Binary_Value	1091	5214_2	RD	Active on Alarm
Panel Phase Overcurrent	Binary_Value	1092	5215_2	RD	Active on Alarm
Panel Neutral Overcurrent	Binary_Value	1093	5216_2	RD	Active on Alarm
Panel Ground Overcurrent	Binary_Value	1094	5217_2	RD	Active on Alarm
Panel 2 Branch 1					
Branch Overcurrent	Binary_Value	1105	5226_2_1	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	1106	5227_2_1	RD	Active on Alarm
Panel 2 Branch 2					
Branch Overcurrent	Binary_Value	1117	5226_2_2	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	1118	5227_2_2	RD	Active on Alarm
Panel 2 Branch 84					
Branch Overcurrent	Binary_Value	2101	5226_2_84	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	2102	5227_2_84	RD	Active on Alarm
Panel 4					
Panel Summary Alarm	Binary_Value	3137	5212_4	RD	Active on Alarm
Panel Overvoltage	Binary_Value	3138	5213_4	RD	Active on Alarm
Panel Undervoltage	Binary_Value	3139	5214_4	RD	Active on Alarm
Panel Phase Overcurrent	Binary_Value	3140	5215_4	RD	Active on Alarm
Panel Neutral Overcurrent	Binary_Value	3141	5216_4	RD	Active on Alarm
Panel Ground Overcurrent	Binary_Value	3142	5217_4	RD	Active on Alarm
Panel 4 Branch 1					
Branch Overcurrent	Binary_Value	3153	5226_4_1	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	3154	5227_4_1	RD	Active on Alarm
Panel 4 Branch 2					
Branch Overcurrent	Binary_Value	3165	5226_4_2	RD	Active on Alarm
Branch Undercurrent Warning	Binary_Value	3166	5227_4_2	RD	Active on Alarm
Panel 4 Branch 84					
Branch Overcurrent	Binary_Value	4149	5226_4_84	RD	Active on Alarm

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Table 5.93 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Binary Data (continued)

Controller	Liebert® LDMF				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Branch Undercurrent Warning	Binary_Value	4150	5227_4_84	RD	Active on Alarm
Subfeed 1					
Subfeed Phase Overcurrent	Binary_Value	4161	5245_1	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	4162	5246_1	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	4163	5247_1	RD	Active on Alarm
Subfeed 2					
Subfeed Phase Overcurrent	Binary_Value	4174	5245_2	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	4175	5246_2	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	4176	5247_2	RD	Active on Alarm
Subfeed 64					
Subfeed Phase Overcurrent	Binary_Value	4980	5245_64	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	4981	5246_64	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	4982	5247_64	RD	Active on Alarm
Customer Event 1					
Event State	Binary_Value	4993	5249_1	RD	Active on Alarm
Customer Event 2					
Event State	Binary_Value	5004	5249_2	RD	Active on Alarm
Customer Event 10					
Event State	Binary_Value	5092	5249_10	RD	Active on Alarm
System					
System Shutdown - EPO	Binary_Value	5103	4213_1	RD	Active on Alarm
System Shutdown - REPO	Binary_Value	5104	4214_1	RD	Active on Alarm
Transformer Overtemperature Shutdown	Binary_Value	5105	5422_1	RD	Active on Alarm
Transformer Overtemperature	Binary_Value	5106	4310_1	RD	Active on Alarm
Equipment Temperature Sensor Fail	Binary_Value	5107	4747_1	RD	Active on Alarm

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data

Controller	Liebert® LDMF				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Input Power 1					
Input Voltage A-B	Analog_Value	1	4097_1	RD	Units: VAC
Input Voltage B-C	Analog_Value	2	4099_1	RD	Units: VAC
Input Voltage C-A	Analog_Value	3	4101_1	RD	Units: VAC
Input Power 2					
Input Voltage A-B	Analog_Value	14	4097_2	RD	Units: VAC
Input Voltage B-C	Analog_Value	15	4099_2	RD	Units: VAC
Input Voltage C-A	Analog_Value	16	4101_2	RD	Units: VAC
Output Power 1					
Output Voltage X-Y	Analog_Value	27	4201_1	RD	Units: VAC
Output Voltage Y-Z	Analog_Value	28	4202_1	RD	Units: VAC
Output Voltage Z-X	Analog_Value	29	4203_1	RD	Units: VAC
Output Voltage Vx	Analog_Value	30	4385_1	RD	Units: VAC
Output Voltage Vy	Analog_Value	31	4386_1	RD	Units: VAC
Output Voltage Vz	Analog_Value	32	4387_1	RD	Units: VAC
Output Current Ix	Analog_Value	33	4204_1	RD	Units: A AC
Output Current Iy	Analog_Value	34	4205_1	RD	Units: A AC
Output Current Iz	Analog_Value	35	4206_1	RD	Units: A AC
Output Neutral Current	Analog_Value	36	5164_1	RD	Units: A AC
Ground Current	Analog_Value	37	5165_1	RD	Units: A AC
Output Frequency	Analog_Value	38	4207_1	RD	Units: Hz
Output Power (kVA)	Analog_Value	39	4209_1	RD	Units: kVA
Output Power (kW)	Analog_Value	40	4208_1	RD	Units: kW
Output kW-Hrs	Analog_Value	41	5166_1	RW	Units: kWH
Output Power Factor	Analog_Value	42	5167_1	RD	
Output Percent Load	Analog_Value	43	5168_1	RD	Units: %
Output Voltage Vx THD	Analog_Value	44	5169_1	RD	Units: % THD
Output Voltage Vy THD	Analog_Value	45	5170_1	RD	Units: % THD
Output Voltage Vz THD	Analog_Value	46	5171_1	RD	Units: % THD
Output Current Ix THD	Analog_Value	47	5172_1	RD	Units: % THD
Output Current Iy THD	Analog_Value	48	5173_1	RD	Units: % THD

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Output Current Iz THD	Analog_Value	49	5174_1	RD	Units: % THD
Output Current Ix K-Factor	Analog_Value	50	5175_1	RD	—
Output Current Iy K-Factor	Analog_Value	51	5176_1	RD	—
Output Current Iz K-Factor	Analog_Value	52	5177_1	RD	—
Output Current Ix Crest Factor	Analog_Value	53	5250_1	RD	—
Output Current Iy Crest Factor	Analog_Value	54	5251_1	RD	—
Output Current Iz Crest Factor	Analog_Value	55	5252_1	RD	—
Output Power 2					
Output Voltage X-Y	Analog_Value	66	4201_2	RD	Units: VAC
Output Voltage Y-Z	Analog_Value	67	4202_2	RD	Units: VAC
Output Voltage Z-X	Analog_Value	68	4203_2	RD	Units: VAC
Output Voltage Vx	Analog_Value	69	4385_2	RD	Units: VAC
Output Voltage Vy	Analog_Value	70	4386_2	RD	Units: VAC
Output Voltage Vz	Analog_Value	71	4387_2	RD	Units: VAC
Output Current Ix	Analog_Value	72	4204_2	RD	Units: A AC
Output Current Iy	Analog_Value	73	4205_2	RD	Units: A AC
Output Current Iz	Analog_Value	74	4206_2	RD	Units: A AC
Output Neutral Current	Analog_Value	75	5164_2	RD	Units: A AC
Ground Current	Analog_Value	76	5165_2	RD	Units: A AC
Output Frequency	Analog_Value	77	4207_2	RD	Units: Hz
Output Power (kVA)	Analog_Value	78	4209_2	RD	Units: kVA
Output Power (kW)	Analog_Value	79	4208_2	RD	Units: kW
Output kW-Hrs	Analog_Value	80	5166_2	RW	Units: kWH
Output Power Factor	Analog_Value	81	5167_2	RD	—
Output Percent Load	Analog_Value	82	5168_2	RD	Units: %
Output Voltage Vx THD	Analog_Value	83	5169_2	RD	Units: % THD
Output Voltage Vy THD	Analog_Value	84	5170_2	RD	Units: % THD
Output Voltage Vz THD	Analog_Value	85	5171_2	RD	Units: % THD
Output Current Ix THD	Analog_Value	86	5172_2	RD	Units: % THD
Output Current Iy THD	Analog_Value	87	5173_2	RD	Units: % THD

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Output Current Iz THD	Analog_Value	88	5174_2	RD	Units: % THD
Output Current Ix K-Factor	Analog_Value	89	5175_2	RD	—
Output Current Iy K-Factor	Analog_Value	90	5176_2	RD	—
Output Current Iz K-Factor	Analog_Value	91	5177_2	RD	—
Output Current Ix Crest Factor	Analog_Value	92	5250_2	RD	—
Output Current Iy Crest Factor	Analog_Value	93	5251_2	RD	—
Output Current Iz Crest Factor	Analog_Value	94	5252_2	RD	—
Panel 1					
Columns of Breakers	Analog_Value	105	5515_1	RD	—
Number of Breakers	Analog_Value	106	5516_1	RD	—
Panel Main Voltage X-Y	Analog_Value	107	5187_1	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	108	5188_1	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	109	5189_1	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	110	5190_1	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	111	5191_1	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	112	5192_1	RD	Units: VAC
Panel Main Current Ix	Analog_Value	113	5193_1	RD	Units: A AC
Panel Main Current Iy	Analog_Value	114	5194_1	RD	Units: A AC
Panel Main Current Iz	Analog_Value	115	5195_1	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	116	5196_1	RD	Units: A AC
Panel Main Ground Current	Analog_Value	117	5197_1	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	118	5198_1	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	119	5199_1	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	120	5200_1	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	121	5201_1	RD	—
Panel Main Output Percent Load	Analog_Value	122	5202_1	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	123	5203_1	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	124	5204_1	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	125	5205_1	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	126	5206_1	RD	Units: % THD

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Panel Main Current Iy THD	Analog_Value	127	5207_1	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	128	5208_1	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	129	5209_1	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	130	5210_1	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	131	5211_1	RD	—
Panel 1 Branch 1					
Breaker position	Analog_Value	142	5421_1_1	RD	—
Branch Current Phase 1	Analog_Value	143	5219_1_1	RD	Units: A AC
Branch Current Phase 2	Analog_Value	144	5220_1_1	RD	Units: A AC
Branch Current Phase 3	Analog_Value	145	5221_1_1	RD	Units: A AC
Branch Output Power (W)	Analog_Value	146	5222_1_1	RD	Units: kW
Output kW-Hrs	Analog_Value	147	5223_1_1	RD	Units: kWH
Branch Output Power Factor	Analog_Value	148	5224_1_1	RD	—
Branch Output Percent Load	Analog_Value	149	5225_1_1	RD	Units: %
Panel 1 Branch 2					
Breaker position	Analog_Value	160	5421_1_2	RD	—
Branch Current Phase 1	Analog_Value	161	5219_1_2	RD	Units: A AC
Branch Current Phase 2	Analog_Value	162	5220_1_2	RD	Units: A AC
Branch Current Phase 3	Analog_Value	163	5221_1_2	RD	Units: A AC
Branch Output Power (W)	Analog_Value	164	5222_1_2	RD	Units: kW
Output kW-Hrs	Analog_Value	165	5223_1_2	RD	Units: kWH
Branch Output Power Factor	Analog_Value	166	5224_1_2	RD	—
Branch Output Percent Load	Analog_Value	167	5225_1_2	RD	Units: %
Panel 1 Branch 84					
Breaker position	Analog_Value	1636	5421_1_84	RD	—
Branch Current Phase 1	Analog_Value	1637	5219_1_84	RD	Units: A AC
Branch Current Phase 2	Analog_Value	1638	5220_1_84	RD	Units: A AC
Branch Current Phase 3	Analog_Value	1639	5221_1_84	RD	Units: A AC
Branch Output Power (W)	Analog_Value	1640	5222_1_84	RD	Units: kW
Output kW-Hrs	Analog_Value	1641	5223_1_84	RD	Units: kWH

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Output Power Factor	Analog_Value	1642	5224_1_84	RD	—
Branch Output Percent Load	Analog_Value	1643	5225_1_84	RD	Units: %
Panel 2					
Columns of Breakers	Analog_Value	1654	5515_2	RD	—
Number of Breakers	Analog_Value	1655	5516_2	RD	—
Panel Main Voltage X-Y	Analog_Value	1656	5187_2	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	1657	5188_2	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	1658	5189_2	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	1659	5190_2	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	1660	5191_2	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	1661	5192_2	RD	Units: VAC
Panel Main Current Ix	Analog_Value	1662	5193_2	RD	Units: A AC
Panel Main Current Iy	Analog_Value	1663	5194_2	RD	Units: A AC
Panel Main Current Iz	Analog_Value	1664	5195_2	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	1665	5196_2	RD	Units: A AC
Panel Main Ground Current	Analog_Value	1666	5197_2	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	1667	5198_2	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	1668	5199_2	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	1669	5200_2	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	1670	5201_2	RD	—
Panel Main Output Percent Load	Analog_Value	1671	5202_2	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	1672	5203_2	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	1673	5204_2	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	1674	5205_2	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	1675	5206_2	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	1676	5207_2	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	1677	5208_2	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	1678	5209_2	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	1679	5210_2	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	1680	5211_2	RD	—

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Panel 2 Branch 1					
Breaker position	Analog_Value	1691	5421_2_1	RD	—
Branch Current Phase 1	Analog_Value	1692	5219_2_1	RD	Units: A AC
Branch Current Phase 2	Analog_Value	1693	5220_2_1	RD	Units: A AC
Branch Current Phase 3	Analog_Value	1694	5221_2_1	RD	Units: A AC
Branch Output Power (W)	Analog_Value	1695	5222_2_1	RD	Units: kW
Output kW-Hrs	Analog_Value	1696	5223_2_1	RD	Units: kWH
Branch Output Power Factor	Analog_Value	1697	5224_2_1	RD	—
Branch Output Percent Load	Analog_Value	1698	5225_2_1	RD	Units: %
Panel 2 Branch 2					
Breaker position	Analog_Value	1709	5421_2_2	RD	—
Branch Current Phase 1	Analog_Value	1710	5219_2_2	RD	Units: A AC
Branch Current Phase 2	Analog_Value	1711	5220_2_2	RD	Units: A AC
Branch Current Phase 3	Analog_Value	1712	5221_2_2	RD	Units: A AC
Branch Output Power (W)	Analog_Value	1713	5222_2_2	RD	Units: kW
Output kW-Hrs	Analog_Value	1714	5223_2_2	RD	Units: kWH
Branch Output Power Factor	Analog_Value	1715	5224_2_2	RD	—
Panel 2 Branch 84					
Breaker position	Analog_Value	3185	5421_2_84	RD	—
Branch Current Phase 1	Analog_Value	3186	5219_2_84	RD	Units: A AC
Branch Current Phase 2	Analog_Value	3187	5220_2_84	RD	Units: A AC
Branch Current Phase 3	Analog_Value	3188	5221_2_84	RD	Units: A AC
Branch Output Power (W)	Analog_Value	3189	5222_2_84	RD	Units: kW
Output kW-Hrs	Analog_Value	3190	5223_2_84	RD	Units: kWH
Branch Output Power Factor	Analog_Value	3191	5224_2_84	RD	—
Branch Output Percent Load	Analog_Value	3192	5225_2_84	RD	Units: %
Panel 4					
Columns of Breakers	Analog_Value	4752	5515_4	RD	—
Number of Breakers	Analog_Value	4753	5516_4	RD	—
Panel Main Voltage X-Y	Analog_Value	4754	5187_4	RD	Units: VAC

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Panel Main Voltage Y-Z	Analog_Value	4755	5188_4	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	4756	5189_4	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	4757	5190_4	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	4758	5191_4	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	4759	5192_4	RD	Units: VAC
Panel Main Current Ix	Analog_Value	4760	5193_4	RD	Units: A AC
Panel Main Current Iy	Analog_Value	4761	5194_4	RD	Units: A AC
Panel Main Current Iz	Analog_Value	4762	5195_4	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	4763	5196_4	RD	Units: A AC
Panel Main Ground Current	Analog_Value	4764	5197_4	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	4765	5198_4	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	4766	5199_4	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	4767	5200_4	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	4768	5201_4	RD	—
Panel Main Output Percent Load	Analog_Value	4769	5202_4	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	4770	5203_4	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	4771	5204_4	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	4772	5205_4	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	4773	5206_4	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	4774	5207_4	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	4775	5208_4	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	4776	5209_4	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	4777	5210_4	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	4778	5211_4	RD	—
Panel 4 Branch 1					
Breaker position	Analog_Value	4789	5421_4_1	RD	—
Branch Current Phase 1	Analog_Value	4790	5219_4_1	RD	Units: A AC
Branch Current Phase 2	Analog_Value	4791	5220_4_1	RD	Units: A AC
Branch Current Phase 3	Analog_Value	4792	5221_4_1	RD	Units: A AC
Branch Output Power (W)	Analog_Value	4793	5222_4_1	RD	Units: kW

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Output kW-Hrs	Analog_Value	4794	5223_4_1	RD	Units: kWH
Branch Output Power Factor	Analog_Value	4795	5224_4_1	RD	—
Branch Output Percent Load	Analog_Value	4796	5225_4_1	RD	Units: %
Panel 4 Branch 2					
Breaker position	Analog_Value	4807	5421_4_2	RD	—
Branch Current Phase 1	Analog_Value	4808	5219_4_2	RD	Units: A AC
Branch Current Phase 2	Analog_Value	4809	5220_4_2	RD	Units: A AC
Branch Current Phase 3	Analog_Value	4810	5221_4_2	RD	Units: A AC
Branch Output Power (W)	Analog_Value	4811	5222_4_2	RD	Units: kW
Output kW-Hrs	Analog_Value	4812	5223_4_2	RD	Units: kWH
Branch Output Power Factor	Analog_Value	4813	5224_4_2	RD	—
Branch Output Percent Load	Analog_Value	4814	5225_4_2	RD	Units: %
Panel 4 Branch 84					
Breaker position	Analog_Value	6283	5421_4_84	RD	—
Branch Current Phase 1	Analog_Value	6284	5219_4_84	RD	Units: A AC
Branch Current Phase 2	Analog_Value	6285	5220_4_84	RD	Units: A AC
Branch Current Phase 3	Analog_Value	6286	5221_4_84	RD	Units: A AC
Branch Output Power (W)	Analog_Value	6287	5222_4_84	RD	Units: kW
Output kW-Hrs	Analog_Value	6288	5223_4_84	RD	Units: kWH
Branch Output Power Factor	Analog_Value	6289	5224_4_84	RD	—
Branch Output Percent Load	Analog_Value	6290	5225_4_84	RD	Units: %
Subfeed 1					
Subfeed Current Ix	Analog_Value	6301	5229_1	RD	Units: A AC
Subfeed Current Iy	Analog_Value	6302	5230_1	RD	Units: A AC
Subfeed Current Iz	Analog_Value	6303	5231_1	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	6304	5232_1	RD	Units: A AC
Subfeed Ground Current	Analog_Value	6305	5233_1	RD	Units: A AC
Subfeed Output Power (kVA)	Analog_Value	6306	5234_1	RD	Units: kVA
Subfeed Output Power (kW)	Analog_Value	6307	5235_1	RD	Units: kW
Subfeed Output kW-Hrs	Analog_Value	6308	5236_1	RW	Units: kWH

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Power Factor	Analog_Value	6309	5237_1	RD	—
Subfeed Output Percent Load	Analog_Value	6310	5238_1	RD	Units: %
Subfeed Current Ix THD	Analog_Value	6311	5239_1	RD	Units: %
Subfeed Current Iy THD	Analog_Value	6312	5240_1	RD	Units: %
Subfeed Current Iz THD	Analog_Value	6313	5241_1	RD	Units: %
Subfeed Current Ix Crest Factor	Analog_Value	6314	5242_1	RD	—
Subfeed Current Iy Crest Factor	Analog_Value	6315	5243_1	RD	—
Subfeed Current Iz Crest Factor	Analog_Value	6316	5244_1	RD	—
Subfeed 2					
Subfeed Current Ix	Analog_Value	6327	5229_2	RD	Units: A AC
Subfeed Current Iy	Analog_Value	6328	5230_2	RD	Units: A AC
Subfeed Current Iz	Analog_Value	6329	5231_2	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	6330	5232_2	RD	Units: A AC
Subfeed Ground Current	Analog_Value	6331	5233_2	RD	Units: A AC
Subfeed Output Power (kVA)	Analog_Value	6332	5234_2	RD	Units: kVA
Subfeed Output Power (kW)	Analog_Value	6333	5235_2	RD	Units: kW
Subfeed Output kW-Hrs	Analog_Value	6334	5236_2	RW	Units: kWH
Subfeed Power Factor	Analog_Value	6335	5237_2	RD	—
Subfeed Output Percent Load	Analog_Value	6336	5238_2	RD	Units: %
Subfeed Current Ix THD	Analog_Value	6337	5239_2	RD	Units: %
Subfeed Current Iy THD	Analog_Value	6338	5240_2	RD	Units: %
Subfeed Current Iz THD	Analog_Value	6339	5241_2	RD	Units: %
Subfeed Current Ix Crest Factor	Analog_Value	6340	5242_2	RD	—
Subfeed Current Iy Crest Factor	Analog_Value	6341	5243_2	RD	—
Subfeed Current Iz Crest Factor	Analog_Value	6342	5244_2	RD	—
Subfeed 64					
Subfeed Current Ix	Analog_Value	7939	5229_64	RD	Units: A AC
Subfeed Current Iy	Analog_Value	7940	5230_64	RD	Units: A AC
Subfeed Current Iz	Analog_Value	7941	5231_64	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	7942	5232_64	RD	Units: A AC

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Table 5.94 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Analog Data (continued)

Controller	Liebert® LDMF				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Subfeed Ground Current	Analog_Value	7943	5233_64	RD	Units: A AC
Subfeed Output Power (kVA)	Analog_Value	7944	5234_64	RD	Units: kVA
Subfeed Output Power (kW)	Analog_Value	7945	5235_64	RD	Units: kW
Subfeed Output kW-Hrs	Analog_Value	7946	5236_64	RW	Units: kWH
Subfeed Power Factor	Analog_Value	7947	5237_64	RD	—
Subfeed Output Percent Load	Analog_Value	7948	5238_64	RD	Units: %
Subfeed Current Ix THD	Analog_Value	7949	5239_64	RD	Units: %
Subfeed Current Iy THD	Analog_Value	7950	5240_64	RD	Units: %
Subfeed Current Iz THD	Analog_Value	7951	5241_64	RD	Units: %
Subfeed Current Ix Crest Factor	Analog_Value	7952	5242_64	RD	—
Subfeed Current Iy Crest Factor	Analog_Value	7953	5243_64	RD	—
Subfeed Current Iz Crest Factor	Analog_Value	7954	5244_64	RD	—
System					
System Date and Time	Analog_Value	7965	4293_1	RW	—

Table 5.95 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Multistate Data

Controller	Liebert® LDMF				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System					
System Status	MultiState_Value	12	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
System Event Acknowledge/Reset	MultiState_Value	13	4717_1	WO	1 = Reset 2 = Acknowledge

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Table 5.96 Liebert® FDC, Liebert® FPC, Liebert® PPC and Liebert® RDC—Binary Data

Controller	Liebert® CPM				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel 1					
Panel Summary Alarm	Binary_Value	65	5212_1	RD	Active on Alarm
Panel Overvoltage	Binary_Value	66	5213_1	RD	Active on Alarm
Panel Undervoltage	Binary_Value	67	5214_1	RD	Active on Alarm
Panel Phase Overcurrent	Binary_Value	68	5215_1	RD	Active on Alarm
Panel Neutral Overcurrent	Binary_Value	69	5216_1	RD	Active on Alarm
Panel Ground Overcurrent	Binary_Value	70	5217_1	RD	Active on Alarm
Panel 2					
Panel Summary Alarm	Binary_Value	1089	5212_2	RD	Active on Alarm
Panel Overvoltage	Binary_Value	1090	5213_2	RD	Active on Alarm
Panel Undervoltage	Binary_Value	1091	5214_2	RD	Active on Alarm
Panel Phase Overcurrent	Binary_Value	1092	5215_2	RD	Active on Alarm
Panel Neutral Overcurrent	Binary_Value	1093	5216_2	RD	Active on Alarm
Panel Ground Overcurrent	Binary_Value	1094	5217_2	RD	Active on Alarm
Panel 4					
Panel Summary Alarm	Binary_Value	3137	5212_4	RD	Active on Alarm
Panel Overvoltage	Binary_Value	3138	5213_4	RD	Active on Alarm
Panel Undervoltage	Binary_Value	3139	5214_4	RD	Active on Alarm
Panel Phase Overcurrent	Binary_Value	3140	5215_4	RD	Active on Alarm
Panel Neutral Overcurrent	Binary_Value	3141	5216_4	RD	Active on Alarm
Panel Ground Overcurrent	Binary_Value	3142	5217_4	RD	Active on Alarm

Table 5.97 Liebert® FDC, Liebert® FPC, Liebert® PPC and Liebert® RDC—Analog Data

Controller	Liebert® CPM				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel 1					
Columns of Breakers	Analog_Value	105	5515_1	RD	—
Number of Breakers	Analog_Value	106	5516_1	RD	—
Panel Main Voltage X-Y	Analog_Value	107	5187_1	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	108	5188_1	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	109	5189_1	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	110	5190_1	RD	Units: VAC

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Table 5.97 Liebert® FDC, Liebert® FPC, Liebert® PPC and Liebert® RDC—Analog Data (continued)

Controller	Liebert® CPM				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel Main Voltage Y-N	Analog_Value	111	5191_1	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	112	5192_1	RD	Units: VAC
Panel Main Current Ix	Analog_Value	113	5193_1	RD	Units: A AC
Panel Main Current Iy	Analog_Value	114	5194_1	RD	Units: A AC
Panel Main Current Iz	Analog_Value	115	5195_1	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	116	5196_1	RD	Units: A AC
Panel Main Ground Current	Analog_Value	117	5197_1	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	118	5198_1	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	119	5199_1	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	120	5200_1	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	121	5201_1	RD	—
Panel Main Output Percent Load	Analog_Value	122	5202_1	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	123	5203_1	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	124	5204_1	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	125	5205_1	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	126	5206_1	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	127	5207_1	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	128	5208_1	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	129	5209_1	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	130	5210_1	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	131	5211_1	RD	—
Panel 2					
Columns of Breakers	Analog_Value	1654	5515_2	RD	—
Number of Breakers	Analog_Value	1655	5516_2	RD	—
Panel Main Voltage X-Y	Analog_Value	1656	5187_2	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	1657	5188_2	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	1658	5189_2	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	1659	5190_2	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	1660	5191_2	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	1661	5192_2	RD	Units: VAC
Panel Main Current Ix	Analog_Value	1662	5193_2	RD	Units: A AC

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Table 5.97 Liebert® FDC, Liebert® FPC, Liebert® PPC and Liebert® RDC—Analog Data (continued)

Controller	Liebert® CPM				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel Main Current Iy	Analog_Value	1663	5194_2	RD	Units: A AC
Panel Main Current Iz	Analog_Value	1664	5195_2	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	1665	5196_2	RD	Units: A AC
Panel Main Ground Current	Analog_Value	1666	5197_2	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	1667	5198_2	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	1668	5199_2	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	1669	5200_2	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	1670	5201_2	RD	—
Panel Main Output Percent Load	Analog_Value	1671	5202_2	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	1672	5203_2	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	1673	5204_2	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	1674	5205_2	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	1675	5206_2	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	1676	5207_2	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	1677	5208_2	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	1678	5209_2	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	1679	5210_2	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	1680	5211_2	RD	—
Panel 4					
Columns of Breakers	Analog_Value	4752	5515_4	RD	—
Number of Breakers	Analog_Value	4753	5516_4	RD	—
Panel Main Voltage X-Y	Analog_Value	4754	5187_4	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	4755	5188_4	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	4756	5189_4	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	4757	5190_4	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	4758	5191_4	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	4759	5192_4	RD	Units: VAC
Panel Main Current Ix	Analog_Value	4760	5193_4	RD	Units: A AC
Panel Main Current Iy	Analog_Value	4761	5194_4	RD	Units: A AC
Panel Main Current Iz	Analog_Value	4762	5195_4	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	4763	5196_4	RD	Units: A AC

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Table 5.97 Liebert® FDC, Liebert® FPC, Liebert® PPC and Liebert® RDC—Analog Data (continued)

Controller	Liebert® CPM				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel Main Ground Current	Analog_Value	4764	5197_4	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	4765	5198_4	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	4766	5199_4	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	4767	5200_4	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	4768	5201_4	RD	—
Panel Main Output Percent Load	Analog_Value	4769	5202_4	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	4770	5203_4	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	4771	5204_4	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	4772	5205_4	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	4773	5206_4	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	4774	5207_4	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	4775	5208_4	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	4776	5209_4	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	4777	5210_4	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	4778	5211_4	RD	—

Table 5.98 Liebert® FDC, Liebert® FPC, Liebert® PPC and Liebert® RDC—Multistate Data

Controller	Liebert® CPM				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System					
System Status	MultiState_Value	12	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
System Event Acknowledge/Reset	MultiState_Value	13	4717_1	WO	1 = Reset 2 = Acknowledge

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Input Power 1					
Input Voltage A-B	Analog_Value	1	4097_1	RD	Units: VAC
Input Voltage B-C	Analog_Value	2	4099_1	RD	Units: VAC
Input Voltage C-A	Analog_Value	3	4101_1	RD	Units: VAC
Input Power 2					
Input Voltage A-B	Analog_Value	14	4097_2	RD	Units: VAC
Input Voltage B-C	Analog_Value	15	4099_2	RD	Units: VAC
Input Voltage C-A	Analog_Value	16	4101_2	RD	Units: VAC
Output Power 1					
Output Voltage X-Y	Analog_Value	27	4201_1	RD	Units: VAC
Output Voltage Y-Z	Analog_Value	28	4202_1	RD	Units: VAC
Output Voltage Z-X	Analog_Value	29	4203_1	RD	Units: VAC
Output Voltage Vx	Analog_Value	30	4385_1	RD	Units: VAC
Output Voltage Vy	Analog_Value	31	4386_1	RD	Units: VAC
Output Voltage Vz	Analog_Value	32	4387_1	RD	Units: VAC
Output Current Ix	Analog_Value	33	4204_1	RD	Units: A AC
Output Current Iy	Analog_Value	34	4205_1	RD	Units: A AC
Output Current Iz	Analog_Value	35	4206_1	RD	Units: A AC
Output Neutral Current	Analog_Value	36	5164_1	RD	Units: A AC
Ground Current	Analog_Value	37	5165_1	RD	Units: A AC
Output Frequency	Analog_Value	38	4207_1	RD	Units: Hz
Output Power (kVA)	Analog_Value	39	4209_1	RD	Units: kVA
Output Power (kW)	Analog_Value	40	4208_1	RD	Units: kW
Output kW-Hrs	Analog_Value	41	5166_1	RW	Units: kWH
Output Power Factor	Analog_Value	42	5167_1	RD	—
Output Percent Load	Analog_Value	43	5168_1	RD	Units: %
Output Voltage Vx THD	Analog_Value	44	5169_1	RD	Units: % THD
Output Voltage Vy THD	Analog_Value	45	5170_1	RD	Units: % THD
Output Voltage Vz THD	Analog_Value	46	5171_1	RD	Units: % THD
Output Current Ix THD	Analog_Value	47	5172_1	RD	Units: % THD
Output Current Iy THD	Analog_Value	48	5173_1	RD	Units: % THD

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Output Current Iz THD	Analog_Value	49	5174_1	RD	Units: % THD
Output Current Ix K-Factor	Analog_Value	50	5175_1	RD	—
Output Current Iy K-Factor	Analog_Value	51	5176_1	RD	—
Output Current Iz K-Factor	Analog_Value	52	5177_1	RD	—
Output Current Ix Crest Factor	Analog_Value	53	5250_1	RD	—
Output Current Iy Crest Factor	Analog_Value	54	5251_1	RD	—
Output Current Iz Crest Factor	Analog_Value	55	5252_1	RD	—
Output Power 2					
Output Voltage X-Y	Analog_Value	66	4201_2	RD	Units: VAC
Output Voltage Y-Z	Analog_Value	67	4202_2	RD	Units: VAC
Output Voltage Z-X	Analog_Value	68	4203_2	RD	Units: VAC
Output Voltage Vx	Analog_Value	69	4385_2	RD	Units: VAC
Output Voltage Vy	Analog_Value	70	4386_2	RD	Units: VAC
Output Voltage Vz	Analog_Value	71	4387_2	RD	Units: VAC
Output Current Ix	Analog_Value	72	4204_2	RD	Units: A AC
Output Current Iy	Analog_Value	73	4205_2	RD	Units: A AC
Output Current Iz	Analog_Value	74	4206_2	RD	Units: A AC
Output Neutral Current	Analog_Value	75	5164_2	RD	Units: A AC
Ground Current	Analog_Value	76	5165_2	RD	Units: A AC
Output Frequency	Analog_Value	77	4207_2	RD	Units: Hz
Output Power (kVA)	Analog_Value	78	4209_2	RD	Units: kVA
Output Power (kW)	Analog_Value	79	4208_2	RD	Units: kW
Output kW-Hrs	Analog_Value	80	5166_2	RW	Units: kWH
Output Power Factor	Analog_Value	81	5167_2	RD	—
Output Percent Load	Analog_Value	82	5168_2	RD	Units: %
Output Voltage Vx THD	Analog_Value	83	5169_2	RD	Units: % THD
Output Voltage Vy THD	Analog_Value	84	5170_2	RD	Units: % THD
Output Voltage Vz THD	Analog_Value	85	5171_2	RD	Units: % THD
Output Current Ix THD	Analog_Value	86	5172_2	RD	Units: % THD
Output Current Iy THD	Analog_Value	87	5173_2	RD	Units: % THD
Output Current Iz THD	Analog_Value	88	5174_2	RD	Units: % THD

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Output Current Ix K-Factor	Analog_Value	89	5175_2	RD	—
Output Current Iy K-Factor	Analog_Value	90	5176_2	RD	—
Output Current Iz K-Factor	Analog_Value	91	5177_2	RD	—
Output Current Ix Crest Factor	Analog_Value	92	5250_2	RD	—
Output Current Iy Crest Factor	Analog_Value	93	5251_2	RD	—
Output Current Iz Crest Factor	Analog_Value	94	5252_2	RD	—
Panel 1					
Columns of Breakers	Analog_Value	105	5515_1	RD	—
Number of Breakers	Analog_Value	106	5516_1	RD	—
Panel Main Voltage X-Y	Analog_Value	107	5187_1	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	108	5188_1	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	109	5189_1	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	110	5190_1	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	111	5191_1	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	112	5192_1	RD	Units: VAC
Panel Main Current Ix	Analog_Value	113	5193_1	RD	Units: A AC
Panel Main Current Iy	Analog_Value	114	5194_1	RD	Units: A AC
Panel Main Current Iz	Analog_Value	115	5195_1	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	116	5196_1	RD	Units: A AC
Panel Main Ground Current	Analog_Value	117	5197_1	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	118	5198_1	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	119	5199_1	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	120	5200_1	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	121	5201_1	RD	—
Panel Main Output Percent Load	Analog_Value	122	5202_1	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	123	5203_1	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	124	5204_1	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	125	5205_1	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	126	5206_1	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	127	5207_1	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	128	5208_1	RD	Units: % THD

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel Main Current Ix Crest Factor	Analog_Value	129	5209_1	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	130	5210_1	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	131	5211_1	RD	—
Panel 1 Branch 1					
Breaker position	Analog_Value	142	5421_1_1	RD	—
Branch Current Phase 1	Analog_Value	143	5219_1_1	RD	Units: A AC
Branch Current Phase 2	Analog_Value	144	5220_1_1	RD	Units: A AC
Branch Current Phase 3	Analog_Value	145	5221_1_1	RD	Units: A AC
Branch Output Power (W)	Analog_Value	146	5222_1_1	RD	Units: kW
Output kW-Hrs	Analog_Value	147	5223_1_1	RD	Units: kWH
Branch Output Power Factor	Analog_Value	148	5224_1_1	RD	—
Branch Output Percent Load	Analog_Value	149	5225_1_1	RD	Units: %
Panel 1 Branch 2					
Breaker position	Analog_Value	160	5421_1_2	RD	—
Branch Current Phase 1	Analog_Value	161	5219_1_2	RD	Units: A AC
Branch Current Phase 2	Analog_Value	162	5220_1_2	RD	Units: A AC
Branch Current Phase 3	Analog_Value	163	5221_1_2	RD	Units: A AC
Branch Output Power (W)	Analog_Value	164	5222_1_2	RD	Units: kW
Output kW-Hrs	Analog_Value	165	5223_1_2	RD	Units: kWH
Branch Output Power Factor	Analog_Value	166	5224_1_2	RD	—
Branch Output Percent Load	Analog_Value	167	5225_1_2	RD	Units: %
Panel 1 Branch 84					
Breaker position	Analog_Value	1636	5421_1_84	RD	—
Branch Current Phase 1	Analog_Value	1637	5219_1_84	RD	Units: A AC
Branch Current Phase 2	Analog_Value	1638	5220_1_84	RD	Units: A AC
Branch Current Phase 3	Analog_Value	1639	5221_1_84	RD	Units: A AC
Branch Output Power (W)	Analog_Value	1640	5222_1_84	RD	Units: kW
Output kW-Hrs	Analog_Value	1641	5223_1_84	RD	Units: kWH
Branch Output Power Factor	Analog_Value	1642	5224_1_84	RD	—
Branch Output Percent Load	Analog_Value	1643	5225_1_84	RD	Units: %
Panel 2					

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Columns of Breakers	Analog_Value	1654	5515_2	RD	—
Number of Breakers	Analog_Value	1655	5516_2	RD	—
Panel Main Voltage X-Y	Analog_Value	1656	5187_2	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	1657	5188_2	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	1658	5189_2	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	1659	5190_2	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	1660	5191_2	RD	Units: VAC
Panel Main Voltage Z-N	Analog_Value	1661	5192_2	RD	Units: VAC
Panel Main Current Ix	Analog_Value	1662	5193_2	RD	Units: A AC
Panel Main Current Iy	Analog_Value	1663	5194_2	RD	Units: A AC
Panel Main Current Iz	Analog_Value	1664	5195_2	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	1665	5196_2	RD	Units: A AC
Panel Main Ground Current	Analog_Value	1666	5197_2	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	1667	5198_2	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	1668	5199_2	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	1669	5200_2	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	1670	5201_2	RD	—
Panel Main Output Percent Load	Analog_Value	1671	5202_2	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	1672	5203_2	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	1673	5204_2	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	1674	5205_2	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	1675	5206_2	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	1676	5207_2	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	1677	5208_2	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	1678	5209_2	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	1679	5210_2	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	1680	5211_2	RD	—
Panel 2 Branch 1					
Breaker position	Analog_Value	1691	5421_2_1	RD	—
Branch Current Phase 1	Analog_Value	1692	5219_2_1	RD	Units: A AC
Branch Current Phase 2	Analog_Value	1693	5220_2_1	RD	Units: A AC

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Branch Current Phase 3	Analog_Value	1694	5221_2_1	RD	Units: A AC
Branch Output Power (W)	Analog_Value	1695	5222_2_1	RD	Units: kW
Output kW-Hrs	Analog_Value	1696	5223_2_1	RD	Units: kWH
Branch Output Power Factor	Analog_Value	1697	5224_2_1	RD	—
Branch Output Percent Load	Analog_Value	1698	5225_2_1	RD	Units: %
Panel 2 Branch 2					
Breaker position	Analog_Value	1709	5421_2_2	RD	—
Branch Current Phase 1	Analog_Value	1710	5219_2_2	RD	Units: A AC
Branch Current Phase 2	Analog_Value	1711	5220_2_2	RD	Units: A AC
Branch Current Phase 3	Analog_Value	1712	5221_2_2	RD	Units: A AC
Branch Output Power (W)	Analog_Value	1713	5222_2_2	RD	Units: kW
Output kW-Hrs	Analog_Value	1714	5223_2_2	RD	Units: kWH
Branch Output Power Factor	Analog_Value	1715	5224_2_2	RD	—
Branch Output Percent Load	Analog_Value	1716	5225_2_2	RD	Units: %
Panel 2 Branch 84					
Breaker position	Analog_Value	3185	5421_2_84	RD	—
Branch Current Phase 1	Analog_Value	3186	5219_2_84	RD	Units: A AC
Branch Current Phase 2	Analog_Value	3187	5220_2_84	RD	Units: A AC
Branch Current Phase 3	Analog_Value	3188	5221_2_84	RD	Units: A AC
Branch Output Power (W)	Analog_Value	3189	5222_2_84	RD	Units: kW
Output kW-Hrs	Analog_Value	3190	5223_2_84	RD	Units: kWH
Branch Output Power Factor	Analog_Value	3191	5224_2_84	RD	—
Branch Output Percent Load	Analog_Value	3192	5225_2_84	RD	Units: %
Panel 4					
Columns of Breakers	Analog_Value	4752	5515_4	RD	—
Number of Breakers	Analog_Value	4753	5516_4	RD	—
Panel Main Voltage X-Y	Analog_Value	4754	5187_4	RD	Units: VAC
Panel Main Voltage Y-Z	Analog_Value	4755	5188_4	RD	Units: VAC
Panel Main Voltage Z-X	Analog_Value	4756	5189_4	RD	Units: VAC
Panel Main Voltage X-N	Analog_Value	4757	5190_4	RD	Units: VAC
Panel Main Voltage Y-N	Analog_Value	4758	5191_4	RD	Units: VAC

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Panel Main Voltage Z-N	Analog_Value	4759	5192_4	RD	Units: VAC
Panel Main Current Ix	Analog_Value	4760	5193_4	RD	Units: A AC
Panel Main Current Iy	Analog_Value	4761	5194_4	RD	Units: A AC
Panel Main Current Iz	Analog_Value	4762	5195_4	RD	Units: A AC
Panel Main Neutral Current	Analog_Value	4763	5196_4	RD	Units: A AC
Panel Main Ground Current	Analog_Value	4764	5197_4	RD	Units: A AC
Panel Main Output Power (kVA)	Analog_Value	4765	5198_4	RD	Units: kVA
Panel Main Output Power (kW)	Analog_Value	4766	5199_4	RD	Units: kW
Panel Main Output kW-Hrs	Analog_Value	4767	5200_4	RW	Units: kWH
Panel Main Output Power Factor	Analog_Value	4768	5201_4	RD	—
Panel Main Output Percent Load	Analog_Value	4769	5202_4	RD	Units: %
Panel Main Voltage Vx THD	Analog_Value	4770	5203_4	RD	Units: % THD
Panel Main Voltage Vy THD	Analog_Value	4771	5204_4	RD	Units: % THD
Panel Main Voltage Vz THD	Analog_Value	4772	5205_4	RD	Units: % THD
Panel Main Current Ix THD	Analog_Value	4773	5206_4	RD	Units: % THD
Panel Main Current Iy THD	Analog_Value	4774	5207_4	RD	Units: % THD
Panel Main Current Iz THD	Analog_Value	4775	5208_4	RD	Units: % THD
Panel Main Current Ix Crest Factor	Analog_Value	4776	5209_4	RD	—
Panel Main Current Iy Crest Factor	Analog_Value	4777	5210_4	RD	—
Panel Main Current Iz Crest Factor	Analog_Value	4778	5211_4	RD	—
Panel 4 Branch 1					
Breaker position	Analog_Value	4789	5421_4_1	RD	—
Branch Current Phase 1	Analog_Value	4790	5219_4_1	RD	Units: A AC
Branch Current Phase 2	Analog_Value	4791	5220_4_1	RD	Units: A AC
Branch Current Phase 3	Analog_Value	4792	5221_4_1	RD	Units: A AC
Branch Output Power (W)	Analog_Value	4793	5222_4_1	RD	Units: kW
Output kW-Hrs	Analog_Value	4794	5223_4_1	RD	Units: kWH
Branch Output Power Factor	Analog_Value	4795	5224_4_1	RD	—
Branch Output Percent Load	Analog_Value	4796	5225_4_1	RD	Units: %
Panel 4 Branch 2					
Breaker position	Analog_Value	4807	5421_4_2	RD	—

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Branch Current Phase 1	Analog_Value	4808	5219_4_2	RD	Units: A AC
Branch Current Phase 2	Analog_Value	4809	5220_4_2	RD	Units: A AC
Branch Current Phase 3	Analog_Value	4810	5221_4_2	RD	Units: A AC
Branch Output Power (W)	Analog_Value	4811	5222_4_2	RD	Units: kW
Output kW-Hrs	Analog_Value	4812	5223_4_2	RD	Units: kWH
Branch Output Power Factor	Analog_Value	4813	5224_4_2	RD	—
Branch Output Percent Load	Analog_Value	4814	5225_4_2	RD	Units: %
Panel 4 Branch 84					
Breaker position	Analog_Value	6283	5421_4_84	RD	—
Branch Current Phase 1	Analog_Value	6284	5219_4_84	RD	Units: A AC
Branch Current Phase 2	Analog_Value	6285	5220_4_84	RD	Units: A AC
Branch Current Phase 3	Analog_Value	6286	5221_4_84	RD	Units: A AC
Branch Output Power (W)	Analog_Value	6287	5222_4_84	RD	Units: kW
Output kW-Hrs	Analog_Value	6288	5223_4_84	RD	Units: kWH
Branch Output Power Factor	Analog_Value	6289	5224_4_84	RD	—
Branch Output Percent Load	Analog_Value	6290	5225_4_84	RD	Units: %
Subfeed 1					
Subfeed Current Ix	Analog_Value	6301	5229_1	RD	Units: A AC
Subfeed Current Iy	Analog_Value	6302	5230_1	RD	Units: A AC
Subfeed Current Iz	Analog_Value	6303	5231_1	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	6304	5232_1	RD	Units: A AC
Subfeed Ground Current	Analog_Value	6305	5233_1	RD	Units: A AC
Subfeed Output Power (kVA)	Analog_Value	6306	5234_1	RD	Units: kVA
Subfeed Output Power (kW)	Analog_Value	6307	5235_1	RD	Units: kW
Subfeed Output kW-Hrs	Analog_Value	6308	5236_1	RW	Units: kWH
Subfeed Power Factor	Analog_Value	6309	5237_1	RD	—
Subfeed Output Percent Load	Analog_Value	6310	5238_1	RD	Units: %
Subfeed Current Ix THD	Analog_Value	6311	5239_1	RD	Units: %
Subfeed Current Iy THD	Analog_Value	6312	5240_1	RD	Units: %
Subfeed Current Iz THD	Analog_Value	6313	5241_1	RD	Units: %
Subfeed Current Ix Crest Factor	Analog_Value	6314	5242_1	RD	—

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Subfeed Current Iy Crest Factor	Analog_Value	6315	5243_1	RD	—
Subfeed Current Iz Crest Factor	Analog_Value	6316	5244_1	RD	—
Subfeed 2					
Subfeed Current Ix	Analog_Value	6327	5229_2	RD	Units: A AC
Subfeed Current Iy	Analog_Value	6328	5230_2	RD	Units: A AC
Subfeed Current Iz	Analog_Value	6329	5231_2	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	6330	5232_2	RD	Units: A AC
Subfeed Ground Current	Analog_Value	6331	5233_2	RD	Units: A AC
Subfeed Output Power (kVA)	Analog_Value	6332	5234_2	RD	Units: kVA
Subfeed Output Power (kW)	Analog_Value	6333	5235_2	RD	Units: kW
Subfeed Output kW-Hrs	Analog_Value	6334	5236_2	RW	Units: kWH
Subfeed Power Factor	Analog_Value	6335	5237_2	RD	—
Subfeed Output Percent Load	Analog_Value	6336	5238_2	RD	Units: %
Subfeed Current Ix THD	Analog_Value	6337	5239_2	RD	Units: %
Subfeed Current Iy THD	Analog_Value	6338	5240_2	RD	Units: %
Subfeed Current Iz THD	Analog_Value	6339	5241_2	RD	Units: %
Subfeed Current Ix Crest Factor	Analog_Value	6340	5242_2	RD	—
Subfeed Current Iy Crest Factor	Analog_Value	6341	5243_2	RD	—
Subfeed Current Iz Crest Factor	Analog_Value	6342	5244_2	RD	—
Subfeed 64					
Subfeed Current Ix	Analog_Value	7939	5229_64	RD	Units: A AC
Subfeed Current Iy	Analog_Value	7940	5230_64	RD	Units: A AC
Subfeed Current Iz	Analog_Value	7941	5231_64	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	7942	5232_64	RD	Units: A AC
Subfeed Ground Current	Analog_Value	7943	5233_64	RD	Units: A AC
Subfeed Output Power (kVA)	Analog_Value	7944	5234_64	RD	Units: kVA
Subfeed Output Power (kW)	Analog_Value	7945	5235_64	RD	Units: kW
Subfeed Output kW-Hrs	Analog_Value	7946	5236_64	RW	Units: kWH
Subfeed Power Factor	Analog_Value	7947	5237_64	RD	—
Subfeed Output Percent Load	Analog_Value	7948	5238_64	RD	Units: %
Subfeed Current Ix THD	Analog_Value	7949	5239_64	RD	Units: %

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Table 5.99 Liebert® FPC and Liebert® PPC—Analog Data (continued)

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Subfeed Current Iy THD	Analog_Value	7950	5240_64	RD	Units: %
Subfeed Current Iz THD	Analog_Value	7951	5241_64	RD	Units: %
Subfeed Current Ix Crest Factor	Analog_Value	7952	5242_64	RD	—
Subfeed Current Iy Crest Factor	Analog_Value	7953	5243_64	RD	—
Subfeed Current Iz Crest Factor	Analog_Value	7954	5244_64	RD	—
System					
System Date and Time	Analog_Value	7965	4293_1	RW	—

Table 5.100 Liebert® FPC and Liebert® PPC—Multistate Data

Controller	Liebert® VPMP				
Data Label	**Object Type**	**Instance**	**Object Name**	**Access**	**Notes**
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System					
System Status	MultiState_Value	12	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
System Event Acknowledge/Reset	MultiState_Value	13	4717_1	WO	1 = Reset 2 = Acknowledge

Table 5.101 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary

Data Label	Data Description
Branch Current Phase 1	Branch breaker Phase 1 RMS current
Branch Current Phase 2	Branch Breaker Phase 2 RMS current
Branch Current Phase 3	Branch breaker Phase 3 RMS current
Branch Output Percent Load	Branch breaker percent load of rated current
Branch Output Power (W)	Branch breaker W
Branch Output Power Factor	Branch breaker Power Factor (real power/apparent power)
Branch Overcurrent	Branch breaker current has exceeded the limit.

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Table 5.101 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary (continued)

Data Label	Data Description
Branch Undercurrent Warning	Branch breaker current is less than the limit.
Breaker position	Panelboard pole position of the branch breaker. First position if 2 or 3 pole breaker
Columns of Breakers	The breakers in this panel are physically arranged in this many columns.
Equipment Temperature Sensor Fail	Transformer temperature sensor has failed
Event State	Alarm present
Frequency Deviation	The output frequency is outside a specified range.
Ground Current	Unit Ground RMS current.
Ground Overcurrent	Unit ground current has exceeded the limit.
Input Voltage A-B	Unit Input RMS Voltage between Phase A and Phase B
Input Voltage B-C	Unit Input RMS Voltage between Phase B and Phase C
Input Voltage C-A	Unit Input RMS Voltage between Phase C and Phase A
Neutral Overcurrent	Unit neutral current has exceeded the limit.
Number of Breakers	Number of Breakers in this panelboard.
Output Current Ix Crest Factor	Unit phase X Current Crest Factor (peak/RMS).
Output Current Ix K-Factor	Unit output Current Harmonic K-Factor for phase X.
Output Current Ix THD	Unit Current Total Harmonic Distortion for phase X.
Output Current Ix	Unit Phase X output RMS current.
Output Current Iy Crest Factor	Unit phase Y Current Crest Factor (peak/RMS).
Output Current Iy K-Factor	Unit output Current Harmonic K-Factor for phase Y.
Output Current Iy THD	Unit Current Total Harmonic Distortion for phase Y.
Output Current Iy	Unit Phase Y output RMS current.
Output Current Iz Crest Factor	Unit phase Z Current Crest Factor (peak/RMS).
Output Current Iz K-Factor	Unit output Current Harmonic K-Factor for phase Z.
Output Current Iz THD	Unit Current Total Harmonic Distortion for phase Z.
Output Current Iz	Unit Phase Z output RMS current.
Output Frequency	The system output frequency
Output kW-Hrs	Branch Breaker accumulated KW-Hours since last KW-Hours reset.
Output kW-Hrs	Unit accumulated KW-Hours since last KW-Hours reset.
Output Neutral Current	Unit output Neutral RMS current.
Output Overcurrent	Unit phase current has exceeded the limit.
Output Overvoltage	Unit voltage has exceeded the limit.

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Table 5.101 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary (continued)

Data Label	Data Description
Output Percent Load	Unit percent load of rated current
Output Power (kVA)	Unit output kVA
Output Power (kW)	Unit output KW
Output Power Factor	Unit output Power Factor (real power/apparent power)
Output Undervoltage	Unit voltage is less than the limit.
Output Voltage THD	Unit output Voltage Total Harmonic Distortion has exceeded the limit.
Output Voltage Vx THD	Unit Voltage Total Harmonic Distortion for phase X.
Output Voltage Vx	Unit output RMS voltage between phase X and Neutral
Output Voltage Vy THD	Unit Voltage Total Harmonic Distortion for phase Y.
Output Voltage Vy	Unit output RMS voltage between phase Y and Neutral
Output Voltage Vz THD	Unit Voltage Total Harmonic Distortion for phase Z.
Output Voltage Vz	Unit output RMS voltage between phase Z and Neutral
Output Voltage X-Y	Unit output RMS voltage between phases X and Y
Output Voltage Y-Z	Unit output RMS voltage between phases Y and Z.
Output Voltage Z-X	Unit output RMS voltage between phases Z and X.
Panel Ground Overcurrent	Panelboard Ground current has exceeded the limit.
Panel Main Current Ix Crest Factor	Panelboard phase X Current Crest Factor (peak/RMS).
Panel Main Current Ix THD	Current Total Harmonic Distortion for Panelboard phase X.
Panel Main Current Ix	Panelboard RMS current for phase X.
Panel Main Current Iy Crest Factor	Panelboard phase Y Current Crest Factor (peak/RMS).
Panel Main Current Iy THD	Current Total Harmonic Distortion for Panelboard phase Y.
Panel Main Current Iy	Panelboard RMS current for phase Y.
Panel Main Current Iz Crest Factor	Panelboard phase Z Current Crest Factor (peak/RMS).
Panel Main Current Iz THD	Current Total Harmonic Distortion for Panelboard phase Z.
Panel Main Current Iz	Panelboard RMS current for phase Z.
Panel Main Ground Current	Panelboard Ground RMS current.
Panel Main Neutral Current	Panelboard Neutral RMS current.
Panel Main Output kW-Hrs	Panelboard accumulated KW-Hours since last KW-Hours reset.
Panel Main Output Percent Load	Panelboard percent load of rated current
Panel Main Output Power (kVA)	Panelboard output kVA.
Panel Main Output Power (kW)	Panelboard output KW

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Table 5.101 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary (continued)

Data Label	Data Description
Panel Main Output Power Factor	Panelboard Output Power Factor (real power/apparent power)
Panel Main Voltage Vx THD	Voltage Total Harmonic Distortion for Panelboard phase X.
Panel Main Voltage Vy THD	Voltage Total Harmonic Distortion for Panelboard phase Y.
Panel Main Voltage Vz THD	Voltage Total Harmonic Distortion for Panelboard phase Z.
Panel Main Voltage X-N	Panelboard RMS voltage between Phase X and Neutral.
Panel Main Voltage X-Y	Panelboard RMS voltage between phases X and Y.
Panel Main Voltage Y-N	Panelboard RMS voltage between Phase Y and Neutral.
Panel Main Voltage Y-Z	Panelboard RMS voltage between phases Y and Z.
Panel Main Voltage Z-N	Panelboard RMS voltage between Phase Z and Neutral.
Panel Main Voltage Z-X	Panelboard RMS voltage between phases Z and X.
Panel Neutral Overcurrent	Panelboard Neutral current has exceeded the limit.
Panel Overvoltage	Panelboard voltage has exceeded the limit.
Panel Phase Overcurrent	Panelboard phase current has exceeded the limit.
Panel Summary Alarm	Panelboard Summary Alarm. Annunciates upon occurrence of any branch or panelboard main breaker alarm.
Panel Undervoltage	Panelboard voltage is less than the limit.
Phase Loss	Voltage and/or Frequency on one or more of the phases is outside the limit.
Phase Rotation Error	Unit input phase sequence is not A, B, C. The phase sequence should be verified and corrected.
Server Class	The general classification for this system
Subfeed Current Ix Crest Factor	Subfeed breaker phase X Current Crest Factor (peak/RMS).
Subfeed Current Ix THD	Current Total Harmonic Distortion for Subfeed breaker phase X.
Subfeed Current Ix	Subfeed breaker RMS current for phase X.
Subfeed Current Iy Crest Factor	Subfeed breaker phase Y Current Crest Factor (peak/RMS).
Subfeed Current Iy THD	Current Total Harmonic Distortion for Subfeed breaker phase Y.
Subfeed Current Iy	Subfeed breaker RMS current for phase Y.
Subfeed Current Iz Crest Factor	Subfeed breaker phase Z Current Crest Factor (peak/RMS).
Subfeed Current Iz THD	Current Total Harmonic Distortion for Subfeed breaker phase Z.
Subfeed Current Iz	Subfeed breaker RMS current for phase Z.
Subfeed Ground Current	Subfeed breaker Ground RMS current.
Subfeed Ground Overcurrent	Subfeed breaker Ground current has exceeded the limit.
Subfeed Neutral Current	Subfeed breaker Neutral RMS current.
Subfeed Neutral Overcurrent	Subfeed breaker Neutral current has exceeded the limit.

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Table 5.101 Liebert® EXC, Liebert® FDC, Liebert® FPC, Liebert® PPC, Liebert® RDC and Liebert® RX—Glossary (continued)

Data Label	Data Description
Subfeed Output kW-Hrs	Subfeed breaker accumulated KW-Hours since last KW-Hours reset.
Subfeed Output Percent Load	Subfeed breaker percent load of rated current
Subfeed Output Power (kVA)	Subfeed breaker output kVA.
Subfeed Output Power (kW)	Subfeed breaker output KW
Subfeed Phase Overcurrent	Subfeed breaker phase current has exceeded the limit.
Subfeed Power Factor	Subfeed breaker Power Factor (real power/apparent power)
System Date and Time	Unit date and time
System Event Acknowledge/Reset	Alarm Present/Reset
System Shutdown - EPO	Unit shutdown by Emergency Power Off (EPO) switch
System Shutdown - REPO	Unit shutdown by Remote Emergency Power Off (REPO) switch
System Status	The operating status for the system
Transformer Overtemperature Power Off	Output power shutdown due to high transformer temperature
Transformer Overtemperature Shutdown	Unit shutdown due to transformer over temperature
Transformer Overtemperature	Transformer temperature has exceeded the limit
Transformer Overtemperaturew	Transformer temperature has exceeded the limit
Transformer Temperature Sensor Fail	Transformer temperature sensor has failed

Table 5.102 Liebert® STS2 - Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System					
Transfer Count Cleared	Binary_Value	1	6587_1	RD	Active on Alarm
Energy Counter Cleared	Binary_Value	2	6588_1	RD	Active on Alarm
History Logs Full	Binary_Value	3	6589_1	RD	Active on Alarm
History Logs Cleared	Binary_Value	4	6590_1	RD	Active on Alarm
Event Log Cleared	Binary_Value	5	6591_1	RD	Active on Alarm
System Date Changed	Binary_Value	6	6592_1	RD	Active on Alarm
System Time Changed	Binary_Value	7	6593_1	RD	Active on Alarm
Access Password Changed	Binary_Value	8	6594_1	RD	Active on Alarm
Config Modified	Binary_Value	9	6595_1	RD	Active on Alarm
Measurements					
Control Logic Fail	Binary_Value	20	6662_1	RD	Active on Alarm
System Fan Failure	Binary_Value	21	4311_1	RD	Active on Alarm

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Table 5.102 Liebert® STS2 - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Internal Communications Failure	Binary_Value	22	4300_1	RD	Active on Alarm
Power Supply Logic Fail	Binary_Value	23	6663_1	RD	Active on Alarm
External Comms Failure	Binary_Value	24	6664_1	RD	Active on Alarm
Heat Sink OverTemp	Binary_Value	25	6665_1	RD	Active on Alarm
High Ambient Temperature	Binary_Value	26	4907_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	27	4310_1	RD	Active on Alarm
Automatic Transfer Inhibited	Binary_Value	28	6666_1	RD	Active on Alarm
Input Source Transfer Inhibited.	Binary_Value	29	6667_1	RD	Active on Alarm
Input Contact 01	Binary_Value	30	4270_1	RD	Active on Alarm
Input Contact 02	Binary_Value	31	4271_1	RD	Active on Alarm
Input Contact 03	Binary_Value	32	4272_1	RD	Active on Alarm
Input Contact 04	Binary_Value	33	4273_1	RD	Active on Alarm
Input Contact 05	Binary_Value	34	4274_1	RD	Active on Alarm
Input Contact 06	Binary_Value	35	4275_1	RD	Active on Alarm
Input Contact 07	Binary_Value	36	4276_1	RD	Active on Alarm
Input Contact 08	Binary_Value	37	4277_1	RD	Active on Alarm
Measurements - Source Measurements 1					
SCR Short	Binary_Value	48	6612_1_1	RD	Active on Alarm
SCR Open	Binary_Value	49	6613_1_1	RD	Active on Alarm
AC Power Supply Fail	Binary_Value	50	6614_1_1	RD	Active on Alarm
DC Power Supply Fail	Binary_Value	51	6615_1_1	RD	Active on Alarm
Voltage Sensor Fail	Binary_Value	52	6616_1_1	RD	Active on Alarm
SCR Sensor Fail	Binary_Value	53	6617_1_1	RD	Active on Alarm
Current Sensor Fail	Binary_Value	54	6618_1_1	RD	Active on Alarm
Gate Drive Fail	Binary_Value	55	6619_1_1	RD	Active on Alarm
Surge Fail	Binary_Value	56	6620_1_1	RD	Active on Alarm
Fast Under Voltage	Binary_Value	57	6621_1_1	RD	Active on Alarm
Slow Under Voltage	Binary_Value	58	6622_1_1	RD	Active on Alarm
Over Voltage	Binary_Value	59	6623_1_1	RD	Active on Alarm
Over/Under Frequency Fail	Binary_Value	60	6624_1_1	RD	Active on Alarm
General Source Failure	Binary_Value	61	6625_1_1	RD	Active on Alarm
Over Current	Binary_Value	62	6626_1_1	RD	Active on Alarm

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Table 5.102 Liebert® STS2 - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Peak Current Off Limit	Binary_Value	63	6627_1_1	RD	Active on Alarm
Sync Fail	Binary_Value	64	6628_1_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	65	4146_1_1	RD	Active on Alarm
Input Over Voltage	Binary_Value	66	6629_1_1	RD	Active on Alarm
Input Under Voltage	Binary_Value	67	6630_1_1	RD	Active on Alarm
Input Over/Under Frequency	Binary_Value	68	6631_1_1	RD	Active on Alarm
Neutral SCR Short	Binary_Value	69	8323_1_1	RD	Active on Alarm
Neutral SCR Open	Binary_Value	70	8324_1_1	RD	Active on Alarm
Input Neutral Over Current	Binary_Value	71	8325_1_1	RD	Active on Alarm
Measurements - Source Measurements 2					
SCR Short	Binary_Value	79	6612_1_2	RD	Active on Alarm
SCR Open	Binary_Value	80	6613_1_2	RD	Active on Alarm
AC Power Supply Fail	Binary_Value	81	6614_1_2	RD	Active on Alarm
DC Power Supply Fail	Binary_Value	82	6615_1_2	RD	Active on Alarm
Voltage Sensor Fail	Binary_Value	83	6616_1_2	RD	Active on Alarm
SCR Sensor Fail	Binary_Value	84	6617_1_2	RD	Active on Alarm
Current Sensor Fail	Binary_Value	85	6618_1_2	RD	Active on Alarm
Gate Drive Fail	Binary_Value	86	6619_1_2	RD	Active on Alarm
Surge Fail	Binary_Value	87	6620_1_2	RD	Active on Alarm
Fast Under Voltage	Binary_Value	88	6621_1_2	RD	Active on Alarm
Slow Under Voltage	Binary_Value	89	6622_1_2	RD	Active on Alarm
Over Voltage	Binary_Value	90	6623_1_2	RD	Active on Alarm
Over/Under Frequency Fail	Binary_Value	91	6624_1_2	RD	Active on Alarm
General Source Failure	Binary_Value	92	6625_1_2	RD	Active on Alarm
Over Current	Binary_Value	93	6626_1_2	RD	Active on Alarm
Peak Current Off Limit	Binary_Value	94	6627_1_2	RD	Active on Alarm
Sync Fail	Binary_Value	95	6628_1_2	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	96	4146_1_2	RD	Active on Alarm
Input Over Voltage	Binary_Value	97	6629_1_2	RD	Active on Alarm
Input Under Voltage	Binary_Value	98	6630_1_2	RD	Active on Alarm
Input Over/Under Frequency	Binary_Value	99	6631_1_2	RD	Active on Alarm
Neutral SCR Short	Binary_Value	100	8323_1_2	RD	Active on Alarm

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Table 5.102 Liebert® STS2 - Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Neutral SCR Open	Binary_Value	101	8324_1_2	RD	Active on Alarm
Input Neutral Over Current	Binary_Value	102	8325_1_2	RD	Active on Alarm
Measurements - Output Measurements					
Voltage Sense Fail	Binary_Value	110	6635_1_1	RD	Active on Alarm
Load on Alternate Source	Binary_Value	111	6636_1_1	RD	Active on Alarm
Under Voltage Fail	Binary_Value	112	6637_1_1	RD	Active on Alarm
Output Over Current	Binary_Value	113	6638_1_1	RD	Active on Alarm
Ground Over Current	Binary_Value	114	6639_1_1	RD	Active on Alarm
Neutral Over Current	Binary_Value	115	6640_1_1	RD	Active on Alarm
Load Voltage THD	Binary_Value	116	6641_1_1	RD	Active on Alarm
Neutral Snubber Fail	Binary_Value	117	8326_1_1	RD	Active on Alarm
Breakers and Switches					
CB1 Shunt Trip	Binary_Value	127	6676_1	RD	Active on Alarm
CB2 Shunt Trip	Binary_Value	128	6677_1	RD	Active on Alarm
CB6 Neutral Open	Binary_Value	129	6678_1	RD	Active on Alarm
Contactor Neutral Fail	Binary_Value	130	6679_1	RD	Active on Alarm
CB1 Breaker Open	Binary_Value	131	6680_1	RD	Active on Alarm
CB2 Breaker Open	Binary_Value	132	6681_1	RD	Active on Alarm
CB4 Breaker Closed	Binary_Value	133	6682_1	RD	Active on Alarm
CB5 Breaker Closed	Binary_Value	134	6683_1	RD	Active on Alarm
CB3 Breaker Open	Binary_Value	135	6684_1	RD	Active on Alarm
CB3A Breaker Open	Binary_Value	136	6685_1	RD	Active on Alarm
CB6 Breaker Open	Binary_Value	137	6686_1	RD	Active on Alarm
CB7 Breaker Open	Binary_Value	138	6687_1	RD	Active on Alarm

Table 5.103 Liebert® STS2 - Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Ratings					
System Input Nominal Voltage	Analog_Value	1	4102_1	RD	Units: VAC
PDU Input Nominal Voltage	Analog_Value	2	6579_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	3	4104_1	RD	Units: A AC
System Input Nominal Frequency	Analog_Value	4	4103_1	RD	Units: Hz
System					

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Table 5.103 Liebert® STS2 - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Date and Time	Analog_Value	15	4293_1	RW	Units: Secs since Epoch(UTC)
User Settings					
Phase Difference Limit	Analog_Value	26	6602_1	RD	Units: deg
Input Frequency Deviation	Analog_Value	27	6603_1	RD	Units: Hz
Retransfer Delay	Analog_Value	28	6604_1	RD	Units: sec
Load Voltage THD	Analog_Value	29	6608_1	RD	Units: %
Neutral Current (% nom)	Analog_Value	30	6609_1	RD	Units: %
Ground current	Analog_Value	31	6610_1	RD	Units: A AC
Load Bus Overcurrent (% of nom)	Analog_Value	32	6611_1	RD	Units: %
User Settings - Source Settings 1					
Fast Under Voltage	Analog_Value	43	6596_1_1	RD	Units: %
Slow Under Voltage	Analog_Value	44	6597_1_1	RD	Units: %
Slow Under Voltage Delay	Analog_Value	45	6598_1_1	RD	Units: Cycles
Over Voltage (% of nom)	Analog_Value	46	6599_1_1	RD	Units: %
Over Voltage Delay	Analog_Value	47	6600_1_1	RD	Units: QuarterCycles
I-PK Transfer Lockout	Analog_Value	48	6601_1_1	RD	—
User Settings - Source Settings 2					
Fast Under Voltage	Analog_Value	59	6596_1_2	RD	Units: %
Slow Under Voltage	Analog_Value	60	6597_1_2	RD	Units: %
Slow Under Voltage Delay	Analog_Value	61	6598_1_2	RD	Units: Cycles
Over Voltage (% of nom)	Analog_Value	62	6599_1_2	RD	Units: %
Over Voltage Delay	Analog_Value	63	6600_1_2	RD	Units: QuarterCycles
I-PK Transfer Lockout	Analog_Value	64	6601_1_2	RD	—
Measurements					
Total Input Transfers	Analog_Value	75	6657_1	RD	—
Heatsink Temp 1	Analog_Value	76	6658_1	RD	Units: deg C
Heatsink Temp 1	Analog_Value	10076	6658_1_deg_F	RD	Units: deg F
Heatsink Temp 2	Analog_Value	77	6659_1	RD	Units: deg C
Heatsink Temp 2	Analog_Value	10077	6659_1_deg_F	RD	Units: deg F
Heatsink Temp 3	Analog_Value	78	6660_1	RD	Units: deg C
Heatsink Temp 3	Analog_Value	10078	6660_1_deg_F	RD	Units: deg F
Sync. Phase Angle	Analog_Value	79	6661_1	RD	Units: deg

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Table 5.103 Liebert® STS2 - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Measurements - Source Measurements 1					
System Input RMS A-B	Analog_Value	90	4097_1_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	91	4099_1_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	92	4101_1_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	93	4113_1_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	94	4114_1_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	95	4115_1_1	RD	Units: A AC
System Input Frequency	Analog_Value	96	4105_1_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	97	4096_1_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	98	4098_1_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	99	4100_1_1	RD	Units: VAC
System Input Neutral Current	Analog_Value	100	8322_1_1	RD	Units: A AC
Measurements - Source Measurements 2					
System Input RMS A-B	Analog_Value	107	4097_1_2	RD	Units: VAC
System Input RMS B-C	Analog_Value	108	4099_1_2	RD	Units: VAC
System Input RMS C-A	Analog_Value	109	4101_1_2	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	110	4113_1_2	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	111	4114_1_2	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	112	4115_1_2	RD	Units: A AC
System Input Frequency	Analog_Value	113	4105_1_2	RD	Units: Hz
System Input RMS A-N	Analog_Value	114	4096_1_2	RD	Units: VAC
System Input RMS B-N	Analog_Value	115	4098_1_2	RD	Units: VAC
System Input RMS C-N	Analog_Value	116	4100_1_2	RD	Units: VAC
System Input Neutral Current	Analog_Value	117	8322_1_2	RD	Units: A AC
Measurements - Output Measurements					
Apparent Power	Analog_Value	124	6632_1_1	RD	Units: kVAR
Apparent Power Percentage	Analog_Value	125	6633_1_1	RD	Units: %
Power	Analog_Value	126	6634_1_1	RD	Units: kW
Measurements - PDU Source Measurements 1					
PDU Input Voltage A-B	Analog_Value	137	6642_1_1	RD	Units: VAC
PDU Input Voltage B-C	Analog_Value	138	6643_1_1	RD	Units: VAC
PDU Input Voltage C-A	Analog_Value	139	6644_1_1	RD	Units: VAC

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Table 5.103 Liebert® STS2 - Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
PDU Input Frequency	Analog_Value	140	6645_1_1	RD	Units: Hz
Measurements - PDU Source Measurements 2					
PDU Input Voltage A-B	Analog_Value	151	6642_1_2	RD	Units: VAC
PDU Input Voltage B-C	Analog_Value	152	6643_1_2	RD	Units: VAC
PDU Input Voltage C-A	Analog_Value	153	6644_1_2	RD	Units: VAC
PDU Input Frequency	Analog_Value	154	6645_1_2	RD	Units: Hz
Measurements - PDU Output Measurements					
Neutral Current	Analog_Value	165	6646_1_1	RD	Units: A AC
Ground Current	Analog_Value	166	6647_1_1	RD	Units: A AC
Output Power	Analog_Value	167	6648_1_1	RD	Units: kWH
System Output Power Factor Phs A	Analog_Value	168	4210_1_1	RD	—
System Output Power Factor Phs B	Analog_Value	169	4211_1_1	RD	—
System Output Power Factor Phs C	Analog_Value	170	4212_1_1	RD	—
Output Voltage THD Phase A	Analog_Value	171	6649_1_1	RD	Units: %
Output Voltage THD Phase B	Analog_Value	172	6650_1_1	RD	Units: %
Output Voltage THD Phase C	Analog_Value	173	6651_1_1	RD	Units: %
Output Current THD Phase A	Analog_Value	174	6652_1_1	RD	Units: %
Output Current THD Phase B	Analog_Value	175	6653_1_1	RD	Units: %
Output Current THD Phase C	Analog_Value	176	6654_1_1	RD	Units: %
Output Current Phs A K-Factor	Analog_Value	177	5175_1_1	RD	—
Output Current Phs B K-Factor	Analog_Value	178	5176_1_1	RD	—
Output Current Phs C K-Factor	Analog_Value	179	5177_1_1	RD	—
Output Current Phs A Crest Factor	Analog_Value	180	5250_1_1	RD	—
Output Current Phs B Crest Factor	Analog_Value	181	5251_1_1	RD	—
Output Current Phs C Crest Factor	Analog_Value	182	5252_1_1	RD	—

Table 5.104 Liebert® STS2 - Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System					

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Table 5.104 Liebert® STS2 - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status	MultiState_Value	12	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Dual Output Breaker	MultiState_Value	13	6581_1	RD	1 = no 2 = yes
PDU Installed	MultiState_Value	14	6582_1	RD	1 = no 2 = yes
Four Pole Switch	MultiState_Value	15	6583_1	RD	1 = no 2 = yes
Shunt Trip	MultiState_Value	16	6584_1	RD	1 = no 2 = yes
Wye Output Transformer	MultiState_Value	17	6585_1	RD	1 = no 2 = yes
Remote Source Select	MultiState_Value	18	6586_1	RD	1 = no 2 = yes
User Settings					
Auto Retransfer Enabled	MultiState_Value	29	6605_1	RD	1 = no 2 = yes
I-Peak Reset	MultiState_Value	30	6606_1	RD	1 = automatic 2 = manual
Automatic Restart	MultiState_Value	31	6607_1	RD	1 = disabled 2 = enabled
Measurements					
Active Input Source	MultiState_Value	42	6655_1	RD	1 = No Source 2 = Source 1 3 = Source 2
Preferred Input Source	MultiState_Value	43	6656_1	RD	1 = No Source 2 = Source 1 3 = Source 2
Breakers and Switches					
CB1 Breaker State	MultiState_Value	54	6668_1	RD	1 = Open 2 = Close 3 = Not Installed
CB2 Breaker State	MultiState_Value	55	6669_1	RD	1 = Open 2 = Close 3 = Not Installed
CB3 Breaker State	MultiState_Value	56	6670_1	RD	1 = Open 2 = Close 3 = Not Installed
CB4 Breaker State	MultiState_Value	57	6671_1	RD	1 = Open 2 = Close

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Table 5.104 Liebert® STS2 - Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Not Installed
CB5 Breaker State	MultiState_Value	58	6672_1	RD	1 = Open 2 = Close 3 = Not Installed
CB3A Breaker State	MultiState_Value	59	6673_1	RD	1 = Open 2 = Close 3 = Not Installed
CB6 Breaker State	MultiState_Value	60	6674_1	RD	1 = Open 2 = Close 3 = Not Installed
CB7 Breaker State	MultiState_Value	61	6675_1	RD	1 = Open 2 = Close 3 = Not Installed

Table 5.105 Liebert® STS2 - Glossary

Data Label	Data Description
AC Power Supply Fail	A failure of the AC Power Supply has been detected.
Access Password Changed	The access password has been changed.
Active Input Source	The active input source.
Apparent Power Percentage	The total apparent power with respect to the rated output power.
Apparent Power	The total apparent power output.
Auto Retransfer Enabled	The auto retransfer enable setting determines whether the switch automatically returns the preferred source after that source is restored.
Automatic Restart	After a loss of power the switch will be restarted when power is restored.
Automatic Transfer Inhibited	Automatic transfer is inhibited.
CB1 Breaker Open	CB1 Breaker open event. Normal state is breaker closed. Latched state is breaker open.
CB1 Breaker State	CB1 breaker state.
CB1 Shunt Trip	CB1 Shunt Trip event.
CB2 Breaker Open	CB2 Breaker open event. Normal state is breaker closed. Latched state is breaker open.
CB2 Breaker State	CB2 breaker state.
CB2 Shunt Trip	CB2 Shunt Trip event.
CB3 Breaker Open	CB3 breaker open event. Normal state is breaker closed. Latched state is breaker open.
CB3 Breaker State	CB3 breaker state.
CB3A Breaker Open	CB3A breaker open event. Normal state is breaker closed. Latched state is breaker open.
CB3A Breaker State	CB3A breaker state.
CB4 Breaker Closed	CB4 breaker closed event. Normal state is breaker open. Latched state is breaker closed.

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Table 5.105 Liebert® STS2 - Glossary (continued)

Data Label	Data Description
CB4 Breaker State	CB4 breaker state.
CB5 Breaker Closed	CB5 breaker closed event. Normal state is breaker open. Latched state is breaker closed.
CB5 Breaker State	CB5 breaker state.
CB6 Breaker Open	CB6 breaker open event. Normal state is breaker closed. Latched state is breaker open.
CB6 Breaker State	CB6 breaker state.
CB6 Neutral Open	CB6 neutral open event.
CB7 Breaker Open	CB7 breaker open event. Normal state is breaker closed. Latched state is breaker open.
CB7 Breaker State	CB7 breaker state.
Config Modified	A setpoint has been updated.
Contactor Neutral Fail	Contactor Neutral Fail event.
Control Logic Fail	A control logic module has failed.
Current Sensor Fail	The current sensor module failed.
DC Power Supply Fail	A failure of the DC Power Supply has been detected.
Dual Output Breaker	The dual output breaker configuration.
Energy Counter Cleared	A system event indicating the energy counter (e.g. KWH) has been cleared.
Equipment Over Temperature	Equipment over temperature summary event
Event Log Cleared	All past alarms and faults have been cleared.
External Comms Failure	External communications failure.
Fast Under Voltage	Fast under voltage detected.
Fast Under Voltage	The Fast Under Voltage Setting specified as % of nominal voltage.
Four Pole Switch	The setting that defines whether the switch is a four pole switch or not.
Gate Drive Fail	The Gate Drive module failed.
General Source Failure	A non-specific failure has been detected in the source.
Ground current	Ground current
Ground Current	Output ground current.
Ground Over Current	Ground is over current.
Heat Sink OverTemp	The system heat sink temperature has exceeded design limits.
Heatsink Temp 1	The temperature of heat sink #1.
Heatsink Temp 2	The temperature of heat sink #2.
Heatsink Temp 3	The temperature of heat sink #3.
High Ambient Temperature	The system has detected a high ambient temperature condition.
History Logs Cleared	History logs have been cleared.

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Table 5.105 Liebert® STS2 - Glossary (continued)

Data Label	Data Description
History Logs Full	The history logs are full.
Input Contact 01	The external input contact 1
Input Contact 02	The external input contact 2
Input Contact 03	The external input contact 3
Input Contact 04	The external input contact 4
Input Contact 05	The external input contact 5
Input Contact 06	The external input contact 6
Input Contact 07	The external input contact 7
Input Contact 08	The external input contact 8
Input Frequency Deviation	The frequency deviation setpoint at which the input frequency deviation alarm is activated.
Input Neutral Over Current	An over current has been detected on the system input neutral.
Input Over Voltage	Input over voltage.
Input Over/Under Frequency	Input over/under frequency.
Input Source Transfer Inhibited.	Input source transfer is inhibited.
Input Under Voltage	Input under voltage.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
I-Peak Reset	The setting that defines whether the switch will reset when a fault clears and the voltage and current are normal.
I-PK Transfer Lockout	I-PK Transfer Lockout. I-PK is specified as input current rating times this lockout threshold. Lockout will occur when input current exceeds the I-PK Transfer Lockout.
Load Bus Overcurrent (% of nom)	Load bus over current as a percent of nominal.
Load on Alternate Source	The load is on the alternate source.
Load Voltage THD	Load voltage THD has exceeded the set limit.
Load Voltage THD	The Load/Output total harmonic distortion.
Neutral Current (% nom)	Neutral Current as a percent of nominal.
Neutral Current	The output neutral current.
Neutral Over Current	Neutral is over current.
Neutral SCR Open	The Neutral SCR is in an open condition.
Neutral SCR Short	The Neutral SCR is in a short condition.
Neutral Snubber Fail	The neutral snubber has failed.
Output Current Phs A Crest Factor	The ratio of peak current amplitude divided by the RMS amplitude for phase A.
Output Current Phs A K-Factor	Ratio of the sum of the squares of the first 34 current harmonics, scaled by their harmonic index, divided by the sum of the squares of those harmonics. This is useful as an indicator of transformer heating due to harmonics.

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Table 5.105 Liebert® STS2 - Glossary (continued)

Data Label	Data Description
Output Current Phs B Crest Factor	The ratio of peak current amplitude divided by the RMS amplitude for phase B.
Output Current Phs B K-Factor	Ratio of the sum of the squares of the first 34 current harmonics, scaled by their harmonic index, divided by the sum of the squares of those harmonics. This is useful as an indicator of transformer heating due to harmonics.
Output Current Phs C Crest Factor	The ratio of peak current amplitude divided by the RMS amplitude for phase C.
Output Current Phs C K-Factor	Ratio of the sum of the squares of the first 34 current harmonics, scaled by their harmonic index, divided by the sum of the squares of those harmonics. This is useful as an indicator of transformer heating due to harmonics.
Output Current THD Phase A	Output Current THD Phase A
Output Current THD Phase B	Output Current THD Phase B
Output Current THD Phase C	Output Current THD Phase C
Output Over Current	Output is over current.
Output Power	The output power in Killowatt Hours.
Output Voltage THD Phase A	Output Voltage THD Phase A
Output Voltage THD Phase B	Output Voltage THD Phase B
Output Voltage THD Phase C	Output Voltage THD Phase C
Over Current	An over current has been detected.
Over Voltage (% of nom)	Over Voltage Setting as a percent of nominal voltage.
Over Voltage Delay	Over Voltage Detection Delay specified as number of quarter cycles.
Over Voltage	Over voltage detected.
Over/Under Frequency Fail	An over or under frequency condition has been detected.
PDU Input Frequency	The PDU input frequency.
PDU Input Nominal Voltage	The nominal (rated) PDU input voltage
PDU Input Voltage A-B	The PDU input voltage for phase A-B.
PDU Input Voltage B-C	The PDU input voltage for phase B-C.
PDU Input Voltage C-A	The PDU input voltage for Phase C-A.
PDU Installed	The PDU installed setting.
Peak Current Off Limit	The peak current has exceeded the setpoint defined by I-PK Xfer Lockout.
Phase Difference Limit	The maximum phase difference limit that can exist between two input sources during which switch transfer can occur. Exceeding these limits inhibits switch transfer between the input sources.
Power Supply Logic Fail	A power supply module has failed.
Power	Total power at the output.
Preferred Input Source	The preferred input source.
Remote Source Select	The Remote Source Select setting.

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Table 5.105 Liebert® STS2 - Glossary (continued)

Data Label	Data Description
Retransfer Delay	This parameter applies after a switch transfer from the preferred to the backup source, The length of time the switch waits until attempting to transfer back to the preferred source.
SCR Open	The SCR is in an open condition.
SCR Sensor Fail	The SCR sensor module failed.
SCR Short	The SCR is in a short condition.
Server Class	The general classification for this system
Shunt Trip	The setting that defines whether an output shunt trips the output breakers.
Slow Under Voltage Delay	Slow Under Voltage Detection Delay. The number of cycles that the source voltage must remain below the Slow UV setting before the source input will transfer.
Slow Under Voltage	Slow under voltage detected.
Slow Under Voltage	The Slow Under Voltage Setting specified as % of nominal voltage for a specific period of time. See also Slow UV Detection Delay.
Surge Fail	The surge module failed for the input source.
Sync Fail	A phase rotation/out of synchronization failure has been detected.
Sync. Phase Angle	The synchronization phase angle between the input sources.
System Date and Time	The system date and time
System Date Changed	The system date has been updated.
System Fan Failure	System fan failure - one or more fans have failed
System Input Frequency	The system input frequency
System Input Neutral Current	The system input neutral current.
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	A phase rotation error exists. Check the phase sequence (ABC).
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Power Factor Phs A	The system output power factor of phase A

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Table 5.105 Liebert® STS2 - Glossary (continued)

Data Label	Data Description
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Status	The operating status for the system
System Time Changed	The system time has been updated.
Total Input Transfers	The total number of input source transfers.
Transfer Count Cleared	A system event indicating the transfer count has been cleared.
Under Voltage Fail	Output under voltage failure.
Voltage Sense Fail	Output voltage sense failure.
Voltage Sensor Fail	A voltage sensor failure has been detected.
Wye Output Transformer	The setting that defines whether the output is connected to a Wye Output Transformer.

Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
Transformer High Temperature	Binary_Value	1	7570_1	RD	Active on Alarm
Transformer Temperature Sensor Failure	Binary_Value	2	7571_1	RD	Active on Alarm
Metering Board Communication Fail	Binary_Value	3	7572_1	RD	Active on Alarm
Accessory Board Communication Fail	Binary_Value	4	7573_1	RD	Active on Alarm
System Misconfiguration	Binary_Value	5	7574_1	RD	Active on Alarm
System Firmware Incompatibility	Binary_Value	6	7575_1	RD	Active on Alarm
Main Input Breaker 1 Tripped	Binary_Value	7	7576_1	RD	Active on Alarm
Main Input Breaker 1 Accessory Error	Binary_Value	8	7577_1	RD	Active on Alarm
Main Input Breaker 1 Open Fail	Binary_Value	9	7578_1	RD	Active on Alarm
Main Input Breaker 2 Tripped	Binary_Value	10	7579_1	RD	Active on Alarm
Main Input Breaker 2 Accessory Error	Binary_Value	11	7580_1	RD	Active on Alarm
Main Input Breaker 2 Open Fail	Binary_Value	12	7581_1	RD	Active on Alarm
System Diagnostic 1					
Loss of Communication	Binary_Value	23	7588_1	RD	Active on Alarm
No Initial Communication	Binary_Value	24	7589_1	RD	Active on Alarm
Misconfiguration	Binary_Value	25	7590_1	RD	Active on Alarm
Firmware Incompatibility	Binary_Value	26	7591_1	RD	Active on Alarm
Communication Bus Error	Binary_Value	27	8119_1	RD	Active on Alarm
System Diagnostic 2					

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Loss of Communication	Binary_Value	38	7588_2	RD	Active on Alarm
No Initial Communication	Binary_Value	39	7589_2	RD	Active on Alarm
Misconfiguration	Binary_Value	40	7590_2	RD	Active on Alarm
Firmware Incompatibility	Binary_Value	41	7591_2	RD	Active on Alarm
Communication Bus Error	Binary_Value	42	8119_2	RD	Active on Alarm
. . .					
System Diagnostic 64					
Loss of Communication	Binary_Value	968	7588_64	RD	Active on Alarm
No Initial Communication	Binary_Value	969	7589_64	RD	Active on Alarm
Misconfiguration	Binary_Value	970	7590_64	RD	Active on Alarm
Firmware Incompatibility	Binary_Value	971	7591_64	RD	Active on Alarm
Communication Bus Error	Binary_Value	972	8119_64	RD	Active on Alarm
System Metering					
Output Overvoltage	Binary_Value	983	7697_1	RD	Active on Alarm
Output Undervoltage	Binary_Value	984	7698_1	RD	Active on Alarm
Phase Overcurrent	Binary_Value	985	7699_1	RD	Active on Alarm
Neutral Overcurrent	Binary_Value	986	7700_1	RD	Active on Alarm
Ground Overcurrent	Binary_Value	987	7701_1	RD	Active on Alarm
Output Frequency Deviation	Binary_Value	988	7702_1	RD	Active on Alarm
Input 1 Overvoltage	Binary_Value	989	7704_1	RD	Active on Alarm
Input 1 Undervoltage	Binary_Value	990	7705_1	RD	Active on Alarm
Input 1 Phase Loss	Binary_Value	991	7706_1	RD	Active on Alarm
Input 1 Invalid Phase Rotation	Binary_Value	992	7707_1	RD	Active on Alarm
Input 1 Frequency Deviation	Binary_Value	993	7708_1	RD	Active on Alarm
Input 1 High Voltage THD	Binary_Value	994	7709_1	RD	Active on Alarm
Input 2 Overvoltage	Binary_Value	995	7710_1	RD	Active on Alarm
Input 2 Undervoltage	Binary_Value	996	7711_1	RD	Active on Alarm
Input 2 Phase Loss	Binary_Value	997	7712_1	RD	Active on Alarm
Input 2 Invalid Phase Rotation	Binary_Value	998	7713_1	RD	Active on Alarm
Input 2 Frequency Deviation	Binary_Value	999	7714_1	RD	Active on Alarm
Input 2 High Voltage THD	Binary_Value	1000	7715_1	RD	Active on Alarm
Shunt Trip Unavailable	Binary_Value	1003	8629_1	RD	Active on Alarm

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch PB 1					
Panelboard Phase Overcurrent	Binary_Value	1011	7792_1	RD	Active on Alarm
Panelboard Neutral Overcurrent	Binary_Value	1012	7793_1	RD	Active on Alarm
Panelboard Ground Overcurrent	Binary_Value	1013	7794_1	RD	Active on Alarm
Panelboard Main Breaker Tripped	Binary_Value	1014	7795_1	RD	Active on Alarm
Panelboard Main Breaker Accessory Error	Binary_Value	1015	7796_1	RD	Active on Alarm
Panelboard Overvoltage	Binary_Value	1016	8253_1	RD	Active on Alarm
Panelboard Undervoltage	Binary_Value	1017	8254_1	RD	Active on Alarm
Panelboard Frequency Deviation	Binary_Value	1018	8255_1	RD	Active on Alarm
Panelboard Main Breaker Open Fail	Binary_Value	1019	8435_1	RD	Active on Alarm
Panelboard Shunt Trip Unavailable	Binary_Value	1020	8630_1	RD	Active on Alarm
Branch PB 1 Branch 1					
Branch Phase Overcurrent	Binary_Value	1026	7822_1_1	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	1027	7823_1_1	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	1028	8259_1_1	RD	Active on Alarm
Load Loss Detected	Binary_Value	1029	8436_1_1	RD	Active on Alarm
Branch PB 1 Branch 2					
Branch Phase Overcurrent	Binary_Value	1038	7822_1_2	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	1039	7823_1_2	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	1040	8259_1_2	RD	Active on Alarm
Load Loss Detected	Binary_Value	1041	8436_1_2	RD	Active on Alarm
. . .					
Branch PB 1 Branch 42					
Branch Phase Overcurrent	Binary_Value	1518	7822_1_42	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	1519	7823_1_42	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	1520	8259_1_42	RD	Active on Alarm
Load Loss Detected	Binary_Value	1521	8436_1_42	RD	Active on Alarm
Branch PB 2					
Panelboard Phase Overcurrent	Binary_Value	1530	7792_2	RD	Active on Alarm
Panelboard Neutral Overcurrent	Binary_Value	1531	7793_2	RD	Active on Alarm
Panelboard Ground Overcurrent	Binary_Value	1532	7794_2	RD	Active on Alarm
Panelboard Main Breaker Tripped	Binary_Value	1533	7795_2	RD	Active on Alarm

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Main Breaker Accessory Error	Binary_Value	1534	7796_2	RD	Active on Alarm
Panelboard Overvoltage	Binary_Value	1535	8253_2	RD	Active on Alarm
Panelboard Undervoltage	Binary_Value	1536	8254_2	RD	Active on Alarm
Panelboard Frequency Deviation	Binary_Value	1537	8255_2	RD	Active on Alarm
Panelboard Main Breaker Open Fail	Binary_Value	1538	8435_2	RD	Active on Alarm
Panelboard Shunt Trip Unavailable	Binary_Value	1539	8630_2	RD	Active on Alarm
Branch PB 2 Branch 1					
Branch Phase Overcurrent	Binary_Value	1545	7822_2_1	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	1546	7823_2_1	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	1547	8259_2_1	RD	Active on Alarm
Load Loss Detected	Binary_Value	1548	8436_2_1	RD	Active on Alarm
Branch PB 2 Branch 2					
Branch Phase Overcurrent	Binary_Value	1557	7822_2_2	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	1558	7823_2_2	RD	Active on Alarm
Panelboard Frequency Deviation	Binary_Value	1559	8259_2_2	RD	Active on Alarm
Load Loss Detected	Binary_Value	1560	8436_2_2	RD	Active on Alarm
. . .					
Branch PB 2 Branch 42					
Branch Phase Overcurrent	Binary_Value	2037	7822_2_42	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	2038	7823_2_42	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	2039	8259_2_42	RD	Active on Alarm
Load Loss Detected	Binary_Value	2040	8436_2_42	RD	Active on Alarm
. . .					
Branch PB 12					
Panelboard Phase Overcurrent	Binary_Value	6720	7792_12	RD	Active on Alarm
Panelboard Neutral Overcurrent	Binary_Value	6721	7793_12	RD	Active on Alarm
Panelboard Ground Overcurrent	Binary_Value	6722	7794_12	RD	Active on Alarm
Panelboard Main Breaker Tripped	Binary_Value	6723	7795_12	RD	Active on Alarm
Panelboard Main Breaker Accessory Error	Binary_Value	6724	7796_12	RD	Active on Alarm
Panelboard Overvoltage	Binary_Value	6725	8253_12	RD	Active on Alarm
Panelboard Undervoltage	Binary_Value	6726	8254_12	RD	Active on Alarm
Panelboard Frequency Deviation	Binary_Value	6727	8255_12	RD	Active on Alarm

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Main Breaker Open Fail	Binary_Value	6728	8435_12	RD	Active on Alarm
Panelboard Shunt Trip Unavailable	Binary_Value	6729	8630_12	RD	Active on Alarm
Branch PB 12 Branch 1					
Branch Phase Overcurrent	Binary_Value	6735	7822_12_1	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	6736	7823_12_1	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	6737	8259_12_1	RD	Active on Alarm
Load Loss Detected	Binary_Value	6738	8436_12_1	RD	Active on Alarm
Branch PB 12 Branch 2					
Branch Phase Overcurrent	Binary_Value	6747	7822_12_2	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	6748	7823_12_2	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	6749	8259_12_2	RD	Active on Alarm
Load Loss Detected	Binary_Value	6750	8436_12_2	RD	Active on Alarm
. . .					
Branch PB 12 Branch 42					
Branch Phase Overcurrent	Binary_Value	7227	7822_12_42	RD	Active on Alarm
Branch Phase Undercurrent	Binary_Value	7228	7823_12_42	RD	Active on Alarm
Branch Neutral Overcurrent	Binary_Value	7229	8259_12_42	RD	Active on Alarm
Load Loss Detected	Binary_Value	7230	8436_12_42	RD	Active on Alarm
Subfeed PB 1					
Panelboard Phase Overcurrent	Binary_Value	7239	7896_1	RD	Active on Alarm
Panelboard Neutral Overcurrent	Binary_Value	7240	7897_1	RD	Active on Alarm
Panelboard Ground Overcurrent	Binary_Value	7241	7898_1	RD	Active on Alarm
Panelboard Main Breaker Tripped	Binary_Value	7242	7899_1	RD	Active on Alarm
Panelboard Main Breaker Accessory Error	Binary_Value	7243	7900_1	RD	Active on Alarm
Panelboard Overvoltage	Binary_Value	7244	8262_1	RD	Active on Alarm
Panelboard Undervoltage	Binary_Value	7245	8263_1	RD	Active on Alarm
Panelboard Frequency Deviation	Binary_Value	7246	8264_1	RD	Active on Alarm
Subfeed PB 1 Subfeed 1					
Subfeed Phase Overcurrent	Binary_Value	7254	7953_1_1	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7255	7954_1_1	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7256	7955_1_1	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7257	7956_1_1	RD	Active on Alarm

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Breaker Accessory Error	Binary_Value	7258	7957_1_1	RD	Active on Alarm
Subfeed PB 1 Subfeed 2					
Subfeed Phase Overcurrent	Binary_Value	7269	7953_1_2	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7270	7954_1_2	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7271	7955_1_2	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7272	7956_1_2	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7273	7957_1_2	RD	Active on Alarm
. . .					
Subfeed PB 1 Subfeed 12					
Subfeed Phase Overcurrent	Binary_Value	7419	7953_1_12	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7420	7954_1_12	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7421	7955_1_12	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7422	7956_1_12	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7423	7957_1_12	RD	Active on Alarm
Subfeed PB 2					
Panelboard Phase Overcurrent	Binary_Value	7434	7896_2	RD	Active on Alarm
Panelboard Neutral Overcurrent	Binary_Value	7435	7897_2	RD	Active on Alarm
Panelboard Ground Overcurrent	Binary_Value	7436	7898_2	RD	Active on Alarm
Panelboard Main Breaker Tripped	Binary_Value	7437	7899_2	RD	Active on Alarm
Panelboard Main Breaker Accessory Error	Binary_Value	7438	7900_2	RD	Active on Alarm
Panelboard Overvoltage	Binary_Value	7439	8262_2	RD	Active on Alarm
Panelboard Undervoltage	Binary_Value	7440	8263_2	RD	Active on Alarm
Panelboard Frequency Deviation	Binary_Value	7441	8264_2	RD	Active on Alarm
Subfeed PB 2 Subfeed 1					
Subfeed Phase Overcurrent	Binary_Value	7449	7953_2_1	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7450	7954_2_1	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7451	7955_2_1	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7452	7956_2_1	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7453	7957_2_1	RD	Active on Alarm
Subfeed PB 2 Subfeed 2					
Subfeed Phase Overcurrent	Binary_Value	7464	7953_2_2	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7465	7954_2_2	RD	Active on Alarm

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Ground Overcurrent	Binary_Value	7466	7955_2_2	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7467	7956_2_2	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7468	7957_2_2	RD	Active on Alarm
. . .					
Subfeed PB 2 Subfeed 12					
Subfeed Phase Overcurrent	Binary_Value	7614	7953_2_12	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7615	7954_2_12	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7616	7955_2_12	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7617	7956_2_12	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7618	7957_2_12	RD	Active on Alarm
Subfeed 1					
Subfeed Phase Overcurrent	Binary_Value	7629	8029_1	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7630	8030_1	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7631	8031_1	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7632	8032_1	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7633	8033_1	RD	Active on Alarm
Subfeed Overvoltage	Binary_Value	7634	8267_1	RD	Active on Alarm
Subfeed Undervoltage	Binary_Value	7635	8268_1	RD	Active on Alarm
Subfeed Frequency Deviation	Binary_Value	7636	8269_1	RD	Active on Alarm
Subfeed 2					
Subfeed Phase Overcurrent	Binary_Value	7644	8029_2	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	7645	8030_2	RD	Active on Alarm
Subfeed Ground Overcurrent	Binary_Value	7646	8031_2	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	7647	8032_2	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	7648	8033_2	RD	Active on Alarm
Subfeed Overvoltage	Binary_Value	7649	8267_2	RD	Active on Alarm
Subfeed Undervoltage	Binary_Value	7650	8268_2	RD	Active on Alarm
Subfeed Frequency Deviation	Binary_Value	7651	8269_2	RD	Active on Alarm
. . .					
Subfeed 36					
Subfeed Phase Overcurrent	Binary_Value	8154	8029_36	RD	Active on Alarm
Subfeed Neutral Overcurrent	Binary_Value	8155	8030_36	RD	Active on Alarm

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Table 5.106 Liebert® RXA, Liebert® RXV and Liebert® TFX—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Ground Overcurrent	Binary_Value	8156	8031_36	RD	Active on Alarm
Subfeed Breaker Tripped	Binary_Value	8157	8032_36	RD	Active on Alarm
Subfeed Breaker Accessory Error	Binary_Value	8158	8033_36	RD	Active on Alarm
Subfeed Overvoltage	Binary_Value	8159	8267_36	RD	Active on Alarm
Subfeed Undervoltage	Binary_Value	8160	8268_36	RD	Active on Alarm
Subfeed Frequency Deviation	Binary_Value	8161	8269_36	RD	Active on Alarm
External Input Contact 1					
External Input Contact State	Binary_Value	8169	8045_1	RD	Active on Alarm
External Input Contact 2					
External Input Contact State	Binary_Value	8180	8045_2	RD	Active on Alarm
Internal Input Contact 1					
Internal Input Contact State	Binary_Value	8191	8047_1	RD	Active on Alarm
Internal Input Contact 2					
Internal Input Contact State	Binary_Value	8202	8047_2	RD	Active on Alarm
. . .					
Internal Input Contact 8					
Internal Input Contact State	Binary_Value	8268	8047_8	RD	Active on Alarm

Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
System Date and Time	Analog_Value	1	4293_1	RW	Units: Secs since Epoch(UTC)
System Metering					
System Power Rating	Analog_Value	14	8123_1	RD	Units: kVA
System Current Rating	Analog_Value	15	7592_1	RD	Units: A AC
Input 1 Frequency	Analog_Value	16	7593_1	RD	Units: Hz
Input 2 Frequency	Analog_Value	17	7594_1	RD	Units: Hz
System Frequency	Analog_Value	18	8124_1	RD	Units: Hz
Input 1 Voltage (L-L) A-B	Analog_Value	19	7595_1	RD	Units: VAC
Input 1 Voltage (L-L) B-C	Analog_Value	20	7596_1	RD	Units: VAC
Input 1 Voltage (L-L) C-A	Analog_Value	21	7597_1	RD	Units: VAC
Input 2 Voltage (L-L) A-B	Analog_Value	22	7598_1	RD	Units: VAC
Input 2 Voltage (L-L) B-C	Analog_Value	23	7599_1	RD	Units: VAC

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Input 2 Voltage (L-L) C-A	Analog_Value	24	7600_1	RD	Units: VAC
Output Voltage (L-L) A-B	Analog_Value	25	7601_1	RD	Units: VAC
Output Voltage (L-L) B-C	Analog_Value	26	7602_1	RD	Units: VAC
Output Voltage (L-L) C-A	Analog_Value	27	7603_1	RD	Units: VAC
Output Voltage (L-N) A-N	Analog_Value	28	7604_1	RD	Units: VAC
Output Voltage (L-N) B-N	Analog_Value	29	7605_1	RD	Units: VAC
Output Voltage (L-N) C-N	Analog_Value	30	7606_1	RD	Units: VAC
Current Ph A	Analog_Value	31	7607_1	RD	Units: A AC
Current Ph B	Analog_Value	32	7608_1	RD	Units: A AC
Current Ph C	Analog_Value	33	7609_1	RD	Units: A AC
Neutral Current	Analog_Value	34	7610_1	RD	Units: A AC
Ground Current	Analog_Value	35	7611_1	RD	Units: A AC
Current Load Ph A	Analog_Value	36	7612_1	RD	Units: %
Current Load Ph B	Analog_Value	37	7613_1	RD	Units: %
Current Load Ph C	Analog_Value	38	7614_1	RD	Units: %
Highest Phase Current Load	Analog_Value	39	7615_1	RD	Units: %
Real Power	Analog_Value	40	7616_1	RD	Units: kW
Apparent Power	Analog_Value	41	7617_1	RD	Units: kVA
Apparent Power Load	Analog_Value	42	7618_1	RD	Units: %
Power Factor Ph A	Analog_Value	43	7619_1	RD	—
Power Factor Ph B	Analog_Value	44	7620_1	RD	—
Power Factor Ph C	Analog_Value	45	7621_1	RD	—
Power Factor Total	Analog_Value	46	7622_1	RD	—
Energy	Analog_Value	47	7623_1	RD	Units: kWH
Peak Current Ph A	Analog_Value	48	7624_1	RD	Units: A AC
Peak Current Ph B	Analog_Value	49	7625_1	RD	Units: A AC
Peak Current Ph C	Analog_Value	50	7626_1	RD	Units: A AC
Peak Demand	Analog_Value	51	7627_1	RD	Units: kW
Current Crest Factor Ph A	Analog_Value	52	7628_1	RD	—
Current Crest Factor Ph B	Analog_Value	53	7629_1	RD	—
Current Crest Factor Ph C	Analog_Value	54	7630_1	RD	—
K-Factor Ph A	Analog_Value	55	7631_1	RD	—

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
K-Factor Ph B	Analog_Value	56	7632_1	RD	—
K-Factor Ph C	Analog_Value	57	7633_1	RD	—
Highest Phase K-Factor	Analog_Value	58	7634_1	RD	—
iTHD Ph A	Analog_Value	59	7635_1	RD	Units: %
iTHD Ph B	Analog_Value	60	7636_1	RD	Units: %
iTHD Ph C	Analog_Value	61	7637_1	RD	Units: %
Current 3rd Harmonic Ph A	Analog_Value	62	7638_1	RD	Units: %
Current 3rd Harmonic Ph B	Analog_Value	63	7639_1	RD	Units: %
Current 3rd Harmonic Ph C	Analog_Value	64	7640_1	RD	Units: %
Current 5th Harmonic Ph A	Analog_Value	65	7641_1	RD	Units: %
Current 5th Harmonic Ph B	Analog_Value	66	7642_1	RD	Units: %
Current 5th Harmonic Ph C	Analog_Value	67	7643_1	RD	Units: %
Current 7th Harmonic Ph A	Analog_Value	68	7644_1	RD	Units: %
Current 7th Harmonic Ph B	Analog_Value	69	7645_1	RD	Units: %
Current 7th Harmonic Ph C	Analog_Value	70	7646_1	RD	Units: %
Current 9th Harmonic Ph A	Analog_Value	71	7647_1	RD	Units: %
Current 9th Harmonic Ph B	Analog_Value	72	7648_1	RD	Units: %
Current 9th Harmonic Ph C	Analog_Value	73	7649_1	RD	Units: %
Input 1 vTHD Ph A	Analog_Value	74	7650_1	RD	Units: %
Input 1 vTHD Ph B	Analog_Value	75	7651_1	RD	Units: %
Input 1 vTHD Ph C	Analog_Value	76	7652_1	RD	Units: %
Input 1 Voltage 3rd Harmonic Ph A	Analog_Value	77	7653_1	RD	Units: %
Input 1 Voltage 3rd Harmonic Ph B	Analog_Value	78	7654_1	RD	Units: %
Input 1 Voltage 3rd Harmonic Ph C	Analog_Value	79	7655_1	RD	Units: %
Input 1 Voltage 5th Harmonic Ph A	Analog_Value	80	7656_1	RD	Units: %
Input 1 Voltage 5th Harmonic Ph B	Analog_Value	81	7657_1	RD	Units: %
Input 1 Voltage 5th Harmonic Ph C	Analog_Value	82	7658_1	RD	Units: %
Input 1 Voltage 7th Harmonic Ph A	Analog_Value	83	7659_1	RD	Units: %
Input 1 Voltage 7th Harmonic Ph B	Analog_Value	84	7660_1	RD	Units: %
Input 1 Voltage 7th Harmonic Ph C	Analog_Value	85	7661_1	RD	Units: %
Input 1 Voltage 9th Harmonic Ph A	Analog_Value	86	7662_1	RD	Units: %
Input 1 Voltage 9th Harmonic Ph B	Analog_Value	87	7663_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Input 1 Voltage 9th Harmonic C	Analog_Value	88	7664_1	RD	Units: %
Input 2 vTHD Ph A	Analog_Value	89	7665_1	RD	Units: %
Input 2 vTHD Ph B	Analog_Value	90	7666_1	RD	Units: %
Input 2 vTHD Ph C	Analog_Value	91	7667_1	RD	Units: %
Input 2 Voltage 3rd Harmonic Ph A	Analog_Value	92	7668_1	RD	Units: %
Input 2 Voltage 3rd Harmonic Ph B	Analog_Value	93	7669_1	RD	Units: %
Input 2 Voltage 3rd Harmonic Ph C	Analog_Value	94	7670_1	RD	Units: %
Input 2 Voltage 5th Harmonic Ph A	Analog_Value	95	7671_1	RD	Units: %
Input 2 Voltage 5th Harmonic Ph B	Analog_Value	96	7672_1	RD	Units: %
Input 2 Voltage 5th Harmonic Ph C	Analog_Value	97	7673_1	RD	Units: %
Input 2 Voltage 7th Harmonic Ph A	Analog_Value	98	7674_1	RD	Units: %
Input 2 Voltage 7th Harmonic Ph B	Analog_Value	99	7675_1	RD	Units: %
Input 2 Voltage 7th Harmonic Ph C	Analog_Value	100	7676_1	RD	Units: %
Input 2 Voltage 9th Harmonic Ph A	Analog_Value	101	7677_1	RD	Units: %
Input 2 Voltage 9th Harmonic Ph B	Analog_Value	102	7678_1	RD	Units: %
Input 2 Voltage 9th Harmonic Ph C	Analog_Value	103	7679_1	RD	Units: %
Output vTHD Ph A	Analog_Value	104	7680_1	RD	Units: %
Output vTHD Ph B	Analog_Value	105	7681_1	RD	Units: %
Output vTHD Ph C	Analog_Value	106	7682_1	RD	Units: %
Output Voltage 3rd Harmonic A	Analog_Value	107	7683_1	RD	Units: %
Output Voltage 3rd Harmonic B	Analog_Value	108	7684_1	RD	Units: %
Output Voltage 3rd Harmonic C	Analog_Value	109	7685_1	RD	Units: %
Output Voltage 5th Harmonic A	Analog_Value	110	7686_1	RD	Units: %
Output Voltage 5th Harmonic B	Analog_Value	111	7687_1	RD	Units: %
Output Voltage 5th Harmonic C	Analog_Value	112	7688_1	RD	Units: %
Output Voltage 7th Harmonic A	Analog_Value	113	7689_1	RD	Units: %
Output Voltage 7th Harmonic B	Analog_Value	114	7690_1	RD	Units: %
Output Voltage 7th Harmonic C	Analog_Value	115	7691_1	RD	Units: %
Output Voltage 9th Harmonic A	Analog_Value	116	7692_1	RD	Units: %
Output Voltage 9th Harmonic B	Analog_Value	117	7693_1	RD	Units: %
Output Voltage 9th Harmonic C	Analog_Value	118	7694_1	RD	Units: %
Phase Overcurrent Alarm Threshold	Analog_Value	119	7716_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Phase Overcurrent Warning Threshold	Analog_Value	120	7717_1	RD	Units: %
Neutral Overcurrent Alarm Threshold	Analog_Value	121	7718_1	RD	Units: %
Ground Overcurrent Alarm Threshold	Analog_Value	122	7719_1	RD	Units: A AC
Input 1 Phase Overvoltage Alarm Threshold	Analog_Value	123	8084_1	RD	Units: %
Input 1 Phase Undervoltage Alarm Threshold	Analog_Value	124	8085_1	RD	Units: %
Input 2 Phase Overvoltage Alarm Threshold	Analog_Value	125	8086_1	RD	Units: %
Input 2 Phase Undervoltage Alarm Threshold	Analog_Value	126	8087_1	RD	Units: %
Output Phase Overvoltage Alarm Threshold	Analog_Value	127	8088_1	RD	Units: %
Output Phase Undervoltage Alarm Threshold	Analog_Value	128	8089_1	RD	Units: %
Voltage Over THD Alarm Threshold	Analog_Value	129	7720_1	RD	Units: %
Neutral Overcurrent Warning Threshold	Analog_Value	130	8276_1	RD	Units: %
Branch PB 1					
Panelboard Total Pole Positions	Analog_Value	140	7727_1	RD	—
Panelboard Available Pole Positions	Analog_Value	141	7728_1	RD	—
Panelboard Main Breaker Current Rating	Analog_Value	142	7729_1	RD	Units: A AC
Panelboard Current Ph A	Analog_Value	143	7730_1	RD	Units: A AC
Panelboard Current Ph B	Analog_Value	144	7731_1	RD	Units: A AC
Panelboard Current Ph C	Analog_Value	145	7732_1	RD	Units: A AC
Panelboard Neutral Current	Analog_Value	146	7733_1	RD	Units: A AC
Panelboard Ground Current	Analog_Value	147	7734_1	RD	Units: A AC
Panelboard Current Load Ph A	Analog_Value	148	7735_1	RD	Units: %
Panelboard Current Load Ph B	Analog_Value	149	7736_1	RD	Units: %
Panelboard Current Load Ph C	Analog_Value	150	7737_1	RD	Units: %
Panelboard Highest Phase Current Load	Analog_Value	151	7738_1	RD	Units: %
Panelboard Voltage (L-L) A-B	Analog_Value	152	7739_1	RD	Units: VAC
Panelboard Voltage (L-L) B-C	Analog_Value	153	7740_1	RD	Units: VAC
Panelboard Voltage (L-L) C-A	Analog_Value	154	7741_1	RD	Units: VAC
Panelboard Voltage (L-N) A-N	Analog_Value	155	7742_1	RD	Units: VAC
Panelboard Voltage (L-N) B-N	Analog_Value	156	7743_1	RD	Units: VAC
Panelboard Voltage (L-N) C-N	Analog_Value	157	7744_1	RD	Units: VAC
Panelboard Frequency	Analog_Value	158	7745_1	RD	Units: Hz
Panelboard Real Power	Analog_Value	159	7746_1	RD	Units: kW

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Apparent Power	Analog_Value	160	7747_1	RD	Units: kVA
Panelboard Power Factor Ph A	Analog_Value	161	7748_1	RD	—
Panelboard Power Factor Ph B	Analog_Value	162	7749_1	RD	—
Panelboard Power Factor Ph C	Analog_Value	163	7750_1	RD	—
Panelboard Power Factor Total	Analog_Value	164	7751_1	RD	—
Panelboard Energy	Analog_Value	165	7752_1	RD	Units: kWH
Panelboard Peak Current Ph A	Analog_Value	166	7753_1	RD	Units: A AC
Panelboard Peak Current Ph B	Analog_Value	167	7754_1	RD	Units: A AC
Panelboard Peak Current Ph C	Analog_Value	168	7755_1	RD	Units: A AC
Panelboard Highest Phase Peak Current	Analog_Value	169	7756_1	RD	Units: A AC
Panelboard Peak Demand	Analog_Value	170	7757_1	RD	Units: kW
Panelboard Current Crest Factor Ph A	Analog_Value	171	7758_1	RD	—
Panelboard Current Crest Factor Ph B	Analog_Value	172	7759_1	RD	—
Panelboard Current Crest Factor Ph C	Analog_Value	173	7760_1	RD	—
Panelboard iTHD Ph A	Analog_Value	174	7761_1	RD	Units: %
Panelboard iTHD Ph B	Analog_Value	175	7762_1	RD	Units: %
Panelboard iTHD Ph C	Analog_Value	176	7763_1	RD	Units: %
Panelboard Current 3rd Harmonic Ph A	Analog_Value	177	7764_1	RD	Units: %
Panelboard Current 3rd Harmonic Ph B	Analog_Value	178	7765_1	RD	Units: %
Panelboard Current 3rd Harmonic Ph C	Analog_Value	179	7766_1	RD	Units: %
Panelboard Current 5th Harmonic Ph A	Analog_Value	180	7767_1	RD	Units: %
Panelboard Current 5th Harmonic Ph B	Analog_Value	181	7768_1	RD	Units: %
Panelboard Current 5th Harmonic Ph C	Analog_Value	182	7769_1	RD	Units: %
Panelboard Current 7th Harmonic Ph A	Analog_Value	183	7770_1	RD	Units: %
Panelboard Current 7th Harmonic Ph B	Analog_Value	184	7771_1	RD	Units: %
Panelboard Current 7th Harmonic Ph C	Analog_Value	185	7772_1	RD	Units: %
Panelboard Current 9th Harmonic Ph A	Analog_Value	186	7773_1	RD	Units: %
Panelboard Current 9th Harmonic Ph B	Analog_Value	187	7774_1	RD	Units: %
Panelboard Current 9th Harmonic Ph C	Analog_Value	188	7775_1	RD	Units: %
Panelboard vTHD Ph A	Analog_Value	189	7776_1	RD	Units: %
Panelboard vTHD Ph B	Analog_Value	190	7777_1	RD	Units: %
Panelboard vTHD Ph C	Analog_Value	191	7778_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Voltage 3rd Harmonic Ph A	Analog_Value	192	7779_1	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph B	Analog_Value	193	7780_1	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph C	Analog_Value	194	7781_1	RD	Units: %
Panelboard Voltage 5th Harmonic Ph A	Analog_Value	195	7782_1	RD	Units: %
Panelboard Voltage 5th Harmonic Ph B	Analog_Value	196	7783_1	RD	Units: %
Panelboard Voltage 5th Harmonic Ph C	Analog_Value	197	7784_1	RD	Units: %
Panelboard Voltage 7th Harmonic Ph A	Analog_Value	198	7785_1	RD	Units: %
Panelboard Voltage 7th Harmonic Ph B	Analog_Value	199	7786_1	RD	Units: %
Panelboard Voltage 7th Harmonic Ph C	Analog_Value	200	7787_1	RD	Units: %
Panelboard Voltage 9th Harmonic Ph A	Analog_Value	201	7788_1	RD	Units: %
Panelboard Voltage 9th Harmonic Ph B	Analog_Value	202	7789_1	RD	Units: %
Panelboard Voltage 9th Harmonic Ph C	Analog_Value	203	7790_1	RD	Units: %
Panelboard Phase Overcurrent Warning Threshold	Analog_Value	204	7798_1	RD	Units: %
Panelboard Phase Overcurrent Alarm Threshold	Analog_Value	205	7799_1	RD	Units: %
Panelboard Neutral Overcurrent Alarm Threshold	Analog_Value	206	7800_1	RD	Units: %
Panelboard Ground Overcurrent Alarm Threshold	Analog_Value	207	7801_1	RD	Units: A AC
Panelboard Neutral Overcurrent Warning Threshold	Analog_Value	208	8277_1	RD	Units: %
Panelboard Phase Overvoltage Alarm Threshold	Analog_Value	209	8256_1	RD	Units: %
Panelboard Phase Undervoltage Alarm Threshold	Analog_Value	210	8257_1	RD	Units: %
Branch PB 1 Branch 1					
Branch Position	Analog_Value	218	7808_1_1	RD	—
Branch Current Rating	Analog_Value	219	7809_1_1	RD	Units: A AC
Branch Current L1	Analog_Value	220	7810_1_1	RD	Units: A AC
Branch Current L2	Analog_Value	221	7811_1_1	RD	Units: A AC
Branch Current L3	Analog_Value	222	7812_1_1	RD	Units: A AC
Branch Real Power	Analog_Value	223	7813_1_1	RD	Units: kW
Branch Power Factor	Analog_Value	224	7814_1_1	RD	—
Branch Energy	Analog_Value	225	7815_1_1	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	226	7816_1_1	RD	Units: %
Branch Peak Current L1	Analog_Value	227	7817_1_1	RD	Units: A AC
Branch Peak Current L2	Analog_Value	228	7818_1_1	RD	Units: A AC
Branch Peak Current L3	Analog_Value	229	7819_1_1	RD	Units: A AC

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Highest Phase Peak Current	Analog_Value	230	7820_1_1	RD	Units: A AC
Branch Peak Demand	Analog_Value	231	7821_1_1	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	232	7825_1_1	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	233	7826_1_1	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	234	7827_1_1	RD	Units: %
Branch Current Neutral	Analog_Value	235	8258_1_1	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	236	8260_1_1	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	237	8261_1_1	RD	Units: %
Load Loss Min Load	Analog_Value	238	8437_1_1	RD	Units: %
Branch PB 1 Branch 2					
Branch Position	Analog_Value	245	7808_1_2	RD	—
Branch Current Rating	Analog_Value	246	7809_1_2	RD	Units: A AC
Branch Current L1	Analog_Value	247	7810_1_2	RD	Units: A AC
Branch Current L2	Analog_Value	248	7811_1_2	RD	Units: A AC
Branch Current L3	Analog_Value	249	7812_1_2	RD	Units: A AC
Branch Real Power	Analog_Value	250	7813_1_2	RD	Units: kW
Branch Power Factor	Analog_Value	251	7814_1_2	RD	
Branch Energy	Analog_Value	252	7815_1_2	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	253	7816_1_2	RD	Units: %
Branch Peak Current L1	Analog_Value	254	7817_1_2	RD	Units: A AC
Branch Peak Current L2	Analog_Value	255	7818_1_2	RD	Units: A AC
Branch Peak Current L3	Analog_Value	256	7819_1_2	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	257	7820_1_2	RD	Units: A AC
Branch Peak Demand	Analog_Value	258	7821_1_2	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	259	7825_1_2	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	260	7826_1_2	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	261	7827_1_2	RD	Units: %
Branch Current Neutral	Analog_Value	262	8258_1_2	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	263	8260_1_2	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	264	8261_1_2	RD	Units: %
Load Loss Min Load	Analog_Value	265	8437_1_2	RD	Units: %
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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch PB 1 Branch 42					
Branch Position	Analog_Value	1325	7808_1_42	RD	—
Branch Current Rating	Analog_Value	1326	7809_1_42	RD	Units: A AC
Branch Current L1	Analog_Value	1327	7810_1_42	RD	Units: A AC
Branch Current L2	Analog_Value	1328	7811_1_42	RD	Units: A AC
Branch Current L3	Analog_Value	1329	7812_1_42	RD	Units: A AC
Branch Real Power	Analog_Value	1330	7813_1_42	RD	Units: kW
Branch Power Factor	Analog_Value	1331	7814_1_42	RD	—
Branch Energy	Analog_Value	1332	7815_1_42	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	1333	7816_1_42	RD	Units: %
Branch Peak Current L1	Analog_Value	1334	7817_1_42	RD	Units: A AC
Branch Peak Current L2	Analog_Value	1335	7818_1_42	RD	Units: A AC
Branch Peak Current L3	Analog_Value	1336	7819_1_42	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	1337	7820_1_42	RD	Units: A AC
Branch Peak Demand	Analog_Value	1338	7821_1_42	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	1339	7825_1_42	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	1340	7826_1_42	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	1341	7827_1_42	RD	Units: %
Branch Current Neutral	Analog_Value	1342	8258_1_42	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	1343	8260_1_42	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	1344	8261_1_42	RD	Units: %
Load Loss Min Load	Analog_Value	1345	8437_1_42	RD	Units: %
Branch PB 2					
Panelboard Total Pole Positions	Analog_Value	1352	7727_2	RD	—
Panelboard Available Pole Positions	Analog_Value	1353	7728_2	RD	—
Panelboard Main Breaker Current Rating	Analog_Value	1354	7729_2	RD	Units: A AC
Panelboard Current Ph A	Analog_Value	1355	7730_2	RD	Units: A AC
Panelboard Current Ph B	Analog_Value	1356	7731_2	RD	Units: A AC
Panelboard Current Ph C	Analog_Value	1357	7732_2	RD	Units: A AC
Panelboard Neutral Current	Analog_Value	1358	7733_2	RD	Units: A AC
Panelboard Ground Current	Analog_Value	1359	7734_2	RD	Units: A AC
Panelboard Current Load Ph A	Analog_Value	1360	7735_2	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Current Load Ph B	Analog_Value	1361	7736_2	RD	Units: %
Panelboard Current Load Ph C	Analog_Value	1362	7737_2	RD	Units: %
Panelboard Highest Phase Current Load	Analog_Value	1363	7738_2	RD	Units: %
Panelboard Voltage (L-L) A-B	Analog_Value	1364	7739_2	RD	Units: VAC
Panelboard Voltage (L-L) B-C	Analog_Value	1365	7740_2	RD	Units: VAC
Panelboard Voltage (L-L) C-A	Analog_Value	1366	7741_2	RD	Units: VAC
Panelboard Voltage (L-N) A-N	Analog_Value	1367	7742_2	RD	Units: VAC
Panelboard Voltage (L-N) B-N	Analog_Value	1368	7743_2	RD	Units: VAC
Panelboard Voltage (L-N) C-N	Analog_Value	1369	7744_2	RD	Units: VAC
Panelboard Frequency	Analog_Value	1370	7745_2	RD	Units: Hz
Panelboard Real Power	Analog_Value	1371	7746_2	RD	Units: kW
Panelboard Apparent Power	Analog_Value	1372	7747_2	RD	Units: kVA
Panelboard Power Factor Ph A	Analog_Value	1373	7748_2	RD	—
Panelboard Power Factor Ph B	Analog_Value	1374	7749_2	RD	—
Panelboard Power Factor Ph C	Analog_Value	1375	7750_2	RD	—
Panelboard Power Factor Total	Analog_Value	1376	7751_2	RD	—
Panelboard Energy	Analog_Value	1377	7752_2	RD	Units: kWH
Panelboard Peak Current Ph A	Analog_Value	1378	7753_2	RD	Units: A AC
Panelboard Peak Current Ph B	Analog_Value	1379	7754_2	RD	Units: A AC
Panelboard Peak Current Ph C	Analog_Value	1380	7755_2	RD	Units: A AC
Panelboard Highest Phase Peak Current	Analog_Value	1381	7756_2	RD	Units: A AC
Panelboard Peak Demand	Analog_Value	1382	7757_2	RD	Units: kW
Panelboard Current Crest Factor Ph A	Analog_Value	1383	7758_2	RD	—
Panelboard Current Crest Factor Ph B	Analog_Value	1384	7759_2	RD	—
Panelboard Current Crest Factor Ph C	Analog_Value	1385	7760_2	RD	—
Panelboard iTHD Ph A	Analog_Value	1386	7761_2	RD	Units: %
Panelboard iTHD Ph B	Analog_Value	1387	7762_2	RD	Units: %
Panelboard iTHD Ph C	Analog_Value	1388	7763_2	RD	Units: %
Panelboard Current 3rd Harmonic Ph A	Analog_Value	1389	7764_2	RD	Units: %
Panelboard Current 3rd Harmonic Ph B	Analog_Value	1390	7765_2	RD	Units: %
Panelboard Current 3rd Harmonic Ph C	Analog_Value	1391	7766_2	RD	Units: %
Panelboard Current 5th Harmonic Ph A	Analog_Value	1392	7767_2	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Current 5th Harmonic Ph B	Analog_Value	1393	7768_2	RD	Units: %
Panelboard Current 5th Harmonic Ph C	Analog_Value	1394	7769_2	RD	Units: %
Panelboard Current 7th Harmonic Ph A	Analog_Value	1395	7770_2	RD	Units: %
Panelboard Current 7th Harmonic Ph B	Analog_Value	1396	7771_2	RD	Units: %
Panelboard Current 7th Harmonic Ph C	Analog_Value	1397	7772_2	RD	Units: %
Panelboard Current 9th Harmonic Ph A	Analog_Value	1398	7773_2	RD	Units: %
Panelboard Current 9th Harmonic Ph B	Analog_Value	1399	7774_2	RD	Units: %
Panelboard Current 9th Harmonic Ph C	Analog_Value	1400	7775_2	RD	Units: %
Panelboard vTHD Ph A	Analog_Value	1401	7776_2	RD	Units: %
Panelboard vTHD Ph B	Analog_Value	1402	7777_2	RD	Units: %
Panelboard vTHD Ph C	Analog_Value	1403	7778_2	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph A	Analog_Value	1404	7779_2	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph B	Analog_Value	1405	7780_2	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph C	Analog_Value	1406	7781_2	RD	Units: %
Panelboard Voltage 5th Harmonic Ph A	Analog_Value	1407	7782_2	RD	Units: %
Panelboard Voltage 5th Harmonic Ph B	Analog_Value	1408	7783_2	RD	Units: %
Panelboard Voltage 5th Harmonic Ph C	Analog_Value	1409	7784_2	RD	Units: %
Panelboard Voltage 7th Harmonic Ph A	Analog_Value	1410	7785_2	RD	Units: %
Panelboard Voltage 7th Harmonic Ph B	Analog_Value	1411	7786_2	RD	Units: %
Panelboard Voltage 7th Harmonic Ph C	Analog_Value	1412	7787_2	RD	Units: %
Panelboard Voltage 9th Harmonic Ph A	Analog_Value	1413	7788_2	RD	Units: %
Panelboard Voltage 9th Harmonic Ph B	Analog_Value	1414	7789_2	RD	Units: %
Panelboard Voltage 9th Harmonic Ph C	Analog_Value	1415	7790_2	RD	Units: %
Panelboard Phase Overcurrent Warning Threshold	Analog_Value	1416	7798_2	RD	Units: %
Panelboard Phase Overcurrent Alarm Threshold	Analog_Value	1417	7799_2	RD	Units: %
Panelboard Neutral Overcurrent Alarm Threshold	Analog_Value	1418	7800_2	RD	Units: %
Panelboard Ground Overcurrent Alarm Threshold	Analog_Value	1419	7801_2	RD	Units: A AC
Panelboard Neutral Overcurrent Warning Threshold	Analog_Value	1420	8277_2	RD	Units: %
Panelboard Phase Overvoltage Alarm Threshold	Analog_Value	1421	8256_2	RD	Units: %
Panelboard Phase Undervoltage Alarm Threshold	Analog_Value	1422	8257_2	RD	Units: %
Branch PB 2 Branch 1					
Branch Position	Analog_Value	1430	7808_2_1	RD	—

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Current Rating	Analog_Value	1431	7809_2_1	RD	Units: A AC
Branch Current L1	Analog_Value	1432	7810_2_1	RD	Units: A AC
Branch Current L2	Analog_Value	1433	7811_2_1	RD	Units: A AC
Branch Current L3	Analog_Value	1434	7812_2_1	RD	Units: A AC
Branch Real Power	Analog_Value	1435	7813_2_1	RD	Units: kW
Branch Power Factor	Analog_Value	1436	7814_2_1	RD	—
Branch Energy	Analog_Value	1437	7815_2_1	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	1438	7816_2_1	RD	Units: %
Branch Peak Current L1	Analog_Value	1439	7817_2_1	RD	Units: A AC
Branch Peak Current L2	Analog_Value	1440	7818_2_1	RD	Units: A AC
Branch Peak Current L3	Analog_Value	1441	7819_2_1	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	1442	7820_2_1	RD	Units: A AC
Branch Peak Demand	Analog_Value	1443	7821_2_1	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	1444	7825_2_1	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	1445	7826_2_1	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	1446	7827_2_1	RD	Units: %
Branch Current Neutral	Analog_Value	1447	8258_2_1	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	1448	8260_2_1	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	1449	8261_2_1	RD	Units: %
Load Loss Min Load	Analog_Value	1450	8437_2_1	RD	Units: %
Branch PB 2 Branch 2					
Branch Position	Analog_Value	1457	7808_2_2	RD	—
Branch Current Rating	Analog_Value	1458	7809_2_2	RD	Units: A AC
Branch Current L1	Analog_Value	1459	7810_2_2	RD	Units: A AC
Branch Current L2	Analog_Value	1460	7811_2_2	RD	Units: A AC
Branch Current L3	Analog_Value	1461	7812_2_2	RD	Units: A AC
Branch Real Power	Analog_Value	1462	7813_2_2	RD	Units: kW
Branch Power Factor	Analog_Value	1463	7814_2_2	RD	—
Branch Energy	Analog_Value	1464	7815_2_2	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	1465	7816_2_2	RD	Units: %
Branch Peak Current L1	Analog_Value	1466	7817_2_2	RD	Units: A AC
Branch Peak Current L2	Analog_Value	1467	7818_2_2	RD	Units: A AC

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Peak Current L3	Analog_Value	1468	7819_2_2	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	1469	7820_2_2	RD	Units: A AC
Branch Peak Demand	Analog_Value	1470	7821_2_2	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	1471	7825_2_2	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	1472	7826_2_2	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	1473	7827_2_2	RD	Units: %
Branch Current Neutral	Analog_Value	1474	8258_2_2	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	1475	8260_2_2	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	1476	8261_2_2	RD	Units: %
Load Loss Min Load	Analog_Value	1477	8437_2_2	RD	Units: %
. . .					
Branch PB 2 Branch 42					
Branch Position	Analog_Value	2537	7808_2_42	RD	—
Branch Current Rating	Analog_Value	2538	7809_2_42	RD	Units: A AC
Branch Current L1	Analog_Value	2539	7810_2_42	RD	Units: A AC
Branch Current L2	Analog_Value	2540	7811_2_42	RD	Units: A AC
Branch Current L3	Analog_Value	2541	7812_2_42	RD	Units: A AC
Branch Real Power	Analog_Value	2542	7813_2_42	RD	Units: kW
Branch Power Factor	Analog_Value	2543	7814_2_42	RD	—
Branch Energy	Analog_Value	2544	7815_2_42	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	2545	7816_2_42	RD	Units: %
Branch Peak Current L1	Analog_Value	2546	7817_2_42	RD	Units: A AC
Branch Peak Current L2	Analog_Value	2547	7818_2_42	RD	Units: A AC
Branch Peak Current L3	Analog_Value	2548	7819_2_42	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	2549	7820_2_42	RD	Units: A AC
Branch Peak Demand	Analog_Value	2550	7821_2_42	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	2551	7825_2_42	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	2552	7826_2_42	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	2553	7827_2_42	RD	Units: %
Branch Current Neutral	Analog_Value	2554	8258_2_42	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	2555	8260_2_42	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	2556	8261_2_42	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Load Loss Min Load	Analog_Value	2557	8437_2_42	RD	Units: %
. . .					
Branch PB 12					
Panelboard Total Pole Positions	Analog_Value	13472	7727_12	RD	—
Panelboard Available Pole Positions	Analog_Value	13473	7728_12	RD	—
Panelboard Main Breaker Current Rating	Analog_Value	13474	7729_12	RD	Units: A AC
Panelboard Current Ph A	Analog_Value	13475	7730_12	RD	Units: A AC
Panelboard Current Ph B	Analog_Value	13476	7731_12	RD	Units: A AC
Panelboard Current Ph C	Analog_Value	13477	7732_12	RD	Units: A AC
Panelboard Neutral Current	Analog_Value	13478	7733_12	RD	Units: A AC
Panelboard Ground Current	Analog_Value	13479	7734_12	RD	Units: A AC
Panelboard Current Load Ph A	Analog_Value	13480	7735_12	RD	Units: %
Panelboard Current Load Ph B	Analog_Value	13481	7736_12	RD	Units: %
Panelboard Current Load Ph C	Analog_Value	13482	7737_12	RD	Units: %
Panelboard Highest Phase Current Load	Analog_Value	13483	7738_12	RD	Units: %
Panelboard Voltage (L-L) A-B	Analog_Value	13484	7739_12	RD	Units: VAC
Panelboard Voltage (L-L) B-C	Analog_Value	13485	7740_12	RD	Units: VAC
Panelboard Voltage (L-L) C-A	Analog_Value	13486	7741_12	RD	Units: VAC
Panelboard Voltage (L-N) A-N	Analog_Value	13487	7742_12	RD	Units: VAC
Panelboard Voltage (L-N) B-N	Analog_Value	13488	7743_12	RD	Units: VAC
Panelboard Voltage (L-N) C-N	Analog_Value	13489	7744_12	RD	Units: VAC
Panelboard Frequency	Analog_Value	13490	7745_12	RD	Units: Hz
Panelboard Real Power	Analog_Value	13491	7746_12	RD	Units: kW
Panelboard Apparent Power	Analog_Value	13492	7747_12	RD	Units: kVA
Panelboard Power Factor Ph A	Analog_Value	13493	7748_12	RD	—
Panelboard Power Factor Ph B	Analog_Value	13494	7749_12	RD	—
Panelboard Power Factor Ph C	Analog_Value	13495	7750_12	RD	—
Panelboard Power Factor Total	Analog_Value	13496	7751_12	RD	—
Panelboard Energy	Analog_Value	13497	7752_12	RD	Units: kWH
Panelboard Peak Current Ph A	Analog_Value	13498	7753_12	RD	Units: A AC
Panelboard Peak Current Ph B	Analog_Value	13499	7754_12	RD	Units: A AC
Panelboard Peak Current Ph C	Analog_Value	13500	7755_12	RD	Units: A AC

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Highest Phase Peak Current	Analog_Value	13501	7756_12	RD	Units: A AC
Panelboard Peak Demand	Analog_Value	13502	7757_12	RD	Units: kW
Panelboard Current Crest Factor Ph A	Analog_Value	13503	7758_12	RD	—
Panelboard Current Crest Factor Ph B	Analog_Value	13504	7759_12	RD	—
Panelboard Current Crest Factor Ph C	Analog_Value	13505	7760_12	RD	—
Panelboard iTHD Ph A	Analog_Value	13506	7761_12	RD	Units: %
Panelboard iTHD Ph B	Analog_Value	13507	7762_12	RD	Units: %
Panelboard iTHD Ph C	Analog_Value	13508	7763_12	RD	Units: %
Panelboard Current 3rd Harmonic Ph A	Analog_Value	13509	7764_12	RD	Units: %
Panelboard Current 3rd Harmonic Ph B	Analog_Value	13510	7765_12	RD	Units: %
Panelboard Current 3rd Harmonic Ph C	Analog_Value	13511	7766_12	RD	Units: %
Panelboard Current 5th Harmonic Ph A	Analog_Value	13512	7767_12	RD	Units: %
Panelboard Current 5th Harmonic Ph B	Analog_Value	13513	7768_12	RD	Units: %
Panelboard Current 5th Harmonic Ph C	Analog_Value	13514	7769_12	RD	Units: %
Panelboard Current 7th Harmonic Ph A	Analog_Value	13515	7770_12	RD	Units: %
Panelboard Current 7th Harmonic Ph B	Analog_Value	13516	7771_12	RD	Units: %
Panelboard Current 7th Harmonic Ph C	Analog_Value	13517	7772_12	RD	Units: %
Panelboard Current 9th Harmonic Ph A	Analog_Value	13518	7773_12	RD	Units: %
Panelboard Current 9th Harmonic Ph B	Analog_Value	13519	7774_12	RD	Units: %
Panelboard Current 9th Harmonic Ph C	Analog_Value	13520	7775_12	RD	Units: %
Panelboard vTHD Ph A	Analog_Value	13521	7776_12	RD	Units: %
Panelboard vTHD Ph B	Analog_Value	13522	7777_12	RD	Units: %
Panelboard vTHD Ph C	Analog_Value	13523	7778_12	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph A	Analog_Value	13524	7779_12	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph B	Analog_Value	13525	7780_12	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph C	Analog_Value	13526	7781_12	RD	Units: %
Panelboard Voltage 5th Harmonic Ph A	Analog_Value	13527	7782_12	RD	Units: %
Panelboard Voltage 5th Harmonic Ph B	Analog_Value	13528	7783_12	RD	Units: %
Panelboard Voltage 5th Harmonic Ph C	Analog_Value	13529	7784_12	RD	Units: %
Panelboard Voltage 7th Harmonic Ph A	Analog_Value	13530	7785_12	RD	Units: %
Panelboard Voltage 7th Harmonic Ph B	Analog_Value	13531	7786_12	RD	Units: %
Panelboard Voltage 7th Harmonic Ph C	Analog_Value	13532	7787_12	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Voltage 9th Harmonic Ph A	Analog_Value	13533	7788_12	RD	Units: %
Panelboard Voltage 9th Harmonic Ph B	Analog_Value	13534	7789_12	RD	Units: %
Panelboard Voltage 9th Harmonic Ph C	Analog_Value	13535	7790_12	RD	Units: %
Panelboard Phase Overcurrent Warning Threshold	Analog_Value	13536	7798_12	RD	Units: %
Panelboard Phase Overcurrent Alarm Threshold	Analog_Value	13537	7799_12	RD	Units: %
Panelboard Neutral Overcurrent Alarm Threshold	Analog_Value	13538	7800_12	RD	Units: %
Panelboard Ground Overcurrent Alarm Threshold	Analog_Value	13539	7801_12	RD	Units: A AC
Panelboard Neutral Overcurrent Warning Threshold	Analog_Value	13540	8277_12	RD	Units: %
Panelboard Phase Overvoltage Alarm Threshold	Analog_Value	13541	8256_12	RD	Units: %
Panelboard Phase Undervoltage Alarm Threshold	Analog_Value	13542	8257_12	RD	Units: %
Branch PB 12 Branch 1					
Branch Position	Analog_Value	13550	7808_12_1	RD	—
Branch Current Rating	Analog_Value	13551	7809_12_1	RD	Units: A AC
Branch Current L1	Analog_Value	13552	7810_12_1	RD	Units: A AC
Branch Current L2	Analog_Value	13553	7811_12_1	RD	Units: A AC
Branch Current L3	Analog_Value	13554	7812_12_1	RD	Units: A AC
Branch Real Power	Analog_Value	13555	7813_12_1	RD	Units: kW
Branch Power Factor	Analog_Value	13556	7814_12_1	RD	—
Branch Energy	Analog_Value	13557	7815_12_1	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	13558	7816_12_1	RD	Units: %
Branch Peak Current L1	Analog_Value	13559	7817_12_1	RD	Units: A AC
Branch Peak Current L2	Analog_Value	13560	7818_12_1	RD	Units: A AC
Branch Peak Current L3	Analog_Value	13561	7819_12_1	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	13562	7820_12_1	RD	Units: A AC
Branch Peak Demand	Analog_Value	13563	7821_12_1	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	13564	7825_12_1	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	13565	7826_12_1	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	13566	7827_12_1	RD	Units: %
Branch Current Neutral	Analog_Value	13567	8258_12_1	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	13568	8260_12_1	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	13569	8261_12_1	RD	Units: %
Load Loss Min Load	Analog_Value	13570	8437_12_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch PB 12 Branch 2					
Branch Position	Analog_Value	13577	7808_12_2	RD	—
Branch Current Rating	Analog_Value	13578	7809_12_2	RD	Units: A AC
Branch Current L1	Analog_Value	13579	7810_12_2	RD	Units: A AC
Branch Current L2	Analog_Value	13580	7811_12_2	RD	Units: A AC
Branch Current L3	Analog_Value	13581	7812_12_2	RD	Units: A AC
Branch Real Power	Analog_Value	13582	7813_12_2	RD	Units: kW
Branch Power Factor	Analog_Value	13583	7814_12_2	RD	
Branch Energy	Analog_Value	13584	7815_12_2	RD	Units: kWH
Branch Highest Phase Current Load	Analog_Value	13585	7816_12_2	RD	Units: %
Branch Peak Current L1	Analog_Value	13586	7817_12_2	RD	Units: A AC
Branch Peak Current L2	Analog_Value	13587	7818_12_2	RD	Units: A AC
Branch Peak Current L3	Analog_Value	13588	7819_12_2	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	13589	7820_12_2	RD	Units: A AC
Branch Peak Demand	Analog_Value	13590	7821_12_2	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	13591	7825_12_2	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	13592	7826_12_2	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	13593	7827_12_2	RD	Units: %
Branch Current Neutral	Analog_Value	13594	8258_12_2	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	13595	8260_12_2	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	13596	8261_12_2	RD	Units: %
Load Loss Min Load	Analog_Value	13597	8437_12_2	RD	Units: %
. . .					
Branch PB 12 Branch 42					
Branch Position	Analog_Value	14657	7808_12_42	RD	
Branch Current Rating	Analog_Value	14658	7809_12_42	RD	Units: A AC
Branch Current L1	Analog_Value	14659	7810_12_42	RD	Units: A AC
Branch Current L2	Analog_Value	14660	7811_12_42	RD	Units: A AC
Branch Current L3	Analog_Value	14661	7812_12_42	RD	Units: A AC
Branch Real Power	Analog_Value	14662	7813_12_42	RD	Units: kW
Branch Power Factor	Analog_Value	14663	7814_12_42	RD	—
Branch Energy	Analog_Value	14664	7815_12_42	RD	Units: kWH

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Highest Phase Current Load	Analog_Value	14665	7816_12_42	RD	Units: %
Branch Peak Current L1	Analog_Value	14666	7817_12_42	RD	Units: A AC
Branch Peak Current L2	Analog_Value	14667	7818_12_42	RD	Units: A AC
Branch Peak Current L3	Analog_Value	14668	7819_12_42	RD	Units: A AC
Branch Highest Phase Peak Current	Analog_Value	14669	7820_12_42	RD	Units: A AC
Branch Peak Demand	Analog_Value	14670	7821_12_42	RD	Units: kW
Branch Overcurrent Warning Threshold	Analog_Value	14671	7825_12_42	RD	Units: %
Branch Overcurrent Alarm Threshold	Analog_Value	14672	7826_12_42	RD	Units: %
Branch Low Current Alarm Threshold	Analog_Value	14673	7827_12_42	RD	Units: %
Branch Current Neutral	Analog_Value	14674	8258_12_42	RD	Units: A AC
Branch Neutral Overcurrent Warning Threshold	Analog_Value	14675	8260_12_42	RD	Units: %
Branch Neutral Overcurrent Alarm Threshold	Analog_Value	14676	8261_12_42	RD	Units: %
Load Loss Min Load	Analog_Value	14677	8437_12_42	RD	Units: %
Subfeed PB 1					
Panelboard Subfeed Count	Analog_Value	14684	7833_1	RD	—
Panelboard Current Ph A	Analog_Value	14685	7834_1	RD	Units: A AC
Panelboard Current Ph B	Analog_Value	14686	7835_1	RD	Units: A AC
Panelboard Current Ph C	Analog_Value	14687	7836_1	RD	Units: A AC
Panelboard Neutral Current	Analog_Value	14688	7837_1	RD	Units: A AC
Panelboard Ground Current	Analog_Value	14689	7838_1	RD	Units: A AC
Panelboard Current Load Ph A	Analog_Value	14690	7839_1	RD	Units: %
Panelboard Current Load Ph B	Analog_Value	14691	7840_1	RD	Units: %
Panelboard Current Load Ph C	Analog_Value	14692	7841_1	RD	Units: %
Panelboard Highest Phase Current Load	Analog_Value	14693	7842_1	RD	Units: %
Panelboard Voltage (L-L) A-B	Analog_Value	14694	7843_1	RD	Units: VAC
Panelboard Voltage (L-L) B-C	Analog_Value	14695	7844_1	RD	Units: VAC
Panelboard Voltage (L-L) C-A	Analog_Value	14696	7845_1	RD	Units: VAC
Panelboard Voltage (L-N) A-N	Analog_Value	14697	7846_1	RD	Units: VAC
Panelboard Voltage (L-N) B-N	Analog_Value	14698	7847_1	RD	Units: VAC
Panelboard Voltage (L-N) C-N	Analog_Value	14699	7848_1	RD	Units: VAC
Panelboard Frequency	Analog_Value	14700	7849_1	RD	Units: Hz
Panelboard Real Power	Analog_Value	14701	7850_1	RD	Units: kW

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Apparent Power	Analog_Value	14702	7851_1	RD	Units: kVA
Panelboard Power Factor Ph A	Analog_Value	14703	7852_1	RD	—
Panelboard Power Factor Ph B	Analog_Value	14704	7853_1	RD	—
Panelboard Power Factor Ph C	Analog_Value	14705	7854_1	RD	—
Panelboard Power Factor Total	Analog_Value	14706	7855_1	RD	—
Panelboard Energy	Analog_Value	14707	7856_1	RD	Units: kWH
Panelboard Peak Current Ph A	Analog_Value	14708	7857_1	RD	Units: A AC
Panelboard Peak Current Ph B	Analog_Value	14709	7858_1	RD	Units: A AC
Panelboard Peak Current Ph C	Analog_Value	14710	7859_1	RD	Units: A AC
Panelboard Highest Phase Peak Current	Analog_Value	14711	7860_1	RD	Units: A AC
Panelboard Peak Demand	Analog_Value	14712	7861_1	RD	Units: kW
Panelboard Current Crest Factor Ph A	Analog_Value	14713	7862_1	RD	—
Panelboard Current Crest Factor Ph B	Analog_Value	14714	7863_1	RD	—
Panelboard Current Crest Factor Ph C	Analog_Value	14715	7864_1	RD	—
Panelboard iTHD Ph A	Analog_Value	14716	7865_1	RD	Units: %
Panelboard iTHD Ph B	Analog_Value	14717	7866_1	RD	Units: %
Panelboard iTHD Ph C	Analog_Value	14718	7867_1	RD	Units: %
Panelboard Current 3rd Harmonic Ph A	Analog_Value	14719	7868_1	RD	Units: %
Panelboard Current 3rd Harmonic Ph B	Analog_Value	14720	7869_1	RD	Units: %
Panelboard Current 3rd Harmonic Ph C	Analog_Value	14721	7870_1	RD	Units: %
Panelboard Current 5th Harmonic Ph A	Analog_Value	14722	7871_1	RD	Units: %
Panelboard Current 5th Harmonic Ph B	Analog_Value	14723	7872_1	RD	Units: %
Panelboard Current 5th Harmonic Ph C	Analog_Value	14724	7873_1	RD	Units: %
Panelboard Current 7th Harmonic Ph A	Analog_Value	14725	7874_1	RD	Units: %
Panelboard Current 7th Harmonic Ph B	Analog_Value	14726	7875_1	RD	Units: %
Panelboard Current 7th Harmonic Ph C	Analog_Value	14727	7876_1	RD	Units: %
Panelboard Current 9th Harmonic Ph A	Analog_Value	14728	7877_1	RD	Units: %
Panelboard Current 9th Harmonic Ph B	Analog_Value	14729	7878_1	RD	Units: %
Panelboard Current 9th Harmonic Ph C	Analog_Value	14730	7879_1	RD	Units: %
Panelboard vTHD Ph A	Analog_Value	14731	7880_1	RD	Units: %
Panelboard vTHD Ph B	Analog_Value	14732	7881_1	RD	Units: %
Panelboard vTHD Ph C	Analog_Value	14733	7882_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Voltage 3rd Harmonic Ph A	Analog_Value	14734	7883_1	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph B	Analog_Value	14735	7884_1	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph C	Analog_Value	14736	7885_1	RD	Units: %
Panelboard Voltage 5th Harmonic Ph A	Analog_Value	14737	7886_1	RD	Units: %
Panelboard Voltage 5th Harmonic Ph B	Analog_Value	14738	7887_1	RD	Units: %
Panelboard Voltage 5th Harmonic Ph C	Analog_Value	14739	7888_1	RD	Units: %
Panelboard Voltage 7th Harmonic Ph A	Analog_Value	14740	7889_1	RD	Units: %
Panelboard Voltage 7th Harmonic Ph B	Analog_Value	14741	7890_1	RD	Units: %
Panelboard Voltage 7th Harmonic Ph C	Analog_Value	14742	7891_1	RD	Units: %
Panelboard Voltage 9th Harmonic Ph A	Analog_Value	14743	7892_1	RD	Units: %
Panelboard Voltage 9th Harmonic Ph B	Analog_Value	14744	7893_1	RD	Units: %
Panelboard Voltage 9th Harmonic Ph C	Analog_Value	14745	7894_1	RD	Units: %
Panelboard Phase Overcurrent Warning Threshold	Analog_Value	14746	7902_1	RD	Units: %
Panelboard Phase Overcurrent Alarm Threshold	Analog_Value	14747	7903_1	RD	Units: %
Panelboard Neutral Overcurrent Alarm Threshold	Analog_Value	14748	7904_1	RD	Units: %
Panelboard Ground Overcurrent Alarm Threshold	Analog_Value	14749	7905_1	RD	Units: A AC
Panelboard Neutral Overcurrent Warning Threshold	Analog_Value	14750	8278_1	RD	Units: %
Panelboard Phase Overvoltage Alarm Threshold	Analog_Value	14751	8265_1	RD	Units: %
Panelboard Phase Undervoltage Alarm Threshold	Analog_Value	14752	8266_1	RD	Units: %
Subfeed PB 1 Subfeed 1					
Subfeed Current Rating	Analog_Value	14760	7912_1_1	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	14761	7913_1_1	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	14762	7914_1_1	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	14763	7915_1_1	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	14764	7916_1_1	RD	Units: A AC
Subfeed Ground Current	Analog_Value	14765	7917_1_1	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	14766	7918_1_1	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	14767	7919_1_1	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	14768	7920_1_1	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	14769	7921_1_1	RD	Units: %
Subfeed Real Power	Analog_Value	14770	7922_1_1	RD	Units: kW
Subfeed Apparent Power	Analog_Value	14771	7923_1_1	RD	Units: kVA

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Power Factor Ph A	Analog_Value	14772	7924_1_1	RD	—
Subfeed Power Factor Ph B	Analog_Value	14773	7925_1_1	RD	—
Subfeed Power Factor Ph C	Analog_Value	14774	7926_1_1	RD	—
Subfeed Power Factor Total	Analog_Value	14775	7927_1_1	RD	—
Subfeed Energy	Analog_Value	14776	7928_1_1	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	14777	7929_1_1	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	14778	7930_1_1	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	14779	7931_1_1	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	14780	7932_1_1	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	14781	7933_1_1	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	14782	7934_1_1	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	14783	7935_1_1	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	14784	7936_1_1	RD	—
Subfeed iTHD Ph A	Analog_Value	14785	7937_1_1	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	14786	7938_1_1	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	14787	7939_1_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	14788	7940_1_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	14789	7941_1_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	14790	7942_1_1	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	14791	7943_1_1	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	14792	7944_1_1	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	14793	7945_1_1	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	14794	7946_1_1	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	14795	7947_1_1	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	14796	7948_1_1	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	14797	7949_1_1	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	14798	7950_1_1	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	14799	7951_1_1	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	14800	7959_1_1	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	14801	7960_1_1	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	14802	7961_1_1	RD	Units: %
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	14803	8279_1_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed PB 1 Subfeed 2					
Subfeed Current Rating	Analog_Value	14813	7912_1_2	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	14814	7913_1_2	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	14815	7914_1_2	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	14816	7915_1_2	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	14817	7916_1_2	RD	Units: A AC
Subfeed Ground Current	Analog_Value	14818	7917_1_2	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	14819	7918_1_2	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	14820	7919_1_2	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	14821	7920_1_2	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	14822	7921_1_2	RD	Units: %
Subfeed Real Power	Analog_Value	14823	7922_1_2	RD	Units: kW
Subfeed Apparent Power	Analog_Value	14824	7923_1_2	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	14825	7924_1_2	RD	—
Subfeed Power Factor Ph B	Analog_Value	14826	7925_1_2	RD	—
Subfeed Power Factor Ph C	Analog_Value	14827	7926_1_2	RD	—
Subfeed Power Factor Total	Analog_Value	14828	7927_1_2	RD	—
Subfeed Energy	Analog_Value	14829	7928_1_2	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	14830	7929_1_2	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	14831	7930_1_2	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	14832	7931_1_2	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	14833	7932_1_2	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	14834	7933_1_2	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	14835	7934_1_2	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	14836	7935_1_2	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	14837	7936_1_2	RD	—
Subfeed iTHD Ph A	Analog_Value	14838	7937_1_2	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	14839	7938_1_2	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	14840	7939_1_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	14841	7940_1_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	14842	7941_1_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	14843	7942_1_2	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Current 5th Harmonic Ph A	Analog_Value	14844	7943_1_2	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	14845	7944_1_2	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	14846	7945_1_2	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	14847	7946_1_2	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	14848	7947_1_2	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	14849	7948_1_2	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	14850	7949_1_2	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	14851	7950_1_2	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	14852	7951_1_2	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	14853	7959_1_2	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	14854	7960_1_2	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	14855	7961_1_2	RD	Units: %
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	14856	8279_1_2	RD	Units: %
. . .					
Subfeed PB 1 Subfeed 12					
Subfeed Current Rating	Analog_Value	15343	7912_1_12	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	15344	7913_1_12	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	15345	7914_1_12	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	15346	7915_1_12	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	15347	7916_1_12	RD	Units: A AC
Subfeed Ground Current	Analog_Value	15348	7917_1_12	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	15349	7918_1_12	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	15350	7919_1_12	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	15351	7920_1_12	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	15352	7921_1_12	RD	Units: %
Subfeed Real Power	Analog_Value	15353	7922_1_12	RD	Units: kW
Subfeed Apparent Power	Analog_Value	15354	7923_1_12	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	15355	7924_1_12	RD	—
Subfeed Power Factor Ph B	Analog_Value	15356	7925_1_12	RD	—
Subfeed Power Factor Ph C	Analog_Value	15357	7926_1_12	RD	—
Subfeed Power Factor Total	Analog_Value	15358	7927_1_12	RD	—
Subfeed Energy	Analog_Value	15359	7928_1_12	RD	Units: kWH

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Peak Current Ph A	Analog_Value	15360	7929_1_12	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	15361	7930_1_12	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	15362	7931_1_12	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	15363	7932_1_12	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	15364	7933_1_12	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	15365	7934_1_12	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	15366	7935_1_12	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	15367	7936_1_12	RD	—
Subfeed iTHD Ph A	Analog_Value	15368	7937_1_12	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	15369	7938_1_12	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	15370	7939_1_12	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	15371	7940_1_12	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	15372	7941_1_12	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	15373	7942_1_12	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	15374	7943_1_12	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	15375	7944_1_12	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	15376	7945_1_12	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	15377	7946_1_12	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	15378	7947_1_12	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	15379	7948_1_12	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	15380	7949_1_12	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	15381	7950_1_12	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	15382	7951_1_12	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	15383	7959_1_12	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	15384	7960_1_12	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	15385	7961_1_12	RD	Units: %
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	15386	8279_1_12	RD	Units: %
Subfeed PB 2					
Panelboard Subfeed Count	Analog_Value	15396	7833_2	RD	—
Panelboard Current Ph A	Analog_Value	15397	7834_2	RD	Units: A AC
Panelboard Current Ph B	Analog_Value	15398	7835_2	RD	Units: A AC
Panelboard Current Ph C	Analog_Value	15399	7836_2	RD	Units: A AC

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Neutral Current	Analog_Value	15400	7837_2	RD	Units: A AC
Panelboard Ground Current	Analog_Value	15401	7838_2	RD	Units: A AC
Panelboard Current Load Ph A	Analog_Value	15402	7839_2	RD	Units: %
Panelboard Current Load Ph B	Analog_Value	15403	7840_2	RD	Units: %
Panelboard Current Load Ph C	Analog_Value	15404	7841_2	RD	Units: %
Panelboard Highest Phase Current Load	Analog_Value	15405	7842_2	RD	Units: %
Panelboard Voltage (L-L) A-B	Analog_Value	15406	7843_2	RD	Units: VAC
Panelboard Voltage (L-L) B-C	Analog_Value	15407	7844_2	RD	Units: VAC
Panelboard Voltage (L-L) C-A	Analog_Value	15408	7845_2	RD	Units: VAC
Panelboard Voltage (L-N) A-N	Analog_Value	15409	7846_2	RD	Units: VAC
Panelboard Voltage (L-N) B-N	Analog_Value	15410	7847_2	RD	Units: VAC
Panelboard Voltage (L-N) C-N	Analog_Value	15411	7848_2	RD	Units: VAC
Panelboard Frequency	Analog_Value	15412	7849_2	RD	Units: Hz
Panelboard Real Power	Analog_Value	15413	7850_2	RD	Units: kW
Panelboard Apparent Power	Analog_Value	15414	7851_2	RD	Units: kVA
Panelboard Power Factor Ph A	Analog_Value	15415	7852_2	RD	—
Panelboard Power Factor Ph B	Analog_Value	15416	7853_2	RD	—
Panelboard Power Factor Ph C	Analog_Value	15417	7854_2	RD	—
Panelboard Power Factor Total	Analog_Value	15418	7855_2	RD	—
Panelboard Energy	Analog_Value	15419	7856_2	RD	Units: kWH
Panelboard Peak Current Ph A	Analog_Value	15420	7857_2	RD	Units: A AC
Panelboard Peak Current Ph B	Analog_Value	15421	7858_2	RD	Units: A AC
Panelboard Peak Current Ph C	Analog_Value	15422	7859_2	RD	Units: A AC
Panelboard Highest Phase Peak Current	Analog_Value	15423	7860_2	RD	Units: A AC
Panelboard Peak Demand	Analog_Value	15424	7861_2	RD	Units: kW
Panelboard Current Crest Factor Ph A	Analog_Value	15425	7862_2	RD	—
Panelboard Current Crest Factor Ph B	Analog_Value	15426	7863_2	RD	—
Panelboard Current Crest Factor Ph C	Analog_Value	15427	7864_2	RD	—
Panelboard iTHD Ph A	Analog_Value	15428	7865_2	RD	Units: %
Panelboard iTHD Ph B	Analog_Value	15429	7866_2	RD	Units: %
Panelboard iTHD Ph C	Analog_Value	15430	7867_2	RD	Units: %
Panelboard Current 3rd Harmonic Ph A	Analog_Value	15431	7868_2	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Current 3rd Harmonic Ph B	Analog_Value	15432	7869_2	RD	Units: %
Panelboard Current 3rd Harmonic Ph C	Analog_Value	15433	7870_2	RD	Units: %
Panelboard Current 5th Harmonic Ph A	Analog_Value	15434	7871_2	RD	Units: %
Panelboard Current 5th Harmonic Ph B	Analog_Value	15435	7872_2	RD	Units: %
Panelboard Current 5th Harmonic Ph C	Analog_Value	15436	7873_2	RD	Units: %
Panelboard Current 7th Harmonic Ph A	Analog_Value	15437	7874_2	RD	Units: %
Panelboard Current 7th Harmonic Ph B	Analog_Value	15438	7875_2	RD	Units: %
Panelboard Current 7th Harmonic Ph C	Analog_Value	15439	7876_2	RD	Units: %
Panelboard Current 9th Harmonic Ph A	Analog_Value	15440	7877_2	RD	Units: %
Panelboard Current 9th Harmonic Ph B	Analog_Value	15441	7878_2	RD	Units: %
Panelboard Current 9th Harmonic Ph C	Analog_Value	15442	7879_2	RD	Units: %
Panelboard vTHD Ph A	Analog_Value	15443	7880_2	RD	Units: %
Panelboard vTHD Ph B	Analog_Value	15444	7881_2	RD	Units: %
Panelboard vTHD Ph C	Analog_Value	15445	7882_2	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph A	Analog_Value	15446	7883_2	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph B	Analog_Value	15447	7884_2	RD	Units: %
Panelboard Voltage 3rd Harmonic Ph C	Analog_Value	15448	7885_2	RD	Units: %
Panelboard Voltage 5th Harmonic Ph A	Analog_Value	15449	7886_2	RD	Units: %
Panelboard Voltage 5th Harmonic Ph B	Analog_Value	15450	7887_2	RD	Units: %
Panelboard Voltage 5th Harmonic Ph C	Analog_Value	15451	7888_2	RD	Units: %
Panelboard Voltage 7th Harmonic Ph A	Analog_Value	15452	7889_2	RD	Units: %
Panelboard Voltage 7th Harmonic Ph B	Analog_Value	15453	7890_2	RD	Units: %
Panelboard Voltage 7th Harmonic Ph C	Analog_Value	15454	7891_2	RD	Units: %
Panelboard Voltage 9th Harmonic Ph A	Analog_Value	15455	7892_2	RD	Units: %
Panelboard Voltage 9th Harmonic Ph B	Analog_Value	15456	7893_2	RD	Units: %
Panelboard Voltage 9th Harmonic Ph C	Analog_Value	15457	7894_2	RD	Units: %
Panelboard Phase Overcurrent Warning Threshold	Analog_Value	15458	7902_2	RD	Units: %
Panelboard Phase Overcurrent Alarm Threshold	Analog_Value	15459	7903_2	RD	Units: %
Panelboard Neutral Overcurrent Alarm Threshold	Analog_Value	15460	7904_2	RD	Units: %
Panelboard Ground Overcurrent Alarm Threshold	Analog_Value	15461	7905_2	RD	Units: A AC
Panelboard Neutral Overcurrent Warning Threshold	Analog_Value	15462	8278_2	RD	Units: %
Panelboard Phase Overvoltage Alarm Threshold	Analog_Value	15463	8265_2	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Phase Undervoltage Alarm Threshold	Analog_Value	15464	8266_2	RD	Units: %
Subfeed PB 2 Subfeed 1					
Subfeed Current Rating	Analog_Value	15472	7912_2_1	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	15473	7913_2_1	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	15474	7914_2_1	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	15475	7915_2_1	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	15476	7916_2_1	RD	Units: A AC
Subfeed Ground Current	Analog_Value	15477	7917_2_1	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	15478	7918_2_1	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	15479	7919_2_1	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	15480	7920_2_1	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	15481	7921_2_1	RD	Units: %
Subfeed Real Power	Analog_Value	15482	7922_2_1	RD	Units: kW
Subfeed Apparent Power	Analog_Value	15483	7923_2_1	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	15484	7924_2_1	RD	—
Subfeed Power Factor Ph B	Analog_Value	15485	7925_2_1	RD	—
Subfeed Power Factor Ph C	Analog_Value	15486	7926_2_1	RD	—
Subfeed Power Factor Total	Analog_Value	15487	7927_2_1	RD	—
Subfeed Energy	Analog_Value	15488	7928_2_1	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	15489	7929_2_1	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	15490	7930_2_1	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	15491	7931_2_1	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	15492	7932_2_1	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	15493	7933_2_1	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	15494	7934_2_1	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	15495	7935_2_1	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	15496	7936_2_1	RD	—
Subfeed iTHD Ph A	Analog_Value	15497	7937_2_1	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	15498	7938_2_1	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	15499	7939_2_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	15500	7940_2_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	15501	7941_2_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Current 3rd Harmonic Ph C	Analog_Value	15502	7942_2_1	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	15503	7943_2_1	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	15504	7944_2_1	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	15505	7945_2_1	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	15506	7946_2_1	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	15507	7947_2_1	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	15508	7948_2_1	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	15509	7949_2_1	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	15510	7950_2_1	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	15511	7951_2_1	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	15512	7959_2_1	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	15513	7960_2_1	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	15514	7961_2_1	RD	Units: %
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	15515	8279_2_1	RD	Units: %
Subfeed PB 2 Subfeed 2					
Subfeed Current Rating	Analog_Value	15525	7912_2_2	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	15526	7913_2_2	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	15527	7914_2_2	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	15528	7915_2_2	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	15529	7916_2_2	RD	Units: A AC
Subfeed Ground Current	Analog_Value	15530	7917_2_2	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	15531	7918_2_2	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	15532	7919_2_2	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	15533	7920_2_2	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	15534	7921_2_2	RD	Units: %
Subfeed Real Power	Analog_Value	15535	7922_2_2	RD	Units: kW
Subfeed Apparent Power	Analog_Value	15536	7923_2_2	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	15537	7924_2_2	RD	—
Subfeed Power Factor Ph B	Analog_Value	15538	7925_2_2	RD	—
Subfeed Power Factor Ph C	Analog_Value	15539	7926_2_2	RD	—
Subfeed Power Factor Total	Analog_Value	15540	7927_2_2	RD	—
Subfeed Energy	Analog_Value	15541	7928_2_2	RD	Units: kWH

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Peak Current Ph A	Analog_Value	15542	7929_2_2	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	15543	7930_2_2	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	15544	7931_2_2	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	15545	7932_2_2	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	15546	7933_2_2	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	15547	7934_2_2	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	15548	7935_2_2	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	15549	7936_2_2	RD	—
Subfeed iTHD Ph A	Analog_Value	15550	7937_2_2	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	15551	7938_2_2	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	15552	7939_2_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	15553	7940_2_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	15554	7941_2_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	15555	7942_2_2	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	15556	7943_2_2	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	15557	7944_2_2	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	15558	7945_2_2	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	15559	7946_2_2	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	15560	7947_2_2	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	15561	7948_2_2	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	15562	7949_2_2	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	15563	7950_2_2	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	15564	7951_2_2	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	15565	7959_2_2	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	15566	7960_2_2	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	15567	7961_2_2	RD	Units: %
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	15568	8279_2_2	RD	Units: %
Subfeed PB 2 Subfeed 12					
Subfeed Current Rating	Analog_Value	16055	7912_2_12	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	16056	7913_2_12	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	16057	7914_2_12	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	16058	7915_2_12	RD	Units: A AC

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Neutral Current	Analog_Value	16059	7916_2_12	RD	Units: A AC
Subfeed Ground Current	Analog_Value	16060	7917_2_12	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	16061	7918_2_12	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	16062	7919_2_12	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	16063	7920_2_12	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	16064	7921_2_12	RD	Units: %
Subfeed Real Power	Analog_Value	16065	7922_2_12	RD	Units: kW
Subfeed Apparent Power	Analog_Value	16066	7923_2_12	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	16067	7924_2_12	RD	—
Subfeed Power Factor Ph B	Analog_Value	16068	7925_2_12	RD	—
Subfeed Power Factor Ph C	Analog_Value	16069	7926_2_12	RD	—
Subfeed Power Factor Total	Analog_Value	16070	7927_2_12	RD	—
Subfeed Energy	Analog_Value	16071	7928_2_12	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	16072	7929_2_12	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	16073	7930_2_12	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	16074	7931_2_12	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	16075	7932_2_12	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	16076	7933_2_12	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	16077	7934_2_12	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	16078	7935_2_12	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	16079	7936_2_12	RD	—
Subfeed iTHD Ph A	Analog_Value	16080	7937_2_12	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	16081	7938_2_12	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	16082	7939_2_12	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	16083	7940_2_12	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	16084	7941_2_12	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	16085	7942_2_12	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	16086	7943_2_12	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	16087	7944_2_12	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	16088	7945_2_12	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	16089	7946_2_12	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	16090	7947_2_12	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Current 7th Harmonic Ph C	Analog_Value	16091	7948_2_12	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	16092	7949_2_12	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	16093	7950_2_12	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	16094	7951_2_12	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	16095	7959_2_12	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	16096	7960_2_12	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	16097	7961_2_12	RD	Units: %
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	16098	8279_2_12	RD	Units: %
Subfeed 1					
Subfeed Current Rating	Analog_Value	16108	7966_1	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	16109	7967_1	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	16110	7968_1	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	16111	7969_1	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	16112	7970_1	RD	Units: A AC
Subfeed Ground Current	Analog_Value	16113	7971_1	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	16114	7972_1	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	16115	7973_1	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	16116	7974_1	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	16117	7975_1	RD	Units: %
Subfeed Voltage (L-L) A-B	Analog_Value	16118	7976_1	RD	Units: VAC
Subfeed Voltage (L-L) B-C	Analog_Value	16119	7977_1	RD	Units: VAC
Subfeed Voltage (L-L) C-A	Analog_Value	16120	7978_1	RD	Units: VAC
Subfeed Voltage (L-N) A-N	Analog_Value	16121	7979_1	RD	Units: VAC
Subfeed Voltage (L-N) B-N	Analog_Value	16122	7980_1	RD	Units: VAC
Subfeed Voltage (L-N) C-N	Analog_Value	16123	7981_1	RD	Units: VAC
Subfeed Frequency	Analog_Value	16124	7982_1	RD	Units: Hz
Subfeed Real Power	Analog_Value	16125	7983_1	RD	Units: kW
Subfeed Apparent Power	Analog_Value	16126	7984_1	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	16127	7985_1	RD	—
Subfeed Power Factor Ph B	Analog_Value	16128	7986_1	RD	—
Subfeed Power Factor Ph C	Analog_Value	16129	7987_1	RD	—
Subfeed Power Factor Total	Analog_Value	16130	7988_1	RD	—

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Energy	Analog_Value	16131	7989_1	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	16132	7990_1	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	16133	7991_1	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	16134	7992_1	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	16135	7993_1	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	16136	7994_1	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	16137	7995_1	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	16138	7996_1	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	16139	7997_1	RD	—
Subfeed iTHD Ph A	Analog_Value	16140	7998_1	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	16141	7999_1	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	16142	8000_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	16143	8001_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	16144	8002_1	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	16145	8003_1	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	16146	8004_1	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	16147	8005_1	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	16148	8006_1	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	16149	8007_1	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	16150	8008_1	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	16151	8009_1	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	16152	8010_1	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	16153	8011_1	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	16154	8012_1	RD	Units: %
Subfeed vTHD Ph A	Analog_Value	16155	8013_1	RD	Units: %
Subfeed vTHD Ph B	Analog_Value	16156	8014_1	RD	Units: %
Subfeed vTHD Ph C	Analog_Value	16157	8015_1	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph A	Analog_Value	16158	8016_1	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph B	Analog_Value	16159	8017_1	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph C	Analog_Value	16160	8018_1	RD	Units: %
Subfeed Voltage 5th Harmonic Ph A	Analog_Value	16161	8019_1	RD	Units: %
Subfeed Voltage 5th Harmonic Ph B	Analog_Value	16162	8020_1	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Voltage 5th Harmonic Ph C	Analog_Value	16163	8021_1	RD	Units: %
Subfeed Voltage 7th Harmonic Ph A	Analog_Value	16164	8022_1	RD	Units: %
Subfeed Voltage 7th Harmonic Ph B	Analog_Value	16165	8023_1	RD	Units: %
Subfeed Voltage 7th Harmonic Ph C	Analog_Value	16166	8024_1	RD	Units: %
Subfeed Voltage 9th Harmonic Ph A	Analog_Value	16167	8025_1	RD	Units: %
Subfeed Voltage 9th Harmonic Ph B	Analog_Value	16168	8026_1	RD	Units: %
Subfeed Voltage 9th Harmonic Ph C	Analog_Value	16169	8027_1	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	16170	8035_1	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	16171	8036_1	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	16172	8037_1	RD	
Subfeed Ground Overcurrent Alarm Threshold	Analog_Value	16173	8038_1	RD	Units: A AC
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	16174	8280_1	RD	Units: %
Subfeed Phase Overvoltage Alarm Threshold	Analog_Value	16175	8270_1	RD	Units: %
Subfeed Phase Undervoltage Alarm Threshold	Analog_Value	16176	8271_1	RD	Units: %
Subfeed 2					
Subfeed Current Rating	Analog_Value	16184	7966_2	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	16185	7967_2	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	16186	7968_2	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	16187	7969_2	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	16188	7970_2	RD	Units: A AC
Subfeed Ground Current	Analog_Value	16189	7971_2	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	16190	7972_2	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	16191	7973_2	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	16192	7974_2	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	16193	7975_2	RD	Units: %
Subfeed Voltage (L-L) A-B	Analog_Value	16194	7976_2	RD	Units: VAC
Subfeed Voltage (L-L) B-C	Analog_Value	16195	7977_2	RD	Units: VAC
Subfeed Voltage (L-L) C-A	Analog_Value	16196	7978_2	RD	Units: VAC
Subfeed Voltage (L-N) A-N	Analog_Value	16197	7979_2	RD	Units: VAC
Subfeed Voltage (L-N) B-N	Analog_Value	16198	7980_2	RD	Units: VAC
Subfeed Voltage (L-N) C-N	Analog_Value	16199	7981_2	RD	Units: VAC
Subfeed Frequency	Analog_Value	16200	7982_2	RD	Units: Hz

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Real Power	Analog_Value	16201	7983_2	RD	Units: kW
Subfeed Apparent Power	Analog_Value	16202	7984_2	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	16203	7985_2	RD	—
Subfeed Power Factor Ph B	Analog_Value	16204	7986_2	RD	—
Subfeed Power Factor Ph C	Analog_Value	16205	7987_2	RD	—
Subfeed Power Factor Total	Analog_Value	16206	7988_2	RD	—
Subfeed Energy	Analog_Value	16207	7989_2	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	16208	7990_2	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	16209	7991_2	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	16210	7992_2	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	16211	7993_2	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	16212	7994_2	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	16213	7995_2	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	16214	7996_2	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	16215	7997_2	RD	—
Subfeed iTHD Ph A	Analog_Value	16216	7998_2	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	16217	7999_2	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	16218	8000_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	16219	8001_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	16220	8002_2	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	16221	8003_2	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	16222	8004_2	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	16223	8005_2	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	16224	8006_2	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	16225	8007_2	RD	Units: %
Subfeed Current 7th Harmonic Ph B	Analog_Value	16226	8008_2	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	16227	8009_2	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	16228	8010_2	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	16229	8011_2	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	16230	8012_2	RD	Units: %
Subfeed vTHD Ph A	Analog_Value	16231	8013_2	RD	Units: %
Subfeed vTHD Ph B	Analog_Value	16232	8014_2	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed vTHD Ph C	Analog_Value	16233	8015_2	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph A	Analog_Value	16234	8016_2	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph B	Analog_Value	16235	8017_2	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph C	Analog_Value	16236	8018_2	RD	Units: %
Subfeed Voltage 5th Harmonic Ph A	Analog_Value	16237	8019_2	RD	Units: %
Subfeed Voltage 5th Harmonic Ph B	Analog_Value	16238	8020_2	RD	Units: %
Subfeed Voltage 5th Harmonic Ph C	Analog_Value	16239	8021_2	RD	Units: %
Subfeed Voltage 7th Harmonic Ph A	Analog_Value	16240	8022_2	RD	Units: %
Subfeed Voltage 7th Harmonic Ph B	Analog_Value	16241	8023_2	RD	Units: %
Subfeed Voltage 7th Harmonic Ph C	Analog_Value	16242	8024_2	RD	Units: %
Subfeed Voltage 9th Harmonic Ph A	Analog_Value	16243	8025_2	RD	Units: %
Subfeed Voltage 9th Harmonic Ph B	Analog_Value	16244	8026_2	RD	Units: %
Subfeed Voltage 9th Harmonic Ph C	Analog_Value	16245	8027_2	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	16246	8035_2	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	16247	8036_2	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	16248	8037_2	RD	—
Subfeed Ground Overcurrent Alarm Threshold	Analog_Value	16249	8038_2	RD	Units: A AC
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	16250	8280_2	RD	Units: %
Subfeed Phase Overvoltage Alarm Threshold	Analog_Value	16251	8270_2	RD	Units: %
Subfeed Phase Undervoltage Alarm Threshold	Analog_Value	16252	8271_2	RD	Units: %
. . .					
Subfeed 36					
Subfeed Current Rating	Analog_Value	18768	7966_36	RD	Units: A AC
Subfeed Current Ph A	Analog_Value	18769	7967_36	RD	Units: A AC
Subfeed Current Ph B	Analog_Value	18770	7968_36	RD	Units: A AC
Subfeed Current Ph C	Analog_Value	18771	7969_36	RD	Units: A AC
Subfeed Neutral Current	Analog_Value	18772	7970_36	RD	Units: A AC
Subfeed Ground Current	Analog_Value	18773	7971_36	RD	Units: A AC
Subfeed Current Load Ph A	Analog_Value	18774	7972_36	RD	Units: %
Subfeed Current Load Ph B	Analog_Value	18775	7973_36	RD	Units: %
Subfeed Current Load Ph C	Analog_Value	18776	7974_36	RD	Units: %
Subfeed Highest Phase Current Load	Analog_Value	18777	7975_36	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Voltage (L-L) A-B	Analog_Value	18778	7976_36	RD	Units: VAC
Subfeed Voltage (L-L) B-C	Analog_Value	18779	7977_36	RD	Units: VAC
Subfeed Voltage (L-L) C-A	Analog_Value	18780	7978_36	RD	Units: VAC
Subfeed Voltage (L-N) A-N	Analog_Value	18781	7979_36	RD	Units: VAC
Subfeed Voltage (L-N) B-N	Analog_Value	18782	7980_36	RD	Units: VAC
Subfeed Voltage (L-N) C-N	Analog_Value	18783	7981_36	RD	Units: VAC
Subfeed Frequency	Analog_Value	18784	7982_36	RD	Units: Hz
Subfeed Real Power	Analog_Value	18785	7983_36	RD	Units: kW
Subfeed Apparent Power	Analog_Value	18786	7984_36	RD	Units: kVA
Subfeed Power Factor Ph A	Analog_Value	18787	7985_36	RD	—
Subfeed Power Factor Ph B	Analog_Value	18788	7986_36	RD	—
Subfeed Power Factor Ph C	Analog_Value	18789	7987_36	RD	—
Subfeed Power Factor Total	Analog_Value	18790	7988_36	RD	—
Subfeed Energy	Analog_Value	18791	7989_36	RD	Units: kWH
Subfeed Peak Current Ph A	Analog_Value	18792	7990_36	RD	Units: A AC
Subfeed Peak Current Ph B	Analog_Value	18793	7991_36	RD	Units: A AC
Subfeed Peak Current Ph C	Analog_Value	18794	7992_36	RD	Units: A AC
Subfeed Highest Phase Peak Current	Analog_Value	18795	7993_36	RD	Units: A AC
Subfeed Peak Demand	Analog_Value	18796	7994_36	RD	Units: kW
Subfeed Current Crest Factor Ph A	Analog_Value	18797	7995_36	RD	—
Subfeed Current Crest Factor Ph B	Analog_Value	18798	7996_36	RD	—
Subfeed Current Crest Factor Ph C	Analog_Value	18799	7997_36	RD	—
Subfeed iTHD Ph A	Analog_Value	18800	7998_36	RD	Units: %
Subfeed iTHD Ph B	Analog_Value	18801	7999_36	RD	Units: %
Subfeed iTHD Ph C	Analog_Value	18802	8000_36	RD	Units: %
Subfeed Current 3rd Harmonic Ph A	Analog_Value	18803	8001_36	RD	Units: %
Subfeed Current 3rd Harmonic Ph B	Analog_Value	18804	8002_36	RD	Units: %
Subfeed Current 3rd Harmonic Ph C	Analog_Value	18805	8003_36	RD	Units: %
Subfeed Current 5th Harmonic Ph A	Analog_Value	18806	8004_36	RD	Units: %
Subfeed Current 5th Harmonic Ph B	Analog_Value	18807	8005_36	RD	Units: %
Subfeed Current 5th Harmonic Ph C	Analog_Value	18808	8006_36	RD	Units: %
Subfeed Current 7th Harmonic Ph A	Analog_Value	18809	8007_36	RD	Units: %

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Table 5.107 Liebert® RXA, Liebert® RXV and Liebert® TFX—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Current 7th Harmonic Ph B	Analog_Value	18810	8008_36	RD	Units: %
Subfeed Current 7th Harmonic Ph C	Analog_Value	18811	8009_36	RD	Units: %
Subfeed Current 9th Harmonic Ph A	Analog_Value	18812	8010_36	RD	Units: %
Subfeed Current 9th Harmonic Ph B	Analog_Value	18813	8011_36	RD	Units: %
Subfeed Current 9th Harmonic Ph C	Analog_Value	18814	8012_36	RD	Units: %
Subfeed vTHD Ph A	Analog_Value	18815	8013_36	RD	Units: %
Subfeed vTHD Ph B	Analog_Value	18816	8014_36	RD	Units: %
Subfeed vTHD Ph C	Analog_Value	18817	8015_36	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph A	Analog_Value	18818	8016_36	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph B	Analog_Value	18819	8017_36	RD	Units: %
Subfeed Voltage 3rd Harmonic Ph C	Analog_Value	18820	8018_36	RD	Units: %
Subfeed Voltage 5th Harmonic Ph A	Analog_Value	18821	8019_36	RD	Units: %
Subfeed Voltage 5th Harmonic Ph B	Analog_Value	18822	8020_36	RD	Units: %
Subfeed Voltage 5th Harmonic Ph C	Analog_Value	18823	8021_36	RD	Units: %
Subfeed Voltage 7th Harmonic Ph A	Analog_Value	18824	8022_36	RD	Units: %
Subfeed Voltage 7th Harmonic Ph B	Analog_Value	18825	8023_36	RD	Units: %
Subfeed Voltage 7th Harmonic Ph C	Analog_Value	18826	8024_36	RD	Units: %
Subfeed Voltage 9th Harmonic Ph A	Analog_Value	18827	8025_36	RD	Units: %
Subfeed Voltage 9th Harmonic Ph B	Analog_Value	18828	8026_36	RD	Units: %
Subfeed Voltage 9th Harmonic Ph C	Analog_Value	18829	8027_36	RD	Units: %
Subfeed Phase Overcurrent Warning Threshold	Analog_Value	18830	8035_36	RD	Units: %
Subfeed Phase Overcurrent Alarm Threshold	Analog_Value	18831	8036_36	RD	Units: %
Subfeed Neutral Overcurrent Threshold	Analog_Value	18832	8037_36	RD	—
Subfeed Ground Overcurrent Alarm Threshold	Analog_Value	18833	8038_36	RD	Units: A AC
Subfeed Neutral Overcurrent Warning Threshold	Analog_Value	18834	8280_36	RD	Units: %
Subfeed Phase Overvoltage Alarm Threshold	Analog_Value	18835	8270_36	RD	Units: %
Subfeed Phase Undervoltage Alarm Threshold	Analog_Value	18836	8271_36	RD	Units: %

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Table 5.108 Liebert® RXA, Liebert® RXV and Liebert® TFX—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System Status					
System Status	MultiState_Value	12	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Restart Procedure	MultiState_Value	13	7059_1	RD	1 = Auto 2 = Manual
Overtemperature Shutdown	MultiState_Value	14	7060_1	RD	1 = disabled 2 = enabled
System-wide Event Acknowledge/Reset	MultiState_Value	15	7582_1	WO	1 = Reset 2 = Acknowledge
System-wide Energy Reset	MultiState_Value	16	7583_1	WO	1 = Reset
System-wide Peak Current Reset	MultiState_Value	17	7584_1	WO	1 = Reset
System-wide Peak Demand Reset	MultiState_Value	18	7585_1	WO	1 = Reset
Main Input Breaker 1 Status	MultiState_Value	19	7566_1	RD	1 = Unknown 2 = Open 3 = Closed
Main Input Breaker 2 Status	MultiState_Value	20	7567_1	RD	1 = Unknown 2 = Open 3 = Closed
System Metering					
Metering Configuration	MultiState_Value	29	7696_1	RD	1 = Master Side 2 = Slave Side
Energy Reset	MultiState_Value	30	7721_1	WO	1 = Reset
Peak Current Reset	MultiState_Value	31	7722_1	WO	1 = Reset
Peak Demand Reset	MultiState_Value	32	7723_1	WO	1 = Reset
Branch PB 1					
Panelboard Status	MultiState_Value	43	7725_1	RD	1 = Normal 2 = Abnormal
Panelboard Main Breaker Status	MultiState_Value	44	7791_1	RD	1 = Unknown 2 = Open 3 = Closed
Panelboard Energy Reset	MultiState_Value	45	7804_1	WO	1 = Reset

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Table 5.108 Liebert® RXA, Liebert® RXV and Liebert® TFX—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Panelboard Peak Current Reset	MultiState_Value	46	7805_1	WO	1 = Reset
Panelboard Peak Demand Reset	MultiState_Value	47	7806_1	WO	1 = Reset
Branch PB 1 Branch 1					
Branch Energy Reset	MultiState_Value	58	7828_1_1	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	59	7829_1_1	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	60	7830_1_1	WO	1 = Reset
Branch PB 1 Branch 2					
Branch Energy Reset	MultiState_Value	71	7828_1_2	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	72	7829_1_2	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	73	7830_1_2	WO	1 = Reset
. . .					
Branch PB 1 Branch 42					
Branch Energy Reset	MultiState_Value	591	7828_1_42	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	592	7829_1_42	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	593	7830_1_42	WO	1 = Reset
Branch PB 2					
Panelboard Status	MultiState_Value	604	7725_2	RD	1 = Normal 2 = Abnormal
Panelboard Main Breaker Status	MultiState_Value	605	7791_2	RD	1 = Unknown 2 = Open 3 = Closed
Panelboard Energy Reset	MultiState_Value	606	7804_2	WO	1 = Reset
Panelboard Peak Current Reset	MultiState_Value	607	7805_2	WO	1 = Reset
Panelboard Peak Demand Reset	MultiState_Value	608	7806_2	WO	1 = Reset
Branch PB 2 Branch 1					
Branch Energy Reset	MultiState_Value	619	7828_2_1	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	620	7829_2_1	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	621	7830_2_1	WO	1 = Reset
Branch PB 2 Branch 2					
Branch Energy Reset	MultiState_Value	632	7828_2_2	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	633	7829_2_2	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	634	7830_2_2	WO	1 = Reset
. . .					
Branch PB 2 Branch 42					

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Table 5.108 Liebert® RXA, Liebert® RXV and Liebert® TFX—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Energy Reset	MultiState_Value	1152	7828_2_42	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	1153	7829_2_42	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	1154	7830_2_42	WO	1 = Reset
. . .					
Branch PB 12					
Panelboard Status	MultiState_Value	6214	7725_12	RD	1 = Normal 2 = Abnormal
Panelboard Main Breaker Status	MultiState_Value	6215	7791_12	RD	1 = Unknown 2 = Open 3 = Closed
Panelboard Energy Reset	MultiState_Value	6216	7804_12	WO	1 = Reset
Panelboard Peak Current Reset	MultiState_Value	6217	7805_12	WO	1 = Reset
Panelboard Peak Demand Reset	MultiState_Value	6218	7806_12	WO	1 = Reset
Branch PB 12 Branch 1					
Branch Energy Reset	MultiState_Value	6229	7828_12_1	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	6230	7829_12_1	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	6231	7830_12_1	WO	1 = Reset
Branch PB 12 Branch 2					
Branch Energy Reset	MultiState_Value	6242	7828_12_2	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	6243	7829_12_2	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	6244	7830_12_2	WO	1 = Reset
. . .					
Branch PB 12 Branch 42					
Branch Energy Reset	MultiState_Value	6762	7828_12_42	WO	1 = Reset
Branch Peak Current Reset	MultiState_Value	6763	7829_12_42	WO	1 = Reset
Branch Peak Demand Reset	MultiState_Value	6764	7830_12_42	WO	1 = Reset
Subfeed PB 1					
Panelboard Status	MultiState_Value	6775	7832_1	RD	1 = Normal 2 = Abnormal
Panelboard Main Breaker Status	MultiState_Value	6776	7895_1	RD	1 = Unknown 2 = Open 3 = Closed
Panelboard Energy Reset	MultiState_Value	6777	7908_1	WO	1 = Reset
Panelboard Peak Current Reset	MultiState_Value	6778	7909_1	WO	1 = Reset
Panelboard Peak Demand Reset	MultiState_Value	6779	7910_1	WO	1 = Reset

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Table 5.108 Liebert® RXA, Liebert® RXV and Liebert® TFX—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed PB 1 Subfeed 1					
Subfeed Main Breaker Status	MultiState_Value	6790	7952_1_1	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	6791	7962_1_1	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	6792	7963_1_1	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	6793	7964_1_1	WO	1 = Reset
Subfeed PB 1 Subfeed 2					
Subfeed Main Breaker Status	MultiState_Value	6804	7952_1_2	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	6805	7962_1_2	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	6806	7963_1_2	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	6807	7964_1_2	WO	1 = Reset
. . .					
Subfeed PB 1 Subfeed 12					
Subfeed Main Breaker Status	MultiState_Value	6944	7952_1_12	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	6945	7962_1_12	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	6946	7963_1_12	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	6947	7964_1_12	WO	1 = Reset
Subfeed PB 2					
Panelboard Status	MultiState_Value	6958	7832_2	RD	1 = Normal 2 = Abnormal
Panelboard Main Breaker Status	MultiState_Value	6959	7895_2	RD	1 = Unknown 2 = Open 3 = Closed
Panelboard Energy Reset	MultiState_Value	6960	7908_2	WO	1 = Reset
Panelboard Peak Current Reset	MultiState_Value	6961	7909_2	WO	1 = Reset
Panelboard Peak Demand Reset	MultiState_Value	6962	7910_2	WO	1 = Reset
Subfeed PB 2 Subfeed 1					
Subfeed Main Breaker Status	MultiState_Value	6973	7952_2_1	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	6974	7962_2_1	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	6975	7963_2_1	WO	1 = Reset

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Table 5.108 Liebert® RXA, Liebert® RXV and Liebert® TFX—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Peak Demand Reset	MultiState_Value	6976	7964_2_1	WO	1 = Reset
Subfeed PB 2 Subfeed 2					
Subfeed Main Breaker Status	MultiState_Value	6987	7952_2_2	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	6988	7962_2_2	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	6989	7963_2_2	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	6990	7964_2_2	WO	1 = Reset
. . .					
Subfeed PB 2 Subfeed 12					
Subfeed Main Breaker Status	MultiState_Value	7127	7952_2_12	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	7128	7962_2_12	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	7129	7963_2_12	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	7130	7964_2_12	WO	1 = Reset
Subfeed 1					
Subfeed Breaker Status	MultiState_Value	7141	8028_1	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	7142	8041_1	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	7143	8042_1	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	7144	8043_1	WO	1 = Reset
Subfeed 2					
Subfeed Breaker Status	MultiState_Value	7155	8028_2	RD	1 = Unknown 2 = Open 3 = Closed
Subfeed Energy Reset	MultiState_Value	7156	8041_2	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	7157	8042_2	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	7158	8043_2	WO	1 = Reset
. . .					
Subfeed 36					
Subfeed Breaker Status	MultiState_Value	7631	8028_36	RD	1 = Unknown 2 = Open 3 = Closed

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Table 5.108 Liebert® RXA, Liebert® RXV and Liebert® TFX—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Subfeed Energy Reset	MultiState_Value	7632	8041_36	WO	1 = Reset
Subfeed Peak Current Reset	MultiState_Value	7633	8042_36	WO	1 = Reset
Subfeed Peak Demand Reset	MultiState_Value	7634	8043_36	WO	1 = Reset

Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary

Data Label	Data Description
External Input Contact State	The state of the external input contact.
Internal Input Contact State	The state of the internal input contact.
Accessory Board Communication Fail	The accessory board(s) reported a communication failure.
Apparent Power Load	The percentage of total apparent power of all phases to the rated capacity.
Apparent Power	The total apparent power of all phases.
Branch Current L1	The RMS current of L1 (1st pole) of the branch.
Branch Current L2	The RMS current of L2 (2nd pole) of the branch.
Branch Current L3	The RMS current of L3 (3rd pole) of the branch.
Branch Current Rating	The RMS current rating of the branch circuit breaker.
Branch Energy Reset	Set the total accumulated energy value of the branch to zero.
Branch Energy	The total accumulated energy of the branch since the last reset.
Branch Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the branch.
Branch Highest Phase Peak Current	The highest peak RMS current of all phases of the branch.
Branch Low Current Alarm Threshold	The threshold for triggering a phase low current alarm of the branch.
Branch Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the branch.
Branch Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the branch.
Branch Peak Current L1	The peak RMS current of L1 (1st pole) of the branch.
Branch Peak Current L2	The peak RMS current of L2 (2nd pole) of the branch.
Branch Peak Current L3	The peak RMS current of L3 (3rd pole) of the branch.
Branch Peak Current Reset	Set the peak current value of the branch to zero.
Branch Peak Demand Reset	Set the peak demand value of the branch to zero.
Branch Peak Demand	The peak demand of all phases of the branch.
Branch Phase Overcurrent	The phase current crossed above the threshold of the branch.
Branch Phase Undercurrent	The phase current crossed below the threshold of the branch.
Branch Position	The pole position of the branch circuit breaker within the panelboard, lowest pole if two or three pole circuit breaker.
Branch Power Factor	The ratio of real to apparent power for the sum of all phases for the branch.
Branch Real Power	The total real (active) power of all phases of the branch.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Communication Bus Error	The system board is experiencing an abnormal number of communication errors.
Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current with respect to the fundamental frequency.
Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current with respect to the fundamental frequency.
Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current with respect to the fundamental frequency.
Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current with respect to the fundamental frequency.
Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current with respect to the fundamental frequency.
Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current with respect to the fundamental frequency.
Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current with respect to the fundamental frequency.
Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current with respect to the fundamental frequency.
Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current with respect to the fundamental frequency.
Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current with respect to the fundamental frequency.
Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current with respect to the fundamental frequency.
Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current with respect to the fundamental frequency.
Current Crest Factor Ph A	The ratio of phase A peak to RMS current.
Current Crest Factor Ph B	The ratio of phase B peak to RMS current.
Current Crest Factor Ph C	The ratio of phase C peak to RMS current.
Current Load Ph A	The percentage of phase A RMS current to the rated capacity.
Current Load Ph B	The percentage of phase B RMS current to the rated capacity.
Current Load Ph C	The percentage of phase C RMS current to the rated capacity.
Current Ph A	The RMS current of phase A.
Current Ph B	The RMS current of phase B.
Current Ph C	The RMS current of phase C.
Energy Reset	Set the total accumulated energy value to zero.
Energy	The total accumulated energy of the system since the last reset.
Firmware Incompatibility	The system board firmware is incompatible with the other components..
Ground Current	The RMS current of the ground
Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm..
Ground Overcurrent	The ground current crossed above the threshold.
Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity.
Highest Phase K-Factor	The highest K-factor of all phases.
Input 1 Frequency Deviation	The frequency deviated beyond the threshold of input 1.
Input 1 Frequency	The frequency of input 1 voltage.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Input 1 High Voltage THD	The voltage total harmonic distortion crossed above the threshold of input 1.
Input 1 Invalid Phase Rotation	The phases are not in the expected sequence for input 1.
Input 1 Overvoltage	The voltage crossed above the threshold of input 1.
Input 1 Phase Loss	The voltage of one or more phases dropped below the threshold of input 1.
Input 1 Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of input 1.
Input 1 Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of input 1.
Input 1 Undervoltage	The voltage crossed below the threshold of input 1 .
Input 1 Voltage (L-L) A-B	The RMS voltage between phase A and B.
Input 1 Voltage (L-L) B-C	The RMS voltage between phase B and C.
Input 1 Voltage (L-L) C-A	The RMS voltage between phase C and A.
Input 1 Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 9th Harmonic C	The percentage of the 9th harmonic present in phase C voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage of input 1 with respect to the fundamental frequency.
Input 1 Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage of input 1 with respect to the fundamental frequency.
Input 1 vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of input 1 with respect to the fundamental frequency.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Input 1 vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of input 1 with respect to the fundamental frequency.
Input 1 vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of input 1 with respect to the fundamental frequency.
Input 2 Frequency Deviation	The frequency deviated beyond the threshold of input 2.
Input 2 Frequency	The frequency of input 2 voltage.
Input 2 High Voltage THD	The voltage total harmonic distortion crossed above the threshold of input 2.
Input 2 Invalid Phase Rotation	The phases are not in the expected sequence for input 2.
Input 2 Overvoltage	The voltage crossed above the threshold of input 2.
Input 2 Phase Loss	The voltage of one or more phases dropped below the threshold of input 2.
Input 2 Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of input 2.
Input 2 Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of input 2.
Input 2 Undervoltage	The voltage crossed below the threshold of input 2.
Input 2 Voltage (L-L) A-B	The RMS voltage between phase A and B.
Input 2 Voltage (L-L) B-C	The RMS voltage between phase B and C.
Input 2 Voltage (L-L) C-A	The RMS voltage between phase C and A.
Input 2 Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage of input 2 with respect to the fundamental frequency.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Input 2 Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage of input 2 with respect to the fundamental frequency.
Input 2 Voltage 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C voltage of input 2 with respect to the fundamental frequency.
Input 2 vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of input 2 with respect to the fundamental frequency.
Input 2 vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of input 2 with respect to the fundamental frequency.
Input 2 vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of input 2 with respect to the fundamental frequency.
iTHD Ph A	The percentage of total harmonic distortion present in phase A current with respect to the fundamental frequency.
iTHD Ph B	The percentage of total harmonic distortion present in phase B current with respect to the fundamental frequency.
iTHD Ph C	The percentage of total harmonic distortion present in phase C current with respect to the fundamental frequency.
K-Factor Ph A	The K-factor of phase A.
K-Factor Ph B	The K-factor of phase B.
K-Factor Ph C	The K-factor of phase C.
Loss of Communication	The system board has stopped communicating.
Main Input Breaker 1 Accessory Error	The main input circuit breaker 1 reported an invalid state.
Main Input Breaker 1 Open Fail	The main input circuit breaker 1 failed to open as commanded.
Main Input Breaker 1 Status	The operating status of main input breaker 1.
Main Input Breaker 1 Tripped	The main input circuit breaker 1 reported a tripped state.
Main Input Breaker 2 Accessory Error	The main input circuit breaker 2 reported an invalid state.
Main Input Breaker 2 Open Fail	The main input circuit breaker 2 failed to open as commanded.
Main Input Breaker 2 Status	The operating status of main input breaker 2.
Main Input Breaker 2 Tripped	The main input circuit breaker 2 reported a tripped state.
Metering Board Communication Fail	The metering board(s) reported a communication failure.
Metering Configuration	The configuration of the system current transformers (CTs).
Misconfiguration	The system board is misconfigured.
Neutral Current	The RMS current of the neutral.
Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm.
Neutral Overcurrent	The neutral current crossed above the threshold.
No Initial Communication	The system board has not established initial communications.
Output Frequency Deviation	The output frequency deviated beyond the threshold.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Output Overvoltage	The output voltage crossed above the threshold.
Output Phase Overvoltage Alarm Threshold	The threshold for triggering a phase overvoltage alarm of the output.
Output Phase Undervoltage Alarm Threshold	The threshold for triggering a phase undervoltage alarm of the output.
Output Undervoltage	The output voltage crossed below the threshold.
Output Voltage (L-L) A-B	The RMS voltage between phase A and B.
Output Voltage (L-L) B-C	The RMS voltage between phase B and C.
Output Voltage (L-L) C-A	The RMS voltage between phase C and A.
Output Voltage (L-N) A-N	The RMS voltage between phase A and neutral.
Output Voltage (L-N) B-N	The RMS voltage between phase B and neutral.
Output Voltage (L-N) C-N	The RMS voltage between phase C and neutral.
Output Voltage 3rd Harmonic A	The percentage of the 3rd harmonic present in phase A voltage of the output with respect to the fundamental frequency.
Output Voltage 3rd Harmonic B	The percentage of the 3rd harmonic present in phase B voltage of the output with respect to the fundamental frequency.
Output Voltage 3rd Harmonic C	The percentage of the 3rd harmonic present in phase C voltage of the output with respect to the fundamental frequency.
Output Voltage 5th Harmonic A	The percentage of the 5th harmonic present in phase A voltage of the output with respect to the fundamental frequency.
Output Voltage 5th Harmonic B	The percentage of the 5th harmonic present in phase B voltage of the output with respect to the fundamental frequency.
Output Voltage 5th Harmonic C	The percentage of the 5th harmonic present in phase C voltage of the output with respect to the fundamental frequency.
Output Voltage 7th Harmonic A	The percentage of the 7th harmonic present in phase A voltage of the output with respect to the fundamental frequency.
Output Voltage 7th Harmonic B	The percentage of the 7th harmonic present in phase B voltage of the output with respect to the fundamental frequency.
Output Voltage 7th Harmonic C	The percentage of the 7th harmonic present in phase C voltage of the output with respect to the fundamental frequency.
Output Voltage 9th Harmonic A	The percentage of the 9th harmonic present in phase A voltage of the output with respect to the fundamental frequency.
Output Voltage 9th Harmonic B	The percentage of the 9th harmonic present in phase B voltage of the output with respect to the fundamental frequency.
Output Voltage 9th Harmonic C	The percentage of the 9th harmonic present in phase C voltage of the output with respect to the fundamental frequency.
Output vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of the output with respect to the fundamental frequency.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Output vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of the output with respect to the fundamental frequency.
Output vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of the output with respect to the fundamental frequency.
Overtemperature Shutdown	Will the system shutdown when there is an overtemperature alarm.
Panelboard Apparent Power	The total apparent power of all phases of the panelboard.
Panelboard Apparent Power	The total apparent power of all phases of the panelboard.
Panelboard Available Pole Positions	The available number of pole positions within the panelboard.
Panelboard Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current with respect to the fundamental frequency of the panelboard.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Panelboard Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the panelboard.
Panelboard Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the panelboard.
Panelboard Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the panelboard.
Panelboard Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the panelboard.
Panelboard Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the panelboard.
Panelboard Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the panelboard.
Panelboard Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the panelboard
Panelboard Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the panelboard.
Panelboard Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the panelboard.
Panelboard Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the panelboard.
Panelboard Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the panelboard.
Panelboard Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the panelboard.
Panelboard Current Ph A	The RMS current of phase A of the panelboard.
Panelboard Current Ph A	The RMS current of phase A of the panelboard.
Panelboard Current Ph B	The RMS current of phase B of the panelboard.
Panelboard Current Ph B	The RMS current of phase B of the panelboard.
Panelboard Current Ph C	The RMS current of phase C of the panelboard.
Panelboard Current Ph C	The RMS current of phase C of the panelboard.
Panelboard Energy Reset	Set the total accumulated energy value of the panelboard to zero.
Panelboard Energy Reset	Set the total accumulated energy value of the panelboard to zero.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Panelboard Energy	The total accumulated energy of the panelboard since the last reset.
Panelboard Energy	The total accumulated energy of the panelboard since the last reset.
Panelboard Frequency	The frequency of the panelboard voltage.
Panelboard Frequency	The frequency of the panelboard voltage.
Panelboard Ground Current	The RMS current of the ground of the panelboard.
Panelboard Ground Current	The RMS current of the ground of the panelboard.
Panelboard Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm of the panelboard.
Panelboard Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm of the panelboard.
Panelboard Ground Overcurrent	The ground current crossed above the threshold of the panelboard.
Panelboard Ground Overcurrent	The ground current crossed above the threshold of the panelboard.
Panelboard Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the panelboard.
Panelboard Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the panelboard.
Panelboard Highest Phase Peak Current	The highest peak RMS current of all phases of the panelboard.
Panelboard Highest Phase Peak Current	The highest peak RMS current of all phases of the panelboard.
Panelboard iTHD Ph A	The percentage of total harmonic distortion present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard iTHD Ph A	The percentage of total harmonic distortion present in phase A current with respect to the fundamental frequency of the panelboard.
Panelboard iTHD Ph B	The percentage of total harmonic distortion present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard iTHD Ph B	The percentage of total harmonic distortion present in phase B current with respect to the fundamental frequency of the panelboard.
Panelboard iTHD Ph C	The percentage of total harmonic distortion present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard iTHD Ph C	The percentage of total harmonic distortion present in phase C current with respect to the fundamental frequency of the panelboard.
Panelboard Main Breaker Accessory Error	The main panelboard circuit breaker reported an invalid state.
Panelboard Main Breaker Accessory Error	The main panelboard circuit breaker reported an invalid state.
Panelboard Main Breaker Current Rating	The RMS current rating of the main circuit breaker.
Panelboard Main Breaker Status	The operating status of the main panelboard circuit breaker.
Panelboard Main Breaker Status	The operating status of the main panelboard circuit breaker.
Panelboard Main Breaker Tripped	The main panelboard circuit breaker reported a tripped state.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Panelboard Main Breaker Tripped	The main panelboard circuit breaker reported a tripped state.
Panelboard Neutral Current	The RMS current of the neutral of the panelboard.
Panelboard Neutral Current	The RMS current of the neutral of the panelboard.
Panelboard Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm of the panelboard.
Panelboard Neutral Overcurrent Alarm Threshold	The threshold for triggering a neutral overcurrent alarm of the panelboard.
Panelboard Neutral Overcurrent	The neutral current crossed above the threshold of the panelboard.
Panelboard Neutral Overcurrent	The neutral current crossed above the threshold of the panelboard.
Panelboard Peak Current Ph A	The peak RMS current of phase A of the panelboard.
Panelboard Peak Current Ph A	The peak RMS current of phase A of the panelboard.
Panelboard Peak Current Ph B	The peak RMS current of phase B of the panelboard.
Panelboard Peak Current Ph B	The peak RMS current of phase B of the panelboard.
Panelboard Peak Current Ph C	The peak RMS current of phase C of the panelboard.
Panelboard Peak Current Ph C	The peak RMS current of phase C of the panelboard.
Panelboard Peak Current Reset	Set the peak current value of the panelboard to zero.
Panelboard Peak Current Reset	Set the peak current value of the panelboard to zero.
Panelboard Peak Demand Reset	Set the peak demand value of the panelboard to zero.
Panelboard Peak Demand Reset	Set the peak demand value of the panelboard to zero.
Panelboard Peak Demand	The peak demand of all phases of the panelboard.
Panelboard Peak Demand	The peak demand of all phases of the panelboard.
Panelboard Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the panelboard.
Panelboard Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the panelboard.
Panelboard Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the panelboard.
Panelboard Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the panelboard.
Panelboard Phase Overcurrent	The phase current crossed above the threshold of the panelboard.
Panelboard Phase Overcurrent	The phase current crossed above the threshold of the panelboard.
Panelboard Power Factor Ph A	The ratio of phase A real to apparent power for the panelboard.
Panelboard Power Factor Ph A	The ratio of phase A real to apparent power for the panelboard.
Panelboard Power Factor Ph B	The ratio of phase B real to apparent power for the panelboard.
Panelboard Power Factor Ph B	The ratio of phase B real to apparent power for the panelboard.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Panelboard Power Factor Ph C	The ratio of phase C real to apparent power for the panelboard.
Panelboard Power Factor Ph C	The ratio of phase C real to apparent power for the panelboard.
Panelboard Power Factor Total	The ratio of real to apparent power for the sum of all phases of the panelboard.
Panelboard Power Factor Total	The ratio of real to apparent power for the sum of all phases of the panelboard.
Panelboard Real Power	The total real (active) power of all phases of the panelboard.
Panelboard Real Power	The total real (active) power of all phases of the panelboard.
Panelboard Shunt Trip Unavailable	Shunt trip power has failed. The voltage is insufficient to shunt trip the panelboard main breaker.
Panelboard Status	The operating status of the panelboard.
Panelboard Status	The operating status of the panelboard.
Panelboard Subfeed Count	The count of circuit breakers within the panelboard.
Panelboard Total Pole Positions	The total number of pole positions within the panelboard.
Panelboard Voltage (L-L) A-B	The RMS voltage between phase A and B of the panelboard.
Panelboard Voltage (L-L) A-B	The RMS voltage between phase A and B of the panelboard.
Panelboard Voltage (L-L) B-C	The RMS voltage between phase B and C of the panelboard.
Panelboard Voltage (L-L) B-C	The RMS voltage between phase B and C of the panelboard.
Panelboard Voltage (L-L) C-A	The RMS voltage between phase C and A of the panelboard.
Panelboard Voltage (L-L) C-A	The RMS voltage between phase C and A of the panelboard.
Panelboard Voltage (L-N) A-N	The RMS voltage between phase A and neutral of the panelboard.
Panelboard Voltage (L-N) A-N	The RMS voltage between phase A and neutral of the panelboard.
Panelboard Voltage (L-N) B-N	The RMS voltage between phase B and neutral of the panelboard.
Panelboard Voltage (L-N) B-N	The RMS voltage between phase B and neutral of the panelboard.
Panelboard Voltage (L-N) C-N	The RMS voltage between phase C and neutral of the panelboard.
Panelboard Voltage (L-N) C-N	The RMS voltage between phase C and neutral of the panelboard.
Panelboard Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Panelboard Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard Voltage 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage with respect to the fundamental frequency of the panelboard.
Panelboard vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage with respect to the fundamental frequency of the panelboard.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Panelboard vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage with respect to the fundamental frequency of the panelboard.
Panelboard vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage with respect to the fundamental frequency of the panelboard.
Panelboard vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage with respect to the fundamental frequency of the panelboard.
Peak Current Ph A	The peak RMS current of phase A.
Peak Current Ph B	The peak RMS current of phase B.
Peak Current Ph C	The peak RMS current of phase C.
Peak Current Reset	Set the peak current value to zero.
Peak Demand Reset	Set the peak demand value to zero.
Peak Demand	The peak demand of all phases.
Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm.
Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning.
Phase Overcurrent	The phase current crossed above the threshold.
Power Factor Ph A	The ratio of phase A real to apparent power.
Power Factor Ph B	The ratio of phase B real to apparent power.
Power Factor Ph C	The ratio of phase C real to apparent power.
Power Factor Total	The ratio of real to apparent power for the sum of all phases.
Real Power	The total real (active) power of all phases.
Restart Procedure	Will the system automatically restart or need a manual interaction.
Server Class	The general classification for this system.
Shunt Trip Unavailable	Shunt trip power has failed. The voltage is insufficient to shunt trip the input breaker.
Subfeed Apparent Power	The total apparent power of all phases of the subfeed.
Subfeed Apparent Power	The total apparent power of all phases of the subfeed.
Subfeed Breaker Accessory Error	The subfeed circuit breaker reported an invalid state.
Subfeed Breaker Accessory Error	The subfeed circuit breaker reported an invalid state.
Subfeed Breaker Status	The operating status of the subfeed circuit breaker.
Subfeed Breaker Tripped	The subfeed circuit breaker reported a tripped state.
Subfeed Breaker Tripped	The subfeed circuit breaker reported a tripped state.
Subfeed Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current of the subfeed with respect to the fundamental frequency.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Subfeed Current 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current of the subfeed with respect to the fundamental frequency.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Subfeed Current 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the subfeed.
Subfeed Current Crest Factor Ph A	The ratio of phase A peak to RMS current for the subfeed.
Subfeed Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the subfeed.
Subfeed Current Crest Factor Ph B	The ratio of phase B peak to RMS current for the subfeed.
Subfeed Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the subfeed.
Subfeed Current Crest Factor Ph C	The ratio of phase C peak to RMS current for the subfeed.
Subfeed Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the subfeed.
Subfeed Current Load Ph A	The percentage of phase A RMS current to the rated capacity of the subfeed.
Subfeed Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the subfeed.
Subfeed Current Load Ph B	The percentage of phase B RMS current to the rated capacity of the subfeed.
Subfeed Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the subfeed.
Subfeed Current Load Ph C	The percentage of phase C RMS current to the rated capacity of the subfeed.
Subfeed Current Ph A	The RMS current of phase A of the subfeed.
Subfeed Current Ph A	The RMS current of phase A of the subfeed.
Subfeed Current Ph B	The RMS current of phase B of the subfeed.
Subfeed Current Ph B	The RMS current of phase B of the subfeed.
Subfeed Current Ph C	The RMS current of phase C of the subfeed.
Subfeed Current Ph C	The RMS current of phase C of the subfeed.
Subfeed Current Rating	The RMS current rating of the subfeed circuit breaker.
Subfeed Current Rating	The RMS current rating of the subfeed circuit breaker.
Subfeed Energy Reset	Set the total accumulated energy value of the subfeed to zero.
Subfeed Energy Reset	Set the total accumulated energy value of the subfeed to zero.
Subfeed Energy	The total accumulated energy of the subfeed since the last reset.
Subfeed Energy	The total accumulated energy of the subfeed since the last reset.
Subfeed Frequency	The frequency of the subfeed voltage.
Subfeed Ground Current	The RMS current of the ground of the subfeed.
Subfeed Ground Current	The RMS current of the ground of the subfeed.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Subfeed Ground Overcurrent Alarm Threshold	The threshold for triggering a ground overcurrent alarm of the subfeed.
Subfeed Ground Overcurrent	The ground current crossed above the threshold of the subfeed.
Subfeed Ground Overcurrent	The ground current crossed above the threshold of the subfeed.
Subfeed Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the subfeed.
Subfeed Highest Phase Current Load	The highest percentage of phase RMS current to the rated capacity of the subfeed.
Subfeed Highest Phase Peak Current	The highest peak RMS current of all phases of the subfeed.
Subfeed Highest Phase Peak Current	The highest peak RMS current of all phases of the subfeed.
Subfeed iTHD Ph A	The percentage of total harmonic distortion present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed iTHD Ph A	The percentage of total harmonic distortion present in phase A current of the subfeed with respect to the fundamental frequency.
Subfeed iTHD Ph B	The percentage of total harmonic distortion present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed iTHD Ph B	The percentage of total harmonic distortion present in phase B current of the subfeed with respect to the fundamental frequency.
Subfeed iTHD Ph C	The percentage of total harmonic distortion present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed iTHD Ph C	The percentage of total harmonic distortion present in phase C current of the subfeed with respect to the fundamental frequency.
Subfeed Main Breaker Status	The operating status of the subfeed circuit breaker.
Subfeed Neutral Current	The RMS current of the neutral of the subfeed.
Subfeed Neutral Current	The RMS current of the neutral of the subfeed.
Subfeed Neutral Overcurrent Threshold	The threshold for triggering a neutral overcurrent alarm of the subfeed.
Subfeed Neutral Overcurrent Threshold	The threshold for triggering a neutral overcurrent alarm of the subfeed.
Subfeed Neutral Overcurrent	The neutral current crossed above the threshold of the subfeed.
Subfeed Neutral Overcurrent	The neutral current crossed above the threshold of the subfeed.
Subfeed Peak Current Ph A	The peak RMS current of phase A of the subfeed.
Subfeed Peak Current Ph A	The peak RMS current of phase A of the subfeed.
Subfeed Peak Current Ph B	The peak RMS current of phase B of the subfeed.
Subfeed Peak Current Ph B	The peak RMS current of phase B of the subfeed.
Subfeed Peak Current Ph C	The peak RMS current of phase C of the subfeed.
Subfeed Peak Current Ph C	The peak RMS current of phase C of the subfeed.
Subfeed Peak Current Reset	Set the peak current value of the subfeed to zero.
Subfeed Peak Current Reset	Set the peak current value of the subfeed to zero.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Subfeed Peak Demand Reset	Set the peak demand value of the subfeed to zero.
Subfeed Peak Demand Reset	Set the peak demand value of the subfeed to zero.
Subfeed Peak Demand	The peak demand of all phases of the subfeed.
Subfeed Peak Demand	The peak demand of all phases of the subfeed.
Subfeed Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the subfeed.
Subfeed Phase Overcurrent Alarm Threshold	The threshold for triggering a phase overcurrent alarm of the subfeed.
Subfeed Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the subfeed.
Subfeed Phase Overcurrent Warning Threshold	The threshold for triggering a phase overcurrent warning of the subfeed.
Subfeed Phase Overcurrent	The phase current crossed above the threshold of the subfeed.
Subfeed Phase Overcurrent	The phase current crossed above the threshold of the subfeed.
Subfeed Power Factor Ph A	The ratio of phase A real to apparent power for the subfeed.
Subfeed Power Factor Ph A	The ratio of phase A real to apparent power for the subfeed.
Subfeed Power Factor Ph B	The ratio of phase B real to apparent power for the subfeed.
Subfeed Power Factor Ph B	The ratio of phase B real to apparent power for the subfeed.
Subfeed Power Factor Ph C	The ratio of phase C real to apparent power for the subfeed.
Subfeed Power Factor Ph C	The ratio of phase C real to apparent power for the subfeed.
Subfeed Power Factor Total	The ratio of real to apparent power for the sum of all phases of the subfeed.
Subfeed Power Factor Total	The ratio of real to apparent power for the sum of all phases of the subfeed.
Subfeed Real Power	The total real (active) power of all phases of the subfeed.
Subfeed Real Power	The total real (active) power of all phases of the subfeed.
Subfeed Voltage (L-L) A-B	The RMS voltage between phase A and B of the subfeed.
Subfeed Voltage (L-L) B-C	The RMS voltage between phase B and C of the subfeed.
Subfeed Voltage (L-L) C-A	The RMS voltage between phase C and A of the subfeed.
Subfeed Voltage (L-N) A-N	The RMS voltage between phase A and neutral of the subfeed.
Subfeed Voltage (L-N) B-N	The RMS voltage between phase B and neutral of the subfeed.
Subfeed Voltage (L-N) C-N	The RMS voltage between phase C and neutral of the subfeed.
Subfeed Voltage 3rd Harmonic Ph A	The percentage of the 3rd harmonic present in phase A voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 3rd Harmonic Ph B	The percentage of the 3rd harmonic present in phase B voltage of the subfeed with respect to the fundamental frequency.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Subfeed Voltage 3rd Harmonic Ph C	The percentage of the 3rd harmonic present in phase C voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 5th Harmonic Ph A	The percentage of the 5th harmonic present in phase A voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 5th Harmonic Ph B	The percentage of the 5th harmonic present in phase B voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 5th Harmonic Ph C	The percentage of the 5th harmonic present in phase C voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 7th Harmonic Ph A	The percentage of the 7th harmonic present in phase A voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 7th Harmonic Ph B	The percentage of the 7th harmonic present in phase B voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 7th Harmonic Ph C	The percentage of the 7th harmonic present in phase C voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 9th Harmonic Ph A	The percentage of the 9th harmonic present in phase A voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 9th Harmonic Ph B	The percentage of the 9th harmonic present in phase B voltage of the subfeed with respect to the fundamental frequency.
Subfeed Voltage 9th Harmonic Ph C	The percentage of the 9th harmonic present in phase C voltage of the subfeed with respect to the fundamental frequency.
Subfeed vTHD Ph A	The percentage of total harmonic distortion present in phase A voltage of the subfeed with respect to the fundamental frequency.
Subfeed vTHD Ph B	The percentage of total harmonic distortion present in phase B voltage of the subfeed with respect to the fundamental frequency.
Subfeed vTHD Ph C	The percentage of total harmonic distortion present in phase C voltage of the subfeed with respect to the fundamental frequency.
System Current Rating	The current rating of the system.
System Date and Time	Unit date and time.
System Firmware Incompatibility	The system reported a firmware incompatibility.
System Frequency	The frequency of the system..
System Misconfiguration	The system reported a misconfiguration.
System Power Rating	The power rating of the system.
System Status	The operating status for the system.
System-wide Energy Reset	Set all of the total accumulated energy values in the system to zero.
System-wide Event Acknowledge/Reset	Reset and/or acknowledge all events.
System-wide Peak Current Reset	Set all of the peak current values in the system to zero.
System-wide Peak Demand Reset	Set all of the peak demand values in the system to zero.

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Table 5.109 Liebert® RXA, Liebert® RXV and Liebert® TFX—Glossary (continued)

Data Label	Data Description
Transformer High Temperature	The transformer crossed the high temperature threshold.
Transformer Temperature Sensor Failure	The transformer temperature sensor is reporting an invalid state.
Voltage Over THD Alarm Threshold	The threshold for triggering a voltage over total harmonic distortion alarm.

5.3 UPS Systems—BACnet Protocols

Table 5.110 Liebert® APM, Liebert® NXC, Liebert® NXR—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
Battery Auto Test In Progress	Binary_Value	1	4172_1	RD	Active on Alarm
Battery Equalize	Binary_Value	2	4170_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	3	4200_1	RD	Active on Alarm
On Generator	Binary_Value	4	4315_1	RD	Active on Alarm
System Events					
System Input Power Problem	Binary_Value	15	4122_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	16	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	17	4233_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	18	4135_1	RD	Active on Alarm
Battery Low	Binary_Value	19	4162_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	20	4758_1	RD	Active on Alarm
System Fan Failure	Binary_Value	21	4311_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	22	4310_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	23	4213_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	24	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	25	4139_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	26	4823_1	RD	Active on Alarm
Power Supply Failure	Binary_Value	27	4314_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	28	4219_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	29	4146_1	RD	Active on Alarm
Fuse Failure	Binary_Value	30	4440_1	RD	Active on Alarm
Inverter Overload Phase A	Binary_Value	31	4234_1	RD	Active on Alarm
Inverter Overload Phase B	Binary_Value	32	4235_1	RD	Active on Alarm
Inverter Overload Phase C	Binary_Value	33	4236_1	RD	Active on Alarm

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Table 5.110 Liebert® APM, Liebert® NXC, Liebert® NXR—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS Overload	Binary_Value	34	4831_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	35	4290_1	RD	Active on Alarm
System Output Fault	Binary_Value	36	4389_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	37	4300_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	38	4164_1	RD	Active on Alarm
System Input Current Imbalance	Binary_Value	39	4382_1	RD	Active on Alarm
Main Battery Disconnect Open	Binary_Value	40	4173_1	RD	Active on Alarm
Inverter Static Switch SCR Short	Binary_Value	41	4391_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	42	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	43	5150_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	44	5151_1	RD	Active on Alarm
Inverter SCR Open	Binary_Value	45	5152_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	46	5153_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	47	5154_1	RD	Active on Alarm
Mains Input Neutral Lost	Binary_Value	48	5155_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	49	5156_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	50	5157_1	RD	Active on Alarm
Power Sub Module Fault	Binary_Value	51	5158_1	RD	Active on Alarm
Battery Discharging	Binary_Value	52	4168_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	53	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	54	4299_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	55	4166_1	RD	Active on Alarm
MMS On Battery	Binary_Value	56	4834_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	57	4825_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	58	5770_1	RD	Active on Alarm
MMS Over Capacity	Binary_Value	59	5771_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	60	6065_1	RD	Active on Alarm

Table 5.111 Liebert® APM, Liebert® NXC, Liebert® NXR—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC

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Table 5.111 Liebert® APM, Liebert® NXC, Liebert® NXR—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	—
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	—
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	—
UPS input real power	Analog_Value	14	6322_1	RD	Units: kW
System Input Power Phase A	Analog_Value	15	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	16	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	17	6320_1	RD	Units: kW
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	24	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	25	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	26	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	27	4131_1	RD	Units: Hz
Battery					
Battery Time Remaining	Analog_Value	38	4150_1	RD	Units: min
Battery Volts for Cabinet	Analog_Value	39	4155_1	RD	Units: VDC
Battery Temperature for Cabinet	Analog_Value	40	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10040	4156_1_deg_F	RD	Units: deg F
Inlet Air Temperature	Analog_Value	41	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10041	4291_1_deg_F	RD	Units: deg F
DC Bus Current	Analog_Value	42	4149_1	RD	Units: A DC
Output					
System Output Voltage RMS A-N	Analog_Value	53	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	54	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	55	4387_1	RD	Units: VAC

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Table 5.111 Liebert® APM, Liebert® NXC, Liebert® NXR—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output RMS Current Phs A	Analog_Value	56	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	57	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	58	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	59	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	60	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	61	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	62	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	63	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	64	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	65	4212_1	RD	—
System Output Pct Power Phase A	Analog_Value	66	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	67	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	68	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	69	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	70	4811_1	RD	Units: kW
System Output Apparent Power	Analog_Value	71	4209_1	RD	Units: kVA
System Output Power	Analog_Value	72	4208_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	73	5159_1	RD	—
Output Current Crest Factor Phs B	Analog_Value	74	5160_1	RD	—
Output Current Crest Factor Phs C	Analog_Value	75	5161_1	RD	—
System Output Power Phase A	Analog_Value	76	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	77	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	78	5959_1	RD	Units: kW
System Configuraton					
System Date and Time	Analog_Value	86	4293_1	RW	Units: Secs since Epoch(UTC)

Table 5.112 Liebert® APM, Liebert® NXC, Liebert® NXR—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery					
UPS battery1 status	MultiState_Value	1	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
System Status					

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Table 5.112 Liebert® APM, Liebert® NXC, Liebert® NXR—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Inverter On/Off State	MultiState_Value	12	4746_1	RD	1 = off 2 = on
Maintenance Bypass Breaker	MultiState_Value	13	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
UPS Output Source	MultiState_Value	14	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	15	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
ECO Mode Operation State	MultiState_Value	16	5454_1	RD	1 = disabled 2 = enabled

Table 5.113 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary

Data Label	Data Description
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Capacity Low	Battery capacity is low.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Time Remaining	The calculated available time on battery.

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Table 5.113 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral..
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Fuse Failure	A summary event indicating one or more fuse failures.
Inlet Air Temperature	The temperature of the inlet air.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state.
Inverter Overload Phase A	Inverter is operating with an overload on Phase A.
Inverter Overload Phase B	Inverter is operating with an overload on Phase B.
Inverter Overload Phase C	Inverter is operating with an overload on Phase C..
Inverter SCR Open	The system has detected an open across one or more inverter static switch Silicon Controlled Rectifiers.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Static Switch SCR Short	The system has detected a short across one or more inverter static switch Silicon Controlled Rectifiers (SCR).
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.

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Table 5.113 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Main Battery Disconnect Open	Main battery disconnect is open.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS On Battery	The multi-module system is on battery.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Power	The sum total power of all system output modules.
MMS Over Capacity	The multi-module system load is larger than the apparent power limit setting.
MMS Overload	Multi-module system overload.
On Generator	A generator is supplying the power to the system.
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Parallel Comm Warning	Parallel communication bus warning.
Power Sub Module Fault	One or more failures detected in power module, inverter or rectifier.
Power Supply Failure	Power supply failure.
Rectifier Failure	Rectifier failure - rectifier is off.
System Date and Time	The system date and time.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Frequency	The system input frequency.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.
System Input Power Factor Phs B	The system input power factor for Phase B.

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Table 5.113 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
System Input Power Factor Phs C	The system input power factor for Phase C.
System Input Power Phase A	The system input power on Phase A.
System Input Power Phase B	The system input power on Phase B.
System Input Power Phase C	The system input power on Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.

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Table 5.113 Liebert® APM, Liebert® NXC, Liebert® NXR—Glossary (continued)

Data Label	Data Description
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between Phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
UPS battery1 status	UPS battery status.
UPS input real power	The magnitude of the present input true power (calculated on the 3 phases).
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation.

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Table 5.114 Liebert® APM 160—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	4	6061_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	16	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	20	4216_1	RD	Active on Alarm
Load on Bypass Union	Binary_Value	21	8199_1	RD	Active on Alarm
Bypass Control Module Not Available	Binary_Value	22	8200_1	RD	Active on Alarm
Bypass Module Not Available	Binary_Value	23	8201_1	RD	Active on Alarm
Bypass controlling the SCR autonomously	Binary_Value	24	8096_1	RD	Active on Alarm
Bypass Unable to Trace	Binary_Value	25	8283_1	RD	Active on Alarm
Battery					
Battery Circuit Breaker Open	Binary_Value	36	7485_1	RD	Active on Alarm
Battery Self Test	Binary_Value	37	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	38	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	39	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	40	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	41	4172_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	42	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	43	4323_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	44	4219_1	RD	Active on Alarm
Battery Low	Binary_Value	45	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	46	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	47	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	48	5150_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	49	4166_1	RD	Active on Alarm

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Table 5.114 Liebert® APM 160—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Converter Current Limit	Binary_Value	50	6063_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	51	6065_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	52	6068_1	RD	Active on Alarm
Battery Breaker Open Failure	Binary_Value	53	7461_1	RD	Active on Alarm
Battery Equalize	Binary_Value	54	4170_1	RD	Active on Alarm
Battery Over Voltage	Binary_Value	55	5874_1	RD	Active on Alarm
Battery Terminal Abnormal	Binary_Value	56	8288_1	RD	Active on Alarm
Battery Management System Rack is Offline Warning	Binary_Value	57	8194_1	RD	Active on Alarm
Battery Management System General Warning	Binary_Value	58	8195_1	RD	Active on Alarm
Battery Management System Fault	Binary_Value	59	8196_1	RD	Active on Alarm
Inverter					
Loss of Synchronization	Binary_Value	70	6062_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	81	5806_1	RD	Active on Alarm
System Output Fault	Binary_Value	82	4389_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	83	8284_1	RD	Active on Alarm
Power Modules 1					
Power Module Input Current Abnormal	Binary_Value	94	6438_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	95	8285_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	96	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	97	4233_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	98	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	99	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	100	6059_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	101	4164_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	102	5151_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	103	6439_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	104	4290_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	105	6440_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	106	6441_1	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	107	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	108	5839_1	RD	Active on Alarm

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Table 5.114 Liebert® APM 160—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Communication status	Binary_Value	109	8098_1	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	110	6528_1	RD	Active on Alarm
Power Modules 2					
Power Module Input Current Abnormal	Binary_Value	121	6438_2	RD	Active on Alarm
Power Module Input Current High	Binary_Value	122	8285_2	RD	Active on Alarm
Rectifier Failure	Binary_Value	123	4295_2	RD	Active on Alarm
Inverter Failure	Binary_Value	124	4233_2	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	125	5154_2	RD	Active on Alarm
Load Sharing Fault	Binary_Value	126	5153_2	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	127	6059_2	RD	Active on Alarm
Battery Charging Error	Binary_Value	128	4164_2	RD	Active on Alarm
Battery Converter Failure	Binary_Value	129	5151_2	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	130	6439_2	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	131	4290_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	132	6440_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	133	6441_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	134	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	135	5839_2	RD	Active on Alarm
Power Module Communication status	Binary_Value	136	8098_2	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	137	6528_2	RD	Active on Alarm
Power Modules 20					
Power Module Input Current Abnormal	Binary_Value	607	6438_20	RD	Active on Alarm
Power Module Input Current High	Binary_Value	608	8285_20	RD	Active on Alarm
Rectifier Failure	Binary_Value	609	4295_20	RD	Active on Alarm
Inverter Failure	Binary_Value	610	4233_20	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	611	5154_20	RD	Active on Alarm
Load Sharing Fault	Binary_Value	612	5153_20	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	613	6059_20	RD	Active on Alarm
Battery Charging Error	Binary_Value	614	4164_20	RD	Active on Alarm
Battery Converter Failure	Binary_Value	615	5151_20	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	616	6439_20	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	617	4290_20	RD	Active on Alarm

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Table 5.114 Liebert® APM 160—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Fuse Failure	Binary_Value	618	6440_20	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	619	6441_20	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	620	5838_20	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	621	5839_20	RD	Active on Alarm
Power Module Communication status	Binary_Value	622	8098_20	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	623	6528_20	RD	Active on Alarm
System Status					
Loss of Redundancy	Binary_Value	634	5817_1	RD	Active on Alarm
Hardware Mismatch	Binary_Value	635	6529_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	636	6066_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	637	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	638	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	639	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	640	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	641	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	642	4300_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	643	4823_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	644	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	645	4758_1	RD	Active on Alarm
On Generator	Binary_Value	646	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	647	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	648	4213_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	649	6536_1	RD	Active on Alarm
Fuse Failure	Binary_Value	650	4440_1	RD	Active on Alarm
Ground Fault	Binary_Value	651	5970_1	RD	Active on Alarm
System Fan Failure	Binary_Value	652	4311_1	RD	Active on Alarm
Parameter Configuration Failed	Binary_Value	653	8286_1	RD	Active on Alarm
System Output Off	Binary_Value	654	4215_1	RD	Active on Alarm
SPM					
SPM Internal Comm Failure	Binary_Value	665	8227_1	RD	Active on Alarm
SPM CRC Check Error	Binary_Value	666	8228_1	RD	Active on Alarm
SPM - SPM Board Not Ready 1					

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Table 5.114 Liebert® APM 160—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
SPM Board Not Ready	Binary_Value	677	8229_1_1	RD	Active on Alarm
SPM - SPM Board Not Ready 2					
SPM Board Not Ready	Binary_Value	688	8229_1_2	RD	Active on Alarm
SPM - SPM Board Not Ready 12					
SPM Board Not Ready	Binary_Value	798	8229_1_12	RD	Active on Alarm
Branch Group 1 Branch 1					
Branch Over Current	Binary_Value	809	8208_1_1	RD	Active on Alarm
Branch Current Over HL	Binary_Value	810	8209_1_1	RD	Active on Alarm
Branch Current Over LL	Binary_Value	811	8210_1_1	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	812	8212_1_1	RD	Active on Alarm
Branch Group 1 Branch 2					
Branch Over Current	Binary_Value	823	8208_1_2	RD	Active on Alarm
Branch Current Over HL	Binary_Value	824	8209_1_2	RD	Active on Alarm
Branch Current Over LL	Binary_Value	825	8210_1_2	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	826	8212_1_2	RD	Active on Alarm
Branch Group 1 Branch 24					
Branch Over Current	Binary_Value	1131	8208_1_24	RD	Active on Alarm
Branch Current Over HL	Binary_Value	1132	8209_1_24	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1133	8210_1_24	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1134	8212_1_24	RD	Active on Alarm
Branch Group 2 Branch 1					
Branch Over Current	Binary_Value	1145	8208_2_1	RD	Active on Alarm
Branch Current Over HL	Binary_Value	1146	8209_2_1	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1147	8210_2_1	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1148	8212_2_1	RD	Active on Alarm
Branch Group 2 Branch 2					
Branch Over Current	Binary_Value	1159	8208_2_2	RD	Active on Alarm
Branch Current Over HL	Binary_Value	1160	8209_2_2	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1161	8210_2_2	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1162	8212_2_2	RD	Active on Alarm
Branch Group 2 Branch 24					
Branch Over Current	Binary_Value	1467	8208_2_24	RD	Active on Alarm

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Table 5.114 Liebert® APM 160—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Current Over HL	Binary_Value	1468	8209_2_24	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1469	8210_2_24	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1470	8212_2_24	RD	Active on Alarm
Branch Group 3 Branch 1					
Branch Over Current	Binary_Value	1481	8208_3_1	RD	Active on Alarm
Branch Current Over HL	Binary_Value	1482	8209_3_1	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1483	8210_3_1	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1484	8212_3_1	RD	Active on Alarm
Branch Group 3 Branch 2					
Branch Over Current	Binary_Value	1495	8208_3_2	RD	Active on Alarm
Branch Current Over HL	Binary_Value	1496	8209_3_2	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1497	8210_3_2	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1498	8212_3_2	RD	Active on Alarm
Branch Group 3 Branch 24					
Branch Over Current	Binary_Value	1803	8208_3_24	RD	Active on Alarm
Branch Current Over HL	Binary_Value	1804	8209_3_24	RD	Active on Alarm
Branch Current Over LL	Binary_Value	1805	8210_3_24	RD	Active on Alarm
Branch Breaker Fail	Binary_Value	1806	8212_3_24	RD	Active on Alarm

Table 5.115 Liebert® APM 160—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Power Phase A	Analog_Value	14	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	15	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	16	6320_1	RD	Units: kW
System Input Apparent Power Phs A	Analog_Value	17	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	18	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	19	8095_1	RD	Units: kVA
System Input Nominal Voltage	Analog_Value	20	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	21	4104_1	RD	Units: A AC
System Input Brown Out Count	Analog_Value	22	4119_1	RD	
System Input Black Out Count	Analog_Value	23	4120_1	RD	
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	34	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	35	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	36	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	37	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	38	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	39	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	40	4127_1	RD	Units: VAC
Bypass Power Phase A	Analog_Value	41	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	42	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	43	6327_1	RD	Units: kW
Bypass Apparent Power Phase A	Analog_Value	44	6328_1	RD	Units: kVA
Bypass Apparent Power Phase B	Analog_Value	45	6329_1	RD	Units: kVA
Bypass Apparent Power Phase C	Analog_Value	46	6330_1	RD	Units: kVA
Bypass Nominal Voltage	Analog_Value	47	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	58	4150_1	RD	Units: min
DC Bus Current	Analog_Value	59	4149_1	RD	Units: A DC
Time Until Next Auto Battery Test	Analog_Value	60	5804_1	RD	Units: min
Battery Percentage Charge	Analog_Value	61	4153_1	RD	Units: %

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Number of Discharge Cycles	Analog_Value	62	5845_1	RD	
Accumulated Discharge Time	Analog_Value	63	5846_1	RD	Units: hr
Low Battery Warning Time	Analog_Value	64	5802_1	RD	Units: min
Battery Self Test Cycle Time	Analog_Value	65	5991_1	RD	Units: day
DC Bus Voltage	Analog_Value	66	4148_1	RD	Units: VDC
Battery Temperature	Analog_Value	67	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10067	5853_1_deg_F	RD	Units: deg F
Positive DC Bus Voltage	Analog_Value	68	8281_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	69	8282_1	RD	Units: VDC
Battery - Battery Cabinets 1					
Battery Temperature for Cabinet	Analog_Value	80	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10080	4156_1_1_deg_F	RD	Units: deg F
Battery - Battery Cabinets 2					
Battery Temperature for Cabinet	Analog_Value	91	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10091	4156_1_2_deg_F	RD	Units: deg F
Battery - Battery Cabinets 8					
Battery Temperature for Cabinet	Analog_Value	157	4156_1_8	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10157	4156_1_8_deg_F	RD	Units: deg F
Output					
System Output Voltage RMS A-N	Analog_Value	168	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	169	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	170	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	171	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	172	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	173	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	174	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	175	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	176	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	177	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	178	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	179	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	180	4212_1	RD	

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Pct Power Phase A	Analog_Value	181	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	182	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	183	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	184	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	185	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	186	5159_1	RD	
Output Current Crest Factor Phs B	Analog_Value	187	5160_1	RD	
Output Current Crest Factor Phs C	Analog_Value	188	5161_1	RD	
System Output Power Phase A	Analog_Value	189	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	190	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	191	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	192	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	193	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	194	5870_1	RD	Units: kVA
System Output Power	Analog_Value	195	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	196	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	197	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	198	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	199	4228_1	RD	Units: %
ECO Suspended Time Remaining	Analog_Value	200	8097_1	RD	Units: sec
System Output Nominal Voltage	Analog_Value	201	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	202	4261_1	RD	Units: Hz
Bypass Control Module					
Power Module Bypass Input Frequency	Analog_Value	213	6442_1	RD	Units: Hz
Power Module Bypass Input Voltage RMS A-N	Analog_Value	214	6443_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-N	Analog_Value	215	6444_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-N	Analog_Value	216	6445_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS A-B	Analog_Value	217	6446_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-C	Analog_Value	218	6447_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-A	Analog_Value	219	6448_1	RD	Units: VAC
System Status					
Number Of Active Power Modules	Analog_Value	230	5824_1	RD	

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Number of Installed Power Modules	Analog_Value	231	5823_1	RD	
Inlet Air Temperature	Analog_Value	232	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10232	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	233	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	244	4293_1	RW	Units: Secs since Epoch(UTC)
Total System Operating Time	Analog_Value	245	4292_1	RD	Units: hr
System Capacity	Analog_Value	246	5821_1	RD	Units: kVA
SPM - Total Input Source 1					
Total Input RMS Current Phase A	Analog_Value	257	8215_1_1	RD	Units: A AC
Total Input RMS Current Phase B	Analog_Value	258	8216_1_1	RD	Units: A AC
Total Input RMS Current Phase C	Analog_Value	259	8217_1_1	RD	Units: A AC
Total Input Energy Phase A	Analog_Value	260	8232_1_1	RD	Units: kWH
Total Input Energy Phase B	Analog_Value	261	8233_1_1	RD	Units: kWH
Total Input Energy Phase C	Analog_Value	262	8234_1_1	RD	Units: kWH
Total Input Active Power Phase A	Analog_Value	263	8235_1_1	RD	Units: kW
Total Input Active Power Phase B	Analog_Value	264	8236_1_1	RD	Units: kW
Total Input Active Power Phase C	Analog_Value	265	8237_1_1	RD	Units: kW
Total Input Apparent Power Phase A	Analog_Value	266	8218_1_1	RD	Units: kVA
Total Input Apparent Power Phase B	Analog_Value	267	8219_1_1	RD	Units: kVA
Total Input Apparent Power Phase C	Analog_Value	268	8220_1_1	RD	Units: kVA
Total Input THDI Phase A	Analog_Value	269	8221_1_1	RD	Units: % THD
Total Input THDI Phase B	Analog_Value	270	8222_1_1	RD	Units: % THD
Total Input THDI Phase C	Analog_Value	271	8223_1_1	RD	Units: % THD
Input Current Rating	Analog_Value	272	8238_1_1	RD	Units: A AC
Total Input Current Load Phase A	Analog_Value	273	8239_1_1	RD	Units: %
Total Input Current Load Phase B	Analog_Value	274	8240_1_1	RD	Units: %
Total Input Current Load Phase C	Analog_Value	275	8241_1_1	RD	Units: %
Total Input Power Factor Phase A	Analog_Value	276	8242_1_1	RD	
Total Input Power Factor Phase B	Analog_Value	277	8243_1_1	RD	
Total Input Power Factor Phase C	Analog_Value	278	8244_1_1	RD	
Total Input Voltage Phase A	Analog_Value	279	8245_1_1	RD	Units: VAC

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Total Input Voltage Phase B	Analog_Value	280	8246_1_1	RD	Units: VAC
Total Input Voltage Phase C	Analog_Value	281	8247_1_1	RD	Units: VAC
Total Input Frequency	Analog_Value	282	8248_1_1	RD	Units: Hz
Total Input THDU Phase A	Analog_Value	283	8249_1_1	RD	Units: % THD
Total Input THDU Phase B	Analog_Value	284	8250_1_1	RD	Units: % THD
Total Input THDU Phase C	Analog_Value	285	8251_1_1	RD	Units: % THD
SPM - Total Input Source 2					
Total Input RMS Current Phase A	Analog_Value	296	8215_1_2	RD	Units: A AC
Total Input RMS Current Phase B	Analog_Value	297	8216_1_2	RD	Units: A AC
Total Input RMS Current Phase C	Analog_Value	298	8217_1_2	RD	Units: A AC
Total Input Energy Phase A	Analog_Value	299	8232_1_2	RD	Units: kWH
Total Input Energy Phase B	Analog_Value	300	8233_1_2	RD	Units: kWH
Total Input Energy Phase C	Analog_Value	301	8234_1_2	RD	Units: kWH
Total Input Active Power Phase A	Analog_Value	302	8235_1_2	RD	Units: kW
Total Input Active Power Phase B	Analog_Value	303	8236_1_2	RD	Units: kW
Total Input Active Power Phase C	Analog_Value	304	8237_1_2	RD	Units: kW
Total Input Apparent Power Phase A	Analog_Value	305	8218_1_2	RD	Units: kVA
Total Input Apparent Power Phase B	Analog_Value	306	8219_1_2	RD	Units: kVA
Total Input Apparent Power Phase C	Analog_Value	307	8220_1_2	RD	Units: kVA
Total Input THDI Phase A	Analog_Value	308	8221_1_2	RD	Units: % THD
Total Input THDI Phase B	Analog_Value	309	8222_1_2	RD	Units: % THD
Total Input THDI Phase C	Analog_Value	310	8223_1_2	RD	Units: % THD
Input Current Rating	Analog_Value	311	8238_1_2	RD	Units: A AC
Total Input Current Load Phase A	Analog_Value	312	8239_1_2	RD	Units: %
Total Input Current Load Phase B	Analog_Value	313	8240_1_2	RD	Units: %
Total Input Current Load Phase C	Analog_Value	314	8241_1_2	RD	Units: %
Total Input Power Factor Phase A	Analog_Value	315	8242_1_2	RD	
Total Input Power Factor Phase B	Analog_Value	316	8243_1_2	RD	
Total Input Power Factor Phase C	Analog_Value	317	8244_1_2	RD	
Total Input Voltage Phase A	Analog_Value	318	8245_1_2	RD	Units: VAC
Total Input Voltage Phase B	Analog_Value	319	8246_1_2	RD	Units: VAC
Total Input Voltage Phase C	Analog_Value	320	8247_1_2	RD	Units: VAC

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Total Input Frequency	Analog_Value	321	8248_1_2	RD	Units: Hz
Total Input THDU Phase A	Analog_Value	322	8249_1_2	RD	Units: % THD
Total Input THDU Phase B	Analog_Value	323	8250_1_2	RD	Units: % THD
Total Input THDU Phase C	Analog_Value	324	8251_1_2	RD	Units: % THD
Branch Group 1 Branch 1					
Branch Current	Analog_Value	335	8202_1_1	RD	Units: A AC
Branch Energy	Analog_Value	336	5223_1_1	RD	Units: kWH
Branch Active Power	Analog_Value	337	5222_1_1	RD	Units: kW
Branch Apparent Power	Analog_Value	338	8204_1_1	RD	Units: kVA
Branch THDI	Analog_Value	339	8205_1_1	RD	Units: % THD
Branch Phase Current Load	Analog_Value	340	5225_1_1	RD	Units: %
Branch Current Rating	Analog_Value	341	8206_1_1	RD	Units: A AC
Branch Power Factor	Analog_Value	342	5224_1_1	RD	
Branch Voltage	Analog_Value	343	8207_1_1	RD	Units: VAC
Branch Group 1 Branch 2					
Branch Current	Analog_Value	354	8202_1_2	RD	Units: A AC
Branch Energy	Analog_Value	355	5223_1_2	RD	Units: kWH
Branch Active Power	Analog_Value	356	5222_1_2	RD	Units: kW
Branch Apparent Power	Analog_Value	357	8204_1_2	RD	Units: kVA
Branch THDI	Analog_Value	358	8205_1_2	RD	Units: % THD
Branch Phase Current Load	Analog_Value	359	5225_1_2	RD	Units: %
Branch Current Rating	Analog_Value	360	8206_1_2	RD	Units: A AC
Branch Power Factor	Analog_Value	361	5224_1_2	RD	
Branch Voltage	Analog_Value	362	8207_1_2	RD	Units: VAC
Branch Group 1 Branch 24					
Branch Current	Analog_Value	772	8202_1_24	RD	Units: A AC
Branch Energy	Analog_Value	773	5223_1_24	RD	Units: kWH
Branch Active Power	Analog_Value	774	5222_1_24	RD	Units: kW
Branch Apparent Power	Analog_Value	775	8204_1_24	RD	Units: kVA
Branch THDI	Analog_Value	776	8205_1_24	RD	Units: % THD
Branch Phase Current Load	Analog_Value	777	5225_1_24	RD	Units: %
Branch Current Rating	Analog_Value	778	8206_1_24	RD	Units: A AC

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Power Factor	Analog_Value	779	5224_1_24	RD	
Branch Voltage	Analog_Value	780	8207_1_24	RD	Units: VAC
Branch Group 2 Branch 1					
Branch Current	Analog_Value	791	8202_2_1	RD	Units: A AC
Branch Energy	Analog_Value	792	5223_2_1	RD	Units: kWH
Branch Active Power	Analog_Value	793	5222_2_1	RD	Units: kW
Branch Apparent Power	Analog_Value	794	8204_2_1	RD	Units: kVA
Branch THDI	Analog_Value	795	8205_2_1	RD	Units: % THD
Branch Phase Current Load	Analog_Value	796	5225_2_1	RD	Units: %
Branch Current Rating	Analog_Value	797	8206_2_1	RD	Units: A AC
Branch Power Factor	Analog_Value	798	5224_2_1	RD	
Branch Voltage	Analog_Value	799	8207_2_1	RD	Units: VAC
Branch Group 2 Branch 2					
Branch Current	Analog_Value	810	8202_2_2	RD	Units: A AC
Branch Energy	Analog_Value	811	5223_2_2	RD	Units: kWH
Branch Active Power	Analog_Value	812	5222_2_2	RD	Units: kW
Branch Apparent Power	Analog_Value	813	8204_2_2	RD	Units: kVA
Branch THDI	Analog_Value	814	8205_2_2	RD	Units: % THD
Branch Phase Current Load	Analog_Value	815	5225_2_2	RD	Units: %
Branch Current Rating	Analog_Value	816	8206_2_2	RD	Units: A AC
Branch Power Factor	Analog_Value	817	5224_2_2	RD	
Branch Voltage	Analog_Value	818	8207_2_2	RD	Units: VAC
Branch Group 2 Branch 24					
Branch Current	Analog_Value	1228	8202_2_24	RD	Units: A AC
Branch Energy	Analog_Value	1229	5223_2_24	RD	Units: kWH
Branch Active Power	Analog_Value	1230	5222_2_24	RD	Units: kW
Branch Apparent Power	Analog_Value	1231	8204_2_24	RD	Units: kVA
Branch THDI	Analog_Value	1232	8205_2_24	RD	Units: % THD
Branch Phase Current Load	Analog_Value	1233	5225_2_24	RD	Units: %
Branch Current Rating	Analog_Value	1234	8206_2_24	RD	Units: A AC
Branch Power Factor	Analog_Value	1235	5224_2_24	RD	
Branch Voltage	Analog_Value	1236	8207_2_24	RD	Units: VAC

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Table 5.115 Liebert® APM 160—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Group 3 Branch 1					
Branch Current	Analog_Value	1247	8202_3_1	RD	Units: A AC
Branch Energy	Analog_Value	1248	5223_3_1	RD	Units: kWH
Branch Active Power	Analog_Value	1249	5222_3_1	RD	Units: kW
Branch Apparent Power	Analog_Value	1250	8204_3_1	RD	Units: kVA
Branch THDI	Analog_Value	1251	8205_3_1	RD	Units: % THD
Branch Phase Current Load	Analog_Value	1252	5225_3_1	RD	Units: %
Branch Current Rating	Analog_Value	1253	8206_3_1	RD	Units: A AC
Branch Power Factor	Analog_Value	1254	5224_3_1	RD	
Branch Voltage	Analog_Value	1255	8207_3_1	RD	Units: VAC
Branch Group 3 Branch 2					
Branch Current	Analog_Value	1266	8202_3_2	RD	Units: A AC
Branch Energy	Analog_Value	1267	5223_3_2	RD	Units: kWH
Branch Active Power	Analog_Value	1268	5222_3_2	RD	Units: kW
Branch Apparent Power	Analog_Value	1269	8204_3_2	RD	Units: kVA
Branch THDI	Analog_Value	1270	8205_3_2	RD	Units: % THD
Branch Phase Current Load	Analog_Value	1271	5225_3_2	RD	Units: %
Branch Current Rating	Analog_Value	1272	8206_3_2	RD	Units: A AC
Branch Power Factor	Analog_Value	1273	5224_3_2	RD	
Branch Voltage	Analog_Value	1274	8207_3_2	RD	Units: VAC
Branch Group 3 Branch 24					
Branch Current	Analog_Value	1684	8202_3_24	RD	Units: A AC
Branch Energy	Analog_Value	1685	5223_3_24	RD	Units: kWH
Branch Active Power	Analog_Value	1686	5222_3_24	RD	Units: kW
Branch Apparent Power	Analog_Value	1687	8204_3_24	RD	Units: kVA
Branch THDI	Analog_Value	1688	8205_3_24	RD	Units: % THD
Branch Phase Current Load	Analog_Value	1689	5225_3_24	RD	Units: %
Branch Current Rating	Analog_Value	1690	8206_3_24	RD	Units: A AC
Branch Power Factor	Analog_Value	1691	5224_3_24	RD	
Branch Voltage	Analog_Value	1692	8207_3_24	RD	Units: VAC

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Table 5.116 Liebert® APM 160—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Breaker	MultiState_Value	1	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
External Input Breaker	MultiState_Value	2	6056_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
External Bypass Breaker	MultiState_Value	13	6057_1	RD	1 = Open 2 = Close 3 = Not Installed
Internal Bypass Breaker	MultiState_Value	14	4769_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery					
Automatic Battery Test	MultiState_Value	25	5803_1	RD	1 = disabled 2 = enabled
UPS Battery Status	MultiState_Value	26	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	27	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Inverter					
Output Breaker	MultiState_Value	38	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Inverter On/Off State	MultiState_Value	39	4746_1	RD	1 = off 2 = on
Power Modules 1					

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Table 5.116 Liebert® APM 160—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Sleep Status	MultiState_Value	50	6437_1	RD	1 = Sleeping
					2 = Not Sleeping
Power Module Ready Status	MultiState_Value	51	8099_1	RD	1 = Not ready
					2 = Ready
Module Operating Status	MultiState_Value	52	5833_1	RD	1 = Normal
					2 = Warning
					3 = Alarm
					4 = Fault
Inverter Status	MultiState_Value	53	5864_1	RD	1 = Inverter Inactive
					2 = Inverter Active
Power Modules 2					
Power Module Sleep Status	MultiState_Value	64	6437_2	RD	1 = Sleeping
					2 = Not Sleeping
Power Module Ready Status	MultiState_Value	65	8099_2	RD	1 = Not ready
					2 = Ready
Module Operating Status	MultiState_Value	66	5833_2	RD	1 = Normal
					2 = Warning
					3 = Alarm
					4 = Fault
Inverter Status	MultiState_Value	67	5864_2	RD	1 = Inverter Inactive
					2 = Inverter Active
Power Modules 20					
Power Module Sleep Status	MultiState_Value	316	6437_20	RD	1 = Sleeping
					2 = Not Sleeping
Power Module Ready Status	MultiState_Value	317	8099_20	RD	1 = Not ready
					2 = Ready
Module Operating Status	MultiState_Value	318	5833_20	RD	1 = Normal
					2 = Warning
					3 = Alarm
					4 = Fault
Inverter Status	MultiState_Value	319	5864_20	RD	1 = Inverter Inactive
					2 = Inverter Active

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Table 5.116 Liebert® APM 160—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
Application Mode For UPS	MultiState_Value	330	8275_1	RD	1 = UPS Mode
					2 = Frequency Converter Mode
					3 = Intelligent Paralleling Mode
					4 = Intelligent Paralleling Mode Demo
					5 = ECO Mode
					6 = Intelligent ECO Mode
					7 = Intelligent ECO Mode Demo
					8 = Testing Mode
					9 = Regen Mode
					10 = Power Conditioner Mode
					11 = Frequency Converter Mode without Battery
					12 = Dynamic Online Model
System Set To Operate With	MultiState_Value	331	5820_1	RD	1 = No Redundancy
					2 = Redundancy
Maintenance Bypass Breaker	MultiState_Value	332	4772_1	RD	1 = Open
					2 = Close
					3 = Not Installed
MMS UPS Output Source	MultiState_Value	333	4874_1	RD	1 = Other
					2 = Off
					3 = Normal
					4 = Bypass
					5 = Battery
					6 = Booster
					7 = Reducer
System Configuration					

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Table 5.116 Liebert® APM 160—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
UPS Output Source	MultiState_Value	344	4872_1	RD	1 = Other
					2 = Off
					3 = Normal
					4 = Bypass
					5 = Battery
					6 = Booster
					7 = Reducer
System Status	MultiState_Value	345	4123_1	RD	1 = Normal Operation
					2 = StartUp
					3 = Normal with Warning
					4 = Normal with Alarm
					5 = Abnormal Operation
SPM					
Input Source Switch	MultiState_Value	356	8224_1	RD	1 = None
					2 = ATS
					3 = Breaker
ATS Status	MultiState_Value	357	8225_1	RD	1 = Not Installed
					2 = Channel 1
					3 = Channel 2
					4 = Unknown
Total Input Breaker Status	MultiState_Value	358	8226_1	RD	1 = Open
					2 = Closed
					3 = Not Installed
					4 = Unknown
Branch Group 1 Branch 1					
Branch Breaker	MultiState_Value	369	8203_1_1	RD	1 = Open
					2 = Closed
					3 = Not Installed
					4 = Unknown
Branch Group 1 Branch 2					

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Table 5.116 Liebert® APM 160—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Breaker	MultiState_Value	380	8203_1_2	RD	1 = Open 2 = Closed 3 = Not Installed 4 = Unknown
Branch Group 1 Branch 24					
Branch Breaker	MultiState_Value	622	8203_1_24	RD	1 = Open 2 = Closed 3 = Not Installed 4 = Unknown
Branch Group 2 Branch 1					
Branch Breaker	MultiState_Value	633	8203_2_1	RD	1 = Open 2 = Closed 3 = Not Installed 4 = Unknown
Branch Group 2 Branch 2					
Branch Breaker	MultiState_Value	644	8203_2_2	RD	1 = Open 2 = Closed 3 = Not Installed 4 = Unknown
Branch Group 2 Branch 24					
Branch Breaker	MultiState_Value	886	8203_2_24	RD	1 = Open 2 = Closed 3 = Not Installed 4 = Unknown
Branch Group 3 Branch 1					
Branch Breaker	MultiState_Value	897	8203_3_1	RD	1 = Open 2 = Closed 3 = Not Installed 4 = Unknown
Branch Group 3 Branch 2					

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Table 5.116 Liebert® APM 160—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Branch Breaker	MultiState_Value	908	8203_3_2	RD	1 = Open
					2 = Closed
					3 = Not Installed
					4 = Unknown
Branch Group 3 Branch 24					
Branch Breaker	MultiState_Value	1150	8203_3_24	RD	1 = Open
					2 = Closed
					3 = Not Installed
					4 = Unknown

Table 5.117 Liebert® APM 160—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
ATS Status	The status of ATS
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker Open Failure	Battery circuit breaker failed to open
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charge Status	Battery Charge Status
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker Open	Battery circuit breaker is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Management System Fault	The Battery Management System has reported a Fault

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
Battery Management System General Warning	The Battery Management System has reported a General Warning
Battery Management System Rack is Offline Warning	The Battery Management System has reported a rack-is-offline warning
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminal Abnormal	Battery Terminal Abnormal
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Branch Active Power	The active power of the branch
Branch Apparent Power	The apparent power of the branch
Branch Breaker Fail	A failure has been detected with the branch breaker.
Branch Breaker	Branch Breaker
Branch Current Over HL	The current of pdu branch is over the high level.
Branch Current Over LL	The current of pdu branch is over the low level.
Branch Current Rating	The RMS current rating of the branch circuit breaker
Branch Current	The RMS current of the branch
Branch Energy	The total accumulated energy of the branch since the last reset
Branch Over Current	The PDU branch current is over limit.
Branch Phase Current Load	The percentage of phase RMS current to the rated capacity of the branch
Branch Power Factor	The ratio of real to apparent power for the branch
Branch THDI	Branch THDI

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
Branch Voltage	The voltage of the branch
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Control Module Not Available	The bypass control module is not available.
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Module Not Available	The bypass module is not available.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Unable to Trace	The voltage amplitude or frequency of bypass is out of the range of trace.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
External Input Breaker	The status of the external input breaker.
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Current Rating	The RMS current rating of input souce on one phase
Input Source Backfeed	The battery is backfeeding the input source.
Input Source Switch	Type of Input Source Switch
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Load Impact Transfer	On bypass as result of load impact.
Load on Bypass Union	The output power is supplied by the bypass and maintenance bypass.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker Open	UPS internal or external output breaker is open.
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Bypass Input Frequency	The bypass input frequency detected by power module
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module
Power Module Bypass Input	The bypass input RMS voltage between phase B and Neutral detected by power module

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
Voltage RMS B-N	
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Ready Status	Status of the inverter. Active means the inverter is ready to power the load. Inactive means the inverter is not ready to power the load.
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
SPM Board Not Ready	The Server Power Management sample board is not ready.
SPM CRC Check Error	Server Power Management CRC Check Error
SPM Internal Comm Failure	The communication with Server Power Management is lost.
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-	The system output RMS voltage between phases C and A

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
A	
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Total Input Active Power Phase A	The active power of the input source on Phase A.
Total Input Active Power Phase B	The active power of the input source on Phase B.
Total Input Active Power Phase C	The active power of the input source on Phase C.
Total Input Apparent Power Phase A	Total Input Apparent Power Phase A
Total Input Apparent Power Phase B	Total Input Apparent Power Phase B
Total Input Apparent Power Phase C	Total Input Apparent Power Phase C
Total Input Breaker Status	The status of total input breaker
Total Input Current Load Phase A	The percentage of RMS current to the rated capacity of Phase A.
Total Input Current Load Phase B	The percentage of RMS current to the rated capacity of Phase B.
Total Input Current Load Phase C	The percentage of RMS current to the rated capacity of Phase C.
Total Input Energy Phase A	The total accumulated energy for Phase A since the last reset.
Total Input Energy Phase B	The total accumulated energy for Phase B since the last reset.
Total Input Energy Phase C	The total accumulated energy for Phase C since the last reset.
Total Input Frequency	The input source phase frequency
Total Input Power Factor Phase A	The ratio of real to apparent power for input source Phase A.
Total Input Power Factor Phase B	The ratio of real to apparent power for input source Phase B.
Total Input Power Factor Phase C	The ratio of real to apparent power for input source Phase C.
Total Input RMS Current Phase	The RMS current for input source phase A

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Table 5.117 Liebert® APM 160—Glossary (continued)

Data Label	Data Description
A	
Total Input RMS Current Phase B	The RMS current for input source phase B
Total Input RMS Current Phase C	The RMS current for input source phase C
Total Input THDI Phase A	Total Input THDI Phase A
Total Input THDI Phase B	Total Input THDI Phase B
Total Input THDI Phase C	Total Input THDI Phase C
Total Input THDU Phase A	The input source Phase A THDU.
Total Input THDU Phase B	The input source Phase B THDU.
Total Input THDU Phase C	The input source Phase C THDU.
Total Input Voltage Phase A	The voltage of input source Phase A.
Total Input Voltage Phase B	The voltage of input source Phase B.
Total Input Voltage Phase C	The voltage of input source Phase C.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 5.118 Liebert® APM 600 with GHMI—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	4	6061_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	16	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm

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Table 5.118 Liebert® APM 600 with GHMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	20	5957_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	21	4216_1	RD	Active on Alarm
Battery					
Main Battery Disconnect Open	Binary_Value	32	4173_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	33	4185_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	34	4182_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	35	4179_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	36	4176_1	RD	Active on Alarm
Battery Self Test	Binary_Value	37	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	38	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	39	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	40	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	41	4172_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	42	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	43	4323_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	44	4219_1	RD	Active on Alarm
Battery Low	Binary_Value	45	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	46	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	47	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	48	5150_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	49	4166_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	50	6063_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	51	6065_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	52	6068_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	53	4177_1	RD	Active on Alarm
Battery Breaker 2 Open Failure	Binary_Value	54	4180_1	RD	Active on Alarm
Battery Breaker 3 Open Failure	Binary_Value	55	4183_1	RD	Active on Alarm
Battery Breaker 4 Open Failure	Binary_Value	56	4186_1	RD	Active on Alarm
Battery Equalize	Binary_Value	57	4170_1	RD	Active on Alarm
Battery Circuit Breaker Open	Binary_Value	58	7485_1	RD	Active on Alarm
Battery Breaker Open Failure	Binary_Value	59	7461_1	RD	Active on Alarm

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Table 5.118 Liebert® APM 600 with GHMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery - Lithium-Ion Battery System					
Lithium-Ion Battery System Abnormal	Binary_Value	62	7464_1_1	RD	Active on Alarm
Lithium-Ion Battery System Disconnect Request	Binary_Value	63	7465_1_1	RD	Active on Alarm
Lithium-Ion Battery System Communication Abnormal	Binary_Value	64	7486_1_1	RD	Active on Alarm
Lithium-Ion Battery System Warning	Binary_Value	65	7487_1_1	RD	Active on Alarm
Lithium-Ion Battery System Fault	Binary_Value	66	7488_1_1	RD	Active on Alarm
Inverter					
Loss of Synchronization	Binary_Value	68	6062_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	79	5806_1	RD	Active on Alarm
System Output Fault	Binary_Value	80	4389_1	RD	Active on Alarm
PowerModules 1					
Power Module Input Current Abnormal	Binary_Value	91	6438_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	92	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	93	4233_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	94	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	95	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	96	6059_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	97	4164_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	98	5151_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	99	6439_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	100	4290_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	101	6440_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	102	6441_1		Active on Alarm
Power Module Fan Fault	Binary_Value	103	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	104	5839_1	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	105	6528_1	RD	Active on Alarm
Power Module Communication status	Binary_Value	106	8098_1	RD	Active on Alarm
PowerModules 2					
Power Module Input Current Abnormal	Binary_Value	115	6438_2	RD	Active on Alarm
Rectifier Failure	Binary_Value	116	4295_2	RD	Active on Alarm
Inverter Failure	Binary_Value	117	4233_2	RD	Active on Alarm

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Table 5.118 Liebert® APM 600 with GHMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
DC Bus Abnormal	Binary_Value	118	5154_2	RD	Active on Alarm
Load Sharing Fault	Binary_Value	119	5153_2	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	120	6059_2	RD	Active on Alarm
Battery Charging Error	Binary_Value	121	4164_2	RD	Active on Alarm
Battery Converter Failure	Binary_Value	122	5151_2	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	123	6439_2	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	124	4290_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	125	6440_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	126	6441_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	127	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	128	5839_2	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	129	6528_2	RD	Active on Alarm
Power Module Communication status	Binary_Value	130	8098_2	RD	Active on Alarm
PowerModules 20					
Power Module Input Current Abnormal	Binary_Value	547	6438_20	RD	Active on Alarm
Rectifier Failure	Binary_Value	548	4295_20	RD	Active on Alarm
Inverter Failure	Binary_Value	549	4233_20	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	550	5154_20	RD	Active on Alarm
Load Sharing Fault	Binary_Value	551	5153_20	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	552	6059_20	RD	Active on Alarm
Battery Charging Error	Binary_Value	553	4164_20	RD	Active on Alarm
Battery Converter Failure	Binary_Value	554	5151_20	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	555	6439_20	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	556	4290_20	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	557	6440_20	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	558	6441_20	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	559	5838_20	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	560	5839_20	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	561	6528_20	RD	Active on Alarm
Power Module Communication status	Binary_Value	562	8098_20	RD	Active on Alarm
System Status					
Loss of Redundancy	Binary_Value	571	5817_1	RD	Active on Alarm

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Table 5.118 Liebert® APM 600 with GHMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Parallel Cable Failure	Binary_Value	572	6066_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	573	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	574	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	575	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	576	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	577	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	578	4300_1	RD	Active on Alarm
MMS Overload	Binary_Value	579	4831_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	580	4823_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	581	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	582	4758_1	RD	Active on Alarm
On Generator	Binary_Value	583	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	584	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	585	4213_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	586	5770_1	RD	Active on Alarm
Hardware Mismatch	Binary_Value	587	6529_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	588	6536_1	RD	Active on Alarm
Fuse Failure	Binary_Value	589	4440_1	RD	Active on Alarm

Table 5.119 Liebert® APM 600 with GHMI—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC

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Table 5.119 Liebert® APM 600 with GHMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Nominal Voltage	Analog_Value	14	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	15	4103_1	RD	Units: Hz
System Input Nominal Current	Analog_Value	16	4104_1	RD	Units: A AC
System Input Brown Out Count	Analog_Value	17	4119_1	RD	
System Input Black Out Count	Analog_Value	18	4120_1	RD	
System Input Power Phase A	Analog_Value	19	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	20	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	21	6320_1	RD	Units: kW
System Input Apparent Power Phs A	Analog_Value	22	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	23	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	24	8095_1	RD	Units: kVA
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	29	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	30	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	31	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	32	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	33	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	34	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	35		RD	Units: VAC
Bypass Nominal Voltage	Analog_Value	36	4259_1	RD	Units: VAC
Bypass Power Phase A	Analog_Value	37	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	38	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	39	6327_1	RD	Units: kW
Bypass Apparent Power Phase A	Analog_Value	40	6328_1	RD	Units: kVA
Bypass Apparent Power Phase B	Analog_Value	41	6329_1	RD	Units: kVA
Bypass Apparent Power Phase C	Analog_Value	42	6330_1	RD	Units: kVA
Battery					
Battery Time Remaining	Analog_Value	47	4150_1	RD	Units: min
DC Bus Current	Analog_Value	48	4149_1	RD	Units: A DC

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Table 5.119 Liebert® APM 600 with GHMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Time Until Next Auto Battery Test	Analog_Value	49	5804_1	RD	Units: min
Battery Percentage Charge	Analog_Value	50	4153_1	RD	Units: %
Number of Discharge Cycles	Analog_Value	51	5845_1	RD	
Accumulated Discharge Time	Analog_Value	52	5846_1	RD	Units: hr
Low Battery Warning Time	Analog_Value	53	5802_1	RD	Units: min
Battery Self Test Cycle Time	Analog_Value	54	5991_1	RD	Units: day
DC Bus Voltage	Analog_Value	55	4148_1	RD	Units: VDC
Battery Temperature	Analog_Value	56	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10056	5853_1_deg_F	RD	Units: deg F
Positive DC Bus Voltage	Analog_Value	57	8281_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	58	8282_1	RD	Units: VDC
Battery - Battery Cabinets 1					
Battery Temperature for Cabinet	Analog_Value	67	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10067	4156_1_1_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	68	4155_1_1	RD	Units: VDC
Battery - Battery Cabinets 2					
Battery Temperature for Cabinet	Analog_Value	79	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10079	4156_1_2_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	80	4155_1_2	RD	Units: VDC
Battery - Battery Cabinets 12					
Battery Temperature for Cabinet	Analog_Value	289	4156_1_12	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10199	4156_1_12_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	200	4155_1_12	RD	Units: VDC
Output					
System Output Voltage RMS A-N	Analog_Value	163	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	164	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	165	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	166	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	167	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	168	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	169	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	170	4201_1	RD	Units: VAC

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Table 5.119 Liebert® APM 600 with GHMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Voltage RMS B-C	Analog_Value	171	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	172	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	173	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	174	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	175	4212_1	RD	
System Output Pct Power Phase A	Analog_Value	176	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	177	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	178	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	179	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	180	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	181	5159_1	RD	
Output Current Crest Factor Phs B	Analog_Value	182	5160_1	RD	
Output Current Crest Factor Phs C	Analog_Value	183	5161_1	RD	
System Output Power Phase A	Analog_Value	184	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	185	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	186	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	187	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	188	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	189	5870_1	RD	Units: kVA
System Output Power	Analog_Value	190	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	191	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	192	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	193	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	194	4228_1	RD	Units: %
System Output Nominal Voltage	Analog_Value	195	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	196	4261_1	RD	Units: Hz
ECO Suspended Time Remaining	Analog_Value	197	8097_1	RD	Units: sec
BypassControlModule					
Power Module Bypass Input Frequency	Analog_Value	207	6442_1	RD	Units: Hz
Power Module Bypass Input Voltage RMS A-N	Analog_Value	208	6443_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-N	Analog_Value	209	6444_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-N	Analog_Value	210	6445_1	RD	Units: VAC

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Table 5.119 Liebert® APM 600 with GHMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Bypass Input Voltage RMS A-B	Analog_Value	211	6446_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-C	Analog_Value	212	6447_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-A	Analog_Value	213	6448_1	RD	Units: VAC
System Status					
Number Of Active Power Modules	Analog_Value	224	5824_1	RD	
Number of Installed Power Modules	Analog_Value	225	5823_1	RD	
Inlet Air Temperature	Analog_Value	226	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10226	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	227	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	238	4293_1	RW	Units: Secs since Epoch(UTC)
Total System Operating Time	Analog_Value	239	4292_1	RD	Units: hr
System Capacity	Analog_Value	240	5821_1	RD	Units: kVA

Table 5.120 Liebert® APM 600 with GHMI—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Breaker	MultiState_Value	1	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
External Bypass Breaker	MultiState_Value	12	6057_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery					
UPS Battery Status	MultiState_Value	23	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery charge status.	MultiState_Value	24	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_Value	25	5803_1	RD	1 = disabled 2 = enabled
Battery - Lithium-Ion Battery System					

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Table 5.120 Liebert® APM 600 with GHMI—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Lithium-Ion Battery System Status	MultiState_Value	32	7466_1_1	RD	1 = offline 2 = online
Inverter					
Output Breaker	MultiState_Value	36	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Inverter On/Off State	MultiState_Value	37	4746_1	RD	1 = off 2 = on
PowerModules 1					
Power Module Sleep Status	MultiState_Value	48	6437_1	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_Value	49	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	50	5864_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module Ready Status	MultiState_Value	51	8099_1	RD	1 = Not ready 2 = Ready
PowerModules 2					
Power Module Sleep Status	MultiState_Value	61	6437_2	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_Value	62	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	63	5864_2	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module Ready Status	MultiState_Value	64	8099_2	RD	1 = Not ready 2 = Ready
PowerModules 20					
Power Module Sleep Status	MultiState_Value	295	6437_20	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_Value	296	5833_20	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	297	5864_20	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module Ready Status	MultiState_Value	298	8099_20	RD	1 = Not ready 2 = Ready

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Table 5.120 Liebert® APM 600 with GHMI—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
System Set To Operate With	MultiState_Value	308	5820_1	RD	1 = No Redundancy 2 = Redundancy
Maintenance Bypass Breaker	MultiState_Value	309	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
ECO Mode Operation State	MultiState_Value	310	5454_1	RD	1 = disabled 2 = enabled
MMS UPS Output Source	MultiState_Value	312	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	MultiState_Value	313	5448_1	RD	1 = disabled 2 = enabled
Application Mode For UPS	MultiState_Value	314	6537_1	RD	1 = UPS Mode 2 = Frequency Converter Mode 3 = Intelligent Paralleling Mode 4 = Intelligent Paralleling Mode Demo 5 = ECO Mode 6 = Intelligent ECO Mode 7 = Intelligent ECO Mode Demo 8 = Testing Mode 9 = Regen Mode 10 = Power Conditioner Mode
System Configuration					
UPS Output Source	MultiState_Value	324	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	325	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.121 Liebert® APM 600 with GHMI—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker Open Failure	Battery circuit breaker failed to open
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker Open	Battery circuit breaker is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery Temperature for Cabinet	The battery temperature for a cabinet

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
Fuse Failure	A summary event indicating one or more fuse failures
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Lithium-Ion Battery System Communication Abnormal	Lithium-Ion Battery System Communication Abnormal
Lithium-Ion Battery System Disconnect Request	A request to disconnect the Lithium-Ion battery system was received.
Lithium-Ion Battery System Fault	The Lithium-Ion Battery system has one or more faults.
Lithium-Ion Battery System Status	Lithium-Ion Battery System Status
Lithium-Ion Battery System Warning	The Lithium-Ion Battery system has one or more warnings.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Bypass Input Frequency	The bypass input frequency detected by power module
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral detected by power module
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Ready Status	Status of the inverter. Active means the inverter is ready to power the load. Inactive means the inverter is not ready to power the load.
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A

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Table 5.121 Liebert® APM 600 with GHMI—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 5.122 Liebert® APM2—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Under Voltage	Binary_Value	4	6630_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	5	6061_1	RD	Active on Alarm
Input Surge Protection Device Alarm	Binary_Value	6	8736_1	RD	Active on Alarm
Bypass					
Bypass out of sync	Binary_Value	16	6333_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	17	5957_1	RD	Active on Alarm
Backfeed Breaker Open	Binary_Value	18	4325_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	19	5976_1	RD	Active on Alarm
System Bypass Phase Rotation Error	Binary_Value	20	8489_1	RD	Active on Alarm
Bypass Surge Protection Device Alarm	Binary_Value	21	8737_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	31	5806_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Fault	Binary_Value	32	4389_1	RD	Active on Alarm
Module Output Breaker Open	Binary_Value	33	6220_1	RD	Active on Alarm
System Control Card 1					
System Control Card Not Ready	Binary_Value	44	8494_1	RD	Active on Alarm
System Control Card Power Supply Failure	Binary_Value	45	8495_1	RD	Active on Alarm
System Control Card Communication Fail	Binary_Value	46	8496_1	RD	Active on Alarm
System Control Card 2					
System Control Card Not Ready	Binary_Value	57	8494_2	RD	Active on Alarm
System Control Card Power Supply Failure	Binary_Value	58	8495_2	RD	Active on Alarm
System Control Card Communication Fail	Binary_Value	59	8496_2	RD	Active on Alarm
Bypass Module					
Bypass Module Not Ready	Binary_Value	70	8501_1	RD	Active on Alarm
Bypass Module Power Supply Failure	Binary_Value	71	8502_1	RD	Active on Alarm
Bypass Module Communication Fault	Binary_Value	72	8503_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	73	4143_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	74	4216_1	RD	Active on Alarm
Bypass controlling the SCR autonomously	Binary_Value	75	8096_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	76	4139_1	RD	Active on Alarm
Bypass Module Over Temperature	Binary_Value	77	8504_1	RD	Active on Alarm
Bypass Module Fan Fault	Binary_Value	78	8505_1	RD	Active on Alarm
Power Module 1					
Power Module Not Ready	Binary_Value	89	8512_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	90	6441_1	RD	Active on Alarm
Power Module Communication status	Binary_Value	91	8098_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	92	6440_1	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	93	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	94	5839_1	RD	Active on Alarm
Power Module 1 Rectifier 1					
Power Module Input Current Abnormal	Binary_Value	105	6438_1_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	106	8285_1_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	107	4295_1_1	RD	Active on Alarm
Power Module 1 DC Bus 1					

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
DC Bus Abnormal	Binary_Value	118	5154_1_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	119	6439_1_1	RD	Active on Alarm
Power Module 1 Inverter 1					
Load Sharing Fault	Binary_Value	130	5153_1_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	131	6059_1_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	132	4290_1_1	RD	Active on Alarm
Loss of Synchronization	Binary_Value	133	6062_1_1	RD	Active on Alarm
Inverter Failure	Binary_Value	134	4233_1_1	RD	Active on Alarm
Power Module 1 Charger 1					
Charger Failure	Binary_Value	145	6254_1_1	RD	Active on Alarm
Power Module 1 Discharger 1					
Discharger Failure	Binary_Value	156	8510_1_1	RD	Active on Alarm
Discharger Shutdown	Binary_Value	157	8274_1_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	158	6063_1_1	RD	Active on Alarm
Power Module 2					
Power Module Not Ready	Binary_Value	169	8512_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	170	6441_2	RD	Active on Alarm
Power Module Communication status	Binary_Value	171	8098_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	172	6440_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	173	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	174	5839_2	RD	Active on Alarm
Power Module 2 Rectifier 1					
Power Module Input Current Abnormal	Binary_Value	185	6438_2_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	186	8285_2_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	187	4295_2_1	RD	Active on Alarm
Power Module 2 DC Bus 1					
DC Bus Abnormal	Binary_Value	198	5154_2_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	199	6439_2_1	RD	Active on Alarm
Power Module 2 Inverter 1					
Load Sharing Fault	Binary_Value	210	5153_2_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	211	6059_2_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	212	4290_2_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Loss of Synchronization	Binary_Value	213	6062_2_1	RD	Active on Alarm
Inverter Failure	Binary_Value	214	4233_2_1	RD	Active on Alarm
Power Module 2 Charger 1					
Charger Failure	Binary_Value	225	6254_2_1	RD	Active on Alarm
Power Module 2 Discharger 1					
Discharger Failure	Binary_Value	236	8510_2_1	RD	Active on Alarm
Discharger Shutdown	Binary_Value	237	8274_2_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	238	6063_2_1	RD	Active on Alarm
Power Module 10					
Power Module Not Ready	Binary_Value	809	8512_10	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	810	6441_10	RD	Active on Alarm
Power Module Communication status	Binary_Value	811	8098_10	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	812	6440_10	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	813	5838_10	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	814	5839_10	RD	Active on Alarm
Power Module 10 Rectifier 1					
Power Module Input Current Abnormal	Binary_Value	825	6438_10_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	826	8285_10_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	827	4295_10_1	RD	Active on Alarm
Power Module 10 DC Bus 1					
DC Bus Abnormal	Binary_Value	838	5154_10_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	839	6439_10_1	RD	Active on Alarm
Power Module 10 Inverter 1					
Load Sharing Fault	Binary_Value	850	5153_10_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	851	6059_10_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	852	4290_10_1	RD	Active on Alarm
Loss of Synchronization	Binary_Value	853	6062_10_1	RD	Active on Alarm
Inverter Failure	Binary_Value	854	4233_10_1	RD	Active on Alarm
Power Module 10 Charger 1					
Charger Failure	Binary_Value	865	6254_10_1	RD	Active on Alarm
Power Module 10 Discharger 1					
Discharger Failure	Binary_Value	876	8510_10_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Discharger Shutdown	Binary_Value	877	8274_10_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	878	6063_10_1	RD	Active on Alarm
Multi Module					
Parallel Cable Failure	Binary_Value	889	6066_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	890	4823_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	891	6536_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	892	5817_1	RD	Active on Alarm
System Status					
Hardware Mismatch	Binary_Value	903	6529_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	904	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	905	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	906	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	907	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	908	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	909	4300_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	910	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	911	4758_1	RD	Active on Alarm
On Generator	Binary_Value	912	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	913	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	914	4213_1	RD	Active on Alarm
Fuse Failure	Binary_Value	915	4440_1	RD	Active on Alarm
Ground Fault	Binary_Value	916	5970_1	RD	Active on Alarm
System Fan Failure	Binary_Value	917	4311_1	RD	Active on Alarm
Parameter Configuration Failed	Binary_Value	918	8286_1	RD	Active on Alarm
System Output Off	Binary_Value	919	4215_1	RD	Active on Alarm
Output Disabled	Binary_Value	920	8287_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	921	5770_1	RD	Active on Alarm
ECO mode Inhibited	Binary_Value	922	8100_1	RD	Active on Alarm
Inverter Transfer Inhibit - Ext	Binary_Value	923	4289_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	924	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	925	4299_1	RD	Active on Alarm
Transformer Overtemperature	Binary_Value	926	5185_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Control Cards Missing	Binary_Value	927	8718_1	RD	Active on Alarm
Loss of Control Redundancy	Binary_Value	928	8719_1	RD	Active on Alarm
Battery System					
Battery Self Test	Binary_Value	937	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	938	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	939	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	940	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	941	4172_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	942	4323_1	RD	Active on Alarm
Battery Low	Binary_Value	943	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	944	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	945	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	946	5150_1	RD	Active on Alarm
Replace Battery	Binary_Value	947	6182_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	948	6065_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	949	6068_1	RD	Active on Alarm
Battery Equalize	Binary_Value	950	4170_1	RD	Active on Alarm
Battery Terminal Abnormal	Binary_Value	951	8288_1	RD	Active on Alarm
Battery System Communication Abnormal	Binary_Value	952	8429_1	RD	Active on Alarm
Battery System Warning	Binary_Value	953	8430_1	RD	Active on Alarm
Battery System Fault	Binary_Value	954	8431_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	955	4176_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	956	4179_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	957	4182_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	958	4185_1	RD	Active on Alarm
Battery Circuit Breaker 5 Open	Binary_Value	959	4188_1	RD	Active on Alarm
Battery Circuit Breaker 6 Open	Binary_Value	960	4191_1	RD	Active on Alarm
Battery Circuit Breaker 7 Open	Binary_Value	961	4194_1	RD	Active on Alarm
Battery Circuit Breaker 8 Open	Binary_Value	962	4197_1	RD	Active on Alarm
Battery Circuit Breaker 9 Open	Binary_Value	963	8517_1	RD	Active on Alarm
Battery Circuit Breaker 10 Open	Binary_Value	964	8518_1	RD	Active on Alarm
Battery Circuit Breaker 11 Open	Binary_Value	965	8519_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Circuit Breaker 12 Open	Binary_Value	966	8520_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	967	4178_1	RD	Active on Alarm
Battery Breaker 2 Open Failure	Binary_Value	968	4180_1	RD	Active on Alarm
Battery Breaker 3 Open Failure	Binary_Value	969	4183_1	RD	Active on Alarm
Battery Breaker 4 Open Failure	Binary_Value	970	4186_1	RD	Active on Alarm
Battery Breaker 5 Open Failure	Binary_Value	971	4190_1	RD	Active on Alarm
Battery Breaker 6 Open Failure	Binary_Value	972	4192_1	RD	Active on Alarm
Battery Breaker 7 Open Failure	Binary_Value	973	4195_1	RD	Active on Alarm
Battery Breaker 8 Open Failure	Binary_Value	974	4198_1	RD	Active on Alarm
Battery Breaker 9 Open Failure	Binary_Value	975	8521_1	RD	Active on Alarm
Battery Breaker 10 Open Failure	Binary_Value	976	8522_1	RD	Active on Alarm
Battery Breaker 11 Open Failure	Binary_Value	977	8523_1	RD	Active on Alarm
Battery Breaker 12 Open Failure	Binary_Value	978	8524_1	RD	Active on Alarm
Main Battery Circuit Breaker is Open	Binary_Value	979	8726_1	RD	Active on Alarm
Main Battery Breaker Open Failure	Binary_Value	980	8727_1	RD	Active on Alarm
Battery Cabinet 1					
Battery Cabinet High Overall Voltage	Binary_Value	989	8537_1	RD	Active on Alarm
Battery Cabinet Low Overall Voltage	Binary_Value	990	8538_1	RD	Active on Alarm
Battery Cabinet High Cell Voltage	Binary_Value	991	8539_1	RD	Active on Alarm
Battery Cabinet Low Cell Voltage	Binary_Value	992	8540_1	RD	Active on Alarm
Battery Cabinet Over Overall Voltage	Binary_Value	993	8541_1	RD	Active on Alarm
Battery Cabinet Under Overall Voltage	Binary_Value	994	8542_1	RD	Active on Alarm
Battery Cabinet Over Cell Voltage	Binary_Value	995	8543_1	RD	Active on Alarm
Battery Cabinet Under Cell Voltage	Binary_Value	996	8544_1	RD	Active on Alarm
Battery Cabinet Charge Over Current	Binary_Value	997	8545_1	RD	Active on Alarm
Battery Cabinet Discharge Over Current	Binary_Value	998	8546_1	RD	Active on Alarm
Battery Cabinet Over Temperature	Binary_Value	999	8547_1	RD	Active on Alarm
Battery Cabinet Under Temperature	Binary_Value	1000	8548_1	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	1001	4174_1	RD	Active on Alarm
Battery Cabinet 1 Battery Module 1					
Battery Module Disconnected	Binary_Value	1012	8587_1_1	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	1013	8590_1_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet 1 Battery Module 1 LithiumIon Battery Module 1					
Battery Module High Overall Voltage	Binary_Value	1024	8579_1_1_1	RD	Active on Alarm
Battery Module Low Overall Voltage	Binary_Value	1025	8580_1_1_1	RD	Active on Alarm
Battery Module High Cell Voltage	Binary_Value	1026	8581_1_1_1	RD	Active on Alarm
Battery Module Low Cell Voltage	Binary_Value	1027	8582_1_1_1	RD	Active on Alarm
Battery Module Over Overall Voltage	Binary_Value	1028	8583_1_1_1	RD	Active on Alarm
Battery Module Under Overall Voltage	Binary_Value	1029	8584_1_1_1	RD	Active on Alarm
Battery Module Over Cell Voltage	Binary_Value	1030	8585_1_1_1	RD	Active on Alarm
Battery Module Under Cell Voltage	Binary_Value	1031	8586_1_1_1	RD	Active on Alarm
Battery Module Charge Over Current	Binary_Value	1032	8588_1_1_1	RD	Active on Alarm
Battery Module Discharge Over Current	Binary_Value	1033	8589_1_1_1	RD	Active on Alarm
Battery Module Under Temperature	Binary_Value	1034	8591_1_1_1	RD	Active on Alarm
Battery Module Fault	Binary_Value	1035	8592_1_1_1	RD	Active on Alarm
Battery Module Not Ready	Binary_Value	1036	8724_1_1_1	RD	Active on Alarm
Battery Module Balancing Abnormal	Binary_Value	1037	8725_1_1_1	RD	Active on Alarm
Battery Cabinet 1 Battery Module 2					
Battery Module Disconnected	Binary_Value	1046	8587_1_2	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	1047	8590_1_2	RD	Active on Alarm
Battery Cabinet 1 Battery Module 2 Lithium-Ion Battery Module 1					
Battery Module High Overall Voltage	Binary_Value	2135	8579_1_2_1	RD	Active on Alarm
Battery Module Low Overall Voltage	Binary_Value	2136	8580_1_2_1	RD	Active on Alarm
Battery Module High Cell Voltage	Binary_Value	2137	8581_1_2_1	RD	Active on Alarm
Battery Module Low Cell Voltage	Binary_Value	2138	8582_1_2_1	RD	Active on Alarm
Battery Module Over Overall Voltage	Binary_Value	2139	8583_1_2_1	RD	Active on Alarm
Battery Module Under Overall Voltage	Binary_Value	2140	8584_1_2_1	RD	Active on Alarm
Battery Module Over Cell Voltage	Binary_Value	2141	8585_1_2_1	RD	Active on Alarm
Battery Module Under Cell Voltage	Binary_Value	2142	8586_1_2_1	RD	Active on Alarm
Battery Module Charge Over Current	Binary_Value	2143	8588_1_2_1	RD	Active on Alarm
Battery Module Discharge Over Current	Binary_Value	2144	8589_1_2_1	RD	Active on Alarm
Battery Module Under Temperature	Binary_Value	2145	8591_1_2_1	RD	Active on Alarm
Battery Module Fault	Binary_Value	2146	8592_1_2_1	RD	Active on Alarm
Battery Module Not Ready	Binary_Value	2147	8724_1_2_1	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Module Balancing Abnormal	Binary_Value	2148	8725_1_2_1	RD	Active on Alarm
Battery Cabinet 1 Battery Module 32					
Battery Module Disconnected	Binary_Value	2066	8587_1_32	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	2067	8590_1_32	RD	Active on Alarm
Battery Cabinet 1 Battery Module 32 Lithium-Ion Battery Module 1					
Battery Module High Overall Voltage	Binary_Value	35465	8579_1_32_1	RD	Active on Alarm
Battery Module Low Overall Voltage	Binary_Value	35466	8580_1_32_1	RD	Active on Alarm
Battery Module High Cell Voltage	Binary_Value	35467	8581_1_32_1	RD	Active on Alarm
Battery Module Low Cell Voltage	Binary_Value	35468	8582_1_32_1	RD	Active on Alarm
Battery Module Over Overall Voltage	Binary_Value	35469	8583_1_32_1	RD	Active on Alarm
Battery Module Under Overall Voltage	Binary_Value	35470	8584_1_32_1	RD	Active on Alarm
Battery Module Over Cell Voltage	Binary_Value	35471	8585_1_32_1	RD	Active on Alarm
Battery Module Under Cell Voltage	Binary_Value	35472	8586_1_32_1	RD	Active on Alarm
Battery Module Charge Over Current	Binary_Value	35473	8588_1_32_1	RD	Active on Alarm
Battery Module Discharge Over Current	Binary_Value	35474	8589_1_32_1	RD	Active on Alarm
Battery Module Under Temperature	Binary_Value	35475	8591_1_32_1	RD	Active on Alarm
Battery Module Fault	Binary_Value	35476	8592_1_32_1	RD	Active on Alarm
Battery Module Not Ready	Binary_Value	35477	8724_1_32_1	RD	Active on Alarm
Battery Module Balancing Abnormal	Binary_Value	35478	8725_1_32_1	RD	Active on Alarm
Battery Cabinet 2					
Battery Cabinet High Overall Voltage	Binary_Value	2100	8537_2	RD	Active on Alarm
Battery Cabinet Low Overall Voltage	Binary_Value	2101	8538_2	RD	Active on Alarm
Battery Cabinet High Cell Voltage	Binary_Value	2102	8539_2	RD	Active on Alarm
Battery Cabinet Low Cell Voltage	Binary_Value	2103	8540_2	RD	Active on Alarm
Battery Cabinet Over Overall Voltage	Binary_Value	2104	8541_2	RD	Active on Alarm
Battery Cabinet Under Overall Voltage	Binary_Value	2105	8542_2	RD	Active on Alarm
Battery Cabinet Over Cell Voltage	Binary_Value	2106	8543_2	RD	Active on Alarm
Battery Cabinet Under Cell Voltage	Binary_Value	2107	8544_2	RD	Active on Alarm
Battery Cabinet Charge Over Current	Binary_Value	2108	8545_2	RD	Active on Alarm
Battery Cabinet Discharge Over Current	Binary_Value	2109	8546_2	RD	Active on Alarm
Battery Cabinet Over Temperature	Binary_Value	2110	8547_2	RD	Active on Alarm
Battery Cabinet Under Temperature	Binary_Value	2111	8548_2	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Temperature Sensor Fault	Binary_Value	2112	4174_2	RD	Active on Alarm
Battery Cabinet 2 Battery Module 1					
Battery Module Disconnected	Binary_Value	2123	8587_2_1	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	2124	8590_2_1	RD	Active on Alarm
Battery Cabinet 2 Battery Module 2					
Battery Module Disconnected	Binary_Value	2157	8587_2_2	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	2158	8590_2_2	RD	Active on Alarm
Battery Cabinet 2 Battery Module 32					
Battery Module Disconnected	Binary_Value	3177	8587_2_32	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	3178	8590_2_32	RD	Active on Alarm
Battery Cabinet 9					
Battery Cabinet High Overall Voltage	Binary_Value	9877	8537_9	RD	Active on Alarm
Battery Cabinet Low Overall Voltage	Binary_Value	9878	8538_9	RD	Active on Alarm
Battery Cabinet High Cell Voltage	Binary_Value	9879	8539_9	RD	Active on Alarm
Battery Cabinet Low Cell Voltage	Binary_Value	9880	8540_9	RD	Active on Alarm
Battery Cabinet Over Overall Voltage	Binary_Value	9881	8541_9	RD	Active on Alarm
Battery Cabinet Under Overall Voltage	Binary_Value	9882	8542_9	RD	Active on Alarm
Battery Cabinet Over Cell Voltage	Binary_Value	9883	8543_9	RD	Active on Alarm
Battery Cabinet Under Cell Voltage	Binary_Value	9884	8544_9	RD	Active on Alarm
Battery Cabinet Charge Over Current	Binary_Value	9885	8545_9	RD	Active on Alarm
Battery Cabinet Discharge Over Current	Binary_Value	9886	8546_9	RD	Active on Alarm
Battery Cabinet Over Temperature	Binary_Value	9887	8547_9	RD	Active on Alarm
Battery Cabinet Under Temperature	Binary_Value	9888	8548_9	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	9889	4174_9	RD	Active on Alarm
Battery Cabinet 9 Battery Module 1					
Battery Module Disconnected	Binary_Value	9900	8587_9_1	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	9901	8590_9_1	RD	Active on Alarm
Battery Cabinet 9 Battery Module 2					
Battery Module Disconnected	Binary_Value	9934	8587_9_2	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	9935	8590_9_2	RD	Active on Alarm
Battery Cabinet 9 Battery Module 32					
Battery Module Disconnected	Binary_Value	10954	8587_9_32	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Module Over Temperature	Binary_Value	10955	8590_9_32	RD	Active on Alarm
Battery String 1					
Battery String High Overall Voltage	Binary_Value	10988	8605_1	RD	Active on Alarm
Battery String Low Overall Voltage	Binary_Value	10989	8606_1	RD	Active on Alarm
Battery String High Cell Voltage	Binary_Value	10990	8558_1	RD	Active on Alarm
Battery String Low Cell Voltage	Binary_Value	10991	8559_1	RD	Active on Alarm
Battery String Over Overall Voltage	Binary_Value	10992	8560_1	RD	Active on Alarm
Battery String Under Overall Voltage	Binary_Value	10993	8561_1	RD	Active on Alarm
Battery String Over Cell Voltage	Binary_Value	10994	8562_1	RD	Active on Alarm
Battery String Under Cell Voltage	Binary_Value	10995	8563_1	RD	Active on Alarm
Battery String Charge Over Current	Binary_Value	10996	8564_1	RD	Active on Alarm
Battery String Discharge Over Current	Binary_Value	10997	8565_1	RD	Active on Alarm
Battery String Over Temperature	Binary_Value	10998	8566_1	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	10999	8567_1	RD	Active on Alarm
Battery String 2					
Battery String High Overall Voltage	Binary_Value	11010	8605_2	RD	Active on Alarm
Battery String Low Overall Voltage	Binary_Value	11011	8606_2	RD	Active on Alarm
Battery String High Cell Voltage	Binary_Value	11012	8558_2	RD	Active on Alarm
Battery String Low Cell Voltage	Binary_Value	11013	8559_2	RD	Active on Alarm
Battery String Over Overall Voltage	Binary_Value	11014	8560_2	RD	Active on Alarm
Battery String Under Overall Voltage	Binary_Value	11015	8561_2	RD	Active on Alarm
Battery String Over Cell Voltage	Binary_Value	11016	8562_2	RD	Active on Alarm
Battery String Under Cell Voltage	Binary_Value	11017	8563_2	RD	Active on Alarm
Battery String Charge Over Current	Binary_Value	11018	8564_2	RD	Active on Alarm
Battery String Discharge Over Current	Binary_Value	11019	8565_2	RD	Active on Alarm
Battery String Over Temperature	Binary_Value	11020	8566_2	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	11021	8567_2	RD	Active on Alarm
Battery String 12					
Battery String High Overall Voltage	Binary_Value	11230	8605_12	RD	Active on Alarm
Battery String Low Overall Voltage	Binary_Value	11231	8606_12	RD	Active on Alarm
Battery String High Cell Voltage	Binary_Value	11232	8558_12	RD	Active on Alarm
Battery String Low Cell Voltage	Binary_Value	11233	8559_12	RD	Active on Alarm

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Table 5.122 Liebert® APM2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Over Overall Voltage	Binary_Value	11234	8560_12	RD	Active on Alarm
Battery String Under Overall Voltage	Binary_Value	11235	8561_12	RD	Active on Alarm
Battery String Over Cell Voltage	Binary_Value	11236	8562_12	RD	Active on Alarm
Battery String Under Cell Voltage	Binary_Value	11237	8563_12	RD	Active on Alarm
Battery String Charge Over Current	Binary_Value	11238	8564_12	RD	Active on Alarm
Battery String Discharge Over Current	Binary_Value	11239	8565_12	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	11240	8566_12	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	11241	8567_12	RD	Active on Alarm

Table 5.123 Liebert® APM2—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS A-N	Analog_Value	4	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	5	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	6	4100_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	7	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	8	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	9	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	10	4105_1	RD	Units: Hz
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Power Phase A	Analog_Value	14	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	15	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	16	6320_1	RD	Units: kW
System Input Apparent Power Phs A	Analog_Value	17	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	18	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	19	8095_1	RD	Units: kVA
System Input Brown Out Count	Analog_Value	20	4119_1	RD	
System Input Black Out Count	Analog_Value	21	4120_1	RD	

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass					
Bypass Input Voltage RMS A-B	Analog_Value	32	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	33	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	34	4127_1	RD	Units: VAC
Bypass Input Voltage RMS A-N	Analog_Value	35	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	36	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	37	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	38	4131_1	RD	Units: Hz
Bypass Power Phase A	Analog_Value	39	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	40	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	41	6327_1	RD	Units: kW
Bypass Apparent Power Phase A	Analog_Value	42	6328_1	RD	Units: kVA
Bypass Apparent Power Phase B	Analog_Value	43	6329_1	RD	Units: kVA
Bypass Apparent Power Phase C	Analog_Value	44	6330_1	RD	Units: kVA
Output					
System Output Voltage RMS A-B	Analog_Value	55	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	56	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	57	4203_1	RD	Units: VAC
System Output Voltage RMS A-N	Analog_Value	58	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	59	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	60	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	61	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	62	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	63	4206_1	RD	Units: A AC
Output Current Crest Factor Phs A	Analog_Value	64	5159_1	RD	
Output Current Crest Factor Phs B	Analog_Value	65	5160_1	RD	
Output Current Crest Factor Phs C	Analog_Value	66	5161_1	RD	
System Output Frequency	Analog_Value	67	4207_1	RD	Units: Hz
System Output Power Factor Phs A	Analog_Value	68	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	69	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	70	4212_1	RD	
System Output Power Phase A	Analog_Value	71	5859_1	RD	Units: kW

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Power Phase B	Analog_Value	72	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	73	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	74	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	75	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	76	5870_1	RD	Units: kVA
System Output Power	Analog_Value	77	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	78	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	79	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	80	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	81	4228_1	RD	Units: %
System Output Pct Power Phase A	Analog_Value	82	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	83	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	84	4225_1	RD	Units: %
Power Module 1 DC Bus 1					
Positive DC Bus Voltage	Analog_Value	95	8281_1_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	96	8282_1_1	RD	Units: VDC
Power Module 2 DC Bus 1					
Positive DC Bus Voltage	Analog_Value	107	8281_2_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	108	8282_2_1	RD	Units: VDC
Power Module 10 DC Bus 1					
Positive DC Bus Voltage	Analog_Value	203	8281_10_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	204	8282_10_1	RD	Units: VDC
Multi Module					
MMS Output Power	Analog_Value	215	4811_1	RD	Units: kW
MMS Output Apparent Power	Analog_Value	216	4812_1	RD	Units: kVA
System Status					
Number Of Active Power Modules	Analog_Value	227	5824_1	RD	
Number of Installed Power Modules	Analog_Value	228	5823_1	RD	
Redundant Count of Power Module	Analog_Value	229	8513_1	RD	
Inlet Air Temperature	Analog_Value	230	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	500230	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	231	6069_1	RD	Units: %

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
ECO Suspended Time Remaining	Analog_Value	232	8097_1	RD	Units: sec
Total System Operating Time	Analog_Value	233	4292_1	RD	Units: hr
System Configuration					
System Date and Time	Analog_Value	244	4293_1	RW	Units: Secs since Epoch(UTC)
System Capacity	Analog_Value	245	5821_1	RD	Units: kVA
System Input Nominal Voltage	Analog_Value	246	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	247	4104_1	RD	Units: A AC
Bypass Nominal Voltage	Analog_Value	248	4259_1	RD	Units: VAC
System Output Nominal Voltage	Analog_Value	249	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	250	4261_1	RD	Units: Hz
Battery System					
External Battery Cabinet Count	Analog_Value	261	8514_1	RD	
Battery String Count	Analog_Value	262	8515_1	RD	
DC Bus Voltage	Analog_Value	263	4148_1	RD	Units: VDC
DC Bus Current	Analog_Value	264	4149_1	RD	Units: A DC
Battery Temperature	Analog_Value	265	8516_1	RD	Units: deg C
Battery Temperature	Analog_Value	500265	8516_1_deg_F	RD	Units: deg F
Battery Percentage Charge	Analog_Value	266	4153_1	RD	Units: %
Battery Time Remaining	Analog_Value	267	4150_1	RD	Units: min
Number of Discharge Cycles	Analog_Value	268	5845_1	RD	
Accumulated Discharge Time	Analog_Value	269	5846_1	RD	Units: hr
Battery Self Test Cycle Time	Analog_Value	270	5991_1	RD	Units: day
Time Until Next Auto Battery Test	Analog_Value	271	5804_1	RD	Units: min
Low Battery Warning Time	Analog_Value	272	5802_1	RD	Units: min
Battery Cabinet 1					
Battery Volts for Cabinet	Analog_Value	283	4155_1	RD	Units: VDC
Battery Current for Cabinet	Analog_Value	284	8527_1	RD	Units: A DC
Battery Temperature for Cabinet	Analog_Value	285	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	500285	4156_1_deg_F	RD	Units: deg F
Battery Cabinet Capacity	Analog_Value	286	8528_1	RD	Units: %
Battery Cabinet Max Cell Voltage	Analog_Value	287	8529_1	RD	Units: VDC
Battery Cabinet Min Cell Voltage	Analog_Value	288	8530_1	RD	Units: VDC

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Highest Cell Temperature	Analog_Value	289	8531_1	RD	Units: deg C
Battery Cabinet Highest Cell Temperature	Analog_Value	500289	8531_1_deg_F	RD	Units: deg F
Battery Cabinet Lowest Cell Temperature	Analog_Value	290	8532_1	RD	Units: deg C
Battery Cabinet Lowest Cell Temperature	Analog_Value	500290	8532_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Cell In Cabinet 1					
Cell Voltage	Analog_Value	301	4962_1_1	RD	Units: VDC
Cell Temperature	Analog_Value	302	4963_1_1	RD	Units: deg C
Cell Temperature	Analog_Value	500302	4963_1_1_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	303	5443_1_1	RD	Units: milliOhm
Battery Cabinet 1 Battery Cell In Cabinet 2					
Cell Voltage	Analog_Value	314	4962_1_2	RD	Units: VDC
Cell Temperature	Analog_Value	315	4963_1_2	RD	Units: deg C
Cell Temperature	Analog_Value	500315	4963_1_2_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	316	5443_1_2	RD	Units: milliOhm
Battery Cabinet 1 Battery Cell In Cabinet 200					
Cell Voltage	Analog_Value	2888	4962_1_200	RD	Units: VDC
Cell Temperature	Analog_Value	2889	4963_1_200	RD	Units: deg C
Cell Temperature	Analog_Value	502889	4963_1_200_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	2890	5443_1_200	RD	Units: milliOhm
Battery Cabinet 1 Battery Module 1					
Battery Module Temperature	Analog_Value	2901	5844_1_1	RD	Units: deg C
Battery Module Temperature	Analog_Value	502901	5844_1_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 1 Lithium-Ion Battery Module 1					
Battery Module Voltage	Analog_Value	2912	8571_1_1_1	RD	Units: VDC
Battery Module Current	Analog_Value	2913	8572_1_1_1	RD	Units: A DC
Battery Module State Of Charge	Analog_Value	2914	8573_1_1_1	RD	Units: %
Battery Module Max Cell Voltage	Analog_Value	2915	8574_1_1_1	RD	Units: VDC
Battery Module Min Cell Voltage	Analog_Value	2916	8575_1_1_1	RD	Units: VDC
Battery Module Highest Cell Temperature	Analog_Value	2917	8576_1_1_1	RD	Units: deg C
Battery Module Highest Cell Temperature	Analog_Value	502917	8576_1_1_1_deg_F	RD	Units: deg F
Battery Module Lowest Cell Temperature	Analog_Value	2918	8577_1_1_1	RD	Units: deg C
Battery Module Lowest Cell Temperature	Analog_Value	502918	8577_1_1_1_deg_F	RD	Units: deg F

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet 1 Battery Module 1 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	2930	8593_1_1_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	2931	8570_1_1_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	502931	8570_1_1_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 1 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	2942	8593_1_1_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	2943	8570_1_1_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	502943	8570_1_1_2_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 1 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	4118	8593_1_1_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	4119	8570_1_1_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	504119	8570_1_1_100_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 2					
Battery Module Temperature	Analog_Value	4129	5844_1_2	RD	Units: deg C
Battery Module Temperature	Analog_Value	504129	5844_1_2_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 2 Lithium-Ion Battery Module 1					
Battery Module Voltage	Analog_Value	44826	8571_1_2_1	RD	Units: VDC
Battery Module Current	Analog_Value	44827	8572_1_2_1	RD	Units: A DC
Battery Module State Of Charge	Analog_Value	44828	8573_1_2_1	RD	Units: %
Battery Module Max Cell Voltage	Analog_Value	44829	8574_1_2_1	RD	Units: VDC
Battery Module Min Cell Voltage	Analog_Value	44830	8575_1_2_1	RD	Units: VDC
Battery Module Highest Cell Temperature	Analog_Value	44831	8576_1_2_1	RD	Units: deg C
Battery Module Highest Cell Temperature	Analog_Value	544831	8576_1_2_1_deg_F	RD	Units: deg F
Battery Module Lowest Cell Temperature	Analog_Value	44832	8577_1_2_1	RD	Units: deg C
Battery Module Lowest Cell Temperature	Analog_Value	544832	8577_1_2_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 2 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	4130	8593_1_2_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	4131	8570_1_2_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	504131	8570_1_2_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 2 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	4142	8593_1_2_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	4143	8570_1_2_2	RD	Units: deg C

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cell Temperature	Analog_Value	504143	8570_1_2_2_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 2 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	5318	8593_1_2_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	5319	8570_1_2_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	505319	8570_1_2_100_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 32					
Battery Module Temperature	Analog_Value	40969	5844_1_32	RD	Units: deg C
Battery Module Temperature	Analog_Value	540969	5844_1_32_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 32 Lithium-Ion Battery Module 1					
Battery Module Voltage	Analog_Value	1302246	8571_1_32_1	RD	Units: VDC
Battery Module Current	Analog_Value	1302247	8572_1_32_1	RD	Units: A DC
Battery Module State Of Charge	Analog_Value	1302248	8573_1_32_1	RD	Units: %
Battery Module Max Cell Voltage	Analog_Value	1302249	8574_1_32_1	RD	Units: VDC
Battery Module Min Cell Voltage	Analog_Value	1302250	8575_1_32_1	RD	Units: VDC
Battery Module Highest Cell Temperature	Analog_Value	1302251	8576_1_32_1	RD	Units: deg C
Battery Module Highest Cell Temperature	Analog_Value	1802251	8576_1_32_1_deg_F	RD	Units: deg F
Battery Module Lowest Cell Temperature	Analog_Value	1302252	8577_1_32_1	RD	Units: deg C
Battery Module Lowest Cell Temperature	Analog_Value	1802252	8577_1_32_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 32 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	40130	8593_1_32_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	40131	8570_1_32_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	540131	8570_1_32_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 32 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	40142	8593_1_32_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	40143	8570_1_32_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	540143	8570_1_32_2_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Module 32 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	41318	8593_1_32_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	41319	8570_1_32_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	541319	8570_1_32_100_deg_F	RD	Units: deg F
Battery Cabinet 2					
Battery Volts for Cabinet	Analog_Value	42197	4155_2	RD	Units: VDC

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Current for Cabinet	Analog_Value	42198	8527_2	RD	Units: A DC
Battery Temperature for Cabinet	Analog_Value	42199	4156_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	542199	4156_2_deg_F	RD	Units: deg F
Battery Cabinet Capacity	Analog_Value	42200	8528_2	RD	Units: %
Battery Cabinet Max Cell Voltage	Analog_Value	42201	8529_2	RD	Units: VDC
Battery Cabinet Min Cell Voltage	Analog_Value	42202	8530_2	RD	Units: VDC
Battery Cabinet Highest Cell Temperature	Analog_Value	42203	8531_2	RD	Units: deg C
Battery Cabinet Highest Cell Temperature	Analog_Value	542203	8531_2_deg_F	RD	Units: deg F
Battery Cabinet Lowest Cell Temperature	Analog_Value	42204	8532_2	RD	Units: deg C
Battery Cabinet Lowest Cell Temperature	Analog_Value	542204	8532_2_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Cell In Cabinet 1					
Cell Voltage	Analog_Value	42215	4962_2_1	RD	Units: VDC
Cell Temperature	Analog_Value	42216	4963_2_1	RD	Units: deg C
Cell Temperature	Analog_Value	542216	4963_2_1_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	42217	5443_2_1	RD	Units: milliOhm
Battery Cabinet 2 Battery Cell In Cabinet 2					
Cell Voltage	Analog_Value	42228	4962_2_2	RD	Units: VDC
Cell Temperature	Analog_Value	42229	4963_2_2	RD	Units: deg C
Cell Temperature	Analog_Value	542229	4963_2_2_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	42230	5443_2_2	RD	Units: milliOhm
Battery Cabinet 2 Battery Cell In Cabinet 200					
Cell Voltage	Analog_Value	44802	4962_2_200	RD	Units: VDC
Cell Temperature	Analog_Value	44803	4963_2_200	RD	Units: deg C
Cell Temperature	Analog_Value	544803	4963_2_200_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	44804	5443_2_200	RD	Units: milliOhm
Battery Cabinet 2 Battery Module 1					
Battery Module Temperature	Analog_Value	44815	5844_2_1	RD	Units: deg C
Battery Module Temperature	Analog_Value	544815	5844_2_1_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 1 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	43948	8593_2_1_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	43949	8570_2_1_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	543949	8570_2_1_1_deg_F	RD	Units: deg F

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet 2 Battery Module 1 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	43960	8593_2_1_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	43961	8570_2_1_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	543961	8570_2_1_2_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 1 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	45136	8593_2_1_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	45137	8570_2_1_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	545137	8570_2_1_100_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 2					
Battery Module Temperature	Analog_Value	46043	5844_2_2	RD	Units: deg C
Battery Module Temperature	Analog_Value	546043	5844_2_2_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 2 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	45148	8593_2_2_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	45149	8570_2_2_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	545149	8570_2_2_1_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 2 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	45160	8593_2_2_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	45161	8570_2_2_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	545161	8570_2_2_2_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 2 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	46336	8593_2_2_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	46337	8570_2_2_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	546337	8570_2_2_100_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 32					
Battery Module Temperature	Analog_Value	82883	5844_2_32	RD	Units: deg C
Battery Module Temperature	Analog_Value	582883	5844_2_32_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 32 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	81148	8593_2_32_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	81149	8570_2_32_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	581149	8570_2_32_1_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 32 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	81160	8593_2_32_2	RD	Units: VDC

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cell Temperature	Analog_Value	81161	8570_2_32_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	581161	8570_2_32_2_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Module 32 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	82336	8593_2_32_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	82337	8570_2_32_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	582337	8570_2_32_100_deg_F	RD	Units: deg F
Battery Cabinet 9					
Battery Volts for Cabinet	Analog_Value	335595	4155_9	RD	Units: VDC
Battery Current for Cabinet	Analog_Value	335596	8527_9	RD	Units: A DC
Battery Temperature for Cabinet	Analog_Value	335597	4156_9	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	835597	4156_9_deg_F	RD	Units: deg F
Battery Cabinet Capacity	Analog_Value	335598	8528_9	RD	Units: %
Battery Cabinet Max Cell Voltage	Analog_Value	335599	8529_9	RD	Units: VDC
Battery Cabinet Min Cell Voltage	Analog_Value	335600	8530_9	RD	Units: VDC
Battery Cabinet Highest Cell Temperature	Analog_Value	335601	8531_9	RD	Units: deg C
Battery Cabinet Highest Cell Temperature	Analog_Value	835601	8531_9_deg_F	RD	Units: deg F
Battery Cabinet Lowest Cell Temperature	Analog_Value	335602	8532_9	RD	Units: deg C
Battery Cabinet Lowest Cell Temperature	Analog_Value	835602	8532_9_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Cell In Cabinet 1					
Cell Voltage	Analog_Value	335613	4962_9_1	RD	Units: VDC
Cell Temperature	Analog_Value	335614	4963_9_1	RD	Units: deg C
Cell Temperature	Analog_Value	835614	4963_9_1_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	335615	5443_9_1	RD	Units: milliOhm
Battery Cabinet 9 Battery Cell In Cabinet 2					
Cell Voltage	Analog_Value	335626	4962_9_2	RD	Units: VDC
Cell Temperature	Analog_Value	335627	4963_9_2	RD	Units: deg C
Cell Temperature	Analog_Value	835627	4963_9_2_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	335628	5443_9_2	RD	Units: milliOhm
Battery Cabinet 9 Battery Cell In Cabinet 200					
Cell Voltage	Analog_Value	338200	4962_9_200	RD	Units: VDC
Cell Temperature	Analog_Value	338201	4963_9_200	RD	Units: deg C
Cell Temperature	Analog_Value	838201	4963_9_200_deg_F	RD	Units: deg F

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Internal Resistance Value	Analog_Value	338202	5443_9_200	RD	Units: milliOhm
Battery Cabinet 9 Battery Module 1					
Battery Module Temperature	Analog_Value	338213	5844_9_1	RD	Units: deg C
Battery Module Temperature	Analog_Value	838213	5844_9_1_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 1 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	331074	8593_9_1_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	331075	8570_9_1_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	831075	8570_9_1_1_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 1 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	331086	8593_9_1_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	331087	8570_9_1_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	831087	8570_9_1_2_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 1 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	332262	8593_9_1_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	332263	8570_9_1_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	832263	8570_9_1_100_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 2					
Battery Module Temperature	Analog_Value	339441	5844_9_2	RD	Units: deg C
Battery Module Temperature	Analog_Value	839441	5844_9_2_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 2 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	332274	8593_9_2_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	332275	8570_9_2_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	832275	8570_9_2_1_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 2 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	332286	8593_9_2_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	332287	8570_9_2_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	832287	8570_9_2_2_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 2 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	333462	8593_9_2_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	333463	8570_9_2_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	833463	8570_9_2_100_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 32					

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Module Temperature	Analog_Value	376281	5844_9_32	RD	Units: deg C
Battery Module Temperature	Analog_Value	876281	5844_9_32_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 32 Battery Cell In Module 1					
Battery Cell Voltage	Analog_Value	368274	8593_9_32_1	RD	Units: VDC
Battery Cell Temperature	Analog_Value	368275	8570_9_32_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	868275	8570_9_32_1_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 32 Battery Cell In Module 2					
Battery Cell Voltage	Analog_Value	368286	8593_9_32_2	RD	Units: VDC
Battery Cell Temperature	Analog_Value	368287	8570_9_32_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	868287	8570_9_32_2_deg_F	RD	Units: deg F
Battery Cabinet 9 Battery Module 32 Battery Cell In Module 100					
Battery Cell Voltage	Analog_Value	369462	8593_9_32_100	RD	Units: VDC
Battery Cell Temperature	Analog_Value	369463	8570_9_32_100	RD	Units: deg C
Battery Cell Temperature	Analog_Value	869463	8570_9_32_100_deg_F	RD	Units: deg F
Battery String 1					
String Overall Voltage	Analog_Value	377509	4900_1	RD	Units: VDC
String Current	Analog_Value	377510	4901_1	RD	Units: A DC
Battery String Temperature	Analog_Value	377511	8549_1	RD	Units: deg C
Battery String Temperature	Analog_Value	877511	8549_1_deg_F	RD	Units: deg F
Battery String State Of Charge	Analog_Value	377512	8550_1	RD	Units: %
Battery String Max Cell Voltage	Analog_Value	377513	8551_1	RD	Units: VDC
Battery String Min Cell Voltage	Analog_Value	377514	8552_1	RD	Units: VDC
Battery String Highest Cell Temperature	Analog_Value	377515	8553_1	RD	Units: deg C
Battery String Highest Cell Temperature	Analog_Value	877515	8553_1_deg_F	RD	Units: deg F
Battery String Lowest Cell Temperature	Analog_Value	377516	8554_1	RD	Units: deg C
Battery String Lowest Cell Temperature	Analog_Value	877516	8554_1_deg_F	RD	Units: deg F
Battery String 1 Battery Cell In String 1					
Battery Cell Voltage	Analog_Value	377527	8568_1_1	RD	Units: VoltDC
Battery Cell Temperature	Analog_Value	377528	8569_1_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	877528	8569_1_1_deg_F	RD	Units: deg F
Battery String 1 Battery Cell In String 2					
Battery Cell Voltage	Analog_Value	377539	8568_1_2	RD	Units: VoltDC

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cell Temperature	Analog_Value	377540	8569_1_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	877540	8569_1_2_deg_F	RD	Units: deg F
Battery String 2					
String Overall Voltage	Analog_Value	378727	4900_2	RD	Units: VDC
String Current	Analog_Value	378728	4901_2	RD	Units: A DC
Battery String Temperature	Analog_Value	378729	8549_2	RD	Units: deg C
Battery String Temperature	Analog_Value	878729	8549_2_deg_F	RD	Units: deg F
Battery String State Of Charge	Analog_Value	378730	8550_2	RD	Units: %
Battery String Max Cell Voltage	Analog_Value	378731	8551_2	RD	Units: VDC
Battery String Min Cell Voltage	Analog_Value	378732	8552_2	RD	Units: VDC
Battery String Highest Cell Temperature	Analog_Value	378733	8553_2	RD	Units: deg C
Battery String Highest Cell Temperature	Analog_Value	878733	8553_2_deg_F	RD	Units: deg F
Battery String Lowest Cell Temperature	Analog_Value	378734	8554_2	RD	Units: deg C
Battery String Lowest Cell Temperature	Analog_Value	878734	8554_2_deg_F	RD	Units: deg F
Battery String 2 Battery Cell In String 1					
Battery Cell Voltage	Analog_Value	378745	8568_2_1	RD	Units: VoltDC
Battery Cell Temperature	Analog_Value	378746	8569_2_1	RD	Units: deg C
Battery Cell Temperature	Analog_Value	878746	8569_2_1_deg_F	RD	Units: deg F
Battery String 2 Battery Cell In String 2					
Battery Cell Voltage	Analog_Value	378757	8568_2_2	RD	Units: VoltDC
Battery Cell Temperature	Analog_Value	378758	8569_2_2	RD	Units: deg C
Battery Cell Temperature	Analog_Value	878758	8569_2_2_deg_F	RD	Units: deg F
Battery String 12					
String Overall Voltage	Analog_Value	387308	4900_12	RD	Units: VDC
String Current	Analog_Value	387309	4901_12	RD	Units: A DC
Battery String Temperature	Analog_Value	387310	8549_12	RD	Units: deg C
Battery String Temperature	Analog_Value	887310	8549_12_deg_F	RD	Units: deg F
Battery String State Of Charge	Analog_Value	387311	8550_12	RD	Units: %
Battery String Max Cell Voltage	Analog_Value	387312	8551_12	RD	Units: VDC
Battery String Min Cell Voltage	Analog_Value	387313	8552_12	RD	Units: VDC
Battery String Highest Cell Temperature	Analog_Value	387314	8553_12	RD	Units: deg C

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Table 5.123 Liebert® APM2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Highest Cell Temperature	Analog_Value	887314	8553_12_deg_F	RD	Units: deg F
Battery String Lowest Cell Temperature	Analog_Value	387315	8554_12	RD	Units: deg C
Battery String Lowest Cell Temperature	Analog_Value	887315	8554_12_deg_F	RD	Units: deg F

Table 5.124 Liebert® APM2—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Rectifier Isolation Breaker	MultiState_ Value	1	4771_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
Bypass Isolation Breaker	MultiState_ Value	12	4770_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Bypass Breaker	MultiState_ Value	13	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
Output					
Module Output Breaker	MultiState_ Value	24	4775_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Isolation Breaker	MultiState_ Value	25	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
System Control Card 1					
System Control Card Operating Status	MultiState_ Value	36	8493_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
System Control Card 2					
System Control Card Operating Status	MultiState_ Value	47	8493_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Bypass Module					

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Module Operating Status	MultiState_ Value	58	8500_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Static Bypass Switch	MultiState_ Value	59	4736_1	RD	1 = off 2 = on
Power Module 1					
Module Operating Status	MultiState_ Value	70	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Power Module Sleep Status	MultiState_ Value	71	6437_1	RD	1 = Sleeping 2 = Not Sleeping
Power Module 1 Rectifier 1					
Rectifier Status	MultiState_ Value	82	4748_1_1	RD	1 = off 2 = on
Power Module 1 Inverter 1					
Inverter Status	MultiState_ Value	93	5864_1_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module 1 Charger 1					
Charger On/Off State	MultiState_ Value	104	6256_1_1	RD	1 = off 2 = on
Power Module 1 Discharger 1					
Discharger On/Off Status	MultiState_ Value	115	8509_1_1	RD	1 = off 2 = on
Power Module 2					
Module Operating Status	MultiState_ Value	126	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Power Module Sleep Status	MultiState_ Value	127	6437_2	RD	1 = Sleeping 2 = Not Sleeping
Power Module 2 Rectifier 1					
Rectifier Status	MultiState_ Value	138	4748_2_1	RD	1 = off

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = on
Power Module 2 Inverter 1					
Inverter Status	MultiState_ Value	149	5864_2_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module 2 Charger 1					
Charger On/Off State	MultiState_ Value	160	6256_2_1	RD	1 = off 2 = on
Power Module 2 Discharger 1					
Discharger On/Off Status	MultiState_ Value	171	8509_2_1	RD	1 = off 2 = on
Power Module 10					
Module Operating Status	MultiState_ Value	574	5833_10	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Power Module Sleep Status	MultiState_ Value	575	6437_10	RD	1 = Sleeping 2 = Not Sleeping
Power Module 10 Rectifier 1					
Rectifier Status	MultiState_ Value	586	4748_10_1	RD	1 = off 2 = on
Power Module 10 Inverter 1					
Inverter Status	MultiState_ Value	597	5864_10_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module 10 Charger 1					
Charger On/Off State	MultiState_ Value	608	6256_10_1	RD	1 = off 2 = on
Power Module 10 Discharger 1					
Discharger On/Off Status	MultiState_ Value	619	8509_10_1	RD	1 = off 2 = on
Multi Module					
MMS UPS Loading Status	MultiState_ Value	630	8594_1	RD	1 = Load on Other Module 2 = Load Off 3 = Load on Inverter 4 = Load on Bypass

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					5 = Load on Maintenance Bypass 6 = Load on Battery 7 = Load on Shared Source
System Status					
Application Mode For UPS	MultiState_ Value	641	8275_1	RD	1 = UPS Mode 2 = Frequency Converter Mode 3 = Intelligent Paralleling Mode 4 = Intelligent Paralleling Mode Demo 5 = ECO Mode 6 = Intelligent ECO Mode 7 = Intelligent ECO Mode Demo 8 = Testing Mode 9 = Regen Mode 10 = Power Conditioner Mode 11 = Frequency Converter Mode without Battery 12 = Dynamic Online Mode 13 = Dynamic Online Mode Demo
UPS Loading Status	MultiState_ Value	642	8595_1	RD	1 = Load on Other Module 2 = Load Off 3 = Load on Inverter 4 = Load on Bypass 5 = Load on Maintenance Bypass 6 = Load on Battery 7 = Load on Shared Source
System Status	MultiState_ Value	643	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Battery System					
Battery type	MultiState_ Value	654	8330_1	RD	1 = VRLA 2 = Lithium Battery
UPS Battery Status	MultiState_ Value	655	4871_1	RD	1 = Unknown 2 = Normal 3 = Low

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					4 = Depleted
Battery is	MultiState_ Value	656	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_ Value	657	5803_1	RD	1 = disabled 2 = enabled
Lithium-Ion Battery Connected	MultiState_ Value	658	8721_1	RD	1 = Connected 2 = Not Connected
Flywheel Connected	MultiState_ Value	659	8722_1	RD	1 = Connected 2 = Not Connected
Ultra Capacitor Connected	MultiState_ Value	660	8723_1	RD	1 = Connected 2 = Not Connected
Main Battery Circuit Breaker	MultiState_ Value	661	8720_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 1					
Battery Cabinet Type	MultiState_ Value	668	8607_1	RD	1 = Internal 2 = External
Battery Cabinet Operating Status	MultiState_ Value	669	8533_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	MultiState_ Value	670	8534_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Charge Disconnect Status	MultiState_ Value	671	8535_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Discharge Disconnect Status	MultiState_ Value	672	8536_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 1 Battery Module 1					
Module Operating Status	MultiState_ Value	683	5834_1_1	RD	1 = Normal 2 = Warning

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	684	8578_1_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 1 Battery Module 2					
Module Operating Status	MultiState_ Value	695	5834_1_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	696	8578_1_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 1 Battery Module 32					
Module Operating Status	MultiState_ Value	1055	5834_1_32	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	1056	8578_1_32	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 2					
Battery Cabinet Type	MultiState_ Value	1067	8607_2	RD	1 = Internal 2 = External
Battery Cabinet Operating Status	MultiState_ Value	1068	8533_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	MultiState_ Value	1069	8534_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Charge Disconnect Status	MultiState_ Value	1070	8535_2	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Discharge Disconnect Status	MultiState_ Value	1071	8536_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 2 Battery Module 1					
Module Operating Status	MultiState_ Value	1082	5834_2_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	1083	8578_2_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 2 Battery Module 2					
Module Operating Status	MultiState_ Value	1094	5834_2_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	1095	8578_2_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 2 Battery Module 32					
Module Operating Status	MultiState_ Value	1454	5834_2_32	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	1455	8578_2_32	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 9					
Battery Cabinet Type	MultiState_ Value	3860	8607_9	RD	1 = Internal 2 = External
Battery Cabinet Operating Status	MultiState_ Value	3861	8533_9	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Circuit Breaker Status	MultiState_ Value	3862	8534_9	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Charge Disconnect Status	MultiState_ Value	3863	8535_9	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Discharge Disconnect Status	MultiState_ Value	3864	8536_9	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 9 Battery Module 1					
Module Operating Status	MultiState_ Value	3875	5834_9_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	3876	8578_9_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 9 Battery Module 2					
Module Operating Status	MultiState_ Value	3887	5834_9_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	3888	8578_9_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 9 Battery Module 32					
Module Operating Status	MultiState_ Value	4247	5834_9_32	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Module Disconnect Status	MultiState_ Value	4248	8578_9_32	RD	1 = Open 2 = Close 3 = Not Installed
Battery String 1					

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Table 5.124 Liebert® APM2—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Operating Status	MultiState_ Value	4259	8555_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery String Charge Disconnect Status	MultiState_ Value	4260	8556_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery String Discharge Disconnect Status	MultiState_ Value	4261	8557_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery String 2					
Battery String Operating Status	MultiState_ Value	4272	8555_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery String Charge Disconnect Status	MultiState_ Value	4273	8556_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery String Discharge Disconnect Status	MultiState_ Value	4274	8557_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery String 12					
Battery String Operating Status	MultiState_ Value	4402	8555_12	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery String Charge Disconnect Status	MultiState_ Value	4403	8556_12	RD	1 = Open 2 = Close 3 = Not Installed
Battery String Discharge Disconnect Status	MultiState_ Value	4404	8557_12	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.125 Liebert® APM2—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Backfeed Breaker Open	The backfeed breaker is in the open position
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 10 Open Failure	Battery circuit breaker 10 failed to open
Battery Breaker 11 Open Failure	Battery circuit breaker 11 failed to open
Battery Breaker 12 Open Failure	Battery circuit breaker 12 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker 5 Open Failure	Battery circuit breaker 5 failed to open
Battery Breaker 6 Open Failure	Battery circuit breaker 6 failed to open
Battery Breaker 7 Open Failure	Battery circuit breaker 7 failed to open
Battery Breaker 8 Open Failure	Battery circuit breaker 8 failed to open
Battery Breaker 9 Open Failure	Battery circuit breaker 9 failed to open
Battery Cabinet Capacity	The percentage of battery charge of a battery cabinet
Battery Cabinet Charge Disconnect Status	The charge disconnected status of a battery cabinet
Battery Cabinet Charge Over Current	Battery Cabinet Charge over current
Battery Cabinet Circuit Breaker Status	Battery cabinet circuit breaker status

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Cabinet Discharge Disconnect Status	The discharge disconnected status of a battery cabinet
Battery Cabinet Discharge Over Current	Battery Cabinet Discharge over current
Battery Cabinet High Cell Voltage	The system has detected a high cell voltage condition.
Battery Cabinet High Overall Voltage	The system has detected a high battery cabinet overall voltage condition.
Battery Cabinet Highest Cell Temperature	Battery cabinet highest cell temperature
Battery Cabinet Low Cell Voltage	The system has detected a low cell voltage condition.
Battery Cabinet Low Overall Voltage	The system has detected a low battery cabinet overall voltage condition.
Battery Cabinet Lowest Cell Temperature	Battery cabinet lowest cell temperature
Battery Cabinet Max Cell Voltage	Battery cabinet max cell voltage
Battery Cabinet Min Cell Voltage	Battery cabinet min cell voltage
Battery Cabinet Operating Status	The operating status for this Battery Cabinet.
Battery Cabinet Over Cell Voltage	The system has detected a battery cabinet over cell voltage condition.
Battery Cabinet Over Overall Voltage	The system has detected a battery cabinet over overall voltage condition.
Battery Cabinet Over Temperature	The system has detected a battery cabinet over temperature condition.
Battery Cabinet Type	The type of Battery Cabinet: Internal or External
Battery Cabinet Under Cell Voltage	The system has detected a battery cabinet under cell voltage condition.
Battery Cabinet Under Overall Voltage	The system has detected a battery cabinet under overall voltage condition.
Battery Cabinet Under Temperature	The system has detected a battery cabinet under temperature condition.
Battery Cell Temperature	Temperature reading of a Cell within a battery module.
Battery Cell Temperature	Temperature reading of a Cell within a battery string.
Battery Cell Voltage	Voltage reading of a Cell within a battery module.
Battery Cell Voltage	Voltage reading of a Cell within a battery string.

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 10 Open	Battery circuit breaker 10 is open
Battery Circuit Breaker 11 Open	Battery circuit breaker 11 is open
Battery Circuit Breaker 12 Open	Battery circuit breaker 12 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open
Battery Circuit Breaker 9 Open	Battery circuit breaker 9 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Current for Cabinet	The current between the positive and negative battery terminals of a battery cabinet
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery is	Battery charge status.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Module Balancing Abnormal	Battery module voltage is not balanced

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Module Charge Over Current	Battery Module Charge over current
Battery Module Current	Battery Module Current
Battery Module Discharge Over Current	Battery Module Discharge over current
Battery Module Disconnect Status	Battery Module Disconnect Status
Battery Module Disconnected	Battery Module is disconnected
Battery Module Fault	Battery module fault
Battery Module High Cell Voltage	The system has detected a high cell voltage condition.
Battery Module High Overall Voltage	The system has detected a high battery module overall voltage condition.
Battery Module Highest Cell Temperature	Battery module highest cell temperature
Battery Module Low Cell Voltage	The system has detected a low cell voltage condition.
Battery Module Low Overall Voltage	The system has detected a low battery module overall voltage condition.
Battery Module Lowest Cell Temperature	Battery module lowest cell temperature
Battery Module Max Cell Voltage	Battery module max cell voltage
Battery Module Min Cell Voltage	Battery module min cell voltage
Battery Module Not Ready	Battery module is not ready
Battery Module Over Cell Voltage	The system has detected a battery module over cell voltage condition.
Battery Module Over Overall Voltage	The system has detected a battery module over overall voltage condition.
Battery Module Over Temperature	The system has detected a battery module over temperature condition.
Battery Module State Of Charge	Battery Module State Of Charge
Battery Module Temperature	The battery temperature measured by the Battery Module.
Battery Module Under Cell Voltage	The system has detected a battery module under cell voltage condition.

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery Module Under Overall Voltage	The system has detected a battery module under overall voltage condition.
Battery Module Under Temperature	The system has detected a battery module under temperature condition.
Battery Module Voltage	Battery Module Voltage
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery String Charge Disconnect Status	Battery String Charge Disconnect Status
Battery String Charge Over Current	Battery string Charge over current
Battery String Count	The battery string count
Battery String Discharge Disconnect Status	Battery String Discharge Disconnect Status
Battery String Discharge Over Current	Battery string Discharge over current
Battery String High Cell Voltage	The system has detected a high cell voltage condition.
Battery String High Overall Voltage	The system has detected a high battery string overall voltage condition.
Battery String Highest Cell Temperature	Battery string highest cell temperature
Battery String Low Cell Voltage	The system has detected a low cell voltage condition.
Battery String Low Overall Voltage	The system has detected a low battery string overall voltage condition.
Battery String Lowest Cell Temperature	Battery string lowest cell temperature
Battery String Max Cell Voltage	Battery string max cell voltage
Battery String Min Cell Voltage	Battery string min cell voltage
Battery String Operating Status	The operating status for this Battery String.

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Battery String Over Cell Voltage	The system has detected a battery string over cell voltage condition.
Battery String Over Overall Voltage	The system has detected a battery string over overall voltage condition.
Battery String Over Temperature	The system has detected a battery string over temperature condition.
Battery String State Of Charge	Battery String State Of Charge
Battery String Temperature	The battery temperature for a battery string
Battery String Under Cell Voltage	The system has detected a battery string under cell voltage condition.
Battery String Under Overall Voltage	The system has detected a battery string under overall voltage condition.
Battery String Under Temperature	The system has detected a battery string under temperature condition.
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected
Battery Temperature	Battery Temperature
Battery Terminal Abnormal	Battery Terminal Abnormal
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Battery type	Battery type of the UPS system
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Module Communication Fault	The bypass module communication failure.
Bypass Module Fan Fault	The Bypass Module has detected a fan fault.
Bypass Module Not Ready	Bypass Module is not ready
Bypass Module Operating Status	The operating status for this Bypass Module.
Bypass Module Over Temperature	The Bypass Module has detected an over temperature condition.
Bypass Module Power Supply Failure	Bypass module power supply failure
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Surge Protection Device Alarm	Bypass Surge Protection Device alarm
Cell Temperature	Temperature reading of a Cell within a BAM device.

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Cell Voltage	Voltage reading of a Cell within a BAM device.
Charger Failure	Charger Failure - Charger is off
Charger On/Off State	Charger on/off state
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Discharger Failure	Discharger failure
Discharger On/Off Status	Discharger on/off status
Discharger Shutdown	A condition is present that prevents the Battery Discharger from working.
ECO mode Inhibited	ECO mode is inhibited due to an external inhibit signal.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Battery Cabinet Count	The battery cabinet count
Flywheel Connected	Flywheel is connected
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Source Backfeed	The battery is backfeeding the input source.
Input Surge Protection Device Alarm	Input Surge Protection Device alarm
Input Under Voltage	Input under voltage.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Internal Resistance Value	The measured internal resistance of a cell.
Inverter Failure	Inverter failure - inverter output is off
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery Connected	Lithium-Ion battery is connected
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Breaker Open Failure	Main battery circuit breaker failed to open
Main Battery Circuit Breaker is Open	Main battery circuit is open
Main Battery Circuit Breaker	Main battery circuit breaker
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Bypass Breaker	Maintenance bypass breaker
Maintenance Isolation Breaker	Maintenance isolation breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS UPS Loading Status	Multi-module UPS loading status
Module Operating Status	The operating status for this Battery Module.
Module Operating Status	The operating status for this Power Module.
Module Output Breaker Open	The module output breaker is open.
Module Output Breaker	Module output breaker

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Disabled	Output Disabled
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Not Ready	Power module not ready
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Isolation Breaker	Rectifier isolation breaker
Rectifier Status	rectifier status
Redundant Count of Power Module	The redundant count of power module
Replace Battery	The battery is due for replacement.
Static Bypass Switch	Static Bypass Switch state - On/Off
String Current	Discharge(-) or charge(+) current of a battery string.
String Overall Voltage	Overall voltage of a battery string.
System Bypass Phase Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the bypass (A-B-C)
System Capacity	System capacity supported by the installed power modules.
System Control Card Communication Fail	System control card communication fail
System Control Card Not Ready	System control card is not ready
System Control Card Operating Status	The operating status for this system control card
System Control Card Power Supply Failure	System control card power supply failure
System control cards missing	System control cards missing
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B

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Table 5.125 Liebert® APM2—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
Transformer Overtemperature	Indicates a unit transformer overtemperature condition.
Ultra Capacitor Connected	Ultra capacitor is connected
UPS Battery Status	UPS battery status
UPS Loading Status	UPS loading status
UPS Output on Bypass	The output power is supplied by the bypass
User Operation Invalid	User attempted an invalid operation.

Table 5.126 Liebert® APS—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Rectifier Failure	Binary_Value	1	4295_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	2	4122_1	RD	Active on Alarm
System Input Current Imbalance	Binary_Value	3	4382_1	RD	Active on Alarm
Bypass					
UPS Output on Bypass	Binary_Value	14	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	15	4299_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	16	4135_1	RD	Active on Alarm

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Table 5.126 Liebert® APS—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Overload	Binary_Value	17	5798_1	RD	Active on Alarm
Bypass Frequency Error	Binary_Value	18	4175_1	RD	Active on Alarm
Bypass Auto Retransfer Failed	Binary_Value	19	4138_1	RD	Active on Alarm
Battery					
Battery Discharging	Binary_Value	30	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	31	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	32	4172_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	33	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	34	4323_1	RD	Active on Alarm
Low Battery - Shutdown Imminent	Binary_Value	35	5801_1	RD	Active on Alarm
Battery Module Fault	Binary_Value	36	5856_1	RD	Active on Alarm
Battery Module Warning	Binary_Value	37	5857_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	38	4219_1	RD	Active on Alarm
Battery Temperature Imbalance	Binary_Value	39	4169_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	50	5806_1	RD	Active on Alarm
Output Off Pending	Binary_Value	51	5807_1	RD	Active on Alarm
System Output Off	Binary_Value	52	4215_1	RD	Active on Alarm
System Shutdown - Transformer Over Temperature	Binary_Value	53	5850_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	54	4290_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	55	5808_1	RD	Active on Alarm
System Shutdown - Low Battery	Binary_Value	56	5809_1	RD	Active on Alarm
System Shutdown - Remote Shutdown	Binary_Value	57	5810_1	RD	Active on Alarm
System Shutdown - Hardware Fault	Binary_Value	58	5811_1	RD	Active on Alarm
Maximum Load Alarm	Binary_Value	59	5851_1	RD	Active on Alarm
Inverter					
Loss of Redundancy	Binary_Value	70	5817_1	RD	Active on Alarm
Power Module Failure	Binary_Value	71	5818_1	RD	Active on Alarm
Power Module Warning	Binary_Value	72	5819_1	RD	Active on
System Status					
Unspecified General Event	Binary_Value	83	5588_1	RD	Active on Alarm
Check Air Filter	Binary_Value	84	5862_1	RD	Active on Alarm

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Table 5.126 Liebert® APS—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Frame Fan Fault	Binary_Value	85	5770_1	RD	Active on Alarm
Transformer Fan Fault	Binary_Value	86	5863_1	RD	Active on Alarm
Transformer Overtemperature	Binary_Value	87	5433_1	RD	Active on Alarm
No Load Warning	Binary_Value	88	5865_1	RD	Active on Alarm
PowerModule 1					
Power Module Fan Fault	Binary_Value	99	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	100	5839_1	RD	Active on Alarm
Power Module Shutdown - Over Temperature	Binary_Value	101	5840_1	RD	Active on Alarm
PowerModule 2					
Power Module Fan Fault	Binary_Value	112	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	113	5839_2	RD	Active on Alarm
Power Module Shutdown - Over Temperature	Binary_Value	114	5840_2	RD	Active on Alarm
PowerModule 10					
Power Module Fan Fault	Binary_Value	216	5838_10	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	217	5839_10	RD	Active on Alarm
Power Module Shutdown - Over Temperature	Binary_Value	218	5840_10	RD	Active on Alarm
BatteryModule 1					
Battery Module Temperature Sensor Fault	Binary_Value	229	5847_1	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	230	5848_1	RD	Active on Alarm
Replace Battery Module	Binary_Value	231	5849_1	RD	Active on Alarm
BatteryModule 2					
Battery Module Temperature Sensor Fault	Binary_Value	242	5847_2	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	243	5848_2	RD	Active on Alarm
Replace Battery Module	Binary_Value	244	5849_2	RD	Active on Alarm
BatteryModule 80					
Battery Module Temperature Sensor Fault	Binary_Value	1256	5847_80	RD	Active on Alarm
Battery Module Over Temperature	Binary_Value	1257	5848_80	RD	Active on Alarm
Replace Battery Module	Binary_Value	1258	5849_80	RD	Active on Alarm
ChargerModule					
Charger Module Fan Fault	Binary_Value	1269	5842_1	RD	Active on Alarm

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Table 5.127 Liebert® APS—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS L1-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS L2-N	Analog_Value	2	4098_1	RD	Units: VAC
System Input RMS L3-N	Analog_Value	3	4100_1	RD	Units: VAC
System Input RMS L1-L2	Analog_Value	4	4097_1	RD	Units: VAC
System Input RMS L2-L3	Analog_Value	5	4099_1	RD	Units: VAC
System Input RMS L3-L1	Analog_Value	6	4101_1	RD	Units: VAC
System Input RMS Current L1	Analog_Value	7	4113_1	RD	Units: A AC
System Input RMS Current L2	Analog_Value	8	4114_1	RD	Units: A AC
System Input RMS Current L3	Analog_Value	9	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	10	4105_1	RD	Units: Hz
System Input Power Factor L1	Analog_Value	11	4116_1	RD	—
System Input Power Factor L2	Analog_Value	12	4117_1	RD	—
System Input Power Factor L3	Analog_Value	13	4118_1	RD	—
System Input Brown Out Count	Analog_Value	14	4119_1	RD	—
System Input Black Out Count	Analog_Value	15	4120_1	RD	—
Bypass					
Bypass Input Voltage RMS L1-N	Analog_Value	26	4128_1	RD	Units: VAC
Bypass Input Voltage RMS L2-N	Analog_Value	27	4129_1	RD	Units: VAC
Bypass Input Voltage RMS L1-L2	Analog_Value	28	4125_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	29	4131_1	RD	Units: Hz
Number Of Transfers To Bypass	Analog_Value	30	5837_1	RD	—
Battery					
Battery Time Remaining	Analog_Value	41	4150_1	RD	Units: min
Battery Volts for Cabinet	Analog_Value	42	4155_1	RD	Units: VDC
DC Bus Current	Analog_Value	43	4149_1	RD	Units: A DC
Battery Percentage Charge	Analog_Value	44	4153_1	RD	Units: %
Battery Temperature	Analog_Value	45	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10045	5853_1_deg_F	RD	Units: deg F
Number of Discharge Cycles	Analog_Value	46	5854_1	RD	—
Accumulated Discharge Time	Analog_Value	47	5855_1	RD	Units: hr
Time Until Next Auto Battery Test	Analog_Value	48	5804_1	RD	Units: min

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Table 5.127 Liebert® APS—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Number of EBC Installed	Analog_Value	49	5800_1	RD	—
Low Battery Warning Time	Analog_Value	50	5802_1	RW	Units: min
Output					
System Output Voltage RMS L1-N	Analog_Value	61	4385_1	RD	Units: VAC
System Output Voltage RMS L2-N	Analog_Value	62	4386_1	RD	Units: VAC
System Output Voltage RMS L1-L2	Analog_Value	63	4201_1	RD	Units: VAC
System Output RMS Current L1	Analog_Value	64	4204_1	RD	Units: A AC
System Output RMS Current L2	Analog_Value	65	4205_1	RD	Units: A AC
System Output Frequency	Analog_Value	66	4207_1	RD	Units: Hz
System Output Power Factor L1	Analog_Value	67	4210_1	RD	—
System Output Power Factor L2	Analog_Value	68	4211_1	RD	—
System Output Apparent Power	Analog_Value	69	4209_1	RD	Units: kVA
System Output Apparent Power L1	Analog_Value	70	5868_1	RD	Units: kVA
System Output Apparent Power L2	Analog_Value	71	5869_1	RD	Units: kVA
System Output Power	Analog_Value	72	4208_1	RD	Units: kW
System Output Power L1	Analog_Value	73	5859_1	RD	Units: kW
System Output Power L2	Analog_Value	74	5860_1	RD	Units: kW
System Output Pct Power L1	Analog_Value	75	4223_1	RD	Units: %
System Output Pct Power L2	Analog_Value	76	4224_1	RD	Units: %
Maximum Load Alarm Limit	Analog_Value	77	5813_1	RW	Units: kVA
Shutdown After Delay	Analog_Value	78	5814_1	RW	Units: sec
Reboot After Delay	Analog_Value	79	5815_1	RW	Units: sec
Output On Delay	Analog_Value	80	5816_1	RW	Units: sec
System Status					
System Capacity	Analog_Value	91	5821_1	RD	Units: VA
Frame Capacity	Analog_Value	92	5822_1	RD	Units: VA
Number of Installed Power Modules	Analog_Value	93	5823_1	RD	—
Number Of Active Power Modules	Analog_Value	94	5824_1	RD	—
Number Of Power Modules With Warnings	Analog_Value	95	5825_1	RD	—
Number Of Failed Power Modules	Analog_Value	96	5826_1	RD	—
Number of Installed Battery Strings	Analog_Value	97	5827_1	RD	—
Number of Active Battery Strings	Analog_Value	98	5828_1	RD	—

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Table 5.127 Liebert® APS—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Number of Battery Strings With Warnings	Analog_Value	99	5829_1	RD	—
Number of Failed Battery Strings	Analog_Value	100	5830_1	RD	—
Auto Restart Delay	Analog_Value	101	5852_1	RW	Units: sec
No Load Warning Current Threshold	Analog_Value	102	5866_1	RW	Units: A AC
No Load Warning Delay	Analog_Value	103	5867_1	RW	Units: min
Inlet air temperature	Analog_Value	104	4291_1	RD	Units: deg C
Inlet air temperature	Analog_Value	10104	4291_1_deg_F	RD	Units: deg F
BatteryModule 1					
Battery String Voltage	Analog_Value	114	5843_1	RD	Units: VDC
Battery Module Temperature	Analog_Value	115	5844_1	RD	Units: deg C
Battery Module Temperature	Analog_Value	10115	5844_1_deg_F	RD	Units: deg F
Number of Discharge Cycles	Analog_Value	116	5845_1	RD	—
Accumulated Discharge Time	Analog_Value	117	5846_1	RD	Units: hr
BatteryModule 2					
Battery String Voltage	Analog_Value	128	5843_2	RD	Units: VDC
Battery Module Temperature	Analog_Value	129	5844_2	RD	Units: deg C
Battery Module Temperature	Analog_Value	10129	5844_2_deg_F	RD	Units: deg F
Number of Discharge Cycles	Analog_Value	130	5845_2	RD	—
Accumulated Discharge Time	Analog_Value	131	5846_2	RD	Units: hr
BatteryModule 80					
Battery String Voltage	Analog_Value	1220	5843_80	RD	Units: VDC
Battery Module Temperature	Analog_Value	1221	5844_80	RD	Units: deg C
Battery Module Temperature	Analog_Value	11221	5844_80_deg_F	RD	Units: deg F
Number of Discharge Cycles	Analog_Value	1222	5845_80	RD	—
Accumulated Discharge Time	Analog_Value	1223	5846_80	RD	Units: hr
System Configuration					
System Date and Time	Analog_Value	1234	4293_1	RW	—

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Table 5.128 Liebert® APS—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU
Bypass					
Bypass Qualification Status	MultiState_Value	12	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Battery					
UPS Battery Status	MultiState_Value	23	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery is	MultiState_Value	24	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_Value	25	5803_1	RW	1 = disabled 2 = enabled
Auto Battery Test Interval	MultiState_Value	26	5805_1	RW	1 = 8 weeks 2 = 12 weeks 3 = 16 weeks 4 = 20 weeks 5 = 26 weeks
Manual Battery Test	MultiState_Value	27	5858_1	WO	1 = Start Test
Output					
Output Qualification Status	MultiState_Value	38	4744_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Inverter					
Inverter On/Off State	MultiState_Value	49	4746_1	RD	1 = off 2 = on
System Set To Operate With	MultiState_Value	50	5820_1	RW	1 = No Redundancy 2 = Redundancy
System Status					

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Table 5.128 Liebert® APS—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
UPS Output Source	MultiState_Value	61	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	62	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Auto Restart	MultiState_Value	63	5831_1	RW	1 = disabled 2 = enabled
Auto Restart Minimum Battery Setting	MultiState_Value	64	5832_1	RW	1 = 0% 2 = 10% 3 = 20% 4 = 30% 5 = 40% 6 = 50% 7 = 60% 8 = 70% 9 = 80% 10 = 90%
PowerModule 1					
Module Operating Status	MultiState_Value	75	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	76	5864_1	RD	1 = Inverter Inactive 2 = Inverter Active
PowerModule 2					
Module Operating Status	MultiState_Value	87	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	88	5864_2	RD	1 = Inverter Inactive 2 = Inverter Active
PowerModule 10					
Module Operating Status	MultiState_Value	183	5833_10	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	184	5864_10	RD	1 = Inverter Inactive 2 = Inverter Active
BatteryModule 1					

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Table 5.128 Liebert® APS—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Module Operating Status	MultiState_Value	195	5834_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
BatteryModule 2					
Module Operating Status	MultiState_Value	206	5834_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
BatteryModule 80					
Module Operating Status	MultiState_Value	1064	5834_80	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
ChargerModule					
Module Operating Status	MultiState_Value	1075	5835_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Charger Mode	MultiState_Value	1076	5841_1	RD	1 = Not Charging 2 = Float Charging 3 = Current Limit Charging 4 = Equalize Charging
BypassControlModule					
Module Operating Status	MultiState_Value	1087	5836_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault

Table 5.129 Liebert® APS—Glossary

Data Label	Data Description
Accumulated Discharge Time	The highest accumulated battery discharge time among installed battery modules.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If 'Auto Restart' is set to 'enabled' the UPS will not restart the load after a battery discharge until this amount of time has elapsed since the restoration of utility power.
Auto Restart Minimum Battery Setting	The percent state of charge that the batteries must have before the unit is allowed to auto restart.
Auto Restart	When “enabled,” the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Auto Test In Progress	Automatic battery test is in progress .

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Table 5.129 Liebert® APS—Glossary (continued)

Data Label	Data Description
Battery Discharging	The battery is discharging.
Battery is	Battery charge status.
Battery Manual Test In Progress	Manual battery test is in progress.
Battery Module Fault	One or more battery modules are reporting a fault condition.
Battery Module Over Temperature	The Battery Module has detected an over temperature condition.
Battery Module Temperature Sensor Fault	A Battery Module temperature sensor fault has been detected.
Battery Module Temperature	The battery temperature measured by the Battery Module.
Battery Module Warning	One or more battery modules are reporting a warning condition.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Percentage Charge	The percentage of battery charge.
Battery String Voltage	The voltage between the positive and negative battery terminals of a battery string.
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected.
Battery Temperature	The highest battery temperature among all installed Battery Modules.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed.
Bypass Frequency Error	The bypass frequency is outside the inverter synchronization limits.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2.
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral.
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Qualification Status	bypass qualification status.
Charger Mode	The Charger Module is operating in the stated charging mode.
Charger Module Fan Fault	The Charger Module has detected a fan fault.
Check Air Filter	Please check air filter, it may need to be cleaned or replaced.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode,

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Table 5.129 Liebert® APS—Glossary (continued)

Data Label	Data Description
	the current will be a negative value.
Frame Capacity	Total system capacity supported when the maximum number of power modules are installed.
Frame Fan Fault	The frame top outlet fan has failed.
Inlet Air Temperature	The temperature of the inlet air.
Inverter On/Off State	Inverter on/off state.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Low Battery - Shutdown Imminent	If active and guaranteed shutdown is enabled, a low battery reserve condition exists that will shutdown the UPS.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Manual Battery Test	Command to initiate a manual battery test.
Maximum Load Alarm Limit	Maximum load [VA] supportable without a 'Maximum Load Alarm' condition.
Maximum Load Alarm	Maximum load alarm indicating load setting has been exceeded.
Module Operating Status	The operating status for this Battery Module.
Module Operating Status	The operating status for this Bypass Control Module.
Module Operating Status	The operating status for this Charger Module.
Module Operating Status	The operating status for this Power Module.
No Load Warning Current Threshold	If the output current is below this number of amps for a period of [No Load Warning Delay] time, the [No Load Warning] will become active.
No Load Warning Delay	If the output current is below the [No Load Warning Current Threshold] number of amps for this period of time, the [No Load Warning] will become active.
No Load Warning	Indicates the UPS has output voltage but the output current is below a set threshold [No Load Warning Current Threshold] for a set period of time [No Load Warning Delay].
Number of Active Battery Strings	The total number of active battery strings.
Number Of Active Power Modules	The total number of active power modules.
Number of Battery Strings With Warnings	The total number of battery strings with warnings.
Number of Discharge Cycles	The highest number of battery discharge cycles among all installed Battery Modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Number of Failed Battery Strings	The total number of failed battery strings.

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Table 5.129 Liebert® APS—Glossary (continued)

Data Label	Data Description
Number Of Failed Power Modules	The total number of failed power modules.
Number of Installed Battery Strings	The total number of battery strings installed.
Number of Installed Power Modules	The total number of Power Modules installed.
Number Of Power Modules With Warnings	The total number of power modules with warnings.
Number Of Transfers To Bypass	The total number of transfers to bypass from inverter since system startup.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Off Pending	Output off pending - shutdown imminent.
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Qualification Status	Output qualification status.
Power Module Failure	One or more conditions indicate a power module failure, service is required.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Shutdown - Over Temperature	Power Module has shutdown due to over temperature.
Power Module Warning	One or more power modules is reporting a warning condition.
Reboot After Delay	When a value is written to this point the output will be turned off after the specified time has elapsed and then turned back on 10-30 seconds later.
Rectifier Failure	Rectifier failure - rectifier is off.
Replace Battery Module	The Battery Module needs to be replaced.
Server Class	The general classification for this system.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time.
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Frequency	The system input frequency.

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Table 5.129 Liebert® APS—Glossary (continued)

Data Label	Data Description
System Input Power Factor L1	The system input power factor for Line 1.
System Input Power Factor L2	The system input power factor for Line 2.
System Input Power Factor L3	The system input power factor for Line 3.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS Current L1	The system input RMS current for Line 1.
System Input RMS Current L2	The system input RMS current for Line 2.
System Input RMS Current L3	The system input RMS current for Line 3.
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2.
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral.
System Input RMS L2-L3	The System Input RMS Voltage between Line 2 and Line 3.
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral.
System Input RMS L3-L1	The System Input RMS Voltage between Line 3 and Line 1.
System Input RMS L3-N	The System Input RMS Voltage between Line 3 and Neutral.
System Output Apparent Power L1	System output apparent power on Line 1.
System Output Apparent Power L2	System output apparent power on Line 2.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Frequency	The system output frequency.
System Output Off	The system output is off.
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity.
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1.
System Output Power Factor L2	The system output power factor of Line 2.
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.
System Output Power	The sum total power of all system output phases.
System Output RMS Current L1	The system output RMS current for Line 1.
System Output RMS Current L2	The system output RMS current for Line 2.
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2.
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral.
System Output Voltage RMS	The system output RMS voltage between Line 2 and Neutral.

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Table 5.129 Liebert® APS—Glossary (continued)

Data Label	Data Description
L2-N	
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - Hardware Fault	Shutdown was due to an externally applied hardware control signal.
System Shutdown - Low Battery	Shutdown was due to a low battery condition.
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Shutdown - Remote Shutdown	Shutdown was due to a remote communications shutdown command.
System Shutdown - Transformer Over Temperature	System shutdown due to transformer over temperature.
System Status	The operating status for the system.
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Transformer Fan Fault	The transformer fan has failed.
Transformer Overtemperature	Transformer temperature has exceeded the limit.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.

Table 5.130 Liebert® EPM—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
Battery Equalize	Binary_Value	1	4170_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	2	4200_1	RD	Active on Alarm
On Generator	Binary_Value	3	4315_1	RD	Active on Alarm
Battery Self Test	Binary_Value	4	4741_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	5	4176_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	6	4179_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	7	4182_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	8	4185_1	RD	Active on Alarm
Main Battery Disconnect Open	Binary_Value	9	4173_1	RD	Active on Alarm
System Events					

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Table 5.130 Liebert® EPM—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Power Problem	Binary_Value	20	4122_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	21	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	22	4233_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	23	4135_1	RD	Active on Alarm
Battery Low	Binary_Value	24	4162_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	25	4758_1	RD	Active on Alarm
System Fan Failure	Binary_Value	26	4311_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	27	4310_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	28	4213_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	29	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	30	4139_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	31	4823_1	RD	Active on Alarm
Power Supply Failure	Binary_Value	32	4314_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	33	4219_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	34	4146_1	RD	Active on Alarm
Fuse Failure	Binary_Value	35	4440_1	RD	Active on Alarm
Inverter Overload	Binary_Value	36	5960_1	RD	Active on Alarm
MMS Overload	Binary_Value	37	4831_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	38	4290_1	RD	Active on Alarm
System Output Fault	Binary_Value	39	4389_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	40	4300_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	41	4164_1	RD	Active on Alarm
System Input Current Imbalance	Binary_Value	42	4382_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	43	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	44	5150_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	45	5151_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	46	5153_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	47	5154_1	RD	Active on Alarm
Mains Input Neutral Lost	Binary_Value	48	5155_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	49	5156_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	50	5157_1	RD	Active on Alarm
Battery Discharging	Binary_Value	51	4168_1	RD	Active on Alarm

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Table 5.130 Liebert® EPM—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
UPS Output on Bypass	Binary_Value	52	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	53	4299_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	54	4166_1	RD	Active on Alarm
MMS On Battery	Binary_Value	55	4834_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	56	4825_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	57	5770_1	RD	Active on Alarm
MMS Over Capacity	Binary_Value	58	5771_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	59	5957_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	60	5839_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	61	5458_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	62	4222_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	63	4147_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	64	6059_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	65	6060_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	66	6061_1	RD	Active on Alarm
Loss of Synchronization	Binary_Value	67	6062_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	68	6063_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	69	6064_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	70	6065_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	71	6066_1	RD	Active on Alarm
Battery Fault	Binary_Value	72	6067_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	73	6068_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	74	4177_1	RD	Active on Alarm
Battery Breaker 2 Open Failure	Binary_Value	75	4180_1	RD	Active on Alarm
Battery Breaker 3 Open Failure	Binary_Value	76	4183_1	RD	Active on Alarm
Battery Breaker 4 Open Failure	Binary_Value	77	4186_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	78	4216_1	RD	Active on Alarm

Table 5.131 Liebert® EPM—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC

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Table 5.131 Liebert® EPM—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	—
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	—
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	—
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	24	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	25	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	26	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	27	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	28	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	29	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	30	4127_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	41	4150_1	RD	Units: min
Battery Volts for Cabinet	Analog_Value	42	4155_1	RD	Units: VDC
Battery Temperature for Cabinet	Analog_Value	43	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10043	4156_1_deg_F	RD	Units: deg F
DC Bus Current	Analog_Value	44	4149_1	RD	Units: A DC
Output					
System Output Voltage RMS A-N	Analog_Value	55	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	56	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	57	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	58	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	59	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	60	4206_1	RD	Units: A AC

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Table 5.131 Liebert® EPM—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Frequency	Analog_Value	61	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	62	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	63	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	64	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	65	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	66	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	67	4212_1	RD	—
System Output Pct Power Phase A	Analog_Value	68	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	69	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	70	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	71	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	72	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	73	5159_1	RD	—
Output Current Crest Factor Phs B	Analog_Value	74	5160_1	RD	—
Output Current Crest Factor Phs C	Analog_Value	75	5161_1	RD	—
System Output Power Phase A	Analog_Value	76	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	77	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	78	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	79	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	80	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	81	5870_1	RD	Units: kVA
System Output Power	Analog_Value	82	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	83	4209_1	RD	Units: kVA
System Configuration					
System Input Nominal Voltage	Analog_Value	94	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	95	4103_1	RD	Units: Hz
System Input Nominal Current	Analog_Value	96	4104_1	RD	Units: A AC
Bypass Nominal Voltage	Analog_Value	97	4259_1	RD	Units: VAC
System Output Nominal Voltage	Analog_Value	98	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	99	4261_1	RD	Units: Hz
System Analog					
System Date and Time	Analog_Value	110	4293_1	RW	—

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Table 5.131 Liebert® EPM—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Total System Operating Time	Analog_Value	111	4292_1	RD	Units: hr
Average system efficiency	Analog_Value	112	6069_1	RD	Units: %
Inlet Air Temperature	Analog_Value	113	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10113	4291_1_deg_F	RD	Units: deg F

Table 5.132 Liebert® EPM—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery					
UPS battery1 status	MultiState_Value	1	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
System Status					
Inverter On/Off State	MultiState_Value	12	4746_1	RD	1 = off 2 = on
Maintenance Bypass Breaker	MultiState_Value	13	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
UPS Output Source	MultiState_Value	14	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	15	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
ECO Mode Operation State	MultiState_Value	16	5454_1	RD	1 = disabled 2 = enabled
Input Breaker	MultiState_Value	17	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Internal Bypass Breaker	MultiState_Value	18	4769_1	RD	1 = Open 2 = Close 3 = Not Installed
Output Breaker	MultiState_Value	19	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
UPS Application Mode	MultiState_Value	20	6053_1	RD	1 = UPS Mode 2 = Frequency converter mode

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Table 5.132 Liebert® EPM—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS UPS Output Source	MultiState_Value	21	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	MultiState_Value	22	5448_1	RD	1 = disabled 2 = enabled
Advanced Efficiency Mode	MultiState_Value	23	6054_1	RD	1 = unknown 2 = ECO mode 3 = Intelligent ECO mode 4 = Active Inverter ECO mode

Table 5.133 Liebert® EPM—Glossary

Data Label	Data Description
Advanced Efficiency Mode	Advanced efficiency modes where the UPS supports the critical load using the static bypass.
Average system efficiency	Average system efficiency.
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open.
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open.
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open.
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open.
Battery Capacity Low	Battery capacity is low.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.

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Table 5.133 Liebert® EPM—Glossary (continued)

Data Label	Data Description
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Fault	A short circuit exists in the battery system.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test	Battery self test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.

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Table 5.133 Liebert® EPM—Glossary (continued)

Data Label	Data Description
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage..
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures.
Inlet Air Temperature	The temperature of the inlet air.
Input Breaker	Input breaker.
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Bypass Breaker	Internal bypass breaker.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	inverter on/off state.
Inverter Overload	Inverter in overload fault.
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Main Battery Disconnect Open	Main battery disconnect is open.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS On Battery	The multi-module system is on battery.
MMS Output Apparent	The sum total apparent power of all system output modules.

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Table 5.133 Liebert® EPM—Glossary (continued)

Data Label	Data Description
Power	
MMS Output Power	The sum total power of all system output modules.
MMS Over Capacity	The multi-module system load is larger than the apparent power limit setting.
MMS Overload	Multi-module system overload.
MMS UPS Output Source	Multi-module UPS output source.
On Generator	A generator is supplying the power to the system.
Output Breaker	Output breaker.
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Supply Failure	Power supply failure.
Rectifier Failure	Rectifier failure - rectifier is off.
System Date and Time	The system date and time.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.

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Table 5.133 Liebert® EPM—Glossary (continued)

Data Label	Data Description
System Input Power Factor Phs B	The system input power factor for Phase B.
System Input Power Factor Phs C	The system input power factor for Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity.
System Output Power	The system output power factor of Phase A.

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Table 5.133 Liebert® EPM—Glossary (continued)

Data Label	Data Description
Factor Phs A	
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between Phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between Phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit.
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Application Mode	UPS application mode.
UPS battery1 status	UPS battery status.

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Table 5.133 Liebert® EPM—Glossary (continued)

Data Label	Data Description
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation.

Table 5.134 Liebert® EXL—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input Power Problem	Binary_Value	1	4122_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	2	4147_1	RD	Active on Alarm
Input Undervoltage	Binary_Value	3	5568_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	14	4135_1	RD	Active on Alarm
Bypass Overload Phase A	Binary_Value	15	4132_1	RD	Active on Alarm
Bypass Overload Phase B	Binary_Value	16	4133_1	RD	Active on Alarm
Bypass Overload Phase C	Binary_Value	17	4134_1	RD	Active on Alarm
Bypass Auto Retransfer Primed	Binary_Value	18	4137_1	RD	Active on Alarm
Bypass Auto Retransfer Failed	Binary_Value	19	4138_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	20	4139_1	RD	Active on Alarm
Bypass Static Switch Overload	Binary_Value	21	4142_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	22	4143_1	RD	Active on Alarm
Bypass Excessive Pulse Parallel	Binary_Value	23	4144_1	RD	Active on Alarm
Bypass Auto Transfer Failed	Binary_Value	24	4145_1	RD	Active on Alarm
Bypass - Manual Rexfr Inhibited	Binary_Value	25	4218_1	RD	Active on Alarm
Bypass - Manual Xfr Inhibited	Binary_Value	26	4217_1	RD	Active on Alarm
Bypass Undervoltage Warning	Binary_Value	27	5984_1	RD	Active on Alarm
Battery					
Battery Test Inhibited	Binary_Value	38	4740_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	39	4166_1	RD	Active on Alarm
Battery Discharging	Binary_Value	40	4168_1	RD	Active on Alarm
Battery Temperature Imbalance	Binary_Value	41	4169_1	RD	Active on Alarm
Battery Equalize	Binary_Value	42	4170_1	RD	Active on Alarm
Battery Self Test	Binary_Value	43	4741_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	44	4323_1	RD	Active on Alarm

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Table 5.134 Liebert® EXL—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Main Battery Disconnect Open	Binary_Value	45	4173_1	RD	Active on Alarm
Battery Low	Binary_Value	46	4162_1	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	47	4174_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	48	4176_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	49	4179_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	50	4182_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	51	4185_1	RD	Active on Alarm
Battery Circuit Breaker 5 Open	Binary_Value	52	4188_1	RD	Active on Alarm
Battery Circuit Breaker 6 Open	Binary_Value	53	4191_1	RD	Active on Alarm
Battery Circuit Breaker 7 Open	Binary_Value	54	4194_1	RD	Active on Alarm
Battery Circuit Breaker 8 Open	Binary_Value	55	4197_1	RD	Active on Alarm
Battery Over Temperature Limit	Binary_Value	56	5871_1	RD	Active on Alarm
Battery - External Monitor 1	Binary_Value	57	4220_1	RD	Active on Alarm
Battery - External Monitor 2	Binary_Value	58	4221_1	RD	Active on Alarm
Battery Low Shutdown	Binary_Value	59	4742_1	RD	Active on Alarm
Output					
System Shutdown - EPO	Binary_Value	70	4213_1	RD	Active on Alarm
System Output Low Power Factor	Binary_Value	71	4230_1	RD	Active on Alarm
Output Amp Over User Limit-Phs A	Binary_Value	72	4286_1	RD	Active on Alarm
Output Amp Over User Limit-Phs B	Binary_Value	73	4287_1	RD	Active on Alarm
Output Amp Over User Limit-Phs C	Binary_Value	74	4288_1	RD	Active on Alarm
System Output Fault	Binary_Value	75	4389_1	RD	Active on Alarm
Output Of/Uf	Binary_Value	76	5144_1	RD	Active on Alarm
Ground Fault	Binary_Value	77	5970_1	RD	Active on Alarm
Inverter					
Inverter Failure	Binary_Value	87	4233_1	RD	Active on Alarm
Inverter Overload Phase A	Binary_Value	88	4234_1	RD	Active on Alarm
Inverter Overload Phase B	Binary_Value	89	4235_1	RD	Active on Alarm
Inverter Overload Phase C	Binary_Value	90	4236_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	91	4290_1	RD	Active on Alarm
Environment					
Inlet Air Over Temperature	Binary_Value	102	4294_1	RD	Active on Alarm

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Table 5.134 Liebert® EXL—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Equipment Over Temp Warning	Binary_Value	103	6011_1	RD	Active on Alarm
Outlet Air Overtemperature Limit	Binary_Value	104	5768_1	RD	Active on Alarm
Equipment Temperature Sensor Fail	Binary_Value	105	4747_1	RD	Active on Alarm
Memory Card Removed	Binary_Value	106	6217_1	RD	Active on Alarm
Auto Calibration Active	Binary_Value	107	6218_1	RD	Active on Alarm
Auto Calibration Failed	Binary_Value	108	6219_1	RD	Active on Alarm
External Input Signals					
Input Contact 01	Binary_Value	116	4270_1	RD	Active on Alarm
Input Contact 02	Binary_Value	117	4271_1	RD	Active on Alarm
Input Contact 03	Binary_Value	118	4272_1	RD	Active on Alarm
Input Contact 04	Binary_Value	119	4273_1	RD	Active on Alarm
Input Contact 05	Binary_Value	120	4274_1	RD	Active on Alarm
Input Contact 06	Binary_Value	121	4275_1	RD	Active on Alarm
Input Contact 07	Binary_Value	122	4276_1	RD	Active on Alarm
Input Contact 08	Binary_Value	123	4277_1	RD	Active on Alarm
Input Contact 09	Binary_Value	124	4278_1	RD	Active on Alarm
Input Contact 10	Binary_Value	125	4279_1	RD	Active on Alarm
Input Contact 11	Binary_Value	126	4280_1	RD	Active on Alarm
Input Contact 12	Binary_Value	127	4281_1	RD	Active on Alarm
Input Contact 13	Binary_Value	128	4282_1	RD	Active on Alarm
Input Contact 14	Binary_Value	129	4283_1	RD	Active on Alarm
Input Contact 15	Binary_Value	130	4284_1	RD	Active on Alarm
Input Contact 16	Binary_Value	131	4285_1	RD	Active on Alarm
Rectifier					
Rectifier Failure	Binary_Value	142	4295_1	RD	Active on Alarm
System					
Fan Redundancy Warning	Binary_Value	153	4749_1	RD	Active on Alarm
Slave Fan Warning	Binary_Value	154	4750_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	155	4300_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	156	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	157	4299_1	RD	Active on Alarm
Backfeed Breaker Open	Binary_Value	158	4325_1	RD	Active on Alarm

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Table 5.134 Liebert® EXL—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Auto Restart In Progress	Binary_Value	159	4316_1	RD	Active on Alarm
Power Supply Failure	Binary_Value	160	4314_1	RD	Active on Alarm
On Generator	Binary_Value	161	4315_1	RD	Active on Alarm
Auto Restart Inhibited - Ext	Binary_Value	162	4317_1	RD	Active on Alarm
Automatic Restart Failed	Binary_Value	163	4439_1	RD	Active on Alarm
Main Controller Fault	Binary_Value	164	4753_1	RD	Active on Alarm
Fuse Failure	Binary_Value	165	4440_1	RD	Active on Alarm
System Controller Error	Binary_Value	166	4441_1	RD	Active on Alarm
System Breaker(s) Open Failure	Binary_Value	167	4442_1	RD	Active on Alarm
System Breaker(s) Close Failure	Binary_Value	168	4754_1	RD	Active on Alarm
EMO Shutdown	Binary_Value	169	5769_1	RD	Active on Alarm
Service Code Active	Binary_Value	170	4756_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	171	4758_1	RD	Active on Alarm
Regeneration Active	Binary_Value	172	5881_1	RD	Active on Alarm
Regeneration Operation Terminated	Binary_Value	173	5882_1	RD	Active on Alarm
Regeneration Operation Failure	Binary_Value	174	5883_1	RD	Active on Alarm
Controls Reset Required	Binary_Value	175	4760_1	RD	Active on Alarm
LBS Active - Master	Binary_Value	176	5561_1	RD	Active on Alarm
LBS Active - Slave	Binary_Value	177	5562_1	RD	Active on Alarm
Cont Tie Active	Binary_Value	178	5788_1	RD	Active on Alarm
UPSC Communication Failure	Binary_Value	179	6080_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	180	6066_1	RD	Active on Alarm
Thermal Margin Warning	Binary_Value	181	7467_1	RD	Active on Alarm
MultiModule					
Parallel Comm Warning	Binary_Value	191	4823_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	192	4825_1	RD	Active on Alarm
MMS Transfer Inhibit	Binary_Value	193	4827_1	RD	Active on Alarm
MMS Retransfer Inhibit	Binary_Value	194	4828_1	RD	Active on Alarm
MMS Overload	Binary_Value	195	4831_1	RD	Active on Alarm
MMS On Battery	Binary_Value	196	4834_1	RD	Active on Alarm
MMS Low Battery Warning	Binary_Value	197	4835_1	RD	Active on Alarm
MMS Module Alarm Active	Binary_Value	198	5145_1	RD	Active on Alarm

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Table 5.134 Liebert® EXL—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Module Output Breaker Open	Binary_Value	199	6220_1	RD	Active on Alarm
Intelligent Paralleling					
Module In Standby - Intelligent Paralleling	Binary_Value	209	5453_1	RD	Active on Alarm
ECO Mode					
ECO Mode Active	Binary_Value	220	5456_1	RD	Active on Alarm
ECO Mode Suspended	Binary_Value	221	5457_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	222	5458_1	RD	Active on Alarm
Service Reminder					
Service Required	Binary_Value	233	4726_1	RD	Active on Alarm
DC Bus					
Precharge Circuit Failed	Binary_Value	251	6216_1	RD	Active on Alarm

Table 5.135 Liebert® EXL—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
Bypass					
Bypass Input Voltage RMS A-B	Analog_Value	18	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	19	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	20	4127_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	21	4131_1	RD	Units: Hz
Bypass Sync Phase Difference	Analog_Value	22	4136_1	RD	Units: deg
Bypass SS Overload Time Remain	Analog_Value	23	4157_1	RD	Units: sec
Manual Transfer Bypass Voltage High Limit	Analog_Value	24	5980_1	RD	Units: %
Manual Transfer Bypass Voltage Low Limit	Analog_Value	25	5981_1	RD	Units: %
Auto Retransfer Time Remaining	Analog_Value	26	4738_1	RD	Units: sec
Battery					

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Total Discharge Time	Analog_Value	37	4152_1	RD	Units: hr
Battery Percentage Charge	Analog_Value	38	4153_1	RD	Units: %
Battery Volts for Cabinet 1	Analog_Value	39	4155_1_1	RD	Units: VDC
Battery Volts for Cabinet 2	Analog_Value	40	4155_1_2	RD	Units: VDC
Battery Volts for Cabinet 3	Analog_Value	41	4155_1_3	RD	Units: VDC
Battery Volts for Cabinet 4	Analog_Value	42	4155_1_4	RD	Units: VDC
Battery Volts for Cabinet 5	Analog_Value	43	4155_1_5	RD	Units: VDC
Battery Volts for Cabinet 6	Analog_Value	44	4155_1_6	RD	Units: VDC
Battery Volts for Cabinet 7	Analog_Value	45	4155_1_7	RD	Units: VDC
Battery Volts for Cabinet 8	Analog_Value	46	4155_1_8	RD	Units: VDC
Battery Temperature for Cabinet 1	Analog_Value	47	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet 1	Analog_Value	10047	4156_1_1_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 2	Analog_Value	48	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet 2	Analog_Value	10048	4156_1_2_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 3	Analog_Value	49	4156_1_3	RD	Units: deg C
Battery Temperature for Cabinet 3	Analog_Value	10049	4156_1_3_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 4	Analog_Value	50	4156_1_4	RD	Units: deg C
Battery Temperature for Cabinet 4	Analog_Value	10050	4156_1_4_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 5	Analog_Value	51	4156_1_5	RD	Units: deg C
Battery Temperature for Cabinet 5	Analog_Value	10051	4156_1_5_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 6	Analog_Value	52	4156_1_6	RD	Units: deg C
Battery Temperature for Cabinet 6	Analog_Value	10052	4156_1_6_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 7	Analog_Value	53	4156_1_7	RD	Units: deg C
Battery Temperature for Cabinet 7	Analog_Value	10053	4156_1_7_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 8	Analog_Value	54	4156_1_8	RD	Units: deg C
Battery Temperature for Cabinet 8	Analog_Value	10054	4156_1_8_deg_F	RD	Units: deg F
Battery Recharge Voltage	Analog_Value	55	5987_1	RD	Units: VDC
Battery Float Voltage	Analog_Value	56	5988_1	RD	Units: VDC
Battery Amp-Hours Consumed This Discharge	Analog_Value	57	4739_1	RD	Units: AH
Battery Time Remaining	Analog_Value	58	4150_1	RD	Units: min
Battery Discharge Time	Analog_Value	59	4151_1	RD	Units: sec
Battery Discharge Power	Analog_Value	60	4159_1	RD	Units: kW

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Commission Date	Analog_Value	61	4160_1	RD	Units: Secs since Epoch(UTC)
Battery Equalize Voltage	Analog_Value	62	5989_1	RD	Units: VDC
Battery Equalize Time	Analog_Value	63	5990_1	RD	Units: hr
Battery Self Test Cycle Time	Analog_Value	64	5991_1	RD	Units: week(s)
Battery Self Test Time of Test	Analog_Value	65	5992_1	RD	Units: min
Battery Self Test Start Date	Analog_Value	66	5993_1	RD	Units: Secs since Epoch(UTC)
Battery Self Test Duration	Analog_Value	67	5994_1	RD	Units: min
Battery Self Test Minimum Voltage	Analog_Value	68	5995_1	RD	Units: VDC
Low Battery Warning Time	Analog_Value	69	5802_1	RD	Units: min
Battery Over Temp Warn Setting	Analog_Value	70	5996_1	RD	Units: deg C
Battery Over Temp Warn Setting	Analog_Value	10070	5996_1_deg_F	RD	Units: deg F
Battery Over Temp Limit Setting	Analog_Value	71	5997_1	RD	Units: deg C
Battery Over Temp Limit Setting	Analog_Value	10071	5997_1_deg_F	RD	Units: deg F
Battery Cell Count Adjust	Analog_Value	72	6000_1	RD	—
Battery Cell Count	Analog_Value	73	6001_1	RD	—
DC Bus					
DC Bus Voltage	Analog_Value	84	4148_1	RD	Units: VDC
DC Bus Current	Analog_Value	85	4149_1	RD	Units: A DC
Output					
System Output Voltage RMS A-B	Analog_Value	96	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	97	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	98	4203_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	99	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	100	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	101	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	102	4207_1	RD	Units: Hz
System Output Power	Analog_Value	103	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	104	4209_1	RD	Units: kVA
System Output Power Factor Phs A	Analog_Value	105	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	106	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	107	4212_1	RD	—
System Output Pct Power Phase A	Analog_Value	108	4223_1	RD	Units: %

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Pct Power Phase B	Analog_Value	109	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	110	4225_1	RD	Units: %
System Output Pct Pwr (VA) Phs A	Analog_Value	111	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	112	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	113	4228_1	RD	Units: %
Inverter					
Inverter Overload Time Remaining	Analog_Value	124	4232_1	RD	Units: sec
Maximum Load Exceeded Phase A	Analog_Value	125	6005_1	RD	Units: %
Maximum Load Exceeded Phase B	Analog_Value	126	6006_1	RD	Units: %
Maximum Load Exceeded Phase C	Analog_Value	127	6007_1	RD	Units: %
Maximum Load Exceeded Delay	Analog_Value	128	6008_1	RD	Units: sec
Environment					
Inlet Air Warning Setting	Analog_Value	139	6010_1	RD	Units: deg C
Inlet Air Warning Setting	Analog_Value	10139	6010_1_deg_F	RD	Units: deg F
Inlet Air Temperature	Analog_Value	140	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10140	4291_1_deg_F	RD	Units: deg F
Total System Operating Time	Analog_Value	141	4292_1	RD	Units: hr
System Date and Time	Analog_Value	142	4293_1	RW	Units: Secs since Epoch(UTC)
Total kW Hours Saved	Analog_Value	143	5446_1	RD	Units: kWH
External Input Signals					
Delay for Input Contact 01	Analog_Value	154	6013_1	RD	Units: sec
Delay for Input Contact 02	Analog_Value	155	6014_1	RD	Units: sec
Delay for Input Contact 03	Analog_Value	156	6015_1	RD	Units: sec
Delay for Input Contact 04	Analog_Value	157	6016_1	RD	Units: sec
Delay for Input Contact 05	Analog_Value	158	6017_1	RD	Units: sec
Delay for Input Contact 06	Analog_Value	159	6018_1	RD	Units: sec
Delay for Input Contact 07	Analog_Value	160	6019_1	RD	Units: sec
Delay for Input Contact 08	Analog_Value	161	6020_1	RD	Units: sec
Delay for Input Contact 09	Analog_Value	162	6021_1	RD	Units: sec
Delay for Input Contact 10	Analog_Value	163	6022_1	RD	Units: sec
Delay for Input Contact 11	Analog_Value	164	6023_1	RD	Units: sec
Delay for Input Contact 12	Analog_Value	165	6024_1	RD	Units: sec

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Delay for Input Contact 13	Analog_Value	166	6025_1	RD	Units: sec
Delay for Input Contact 14	Analog_Value	167	6026_1	RD	Units: sec
Delay for Input Contact 15	Analog_Value	168	6027_1	RD	Units: sec
Delay for Input Contact 16	Analog_Value	169	6028_1	RD	Units: sec
External Output Signals 1					
PRB Relay Trigger Event # 1	Analog_Value	180	6075_1	RD	—
PRB Relay Trigger Event # 2	Analog_Value	181	6076_1	RD	—
PRB Relay Trigger Event # 3	Analog_Value	182	6077_1	RD	—
PRB Relay Trigger Event # 4	Analog_Value	183	6078_1	RD	—
PRB Delay	Analog_Value	184	6079_1	RD	—
External Output Signals 2					
PRB Relay Trigger Event # 1	Analog_Value	195	6075_2	RD	—
PRB Relay Trigger Event # 2	Analog_Value	196	6076_2	RD	—
PRB Relay Trigger Event # 3	Analog_Value	197	6077_2	RD	—
PRB Relay Trigger Event # 4	Analog_Value	198	6078_2	RD	—
PRB Delay	Analog_Value	199	6079_2	RD	—
External Output Signals 3					
PRB Relay Trigger Event # 1	Analog_Value	210	6075_3	RD	—
PRB Relay Trigger Event # 2	Analog_Value	211	6076_3	RD	—
PRB Relay Trigger Event # 3	Analog_Value	212	6077_3	RD	—
PRB Relay Trigger Event # 4	Analog_Value	213	6078_3	RD	—
PRB Delay	Analog_Value	214	6079_3	RD	—
External Output Signals 4					
PRB Relay Trigger Event # 1	Analog_Value	225	6075_4	RD	—
PRB Relay Trigger Event # 2	Analog_Value	226	6076_4	RD	—
PRB Relay Trigger Event # 3	Analog_Value	227	6077_4	RD	—
PRB Relay Trigger Event # 4	Analog_Value	228	6078_4	RD	—
PRB Delay	Analog_Value	229	6079_4	RD	—
External Output Signals 5					
PRB Relay Trigger Event # 1	Analog_Value	240	6075_5	RD	—
PRB Relay Trigger Event # 2	Analog_Value	241	6076_5	RD	—
PRB Relay Trigger Event # 3	Analog_Value	242	6077_5	RD	—

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
PRB Relay Trigger Event # 4	Analog_Value	243	6078_5	RD	—
PRB Delay	Analog_Value	244	6079_5	RD	—
External Output Signals 6					
PRB Relay Trigger Event # 1	Analog_Value	255	6075_6	RD	—
PRB Relay Trigger Event # 2	Analog_Value	256	6076_6	RD	—
PRB Relay Trigger Event # 3	Analog_Value	257	6077_6	RD	—
PRB Relay Trigger Event # 4	Analog_Value	258	6078_6	RD	—
PRB Delay	Analog_Value	259	6079_6	RD	—
External Output Signals 7					
PRB Relay Trigger Event # 1	Analog_Value	270	6075_7	RD	—
PRB Relay Trigger Event # 2	Analog_Value	271	6076_7	RD	—
PRB Relay Trigger Event # 3	Analog_Value	272	6077_7	RD	—
PRB Relay Trigger Event # 4	Analog_Value	273	6078_7	RD	—
PRB Delay	Analog_Value	274	6079_7	RD	—
External Output Signals 8					
PRB Relay Trigger Event # 1	Analog_Value	285	6075_8	RD	—
PRB Relay Trigger Event # 2	Analog_Value	286	6076_8	RD	—
PRB Relay Trigger Event # 3	Analog_Value	287	6077_8	RD	—
PRB Relay Trigger Event # 4	Analog_Value	288	6078_8	RD	—
PRB Delay	Analog_Value	289	6079_8	RD	—
External Output Signals 9					
PRB Relay Trigger Event # 1	Analog_Value	300	6075_9	RD	—
PRB Relay Trigger Event # 2	Analog_Value	301	6076_9	RD	—
PRB Relay Trigger Event # 3	Analog_Value	302	6077_9	RD	—
PRB Relay Trigger Event # 4	Analog_Value	303	6078_9	RD	—
PRB Delay	Analog_Value	304	6079_9	RD	—
External Output Signals 10					
PRB Relay Trigger Event # 1	Analog_Value	315	6075_10	RD	—
PRB Relay Trigger Event # 2	Analog_Value	316	6076_10	RD	—
PRB Relay Trigger Event # 3	Analog_Value	317	6077_10	RD	—
PRB Relay Trigger Event # 4	Analog_Value	318	6078_10	RD	—
PRB Delay	Analog_Value	319	6079_10	RD	—

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
External Output Signals 11					
PRB Relay Trigger Event # 1	Analog_Value	330	6075_11	RD	—
PRB Relay Trigger Event # 2	Analog_Value	331	6076_11	RD	—
PRB Relay Trigger Event # 3	Analog_Value	332	6077_11	RD	—
PRB Relay Trigger Event # 4	Analog_Value	333	6078_11	RD	—
PRB Delay	Analog_Value	334	6079_11	RD	—
External Output Signals 12					
PRB Relay Trigger Event # 1	Analog_Value	345	6075_12	RD	—
PRB Relay Trigger Event # 2	Analog_Value	346	6076_12	RD	—
PRB Relay Trigger Event # 3	Analog_Value	347	6077_12	RD	—
PRB Relay Trigger Event # 4	Analog_Value	348	6078_12	RD	—
PRB Delay	Analog_Value	349	6079_12	RD	—
External Output Signals 13					
PRB Relay Trigger Event # 1	Analog_Value	360	6075_13	RD	—
PRB Relay Trigger Event # 2	Analog_Value	361	6076_13	RD	—
PRB Relay Trigger Event # 3	Analog_Value	362	6077_13	RD	—
PRB Relay Trigger Event # 4	Analog_Value	363	6078_13	RD	—
PRB Delay	Analog_Value	364	6079_13	RD	—
External Output Signals 14					
PRB Relay Trigger Event # 1	Analog_Value	375	6075_14	RD	—
PRB Relay Trigger Event # 2	Analog_Value	376	6076_14	RD	—
PRB Relay Trigger Event # 3	Analog_Value	377	6077_14	RD	—
PRB Relay Trigger Event # 4	Analog_Value	378	6078_14	RD	—
PRB Delay	Analog_Value	379	6079_14	RD	—
External Output Signals 15					
PRB Relay Trigger Event # 1	Analog_Value	390	6075_15	RD	—
PRB Relay Trigger Event # 2	Analog_Value	391	6076_15	RD	—
PRB Relay Trigger Event # 3	Analog_Value	392	6077_15	RD	—
PRB Relay Trigger Event # 4	Analog_Value	393	6078_15	RD	—
PRB Delay	Analog_Value	394	6079_15	RD	—
External Output Signals 16					
PRB Relay Trigger Event # 1	Analog_Value	405	6075_16	RD	—

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
PRB Relay Trigger Event # 2	Analog_Value	406	6076_16	RD	—
PRB Relay Trigger Event # 3	Analog_Value	407	6077_16	RD	—
PRB Relay Trigger Event # 4	Analog_Value	408	6078_16	RD	—
PRB Delay	Analog_Value	409	6079_16	RD	—
System					
System Accumulated Energy	Analog_Value	420	5789_1	RW	Units: kWH
Module Accumulated Energy	Analog_Value	421	5790_1	RW	Units: kWH
Output kWh Reset Timestamp	Analog_Value	422	5791_1	RD	Units: Secs since Epoch(UTC)
Output Peak kW Demand	Analog_Value	423	5793_1	RD	Units: kW
Output Peak kW Demand Hist	Analog_Value	424	5794_1	RD	Units: kW
Peak kW Demand Timestamp	Analog_Value	425	5797_1	RD	Units: Secs since Epoch(UTC)
Regeneration Time Remaining	Analog_Value	426	6048_1	RD	Units: min
Ratings					
Bypass Nominal Voltage	Analog_Value	437	4259_1	RD	Units: VAC
System Input Nominal Voltage	Analog_Value	438	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	439	4103_1	RD	Units: Hz
System Output Nominal Voltage	Analog_Value	440	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	441	4261_1	RD	Units: Hz
Battery Cell Count - Lead Acid	Analog_Value	442	4262_1	RD	
Output Apparent Power Rating	Analog_Value	443	4264_1	RD	Units: kVA
Output Real Power Rating	Analog_Value	444	4265_1	RD	Units: kW
System UPS Module Count	Analog_Value	445	4800_1	RD	
System Output Maximum Amp Rating	Analog_Value	446	4267_1	RD	Units: A AC
MultiModule					
Multi-module System Output Voltage RMS A-B	Analog_Value	457	4801_1	RD	Units: VAC
Multi-module System Output Voltage RMS B-C	Analog_Value	458	4802_1	RD	Units: VAC
Multi-module System Output Voltage RMS C-A	Analog_Value	459	4803_1	RD	Units: VAC
Multi-module System Output Voltage RMS A-N	Analog_Value	460	4804_1	RD	Units: VAC
Multi-module System Output Voltage RMS B-N	Analog_Value	461	4805_1	RD	Units: VAC
Multi-module System Output Voltage RMS C-N	Analog_Value	462	4806_1	RD	Units: VAC
Sum of MMS Output RMS Currents for Phase A	Analog_Value	463	4807_1	RD	Units: A AC
Sum of MMS Output RMS Currents for Phase B	Analog_Value	464	4808_1	RD	Units: A AC

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Sum of MMS Output RMS Currents for Phase C	Analog_Value	465	4809_1	RD	Units: A AC
MMS Output Frequency	Analog_Value	466	4810_1	RD	Units: Hz
MMS Output Power	Analog_Value	467	4811_1	RD	Units: kW
MMS Output Apparent Power	Analog_Value	468	4812_1	RD	Units: kVA
MMS Output Power Factor Phase A	Analog_Value	469	4813_1	RD	—
MMS Output Power Factor Phase B	Analog_Value	470	4814_1	RD	—
MMS Output Power Factor Phase C	Analog_Value	471	4815_1	RD	—
MMS Output Pct Power Phase A	Analog_Value	472	4816_1	RD	Units: %
MMS Output Pct Power Phase B	Analog_Value	473	4817_1	RD	Units: %
MMS Output Pct Power Phase C	Analog_Value	474	4818_1	RD	Units: %
MMS Output Pct Apparent Pwr (kVA) Phase A	Analog_Value	475	4819_1	RD	Units: %
MMS Output Pct Apparent Pwr (kVA) Phase B	Analog_Value	476	4820_1	RD	Units: %
MMS Output Pct Apparent Pwr (kVA) Phase C	Analog_Value	477	4821_1	RD	Units: %
Number of Redundant Modules	Analog_Value	478	4822_1	RD	—
MMS Module Number	Analog_Value	479	4829_1	RD	—
Number of Modules in a MMS	Analog_Value	480	4833_1	RD	—
ModuleList 1					
MMS Module Total kW Output	Analog_Value	491	4861_1	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	492	4862_1	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	493	4863_1	RD	Units: VDC
MMS Module Battery Current	Analog_Value	494	4864_1	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	495	4865_1	RD	Units: min
ModuleList 2					
MMS Module Total kW Output	Analog_Value	506	4861_2	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	507	4862_2	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	508	4863_2	RD	Units: VDC
MMS Module Battery Current	Analog_Value	509	4864_2	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	510	4865_2	RD	Units: min
ModuleList 3					
MMS Module Total kW Output	Analog_Value	521	4861_3	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	522	4862_3	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	523	4863_3	RD	Units: VDC

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS Module Battery Current	Analog_Value	524	4864_3	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	525	4865_3	RD	Units: min
ModuleList 4					
MMS Module Total kW Output	Analog_Value	536	4861_4	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	537	4862_4	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	538	4863_4	RD	Units: VDC
MMS Module Battery Current	Analog_Value	539	4864_4	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	540	4865_4	RD	Units: min
ModuleList 5					
MMS Module Total kW Output	Analog_Value	551	4861_5	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	552	4862_5	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	553	4863_5	RD	Units: VDC
MMS Module Battery Current	Analog_Value	554	4864_5	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	555	4865_5	RD	Units: min
ModuleList 6					
MMS Module Total kW Output	Analog_Value	566	4861_6	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	567	4862_6	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	568	4863_6	RD	Units: VDC
MMS Module Battery Current	Analog_Value	569	4864_6	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	570	4865_6	RD	Units: min
ModuleList 7					
MMS Module Total kW Output	Analog_Value	581	4861_7	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	582	4862_7	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	583	4863_7	RD	Units: VDC
MMS Module Battery Current	Analog_Value	584	4864_7	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	585	4865_7	RD	Units: min
ModuleList 8					
MMS Module Total kW Output	Analog_Value	596	4861_8	RD	Units: kW
MMS Module Total kVA Output	Analog_Value	597	4862_8	RD	Units: kVA
MMS Module DC Bus Voltage	Analog_Value	598	4863_8	RD	Units: VDC
MMS Module Battery Current	Analog_Value	599	4864_8	RD	Units: A DC
MMS Module Battery Time Remaining	Analog_Value	600	4865_8	RD	Units: min

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Intelligent Paralleling					
Intelligent Paralleling Shutdown Delay	Analog_Value	611	5450_1	RD	Units: min
Intelligent Parallel Minimum Redundancy	Analog_Value	612	5451_1	RD	
Intelligent Parallel Maximum Time in Standby	Analog_Value	613	5452_1	RD	Units: day
ECO Mode					
Maximum Auto Suspensions - ECO Mode	Analog_Value	624	5459_1	RD	—
Restart Delay - ECO Mode	Analog_Value	625	5460_1	RD	Units: min
Time Remaining - ECO Mode	Analog_Value	626	5466_1	RD	Units: min
ECO Mode - EcoModeSchedule 1					
Schedule Hour - ECO Mode	Analog_Value	637	5464_1_1	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	638	5465_1_1	RD	Units: min
ECO Mode - EcoModeSchedule 2					
Schedule Hour - ECO Mode	Analog_Value	649	5464_1_2	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	650	5465_1_2	RD	Units: min
ECO Mode - EcoModeSchedule 3					
Schedule Hour - ECO Mode	Analog_Value	661	5464_1_3	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	662	5465_1_3	RD	Units: min
ECO Mode - EcoModeSchedule 4					
Schedule Hour - ECO Mode	Analog_Value	673	5464_1_4	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	674	5465_1_4	RD	Units: min
ECO Mode - EcoModeSchedule 5					
Schedule Hour - ECO Mode	Analog_Value	685	5464_1_5	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	686	5465_1_5	RD	Units: min
ECO Mode - EcoModeSchedule 6					
Schedule Hour - ECO Mode	Analog_Value	697	5464_1_6	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	698	5465_1_6	RD	Units: min
ECO Mode - EcoModeSchedule 7					
Schedule Hour - ECO Mode	Analog_Value	709	5464_1_7	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	710	5465_1_7	RD	Units: min
ECO Mode - EcoModeSchedule 8					
Schedule Hour - ECO Mode	Analog_Value	721	5464_1_8	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	722	5465_1_8	RD	Units: min

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Table 5.135 Liebert® EXL—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
ECO Mode - EcoModeSchedule 9					
Schedule Hour - ECO Mode	Analog_Value	733	5464_1_9	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	734	5465_1_9	RD	Units: min
ECO Mode - EcoModeSchedule 10					
Schedule Hour - ECO Mode	Analog_Value	745	5464_1_10	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	746	5465_1_10	RD	Units: min
ECO Mode - EcoModeSchedule 11					
Schedule Hour - ECO Mode	Analog_Value	757	5464_1_11	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	758	5465_1_11	RD	Units: min
ECO Mode - EcoModeSchedule 12					
Schedule Hour - ECO Mode	Analog_Value	769	5464_1_12	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	770	5465_1_12	RD	Units: min
ECO Mode - EcoModeSchedule 13					
Schedule Hour - ECO Mode	Analog_Value	781	5464_1_13	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	782	5465_1_13	RD	Units: min
ECO Mode - EcoModeSchedule 14					
Schedule Hour - ECO Mode	Analog_Value	793	5464_1_14	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	794	5465_1_14	RD	Units: min
ECO Mode - EcoModeSchedule 15					
Schedule Hour - ECO Mode	Analog_Value	805	5464_1_15	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	806	5465_1_15	RD	Units: min
ECO Mode - EcoModeSchedule 16					
Schedule Hour - ECO Mode	Analog_Value	817	5464_1_16	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	818	5465_1_16	RD	Units: min

Table 5.136 Liebert® EXL—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Qualification Status	MultiState_ Value	1	4735_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Input Breaker Operation	MultiState_ Value	2	5979_1	RD	1 = Manual 2 = Elec Op

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass					
Static Bypass Switch	MultiState_ Value	13	4736_1	RD	1 = off 2 = on
Bypass Qualification Status	MultiState_ Value	14	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Battery					
Battery Recharge Method	MultiState_ Value	25	5986_1	RD	1 = Constant Voltage 2 = Two Step Constant Voltage
Automatic Battery Test	MultiState_ Value	26	5803_1	RD	1 = disabled 2 = enabled
Battery Disconnect Setting	MultiState_ Value	27	5999_1	RD	1 = disabled 2 = enabled
Battery Breaker Operation	MultiState_ Value	28	6002_1	RD	1 = Manual 2 = Elec Op
DC Bus					
DC Bus Qualification Status	MultiState_ Value	39	4743_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
DC Converter Status	MultiState_ Value	40	6003_1	RD	1 = off 2 = on
Output					
Output Qualification Status	MultiState_ Value	51	4744_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Output Breaker Operation	MultiState_ Value	52	6004_1	RD	1 = Manual 2 = Elec Op
Inverter					
Inverter Output Qualification Status	MultiState_ Value	63	4745_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Inverter On/Off State	MultiState_ Value	64	4746_1	RD	1 = off 2 = on
External Input Signals					
Include Input Contact Interface 1 Alarms In Summary	MultiState_ Value	91	6073_1	RD	1 = Not Included 2 = Included

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Include Input Contact Interface 2 Alarms In Summary	MultiState_ Value	92	6074_1	RD	1 = Not Included 2 = Included
Rectifier					
Rectifier Status	MultiState_ Value	103	4748_1	RD	1 = off 2 = on
System					
UPS Module Type	MultiState_ Value	114	4303_1	RD	1 = Single Module System 2 = Module (1 + 1) 3 = Module (1 + N) 4 = Module (N + 1) 5 = System Control Cabinet 6 = Main Static Switch
UPS System Output Source	MultiState_ Value	115	4752_1	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
System Input Power Source	MultiState_ Value	116	4318_1	RD	1 = None 2 = Utility (mains) 3 = Generator
System Status	MultiState_ Value	117	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
UPS Output Source	MultiState_ Value	118	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Peak kW Demand Period	MultiState_ Value	119	5795_1	RD	1 = Hourly 2 = Daily 3 = Weekly 4 = Monthly 5 = Yearly
Device Status					
Backfeed Breaker	MultiState_ Value	130	4764_1	RD	1 = Open 2 = Close 3 = Not Installed
Input Breaker (CB1/RIB)	MultiState_ Value	131	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Output Breaker (CB2/IOB)	MultiState_ Value	132	4768_1	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Isolation Breaker	MultiState_ Value	133	4770_1	RD	1 = Open 2 = Close 3 = Not Installed
Rectifier Feed Breaker (RFB)	MultiState_ Value	134	4771_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Bypass Breaker	MultiState_ Value	135	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Isolation Breaker	MultiState_ Value	136	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
Precharge Contactor	MultiState_ Value	137	6051_1	RD	1 = Open 2 = Close 3 = Not Installed
MultiModule					
Module Output Breaker for Module 1	MultiState_ Value	148	4836_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 2	MultiState_ Value	149	4837_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 3	MultiState_ Value	150	4838_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 4	MultiState_ Value	151	4839_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 5	MultiState_ Value	152	4840_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 6	MultiState_ Value	153	4841_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 7	MultiState_ Value	154	4842_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 8	MultiState_ Value	155	4843_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 1	MultiState_ Value	156	4844_1	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Isolation Breaker for Module 2	MultiState_ Value	157	4845_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 3	MultiState_ Value	158	4846_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 4	MultiState_ Value	159	4847_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 5	MultiState_ Value	160	4848_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 6	MultiState_ Value	161	4849_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 7	MultiState_ Value	162	4850_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 8	MultiState_ Value	163	4851_1	RD	1 = Open 2 = Close 3 = Not Installed
System Output Breaker	MultiState_ Value	164	4852_1	RD	1 = Open 2 = Close 3 = Not Installed
System Load Bank Breaker	MultiState_ Value	165	4853_1	RD	1 = Open 2 = Close 3 = Not Installed
System Isolation Output Breaker	MultiState_ Value	166	4854_1	RD	1 = Open 2 = Close 3 = Not Installed
SCC Event Summary	MultiState_ Value	167	4855_1	RD	1 = None 2 = Alarm 3 = Fault
MMS UPS Battery Status	MultiState_ Value	168	4873_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
MMS UPS Output Source	MultiState_ Value	169	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
ModuleList 1					

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS Inter-Module Comm Status	MultiState_ Value	180	4856_1	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	181	4857_1	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	182	4858_1	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	183	4859_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	184	4860_1	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 2					
MMS Inter-Module Comm Status	MultiState_ Value	195	4856_2	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	196	4857_2	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	197	4858_2	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	198	4859_2	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	199	4860_2	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 3					
MMS Inter-Module Comm Status	MultiState_ Value	210	4856_3	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	211	4857_3	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	212	4858_3	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	213	4859_3	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS Module Output Source	MultiState_ Value	214	4860_3	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 4					
MMS Inter-Module Comm Status	MultiState_ Value	225	4856_4	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	226	4857_4	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	227	4858_4	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	228	4859_4	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	229	4860_4	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 5					
MMS Inter-Module Comm Status	MultiState_ Value	240	4856_5	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	241	4857_5	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	242	4858_5	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	243	4859_5	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	244	4860_5	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 6					
MMS Inter-Module Comm Status	MultiState_ Value	255	4856_6	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	256	4857_6	RD	1 = None 2 = Alarm 3 = Fault

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS Module Inverter Status	MultiState_ Value	257	4858_6	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	258	4859_6	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	259	4860_6	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 7					
MMS Inter-Module Comm Status	MultiState_ Value	270	4856_7	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	271	4857_7	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	272	4858_7	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	273	4859_7	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	274	4860_7	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 8					
MMS Inter-Module Comm Status	MultiState_ Value	285	4856_8	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_ Value	286	4857_8	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_ Value	287	4858_8	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_ Value	288	4859_8	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_ Value	289	4860_8	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
Intelligent Paralleling					

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Intelligent Parallel Operation State	MultiState_ Value	300	5448_1	RD	1 = disabled 2 = enabled
Intelligent Parallel Mode	MultiState_ Value	301	5449_1	RD	1 = Idle (Fast Recovery) 2 = Disconnect (More Efficient) 3 = Off (Most Efficient)
ECO Mode					
ECO Mode Operation State	MultiState_ Value	312	5454_1	RW	1 = disabled 2 = enabled
Continuous Operation - ECO Mode	MultiState_ Value	313	5455_1	RD	1 = disabled 2 = enabled
ECO Mode - EcoModeSchedule 1					
Schedule Operation State - ECO Mode	MultiState_ Value	324	5461_1_1	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	325	5462_1_1	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	326	5463_1_1	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 2					
Schedule Operation State - ECO Mode	MultiState_ Value	337	5461_1_2	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	338	5462_1_2	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	339	5463_1_2	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 3					
Schedule Operation State - ECO Mode	MultiState_ Value	350	5461_1_3	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	351	5462_1_3	RD	1 = stop 2 = start

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Schedule Day of Week - ECO Mode	MultiState_ Value	352	5463_1_3	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 4					
Schedule Operation State - ECO Mode	MultiState_ Value	363	5461_1_4	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	364	5462_1_4	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	365	5463_1_4	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 5					
Schedule Operation State - ECO Mode	MultiState_ Value	376	5461_1_5	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	377	5462_1_5	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	378	5463_1_5	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 6					
Schedule Operation State - ECO Mode	MultiState_ Value	389	5461_1_6	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	390	5462_1_6	RD	1 = stop 2 = start

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Schedule Day of Week - ECO Mode	MultiState_ Value	391	5463_1_6	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 7					
Schedule Operation State - ECO Mode	MultiState_ Value	402	5461_1_7	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	403	5462_1_7	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	404	5463_1_7	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 8					
Schedule Operation State - ECO Mode	MultiState_ Value	415	5461_1_8	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	416	5462_1_8	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	417	5463_1_8	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 9					
Schedule Operation State - ECO Mode	MultiState_ Value	428	5461_1_9	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	429	5462_1_9	RD	1 = stop 2 = start

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Schedule Day of Week - ECO Mode	MultiState_ Value	430	5463_1_9	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 10					
Schedule Operation State - ECO Mode	MultiState_ Value	441	5461_1_10	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	442	5462_1_10	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	443	5463_1_10	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 11					
Schedule Operation State - ECO Mode	MultiState_ Value	454	5461_1_11	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	455	5462_1_11	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	456	5463_1_11	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 12					
Schedule Operation State - ECO Mode	MultiState_ Value	467	5461_1_12	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	468	5462_1_12	RD	1 = stop 2 = start

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Schedule Day of Week - ECO Mode	MultiState_ Value	469	5463_1_12	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 13					
Schedule Operation State - ECO Mode	MultiState_ Value	480	5461_1_13	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	481	5462_1_13	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	482	5463_1_13	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 14					
Schedule Operation State - ECO Mode	MultiState_ Value	493	5461_1_14	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	494	5462_1_14	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	495	5463_1_14	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 15					
Schedule Operation State - ECO Mode	MultiState_ Value	506	5461_1_15	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	507	5462_1_15	RD	1 = stop 2 = start

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Table 5.136 Liebert® EXL—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Schedule Day of Week - ECO Mode	MultiState_ Value	508	5463_1_15	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 16					
Schedule Operation State - ECO Mode	MultiState_ Value	519	5461_1_16	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_ Value	520	5462_1_16	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_ Value	521	5463_1_16	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday

Table 5.137 Liebert® EXL—Glossary

Data Label	Data Description
Auto Calibration Active	The system is automatically calibrating ADC channels.
Auto Calibration Failed	ADC channel calibration has failed.
Auto Restart In Progress	Auto restart is in progress.
Auto Restart Inhibited - Ext	Auto restart inhibited due to an external signal.
Auto Retransfer Time Remaining	Time remaining before an inverter overload or inverter fault can be cleared and auto retransfer from the bypass to the inverter can take place.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Automatic Restart Failed	Automatic restart failed.
Backfeed Breaker Open	The backfeed breaker is in the open position.
Backfeed Breaker	Backfeed breaker.
Battery - External Monitor 1	External battery monitor 1 - battery maintenance required.
Battery - External Monitor 2	External battery monitor 2 - battery maintenance required.
Battery Amp-Hours Consumed This Discharge	Battery amp-hours withdrawn this discharge.
Battery Breaker Operation	Indicates the type of breaker installed for the batteries.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Battery Capacity Low	Battery capacity is low.
Battery Cell Count - Lead Acid	Battery cell count - lead acid.
Battery Cell Count Adjust	The cell count adjustment for the batteries currently installed.
Battery Cell Count	The cell count of the attached battery.
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open.
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open.
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open.
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open.
Battery Commission Date	Date and time when battery placed into service.
Battery Discharge Power	Instantaneous battery power while discharging.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Disconnect Setting	Allow the battery overtemp to initiate a battery disconnect.
Battery Equalize Time	The duration used when the battery is being equalized.
Battery Equalize Voltage	The cell voltage that will be used when the battery is being equalized.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery Low Shutdown	Battery disconnect due to end-of-discharge.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Over Temp Limit Setting	The temperature setting that will initiate an over temperature limit.
Battery Over Temp Warn Setting	The temperature setting that will initiate an over temperature warning.
Battery Over Temperature Limit	A battery temperature sensor is reporting a value above a predetermined limit.
Battery Percentage Charge	The percentage of battery charge.
Battery Recharge Method	The recharge method used for battery recharging.
Battery Recharge Voltage	The recharge cell voltage for the battery.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test Duration	The duration of a successful battery self test cycle.
Battery Self Test Minimum Voltage	Minimum cell voltage acceptable during a successful battery test.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Battery Self Test Start Date	The date that the battery self tests will begin happening.
Battery Self Test Time of Test	The time of day that the automatic self test will be initiated.
Battery Self Test	Battery self test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected.
Battery Test Failed	Battery test failed.
Battery Test Inhibited	Automatic (scheduled) battery tests are inhibited.
Battery Time Remaining	The calculated available time on battery.
Battery Total Discharge Time	The cumulative battery discharge time.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass - Manual Rexfr Inhibited	Manual transfer from bypass to inverter is inhibited.
Bypass - Manual Xfr Inhibited	Manual transfer from inverter to bypass is inhibited.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed.
Bypass Auto Retransfer Primed	Automatic retransfer from bypass to inverter is possible.
Bypass Auto Transfer Failed	An automatic transfer to static bypass failed.
Bypass Excessive Pulse Parallel	The system has performed too many pulse parallel operations within a specified time interval.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between Phases C and A.
Bypass Isolation Breaker for Module 1	Bypass isolation breaker for module 1.
Bypass Isolation Breaker for Module 2	Bypass isolation breaker for module 2.
Bypass Isolation Breaker for Module 3	Bypass isolation breaker for module 3.
Bypass Isolation Breaker for Module 4	Bypass isolation breaker for module 4.
Bypass Isolation Breaker for Module 5	Bypass isolation breaker for module 5.
Bypass Isolation Breaker for Module 6	Bypass isolation breaker for module 6.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Bypass Isolation Breaker for Module 7	Bypass isolation breaker for module 7.
Bypass Isolation Breaker for Module 8	Bypass isolation breaker for module 8.
Bypass Isolation Breaker	Bypass isolation breaker.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload Phase A	An overload exists on output phase A while operating on the bypass.
Bypass Overload Phase B	An overload exists on output phase B while operating on the bypass.
Bypass Overload Phase C	An overload exists on output phase C while operating on the bypass.
Bypass Qualification Status	Bypass qualification status.
Bypass SS Overload Time Remain	The calculated time remaining before bypass static switch shutdown due to the present overload condition.
Bypass Static Switch Overload	Bypass off due to static switch overload.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Sync Phase Difference	The phase angle difference between the inverter output and bypass source.
Bypass Undervoltage Warning	The voltage on one or more bypass phases is less than a specified percentage of the nominal voltage.
Cont Tie Active	Continuous Power Tie Active.
Continuous Operation - ECO Mode	This setting gives the user the ability to Enable/Disable ECO Mode continuous operation.
Controls Reset Required	A controls reset is required due to one or more critical settings changing.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Qualification Status	DC bus qualification status.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
DC Converter Status	The operating state of the dc converter.
Delay for Input Contact 01	The activation delay associated with input contact 1.
Delay for Input Contact 02	The activation delay associated with input contact 2.
Delay for Input Contact 03	The activation delay associated with input contact 3.
Delay for Input Contact 04	The activation delay associated with input contact 4.
Delay for Input Contact 05	The activation delay associated with input contact 5.
Delay for Input Contact 06	The activation delay associated with input contact 6.
Delay for Input Contact 07	The activation delay associated with input contact 7.
Delay for Input Contact 08	The activation delay associated with input contact 8.
Delay for Input Contact 09	The activation delay associated with input contact 9.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Delay for Input Contact 10	The activation delay associated with input contact 10.
Delay for Input Contact 11	The activation delay associated with input contact 11.
Delay for Input Contact 12	The activation delay associated with input contact 12.
Delay for Input Contact 13	The activation delay associated with input contact 13.
Delay for Input Contact 14	The activation delay associated with input contact 14.
Delay for Input Contact 15	The activation delay associated with input contact 15.
Delay for Input Contact 16	The activation delay associated with input contact 16.
ECO Mode Active	Conditions for Activation or Automatic Reactivation have been satisfied.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Suspended	ECO Mode session is suspended.
EMO Shutdown	An Emergency Module Off command has been detected.
Equipment Over Temp Warning	Equipment over temperature warning is a summary event based on the detection of at least one measured temperature exceeding a threshold.
Equipment Temperature Sensor Fail	One or more temperature sensors report a temperature outside of the range of expected operation.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fan Redundancy Warning	A redundant fan has stopped operating.
Fuse Failure	A summary event indicating one or more fuse failures.
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Include Input Contact Interface 1 Alarms In Summary	Should the inputs on input contact interface 1 be included in the summary event when activated.
Include Input Contact Interface 2 Alarms In Summary	Should the inputs on input contact interface 2 be included in the summary event when activated.
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold.
Inlet Air Temperature	The temperature of the inlet air.
Inlet Air Warning Setting	The temperature setting that will cause an input temperature warning.
Input Breaker (CB1/RIB)	Input breaker (CB1/RIB).
Input Breaker Operation	Indicates the type of breaker installed for the Input.
Input Contact 01	The external input contact 1.
Input Contact 02	The external input contact 2.
Input Contact 03	The external input contact 3.
Input Contact 04	The external input contact 4.
Input Contact 05	The external input contact 5.
Input Contact 06	The external input contact 6.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Input Contact 07	The external input contact 7.
Input Contact 08	The external input contact 8.
Input Contact 09	The external input contact 9.
Input Contact 10	The external input contact 10.
Input Contact 11	The external input contact 11.
Input Contact 12	The external input contact 12.
Input Contact 13	The external input contact 13.
Input Contact 14	The external input contact 14.
Input Contact 15	The external input contact 15.
Input Contact 16	The external input contact 16.
Input Qualification Status	input qualification status.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Intelligent Parallel Maximum Time in Standby	The maximum time a module can be in standby mode due to Intelligent Paralleling.
Intelligent Parallel Minimum Redundancy	This is the minimum Number of Redundant Modules that the system will allow before bringing one or more modules back to normal operation and terminating Intelligent Paralleling.
Intelligent Parallel Mode	This setting gives the user the ability to choose between different energy consumption modes while Intelligent Paralleling is active and module is in standby.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Intelligent Paralleling Shutdown Delay	This is the length of time the conditions for module standby must remain satisfied before the module goes into standby.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	inverter on/off state.
Inverter Output Qualification Status	inverter output qualification status.
Inverter Overload Phase A	Inverter is operating with an overload on Phase A.
Inverter Overload Phase B	Inverter is operating with an overload on Phase B.
Inverter Overload Phase C	Inverter is operating with an overload on Phase C.
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
LBS Active - Master	This UPS system has been selected as the functional Master Load Bus Synchronization (LBS) system.
LBS Active - Slave	This UPS system is synchronized to the output bus of the UPS system that has been selected as the Master Load Bus Synchronization (LBS) system.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open.
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
Maintenance Isolation Breaker	Maintenance isolation breaker.
Manual Transfer Bypass Voltage High Limit	The manual bypass voltage high limit setting.
Manual Transfer Bypass Voltage Low Limit	The manual bypass voltage low limit setting.
Maximum Auto Suspensions - ECO Mode	This setting sets the maximum number of automatic ECO Mode suspensions in a session.
Maximum Load Exceeded Delay	The maximum load exceeded event delay time.
Maximum Load Exceeded Phase A	The maximum load current exceeded setting for Phase A.
Maximum Load Exceeded Phase B	The maximum load current exceeded setting for Phase B.
Maximum Load Exceeded Phase C	The maximum load current exceeded setting for Phase C.
Memory Card Removed	The memory card on the control board has been removed.
MMS Event Summary	Summary of any active user alarm or fault of this module in a multi-module system.
MMS Inter-Module Comm Status	Inter-module communication status of this module in a multi-module system.
MMS Low Battery Warning	Multi-module system low battery warning.
MMS Module Alarm Active	Active alarm or fault of any module in a multi-module system.
MMS Module Battery Current	Battery current of this module in a multi-module system.
MMS Module Battery Time Remaining	Battery time remaining for this module in a multi-module system.
MMS Module DC Bus Voltage	DC bus voltage of this module in a multi-module system.
MMS Module Inverter Status	Multi-module inverter status of this module (on/off).
MMS Module Number	MMS module number.
MMS Module Output Source	Module output source in a multi-module system (normal/bypass/maintenance bypass/off).
MMS Module Output Voltage Status	Output voltage status of this module in multi-module system.
MMS Module Total kVA Output	Total kVA output of this module in a multi-module system.
MMS Module Total kW Output	Total kW output of this module in a multi-module system.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
MMS On Battery	The multi-module system is on battery.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Frequency	The multi-module system output frequency.
MMS Output Pct Apparent Pwr (kVA) Phase A	The multi-module system output apparent power on phase A as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase B	The multi-module system output apparent power on phase B as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase C	The multi-module system output apparent power on phase C as a percentage of the rated capacity.
MMS Output Pct Power Phase A	The multi-module system output power on phase A as a percentage of the rated capacity.
MMS Output Pct Power Phase B	The multi-module system output power on phase B as a percentage of the rated capacity.
MMS Output Pct Power Phase C	The multi-module system output power on phase C as a percentage of the rated capacity.
MMS Output Power Factor Phase A	The multi-module system output power factor for Phase A.
MMS Output Power Factor Phase B	The multi-module system output power factor for Phase B.
MMS Output Power Factor Phase C	The multi-module system output power factor for Phase C.
MMS Output Power	The sum total power of all system output modules.
MMS Overload	Multi-module system overload.
MMS Retransfer Inhibit	The critical load can not be manually retransferred from bypass to inverter.
MMS Transfer Inhibit	The critical load can not be manually transferred from inverter to bypass.
MMS UPS Battery Status	Multi-module UPS battery status.
MMS UPS Output Source	Multi-module UPS output source.
Module Accumulated Energy	Total accumulated energy output for this module, since last energy reset.
Module In Standby - Intelligent Paralleling	Module is placed into standby operation per Intelligent Paralleling.
Module Output Breaker for Module 1	Module output breaker for module 1.
Module Output Breaker for Module 2	Module output breaker for module 2.
Module Output Breaker for Module 3	Module output breaker for module 3.
Module Output Breaker for Module 4	Module output breaker for module 4.
Module Output Breaker for Module 5	Module output breaker for module 5.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Module Output Breaker for Module 6	Module output breaker for module 6.
Module Output Breaker for Module 7	Module output breaker for module 7.
Module Output Breaker for Module 8	Module output breaker for module 8.
Module Output Breaker Open	The module output breaker is open.
Multi-module System Output Voltage RMS A-B	Multi-module system output RMS voltage between phases A and B.
Multi-module System Output Voltage RMS A-N	Multi-module system output RMS voltage between phase B and Neutral.
Multi-module System Output Voltage RMS B-C	Multi-module system output RMS voltage between phases B and C.
Multi-module System Output Voltage RMS B-N	Multi-module system output RMS voltage between phase B and Neutral.
Multi-module System Output Voltage RMS C-A	Multi-module system output RMS voltage between phases C and A.
Multi-module System Output Voltage RMS C-N	Multi-module system output RMS voltage between phase C and Neutral.
Number of Modules in a MMS	The number of modules in a multi-module system.
Number of Redundant Modules	The number of redundant modules in a multi-module collective.
On Generator	A generator is supplying the power to the system.
Outlet Air Overtemperature Limit	The difference between the outlet air temperature and inlet air temperature exceeds a specified maximum temperature.
Output Amp Over User Limit-Phs A	The phase A output has exceeded the user amperage threshold.
Output Amp Over User Limit-Phs B	The phase B output has exceeded the user amperage threshold.
Output Amp Over User Limit-Phs C	The phase C output has exceeded the user amperage threshold.
Output Apparent Power Rating	Output apparent power rating.
Output Breaker (CB2/IOB)	Output breaker (CB2/IOB).
Output Breaker Operation	Indicates the type of breaker installed for the output.
Output kWh Reset Timestamp	The date/time stamp when the User kWh accumulator was last reset to zero.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Peak kW Demand Hist	The Output Peak kW Demand for the last completed programmed time interval.
Output Peak kW Demand	The Output Peak kW Demand for the programmed time interval.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Output Qualification Status	Output qualification status.
Output Real Power Rating	Output real power rating.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning.
Peak kW Demand Period	The Peak kW Demand Period.
Peak kW Demand Timestamp	The date/time stamp when the Peak kW Demand accumulator was last reset.
Power Supply Failure	Power supply failure.
PRB Delay	Programmable Relay Board activation delay time.
PRB Relay Trigger Event # 1	Programmable Relay Board Trigger Event # 1.
PRB Relay Trigger Event # 2	Programmable Relay Board Trigger Event # 2.
PRB Relay Trigger Event # 3	Programmable Relay Board Trigger Event # 3.
PRB Relay Trigger Event # 4	Programmable Relay Board Trigger Event # 4.
Precharge Circuit Failed	DC Bus precharge/discharge didn't reach specified level within a specified time.
Precharge Contactor	The Precharge Contactor is engaged to pre-charge the DC bus in preparation for starting the Rectifier.
Rectifier Failure	Rectifier failure - rectifier is off.
Rectifier Feed Breaker (RFB)	Rectifier feed breaker (RFB).
Rectifier Status	Rectifier status.
Regeneration Active	Regeneration operation is active.
Regeneration Operation Failure	Regeneration operation has been terminated due to bypass source instability or unit misoperation..
Regeneration Operation Terminated	Regeneration operation is not active.
Regeneration Time Remaining	The time remaining until the termination of regeneration mode.
Restart Delay - ECO Mode	The time delay that the conditions to activate ECO Mode must be satisfied before ECO Mode can be reactivated during an active session.
SCC Event Summary	Summary of any active user alarms or faults on the SCC.
Schedule Action - ECO Mode	This setting gives the user the ability to choose the action of a schedule entry to be either stop or start.
Schedule Day of Week - ECO Mode	This setting represents the day of the week when an associated ECO Mode schedule entry action will take effect.
Schedule Hour - ECO Mode	This setting represents the hour of the day when an associated schedule entry action will take effect.
Schedule Minute - ECO Mode	This setting represents the minute of the hour when an associated schedule entry action will take effect.
Schedule Operation State - ECO Mode	This setting gives the user the ability to either enable or disable a schedule entry if the action is Start.
Slave Fan Warning	Multiple fans have stopped operating.
Service Code Active	Service code is running.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Service Required	Unit requires servicing..
Static Bypass Switch	Static Bypass Switch state - On/Off.
Sum of MMS Output RMS Currents for Phase A	The sum of the multi-module system output RMS currents for Phase A.
Sum of MMS Output RMS Currents for Phase B	The sum of the multi-module system output RMS currents for Phase B.
Sum of MMS Output RMS Currents for Phase C	The sum of the multi-module system output RMS currents for Phase C.
System Accumulated Energy	Total accumulated energy output for the mms system, since last energy reset.
System Breaker(s) Close Failure	One or more breakers in the system failed to close.
System Breaker(s) Open Failure	One or more breakers in the system failed to open.
System Controller Error	System controller internal error.
System Date and Time	The system date and time.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input Power Source	System input power source.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Isolation Output Breaker	System isolation output breaker.
System Load Bank Breaker	System load bank breaker.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Breaker	System output breaker.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Low Power Factor	The system output power factor is low, resulting in reduced output capacity.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
System Output Maximum Amp Rating	System output maximum amperage rating.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B.
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C.
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
System UPS Module Count	Number of UPS modules in the system.
Thermal Margin Warning	The thermal margin has dropped below the threshold value.
Time Remaining - ECO Mode	Time remaining before current active ECO Mode session stops.

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Table 5.137 Liebert® EXL—Glossary (continued)

Data Label	Data Description
Total kW Hours Saved	Total kW hours saved by ECO Mode or Intelligent Paralleling.
Total System Operating Time	The cumulative operation time of the unit
UPS Module Type	UPS module type
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source.
UPS System Output Source	The UPS system's output power source.
UPSC Communication Failure	The UPSC has failed to communicate in a designated time period.

Table 5.138 Liebert® EXL S1—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Switch Gear					
Backfeed Breaker Open	Binary_Value	1	4325_1	RD	Active on Alarm
Input Breaker Open	Binary_Value	2	5973_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	3	5975_1	RD	Active on Alarm
Battery Breaker Open	Binary_Value	4	5977_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	5	5976_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	6	4176_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	7	4179_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	8	4182_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	9	4185_1	RD	Active on Alarm
Battery Circuit Breaker 5 Open	Binary_Value	10	4188_1	RD	Active on Alarm
Battery Circuit Breaker 6 Open	Binary_Value	11	4191_1	RD	Active on Alarm
Battery Circuit Breaker 7 Open	Binary_Value	12	4194_1	RD	Active on Alarm
Battery Circuit Breaker 8 Open	Binary_Value	13	4197_1	RD	Active on Alarm
Bypass Breaker Closed	Binary_Value	14	4141_1	RD	Active on Alarm
Bypass Breaker (SBB) Open	Binary_Value	15	5982_1	RD	Active on Alarm
System Events					
General Fault	Binary_Value	16	6350_1	RD	Active on Alarm
General Warning	Binary_Value	17	6353_1	RD	Active on Alarm
System Output Off	Binary_Value	18	4215_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	19	4298_1	RD	Active on Alarm
Output Off Pending	Binary_Value	20	5807_1	RD	Active on Alarm
System Restart Pending	Binary_Value	21	6357_1	RD	Active on Alarm

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Table 5.138 Liebert® EXL S1—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass out of sync	Binary_Value	22	6333_1	RD	Active on Alarm
System Output Fault	Binary_Value	23	4389_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	24	4213_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	25	5808_1	RD	Active on Alarm
Ground Fault	Binary_Value	26	5970_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	27	4122_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	28	5957_1	RD	Active on Alarm
Bypass Overload	Binary_Value	29	5798_1	RD	Active on Alarm
Inverter Overload	Binary_Value	30	5960_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	31	4147_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	32	4135_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	33	4143_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	34	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	35	4233_1	RD	Active on Alarm
Charger Failure	Binary_Value	36	6254_1	RD	Active on Alarm
Booster Failure	Binary_Value	37	6253_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	38	5154_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	39	4222_1	RD	Active on Alarm
Battery Discharging	Binary_Value	40	4168_1	RD	Active on Alarm
Battery Charging	Binary_Value	41	6354_1	RD	Active on Alarm
Battery Low	Binary_Value	42	4162_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	43	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	44	4323_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	45	4172_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	46	4171_1	RD	Active on Alarm
System Fan Failure	Binary_Value	47	4311_1	RD	Active on Alarm
Fuse Failure	Binary_Value	48	4440_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	49	4310_1	RD	Active on Alarm
Battery Under Voltage	Binary_Value	50	6180_1	RD	Active on Alarm
Output Overload	Binary_Value	51	5806_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	52	4300_1	RD	Active on Alarm
Battery Circuit Open	Binary_Value	53	6356_1	RD	Active on Alarm

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Table 5.138 Liebert® EXL S1—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
BIB Battery Breaker Power Supply Failure	Binary_Value	54	8166_1	RD	Active on Alarm
Battery Management System Power Supply Failure	Binary_Value	55	8179_1	RD	Active on Alarm
Battery Management System Rack is Offline Warning	Binary_Value	56	8194_1	RD	Active on Alarm
Battery Management System General Warning	Binary_Value	57	8195_1	RD	Active on Alarm
Battery Management System Fault	Binary_Value	58	8196_1	RD	Active on Alarm
Battery Management System End-Of-Discharge Warning	Binary_Value	59	8197_1	RD	Active on Alarm
MOB Aux Sensing Fault	Binary_Value	60	8290_1	RD	Active on Alarm
SMPS Input Power Supply Failure	Binary_Value	61	8294_1	RD	Active on Alarm
Rectifier off due to fan power not available	Binary_Value	62	8295_1	RD	Active on Alarm
SMS Stop Inverter Inhibit	Binary_Value	63	8470_1	RD	Active on Alarm
Unit In Special Capacity Mode	Binary_Value	64	8471_1	RD	Active on Alarm
Rectifier Overcurrent Warning	Binary_Value	65	8472_1	RD	Active on Alarm

Table 5.139 Liebert® EXL S1—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Information					
System Date and Time	Analog_Value	1	4293_1	RW	Units: Secs since Epoch (UTC)
System Information - Ratings					
Output Apparent Power Rating	Analog_Value	11	4264_1_1	RD	Units: kVA
System Input Nominal Frequency	Analog_Value	12	4103_1_1	RD	Units: Hz
System Input Nominal Voltage	Analog_Value	13	4102_1_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	14	4261_1_1	RD	Units: Hz
System Output Nominal Voltage	Analog_Value	15	4260_1_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	16	4104_1_1	RD	Units: A AC
System Information - DSP FW Version 1					
Firmware version	Analog_Value	26	6317_1_1	RD	—
System Information - DSP FW Version 2					
Firmware version	Analog_Value	37	6317_1_2	RD	—
System Information - DSP FW Version 3					
Firmware version	Analog_Value	41	6317_1_3	RD	—
Input					
System Input Black Out Count	Analog_Value	48	4120_1	RD	—
System Input Frequency	Analog_Value	49	4105_1	RD	Units: Hz

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS A-N	Analog_Value	50	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	51	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	52	4100_1	RD	Units: VAC
System Input RMS A-B	Analog_Value	53	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	54	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	55	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	56	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	57	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	58	4115_1	RD	Units: A AC
System Input Power Phase A	Analog_Value	59	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	60	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	61	6320_1	RD	Units: kW
UPS DC input voltage	Analog_Value	62	6321_1	RD	Units: VDC
System Input Apparent Power Phs A	Analog_Value	63	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	64	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	65	8095_1	RD	Units: kVA
Input - Rectifier Module Temperature 1					
Rectifier Phase A Temperature sensor	Analog_Value	73	6245_1_1	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10073	6245_1_1_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	74	6246_1_1	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10074	6246_1_1_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	75	6247_1_1	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10075	6247_1_1_deg_F	RD	Units: deg F
Input - Rectifier Module Temperature 2					
Rectifier Phase A Temperature sensor	Analog_Value	86	6245_1_2	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10086	6245_1_2_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	87	6246_1_2	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10087	6246_1_2_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	88	6247_1_2	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10088	6247_1_2_deg_F	RD	Units: deg F
. . .					
Input - Rectifier Module Temperature 4					

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Rectifier Phase A Temperature sensor	Analog_Value	112	6245_1_4	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10112	6245_1_4_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	113	6246_1_4	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10113	6246_1_4_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	114	6247_1_4	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10114	6247_1_4_deg_F	RD	Units: deg F
Bypass					
Bypass Input Frequency	Analog_Value	125	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-N	Analog_Value	126	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	127	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	128	4130_1	RD	Units: VAC
Bypass Input Voltage RMS A-B	Analog_Value	129	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	130	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	131	4127_1	RD	Units: VAC
Bypass Input RMS Current Phase A	Analog_Value	132	5570_1	RD	Units: A AC
Bypass Input RMS Current Phase B	Analog_Value	133	5571_1	RD	Units: A AC
Bypass Input RMS Current Phase C	Analog_Value	134	5572_1	RD	Units: A AC
Bypass Input Power Factor Phase A	Analog_Value	148	8048_1	RD	—
Bypass Input Power Factor Phase B	Analog_Value	149	8049_1	RD	—
Bypass Input Power Factor Phase C	Analog_Value	150	8050_1	RD	—
Bypass Power Phase A	Analog_Value	151	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	152	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	153	6327_1	RD	Units: kW
Battery					
Battery Volts for Cabinet	Analog_Value	142	4155_1	RD	Units: VDC
DC Bus Current	Analog_Value	143	4149_1	RD	Units: A DC
Battery Discharge Time	Analog_Value	144	4151_1	RD	Units: sec
Battery Time Remaining	Analog_Value	145	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	146	4153_1	RD	Units: %
Battery Temperature for Cabinet	Analog_Value	147	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10147	4156_1_deg_F	RD	Units: deg F
Booster Charger Module Temperature 1					

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Booster-Charger Temperature	Analog_Value	158	5963_1	RD	Units: deg C
Booster-Charger Temperature	Analog_Value	10158	5963_1_deg_F	RD	Units: deg F
Booster Charger Module Temperature 2					
Booster-Charger Temperature	Analog_Value	169	5963_2	RD	Units: deg C
Booster-Charger Temperature	Analog_Value	10169	5963_2_deg_F	RD	Units: deg F
. . .					
Booster Charger Module Temperature 8					
Booster-Charger Temperature	Analog_Value	235	5963_8	RD	Units: deg C
Booster-Charger Temperature	Analog_Value	10235	5963_8_deg_F	RD	Units: deg F
Output					
System Output Frequency	Analog_Value	246	4207_1	RD	Units: Hz
System Output Voltage RMS A-N	Analog_Value	247	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	248	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	249	4387_1	RD	Units: VAC
System Output Voltage RMS A-B	Analog_Value	250	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	251	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	252	4203_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	253	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	254	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	255	4206_1	RD	Units: A AC
System Output Power Phase A	Analog_Value	256	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	257	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	258	5959_1	RD	Units: kW
System Output Pct Power Phase A	Analog_Value	259	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	260	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	261	4225_1	RD	Units: %
System Output Apparent Power Phs A	Analog_Value	262	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	263	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	264	5870_1	RD	Units: kVA
Outside Air Temperature	Analog_Value	265	5574_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10265	5574_1_deg_F	RD	Units: deg F
Output Real Power Rating	Analog_Value	266	4265_1	RD	Units: kW

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Power Factor Phs A	Analog_Value	267	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	268	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	269	4212_1	RD	—
Output - Inverter Module Temperature 1					
Inverter Phase A Temperature sensor	Analog_Value	277	6249_1_1	RD	Units: deg C
Inverter Phase A Temperature sensor	Analog_Value	10277	6249_1_1_deg_F	RD	Units: deg F
Inverter Phase B Temperature sensor	Analog_Value	278	6250_1_1	RD	Units: deg C
Inverter Phase B Temperature sensor	Analog_Value	10278	6250_1_1_deg_F	RD	Units: deg F
Inverter Phase C temperature sensor	Analog_Value	279	6251_1_1	RD	Units: deg C
Inverter Phase C temperature sensor	Analog_Value	10279	6251_1_1_deg_F	RD	Units: deg F
Output - Inverter Module Temperature 2					
Inverter Phase A Temperature sensor	Analog_Value	290	6249_1_2	RD	Units: deg C
Inverter Phase A Temperature sensor	Analog_Value	10290	6249_1_2_deg_F	RD	Units: deg F
Inverter Phase B Temperature sensor	Analog_Value	291	6250_1_2	RD	Units: deg C
Inverter Phase B Temperature sensor	Analog_Value	10291	6250_1_2_deg_F	RD	Units: deg F
Inverter Phase C temperature sensor	Analog_Value	292	6251_1_2	RD	Units: deg C
Inverter Phase C temperature sensor	Analog_Value	10292	6251_1_2_deg_F	RD	Units: deg F
. . .					
Output - Inverter Module Temperature 4					
Inverter Phase A Temperature sensor	Analog_Value	316	6249_1_4	RD	Units: deg C
Inverter Phase A Temperature sensor	Analog_Value	10316	6249_1_4_deg_F	RD	Units: deg F
Inverter Phase B Temperature sensor	Analog_Value	317	6250_1_4	RD	Units: deg C
Inverter Phase B Temperature sensor	Analog_Value	10317	6250_1_4_deg_F	RD	Units: deg F
Inverter Phase C temperature sensor	Analog_Value	318	6251_1_4	RD	Units: deg C
Inverter Phase C temperature sensor	Analog_Value	10318	6251_1_4_deg_F	RD	Units: deg F
System Status					
Total System Operating Time	Analog_Value	329	4292_1	RD	Units: hr
Grid Services					
Critical Load GS Battery Energy Available	Analog_Value	350	8291_1	RD	Units: kWH
Under Freq GS Battery Energy Available	Analog_Value	351	8292_1	RD	Units: kWH
Over Freq GS Battery Energy Available	Analog_Value	352	8293_1	RD	Units: kWH
Fan Speeds - Static Switch Fans 1					

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Static Switch Fan Speed	Analog_Value	381	8432_1_1	RD	Units: RPM
Fan Speeds - Static Switch Fans 2					
Static Switch Fan Speed	Analog_Value	392	8432_1_2	RD	Units: RPM
Fan Speeds - Static Switch Fans 3					
Static Switch Fan Speed	Analog_Value	403	8432_1_3	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	414	8433_1_1_1	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	425	8433_1_1_2	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	458	8433_1_1_5	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	469	8433_1_2_1	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	480	8433_1_2_2	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	513	8433_1_2_5	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	524	8433_1_3_1	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	535	8433_1_3_2	RD	Units: RPM
Inverter/Rectifier Module 1 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	568	8433_1_3_5	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	579	8433_2_1_1	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	590	8433_2_1_2	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	623	8433_2_1_5	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	634	8433_2_2_1	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 2					

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Inverter/Rectifier Fan Speed	Analog_Value	645	8433_2_2_2	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	678	8433_2_2_5	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	689	8433_2_3_1	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	700	8433_2_3_2	RD	Units: RPM
Inverter/Rectifier Module 2 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	733	8433_2_3_5	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	744	8433_3_1_1	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	755	8433_3_1_2	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 1 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	788	8433_3_1_5	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	799	8433_3_2_1	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	810	8433_3_2_2	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 2 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	843	8433_3_2_5	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 1					
Inverter/Rectifier Fan Speed	Analog_Value	854	8433_3_3_1	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 2					
Inverter/Rectifier Fan Speed	Analog_Value	865	8433_3_3_2	RD	Units: RPM
Inverter/Rectifier Module 3 Inverter/Rectifier Phase 3 Inverter/Rectifier Fans 5					
Inverter/Rectifier Fan Speed	Analog_Value	898	8433_3_3_5	RD	Units: RPM
Booster Module 1 Booster Fans 1					
Booster Fan Speed	Analog_Value	909	8434_1_1	RD	Units: RPM
Booster Module 1 Booster Fans 2					
Booster Fan Speed	Analog_Value	920	8434_1_2	RD	Units: RPM
Booster Module 1 Booster Fans 5					

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Table 5.139 Liebert® EXL S1—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Booster Fan Speed	Analog_Value	953	8434_1_5	RD	Units: RPM
Booster Module 2 Booster Fans 1					
Booster Fan Speed	Analog_Value	964	8434_2_1	RD	Units: RPM
Booster Module 2 Booster Fans 2					
Booster Fan Speed	Analog_Value	975	8434_2_2	RD	Units: RPM
Booster Module 2 Booster Fans 5					
Booster Fan Speed	Analog_Value	1008	8434_2_5	RD	Units: RPM
Booster Module 3 Booster Fans 1					
Booster Fan Speed	Analog_Value	1019	8434_3_1	RD	Units: RPM
Booster Module 3 Booster Fans 2					
Booster Fan Speed	Analog_Value	1030	8434_3_2	RD	Units: RPM
Booster Module 3 Booster Fans 5					
Booster Fan Speed	Analog_Value	1063	8434_3_5	RD	Units: RPM

Table 5.140 Liebert® EXL S1—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Information					
UPS manufacturer	MultiState_Value	1	6316_1	RD	1 = Chloride 2 = Masterguard 3 = Oneac 4 = Vertiv 5 = Other
UPS Module Type	MultiState_Value	2	4303_1	RD	1 = Single Module System 2 = Module (1 + 1) 3 = Module (1 + N) 4 = Module (N + 1) 5 = System Control Cabinet 6 = Main Static Switch
System Status					
UPS Output Source	MultiState_Value	13	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer

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Table 5.140 Liebert® EXL S1—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status	MultiState_Value	14	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Inverter Synchronization Source	MultiState_Value	15	5961_1	RD	1 = External 2 = Self clock (internal) 3 = Output 4 = Bypass
UPS Operating Mode	MultiState_Value	16	5971_1	RD	1 = Idle 2 = Double Conversion Mode (VFI) 3 = Interactive Mode (VI) 4 = Stand-By Mode (VFD) 5 = CR Mode (CR) 6 = ECO Mode (DIM)
ECO Mode Operation State	MultiState_Value	17	5454_1	RD	1 = disabled 2 = enabled
Circular Redundancy Status	MultiState_Value	18	5972_1	RD	1 = Idle 2 = Core Running 3 = Core Sleeping
Static Bypass Switch	MultiState_Value	19	4736_1	RD	1 = off 2 = on
Bypass Qualification Status	MultiState_Value	20	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Charger On/Off State	MultiState_Value	21	6256_1	RD	1 = off 2 = on
Booster On/Off State	MultiState_Value	22	6255_1	RD	1 = off 2 = on
UPS battery1 status	MultiState_Value	23	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Bypass Status	MultiState_Value	24	6337_1	RD	1 = Bypass not present 2 = Bypass on 3 = Bypass off 4 = Bypass fault 5 = Bypass not ready
Inverter Status	MultiState_Value	25	6336_1	RD	1 = Inverter off 2 = Inverter turning on 3 = Inverter on 4 = Inverter stopped due to Fault 5 = Inverter in Stand By 6 = Inverter Ready and Sync 7 = Inverter Not Ready
Charger Status	MultiState_Value	26	6338_1	RD	1 = Charger in standby

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Table 5.140 Liebert® EXL S1—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Charger on 3 = Charger switched off 4 = Charger forced on 5 = Charger stopped due to a fault
Rectifier Status	MultiState_Value	27	6335_1	RD	1 = Rectifier off 2 = Rectifier turning on 3 = Rectifier on 4 = Rectifier fault
Switch Gear					
Maintenance Isolation Breaker	MultiState_Value	38	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
System Load Bank Breaker	MultiState_Value	39	4853_1	RD	1 = Open 2 = Close 3 = Not Installed
Grid Services					
GS Enabled	MultiState_Value	50	8296_1	RD	1 = Disabled 2 = Enabled
GS Paused	MultiState_Value	51	8297_1	RD	1 = Disabled 2 = Enabled
GS Stopped	MultiState_Value	52	8298_1	RD	1 = Disabled 2 = Enabled
GS Run from Battery for a defined time	MultiState_Value	53	8299_1	RD	1 = Disabled 2 = Enabled
GS Stop Charging for a defined time	MultiState_Value	54	8300_1	RD	1 = Disabled 2 = Enabled
GS Stop Charging forever	MultiState_Value	55	8301_1	RD	1 = Disabled 2 = Enabled
GS Grid Support	MultiState_Value	56	8302_1	RD	1 = Disabled 2 = Enabled
GS Grid Support Charging	MultiState_Value	57	8303_1	RD	1 = Disabled 2 = Enabled
GS Grid Support Discharging	MultiState_Value	58	8304_1	RD	1 = Disabled 2 = Enabled

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Table 5.141 Liebert® EXL S1—Glossary

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker Open	The battery circuit is open.
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98).
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open.
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open.
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open.
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open.
Battery Circuit Open	Battery Circuit Open.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Management System Power Supply Failure	The battery management system has reported a power supply failure.
Battery Manual Test In Progress	Manual battery test is in progress.
Battery Percentage Charge	The percentage of battery charge.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Under Voltage	Battery voltage is too low.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
BIB Battery Breaker Power Supply Failure	Battery Interface Board power supply has failed.
Booster Failure	Booster failure - boost is off.
Booster On/Off State	Booster on/off state.
Booster-Charger Temperature	Temperature measured at the charger stage.
Bypass Breaker (SBB) Open	The bypass circuit breaker (SBB) indicates that it is in the open position.

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Table 5.141 Liebert® EXL S1—Glossary (continued)

Data Label	Data Description
Bypass Breaker Closed	The bypass breaker is closed.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Power Factor Phase A	The bypass input Power Factor for Phase A.
Bypass Input Power Factor Phase B	The bypass input Power Factor for Phase B.
Bypass Input Power Factor Phase C	The bypass input Power Factor for Phase C.
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass out of sync	Bypass and Inverter inputs are not in sync.
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Power Phase A	The bypass power on phase A.
Bypass Power Phase B	The bypass power on phase B.
Bypass Power Phase C	The bypass power on phase C.
Bypass Qualification	Status bypass qualification status.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Status	Bypass Status
Charger Failure	Charger Failure - Charger is off.
Charger On/Off State	Charger on/off state
Charger Status	Charger Status
Circular Redundancy Status	The status of the core if the UPS is rotating the redundant core in N+1 configuration.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment overtemperature summary event.

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Table 5.141 Liebert® EXL S1—Glossary (continued)

Data Label	Data Description
Firmware version	Firmware version
Fuse Failure	A summary event indicating one or more fuse failures.
General Fault	A general fault in the UPS has been detected.
General Warning	A warning in the UPS has been detected.
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Input Breaker Open	The main input breaker is open.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter Overload	Inverter in overload fault.
Inverter Phase A	Temperature sensor Inverter temperature sensor reading for Phase A.
Inverter Phase B	Temperature sensor Inverter temperature sensor reading for Phase B.
Inverter Phase C temperature sensor	Inverter temperature sensor reading for Phase C.
Inverter Status	Inverter Status
Inverter Synchronization Source	The reference source for inverter synchronization.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Isolation Breaker	Maintenance isolation breaker
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	The output breaker is open.
Output Off Pending	Output off pending - shutdown imminent.
Output Overload	An overload exists on the output.
Output Real Power Rating	Output real power rating.
Outside Air Temperature	Ambient outside air temperature.
Rectifier Failure	Rectifier failure - rectifier is off.
Rectifier off due to fan power not available	The Rectifier is off due to fan power not available
Rectifier Overcurrent Warning	The rectifier stopped for overcurrent
Rectifier Phase A	Temperature sensor Rectifier temperature sensor reading for Phase A.
Rectifier Phase B	Temperature sensor Rectifier temperature sensor reading for Phase B.
Rectifier Phase C	Temperature sensor Rectifier temperature sensor reading for Phase C.
Rectifier Status	Rectifier Status.
SMPS Input Power Supply Failure	Bypass Input power supply or Rectifier input power supply has failed
SMS Stop Inverter Inhibit	When active a single inverter stop cannot be initiated.
Static Bypass Switch	Static Bypass Switch state - On/Off.

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Table 5.141 Liebert® EXL S1—Glossary (continued)

Data Label	Data Description
System Date and Time	The system date and time.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Power Phase A	The system input power on Phase A.
System Input Power Phase B	The system input power on Phase B.
System Input Power Phase C	The system input power on Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Load Bank Breaker	System load bank breaker.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Off	The system output is off.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.

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Table 5.141 Liebert® EXL S1—Glossary (continued)

Data Label	Data Description
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between Phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between Phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between Phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between Phases C and Neutral.
System Restart Pending	A request for UPS restart has been received.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system.
Total System Operating Time	The cumulative operation time of the unit.
UnderFreq GS Battery Energy Available	Battery energy (kWh) available for Grid Services under-frequency requests. It is computed on nominal UPS power.
Unit In Special Capacity Mode	When active in a MMS, the system will always be in capacity condition, regardless of actual load.
UPS battery1 status	UPS battery status.
UPS DC input voltage	The voltage between the positive and negative terminals of the DC bus.
UPS manufacturer	The company manufacturing this specific UPS.
UPS Module Type	UPS module type.
UPS Operating Mode	UPS Operating Mode.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.

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Table 5.142 Liebert® EXM—Controller with LCD HMI—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	4	6061_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	16	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	20	5957_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	21	4216_1	RD	Active on Alarm
Battery					
Main Battery Disconnect Open	Binary_Value	32	4173_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	33	4185_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	34	4182_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	35	4179_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	36	4176_1	RD	Active on Alarm
Battery Self Test	Binary_Value	37	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	38	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	39	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	40	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	41	4172_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	42	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	43	4323_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	44	4219_1	RD	Active on Alarm
Battery Low	Binary_Value	45	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	46	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	47	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	48	5150_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	49	4166_1	RD	Active on Alarm

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Table 5.142 Liebert® EXM—Controller with LCD HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Converter Current Limit	Binary_Value	50	6063_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	51	6065_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	52	6068_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	53	4177_1	RD	Active on Alarm
Battery Breaker 2 Open Failure	Binary_Value	54	4180_1	RD	Active on Alarm
Battery Breaker 3 Open Failure	Binary_Value	55	4183_1	RD	Active on Alarm
Battery Breaker 4 Open Failure	Binary_Value	56	4186_1	RD	Active on Alarm
Battery Equalize	Binary_Value	57	4170_1	RD	Active on Alarm
All Chargers Shutdown	Binary_Value	600	8126_1	RD	Active on Alarm
Battery System Warning	Binary_Value	601	8430_1	RD	Active on Alarm
Battery System Fault	Binary_Value	602	8431_1	RD	Active on Alarm
Battery System Communication Abnormal	Binary_Value	603	8429_1	RD	Active on Alarm
Battery Circuit Breaker 5 Open	Binary_Value	604	4188_1	RD	Active on Alarm
Battery Breaker 5 Open Failure	Binary_Value	605	4189_1	RD	Active on Alarm
Battery - Lithium-Ion Battery System					
Lithium-Ion Battery System Abnormal	Binary_Value	62	7464_1_1	RD	Active on Alarm
Lithium-Ion Battery System Disconnect Request	Binary_Value	63	7465_1_1	RD	Active on Alarm
Inverter					
Loss of Synchronization	Binary_Value	68	6062_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	79	5806_1	RD	Active on Alarm
System Output Fault	Binary_Value	80	4389_1	RD	Active on Alarm
System Output Off	Binary_Value	81	4215_1	RD	Active on Alarm
PowerModules 1					
Power Module Input Current Abnormal	Binary_Value	91	6438_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	92	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	93	4233_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	94	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	95	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	96	6059_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	97	4164_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	98	5151_1	RD	Active on Alarm

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Table 5.142 Liebert® EXM—Controller with LCD HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Balancer of DC Bus Failure	Binary_Value	99	6439_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	100	4290_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	101	6440_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	102	6441_1	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	103	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	104	5839_1	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	105	6528_1	RD	Active on Alarm
PowerModules 2					
Power Module Input Current Abnormal	Binary_Value	115	6438_2	RD	Active on Alarm
Rectifier Failure	Binary_Value	116	4295_2	RD	Active on Alarm
Inverter Failure	Binary_Value	117	4233_2	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	118	5154_2	RD	Active on Alarm
Load Sharing Fault	Binary_Value	119	5153_2	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	120	6059_2	RD	Active on Alarm
Battery Charging Error	Binary_Value	121	4164_2	RD	Active on Alarm
Battery Converter Failure	Binary_Value	122	5151_2	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	123	6439_2	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	124	4290_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	125	6440_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	126	6441_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	127	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	128	5839_2	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	129	6528_2	RD	Active on Alarm
PowerModules 20					
Power Module Input Current Abnormal	Binary_Value	547	6438_20	RD	Active on Alarm
Rectifier Failure	Binary_Value	548	4295_20	RD	Active on Alarm
Inverter Failure	Binary_Value	549	4233_20	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	550	5154_20	RD	Active on Alarm
Load Sharing Fault	Binary_Value	551	5153_20	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	552	6059_20	RD	Active on Alarm
Battery Charging Error	Binary_Value	553	4164_20	RD	Active on Alarm
Battery Converter Failure	Binary_Value	554	5151_20	RD	Active on Alarm

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Table 5.142 Liebert® EXM—Controller with LCD HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Balancer of DC Bus Failure	Binary_Value	555	6439_20	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	556	4290_20	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	557	6440_20	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	558	6441_20	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	559	5838_20	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	560	5839_20	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	561	6528_20	RD	Active on Alarm
System Status					
Loss of Redundancy	Binary_Value	571	5817_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	572	6066_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	573	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	574	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	575	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	576	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	577	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	578	4300_1	RD	Active on Alarm
MMS Overload	Binary_Value	579	4831_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	580	4823_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	581	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	582	4758_1	RD	Active on Alarm
On Generator	Binary_Value	583	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	584	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	585	4213_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	586	5770_1	RD	Active on Alarm
Hardware Mismatch	Binary_Value	587	6529_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	588	6536_1	RD	Active on Alarm
Battery - Battery Cabinets 1					
Battery Cabinet Over Temperature	Binary_Value	616	8397_1_1	RD	Active on Alarm
Battery String Open	Binary_Value	617	8398_1_1	RD	Active on Alarm
Battery - Battery Cabinets 2					
Battery Cabinet Over Temperature	Binary_Value	628	8397_1_2	RD	Active on Alarm
Battery String Open	Binary_Value	629	8398_1_2	RD	Active on Alarm

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Table 5.142 Liebert® EXM—Controller with LCD HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery - Battery Cabinets 8					
Battery Cabinet Over Temperature	Binary_Value	700	8397_1_8	RD	Active on Alarm
Battery String Open	Binary_Value	701	8398_1_8	RD	Active on Alarm

Table 5.143 Liebert® EXM—Controller with LCD HMI—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Nominal Voltage	Analog_Value	14	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	15	4103_1	RD	Units: Hz
System Input Nominal Current	Analog_Value	16	4104_1	RD	Units: A AC
System Input Brown Out Count	Analog_Value	17	4119_1	RD	
System Input Black Out Count	Analog_Value	18	4120_1	RD	
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	29	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	30	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	31	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	32	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	33	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	34	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	35	4127_1	RD	Units: VAC

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Table 5.143 Liebert® EXM—Controller with LCD HMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Nominal Voltage	Analog_Value	36	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	47	4150_1	RD	Units: min
DC Bus Current	Analog_Value	48	4149_1	RD	Units: A DC
Time Until Next Auto Battery Test	Analog_Value	49	5804_1	RD	Units: min
Battery Percentage Charge	Analog_Value	50	4153_1	RD	Units: %
Number of Discharge Cycles	Analog_Value	51	5845_1	RD	
Accumulated Discharge Time	Analog_Value	52	5846_1	RD	Units: hr
Low Battery Warning Time	Analog_Value	53	5802_1	RD	Units: min
Battery Self Test Cycle Time	Analog_Value	54	5991_1	RD	Units: day
DC Bus Voltage	Analog_Value	55	4148_1	RD	Units: VDC
Battery Temperature	Analog_Value	56	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10056	5853_1_deg_F	RD	Units: deg F
Battery - Battery Cabinets 1					
Battery Temperature for Cabinet	Analog_Value	67	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10067	4156_1_1_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	68	4155_1_1	RD	Units: VDC
Battery - Battery Cabinets 2					
Battery Temperature for Cabinet	Analog_Value	79	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10079	4156_1_2_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	80	4155_1_2	RD	Units: VDC
Battery - Battery Cabinets 8					
Battery Temperature for Cabinet	Analog_Value	151	4156_1_8	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10151	4156_1_8_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	152	4155_1_8	RD	Units: VDC
Output					
System Output Voltage RMS A-N	Analog_Value	163	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	164	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	165	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	166	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	167	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	168	4206_1	RD	Units: A AC

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Table 5.143 Liebert® EXM—Controller with LCD HMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Frequency	Analog_Value	169	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	170	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	171	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	172	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	173	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	174	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	175	4212_1	RD	
System Output Pct Power Phase A	Analog_Value	176	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	177	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	178	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	179	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	180	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	181	5159_1	RD	
Output Current Crest Factor Phs B	Analog_Value	182	5160_1	RD	
Output Current Crest Factor Phs C	Analog_Value	183	5161_1	RD	
System Output Power Phase A	Analog_Value	184	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	185	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	186	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	187	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	188	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	189	5870_1	RD	Units: kVA
System Output Power	Analog_Value	190	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	191	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	192	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	193	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	194	4228_1	RD	Units: %
System Output Nominal Voltage	Analog_Value	195	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	196	4261_1	RD	Units: Hz
BypassControlModule					
Power Module Bypass Input Frequency	Analog_Value	207	6442_1	RD	Units: Hz
Power Module Bypass Input Voltage RMS A-N	Analog_Value	208	6443_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-N	Analog_Value	209	6444_1	RD	Units: VAC

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Table 5.143 Liebert® EXM—Controller with LCD HMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Bypass Input Voltage RMS C-N	Analog_Value	210	6445_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS A-B	Analog_Value	211	6446_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-C	Analog_Value	212	6447_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-A	Analog_Value	213	6448_1	RD	Units: VAC
System Status					
Number Of Active Power Modules	Analog_Value	224	5824_1	RD	
Number of Installed Power Modules	Analog_Value	225	5823_1	RD	
Inlet Air Temperature	Analog_Value	226	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10226	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	227	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	238	4293_1	RW	Units: Secs since Epoch(UTC)
Total System Operating Time	Analog_Value	239	4292_1	RD	Units: hr
System Capacity	Analog_Value	240	5821_1	RD	Units: kVA

Table 5.144 Liebert® EXM—Controller with LCD HMI—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Breaker	MultiState_ Value	1	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
External Bypass Breaker	MultiState_ Value	12	6057_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery					
UPS Battery Status	MultiState_ Value	23	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery charge status.	MultiState_ Value	24	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_ Value	25	5803_1	RD	1 = disabled 2 = enabled
Battery - Lithium-Ion Battery System					

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Table 5.144 Liebert® EXM—Controller with LCD HMI—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Lithium-Ion Battery System Status	MultiState_ Value	32	7466_1_1	RD	1 = offline 2 = online
Inverter					
Output Breaker	MultiState_ Value	36	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Inverter On/Off State	MultiState_ Value	37	4746_1	RD	1 = off 2 = on
PowerModules 1					
Power Module Sleep Status	MultiState_ Value	48	6437_1	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_ Value	49	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_ Value	50	5864_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module Charger State	MultiState_ Value	51	8428_1	RD	1 = off 2 = on
PowerModules 2					
Power Module Sleep Status	MultiState_ Value	61	6437_2	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_ Value	62	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_ Value	63	5864_2	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module Charger State	MultiState_ Value	64	8428_2	RD	1 = off 2 = on
PowerModules 20					
Power Module Sleep Status	MultiState_ Value	295	6437_20	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_ Value	296	5833_20	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_ Value	297	5864_20	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module Charger State	MultiState_ Value	298	8428_20	RD	1 = off 2 = on

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Table 5.144 Liebert® EXM—Controller with LCD HMI—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status					
System Set To Operate With	MultiState_ Value	308	5820_1	RD	1 = No Redundancy 2 = Redundancy
Maintenance Bypass Breaker	MultiState_ Value	309	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
ECO Mode Operation State	MultiState_ Value	310	5454_1	RD	1 = disabled 2 = enabled
(Deprecated) UPS Application Mode	MultiState_ Value	311	6053_1	RD	1 = UPS Mode 2 = Frequency converter mode
MMS UPS Output Source	MultiState_ Value	312	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	MultiState_ Value	313	5448_1	RD	1 = disabled 2 = enabled
Application Mode For UPS	MultiState_ Value	314	6537_1	RD	1 = UPS Mode 2 = Frequency Converter Mode 3 = Intelligent Paralleling Mode 4 = Intelligent Paralleling Mode Demo 5 = ECO Mode 6 = Intelligent ECO Mode 7 = Intelligent ECO Mode Demo 8 = Testing Mode 9 = Regen Mode 10 = Power Conditioner Mode
System Configuration					
UPS Output Source	MultiState_ Value	324	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_ Value	325	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary

Data Label	Data Description
(Deprecated) UPS Application Mode	(Deprecated) UPS application mode. This data point has been replaced and should no longer be used.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
All Chargers Shutdown	All chargers in system are shut down to avoid incompatibility in external charger application, or to avoid over-charging in Lithium-ion battery application.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker 5 Open Failure	Battery circuit breaker 5 failed to open
Battery Cabinet Over Temperature	Battery Cabinet Over Temperature
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery String Open	Battery String Open
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Lithium-Ion Battery System Disconnect Request	A request to disconnect the Lithium-Ion battery system was received.
Lithium-Ion Battery System Status	Lithium-Ion Battery System Status
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multi-module system overload
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Bypass Input Frequency	The bypass input frequency detected by power module
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral detected by power module
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module
Power Module Charger State	The status of charger in this power module in order to detect battery connection status.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
System Date and Time	The system date and time
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C

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Table 5.145 Liebert® EXM—Controller with LCD HMI—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 5.146 Liebert® EXM—Controller with Touchscreen HMI—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	4	6061_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm

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Table 5.146 Liebert® EXM—Controller with Touchscreen HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Static Switch Unavailable	Binary_Value	16	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	20	5957_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	21	4216_1	RD	Active on Alarm
Battery					
Power Module Input Current Abnormal	Binary_Value	91	6438_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	92	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	93	4233_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	94	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	95	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	96	6059_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	97	4164_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	98	5151_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	99	6439_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	100	4290_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	101	6440_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	102	6441_1	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	103	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	104	5839_1	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	105	6528_1	RD	Active on Alarm
PowerModules 2					
Power Module Input Current Abnormal	Binary_Value	115	6438_2	RD	Active on Alarm
Rectifier Failure	Binary_Value	116	4295_2	RD	Active on Alarm
Inverter Failure	Binary_Value	117	4233_2	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	118	5154_2	RD	Active on Alarm
Load Sharing Fault	Binary_Value	119	5153_2	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	120	6059_2	RD	Active on Alarm
Battery Charging Error	Binary_Value	121	4164_2	RD	Active on Alarm
Battery Converter Failure	Binary_Value	122	5151_2	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	123	6439_2	RD	Active on Alarm

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Table 5.146 Liebert® EXM—Controller with Touchscreen HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Inverter Shutdown - Overload	Binary_Value	124	4290_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	125	6440_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	126	6441_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	127	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	128	5839_2	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	129	6528_2	RD	Active on Alarm
PowerModules 20					
Power Module Input Current Abnormal	Binary_Value	547	6438_20	RD	Active on Alarm
Rectifier Failure	Binary_Value	548	4295_20	RD	Active on Alarm
Inverter Failure	Binary_Value	549	4233_20	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	550	5154_20	RD	Active on Alarm
Load Sharing Fault	Binary_Value	551	5153_20	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	552	6059_20	RD	Active on Alarm
Battery Charging Error	Binary_Value	553	4164_20	RD	Active on Alarm
Battery Converter Failure	Binary_Value	554	5151_20	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	555	6439_20	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	556	4290_20	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	557	6440_20	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	558	6441_20	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	559	5838_20	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	560	5839_20	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	561	6528_20	RD	Active on Alarm
System Status					
Loss of Redundancy	Binary_Value	571	5817_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	572	6066_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	573	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	574	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	575	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	576	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	577	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	578	4300_1	RD	Active on Alarm
MMS Overload	Binary_Value	579	4831_1	RD	Active on Alarm

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Table 5.146 Liebert® EXM—Controller with Touchscreen HMI—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Parallel Comm Warning	Binary_Value	580	4823_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	581	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	582	4758_1	RD	Active on Alarm
On Generator	Binary_Value	583	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	584	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	585	4213_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	586	5770_1	RD	Active on Alarm
Hardware Mismatch	Binary_Value	587	6529_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	588	6536_1	RD	Active on Alarm

Table 5.147 Liebert® EXM—Controller with Touchscreen HMI—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Nominal Voltage	Analog_Value	14	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	15	4103_1	RD	Units: Hz
System Input Nominal Current	Analog_Value	16	4104_1	RD	Units: A AC
System Input Brown Out Count	Analog_Value	17	4119_1	RD	
System Input Black Out Count	Analog_Value	18	4120_1	RD	
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	29	4128_1	RD	Units: VAC

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Table 5.147 Liebert® EXM—Controller with Touchscreen HMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Input Voltage RMS B-N	Analog_Value	30	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	31	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	32	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	33	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	34	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	35	4127_1	RD	Units: VAC
Bypass Nominal Voltage	Analog_Value	36	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	47	4150_1	RD	Units: min
DC Bus Current	Analog_Value	48	4149_1	RD	Units: A DC
Time Until Next Auto Battery Test	Analog_Value	49	5804_1	RD	Units: min
Battery Percentage Charge	Analog_Value	50	4153_1	RD	Units: %
Number of Discharge Cycles	Analog_Value	51	5845_1	RD	
Accumulated Discharge Time	Analog_Value	52	5846_1	RD	Units: hr
Low Battery Warning Time	Analog_Value	53	5802_1	RD	Units: min
Battery Self Test Cycle Time	Analog_Value	54	5991_1	RD	Units: day
DC Bus Voltage	Analog_Value	55	4148_1	RD	Units: VDC
Battery Temperature	Analog_Value	56	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10056	5853_1_deg_F	RD	Units: deg F
Battery - Battery Cabinets 1					
Battery Temperature for Cabinet	Analog_Value	67	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10067	4156_1_1_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	68	4155_1_1	RD	Units: VDC
Battery - Battery Cabinets 2					
Battery Temperature for Cabinet	Analog_Value	79	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10079	4156_1_2_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	80	4155_1_2	RD	Units: VDC
Battery - Battery Cabinets 8					
Battery Temperature for Cabinet	Analog_Value	151	4156_1_8	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10151	4156_1_8_deg_F	RD	Units: deg F
Battery Volts for Cabinet	Analog_Value	152	4155_1_8	RD	Units: VDC
Output					

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Table 5.147 Liebert® EXM—Controller with Touchscreen HMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Voltage RMS A-N	Analog_Value	163	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	164	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	165	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	166	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	167	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	168	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	169	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	170	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	171	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	172	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	173	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	174	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	175	4212_1	RD	—
System Output Pct Power Phase A	Analog_Value	176	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	177	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	178	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	179	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	180	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	181	5159_1	RD	—
Output Current Crest Factor Phs B	Analog_Value	182	5160_1	RD	—
Output Current Crest Factor Phs C	Analog_Value	183	5161_1	RD	—
System Output Power Phase A	Analog_Value	184	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	185	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	186	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	187	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	188	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	189	5870_1	RD	Units: kVA
System Output Power	Analog_Value	190	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	191	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	192	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	193	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	194	4228_1	RD	Units: %

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Table 5.147 Liebert® EXM—Controller with Touchscreen HMI—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Nominal Voltage	Analog_Value	195	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	196	4261_1	RD	Units: Hz
Bypass Control Module					
Power Module Bypass Input Frequency	Analog_Value	207	6442_1	RD	Units: Hz
Power Module Bypass Input Voltage RMS A-N	Analog_Value	208	6443_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-N	Analog_Value	209	6444_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-N	Analog_Value	210	6445_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS A-B	Analog_Value	211	6446_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS B-C	Analog_Value	212	6447_1	RD	Units: VAC
Power Module Bypass Input Voltage RMS C-A	Analog_Value	213	6448_1	RD	Units: VAC
System Status					
Number Of Active Power Modules	Analog_Value	224	5824_1	RD	—
Number of Installed Power Modules	Analog_Value	225	5823_1	RD	—
Inlet Air Temperature	Analog_Value	226	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10226	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	227	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	238	4293_1	RW	Units: Secs since Epoch(UTC)
Total System Operating Time	Analog_Value	239	4292_1	RD	Units: hr
System Capacity	Analog_Value	240	5821_1	RD	Units: kVA

Table 5.148 Liebert® EXM—Controller with Touchscreen HMI—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Breaker	MultiState_ Value	1	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
External Bypass Breaker	MultiState_ Value	12	6057_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery					
					1 = Unknown 2 = Normal

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Table 5.148 Liebert® EXM—Controller with Touchscreen HMI—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
UPS Battery Status	MultiState_ Value	23	4871_1	RD	3 = Low 4 = Depleted
Battery charge status.	MultiState_ Value	24	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_ Value	25	5803_1	RD	1 = disabled 2 = enabled
Inverter					
Output Breaker	MultiState_ Value	36	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Inverter On/Off State	MultiState_ Value	37	4746_1	RD	1 = off 2 = on
Power Modules 1					
Power Module Sleep Status	MultiState_ Value	48	6437_1	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_ Value	49	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_ Value	50	5864_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Modules 2					
Power Module Sleep Status	MultiState_ Value	61	6437_2	RD	1 = Sleeping 2 = Not Sleeping
Module Operating Status	MultiState_ Value	62	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_ Value	63	5864_2	RD	1 = Inverter Inactive 2 = Inverter Active
. . .					
Power Modules 20					
Power Module Sleep Status	MultiState_ Value	295	6437_20	RD	1 = Sleeping 2 = Not Sleeping

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Table 5.148 Liebert® EXM—Controller with Touchscreen HMI—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Module Operating Status	MultiState_ Value	296	5833_20	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_ Value	297	5864_20	RD	1 = Inverter Inactive 2 = Inverter Active
System Status					
System Set To Operate With	MultiState_ Value	308	5820_1	RD	1 = No Redundancy 2 = Redundancy
Maintenance Bypass Breaker	MultiState_ Value	309	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
ECO Mode Operation State	MultiState_ Value	310	5454_1	RD	1 = disabled 2 = enabled
(Deprecated) UPS Application Mode	MultiState_ Value	311	6053_1	RD	1 = UPS Mode 2 = Frequency converter mode
MMS UPS Output Source	MultiState_ Value	312	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	MultiState_ Value	313	5448_1	RD	1 = disabled 2 = enabled
Application Mode For UPS	MultiState_ Value	314	6537_1	RD	1 = UPS Mode 2 = Frequency Converter Mode 3 = Intelligent Paralleling Mode 4 = Intelligent Paralleling Mode Demo 5 = ECO Mode 6 = Intelligent ECO Mode 7 = Intelligent ECO Mode Demo 8 = Testing Mode 9 = Regen Mode 10 = Power Conditioner Mode

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Table 5.148 Liebert® EXM—Controller with Touchscreen HMI—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Configuration					
UPS Output Source	MultiState_ Value	324	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_ Value	325	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary

Data Label	Data Description
(Deprecated) UPS Application Mode	(Deprecated) UPS application mode. This data point has been replaced and should no longer be used.
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open.
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open.
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open.
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open.
Battery Capacity Low	Battery capacity is low.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Manual Test In Progress	Manual battery test is in progress.
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Percentage Charge	The percentage of battery charge.
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature	The highest battery temperature among all Battery Cabinets.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected.
Bypass Input Frequency	The bypass input frequency.

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Bypass Breaker	The status of the external bypass breaker.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air.
Input Breaker	Input breaker.
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state.

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
LBS Active	The Load Bus Sync option is active.
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Disconnect Open	Main battery disconnect is open.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Power	The sum total power of all system output modules.
MMS Overload	Multi-module system overload.
MMS UPS Output Source	Multi-module UPS output source.
Module Operating Status	The operating status for this Power Module.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system.
Output Breaker	Output breaker.
Output Current Crest Factor Phs A	Output current crest factor of Phase A.

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed.
Power Module Bypass Input Frequency	The bypass input frequency detected by power module.
Power Module Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B detected by power module.
Power Module Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral detected by power module.
Power Module Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C detected by power module.
Power Module Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral detected by power module.
Power Module Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A detected by power module.
Power Module Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral detected by power module.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module.
Power Module Input Current Abnormal	Input current of the power module is abnormal.
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure.
Power Module Sleep Status	Sleep status of the Power module.
Rectifier Failure	Rectifier failure - rectifier is off.
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.
System Input Power Factor Phs B	The system input power factor for Phase B.
System Input Power Factor Phs C	The system input power factor for Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power Phs A	System output apparent power on phase A.
System Output Apparent Power Phs B	System output apparent power on phase B.
System Output Apparent Power Phs C	System output apparent power on phase C.

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.

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Table 5.149 Liebert® EXM—Controller with Touchscreen HMI—Glossary (continued)

Data Label	Data Description
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral.
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Status	The operating status for the system.
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit.
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation.

Table 5.150 Liebert® EXM2/APM Plus—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Data Label
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	4	6061_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm

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Table 5.150 Liebert® EXM2/APM Plus—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Data Label
Bypass Static Switch Unavailable	Binary_Value	16	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	20	4216_1	RD	Active on Alarm
Bypass Control Module Not Available	Binary_Value	21	8200_1	RD	Active on Alarm
Bypass Module Not Available	Binary_Value	22	8201_1	RD	Active on Alarm
Bypass controlling the SCR autonomously					
Bypass Unable to Trace	Binary_Value	24	8283_1	RD	Active on Alarm
Battery					
Battery Circuit Breaker 1 Open	Binary_Value	35	4176_1	RD	Active on Alarm
Battery Self Test	Binary_Value	36	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	37	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	38	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	39	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	40	4172_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	41	4323_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	42	4219_1	RD	Active on Alarm
Battery Low	Binary_Value	43	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	44	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	45	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	46	5150_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	47	4166_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	48	6063_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	49	6065_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	50	6068_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	51	4177_1	RD	Active on Alarm
Battery Equalize	Binary_Value	52	4170_1	RD	Active on Alarm
Battery Over Voltage	Binary_Value	53	5874_1	RD	Active on Alarm
Battery Temp Abnormal	Binary_Value	54	8273_1	RD	Active on Alarm
Battery Management System Rack is Offline Warning	Binary_Value	55	8194_1	RD	Active on Alarm
Battery Management System General Warning	Binary_Value	56	8195_1	RD	Active on Alarm

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Table 5.150 Liebert® EXM2/APM Plus—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Data Label
Battery Management System Fault	Binary_Value	57	8196_1	RD	Active on Alarm
Battery System Communication Abnormal	Binary_Value	58	8429_1	RD	Active on Alarm
Battery System Warning	Binary_Value	59	8430_1	RD	Active on Alarm
Battery System Fault	Binary_Value	60	8431_1	RD	Active on Alarm
Inverter					
Loss of Synchronization	Binary_Value	68	6062_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	79	5806_1	RD	Active on Alarm
System Output Fault	Binary_Value	80	4389_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	81	8284_1	RD	Active on Alarm
Power Modules 1					
Power Module Input Current Abnormal	Binary_Value	92	6438_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	93	8285_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	94	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	95	4233_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	96	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	97	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	98	6059_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	99	4164_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	100	5151_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	101	6439_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	102	4290_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	103	6440_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	104	6441_1	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	105	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	106	5839_1	RD	Active on Alarm
Power Module Communication status	Binary_Value	107	8098_1	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	108	6528_1	RD	Active on Alarm
Discharger Shutdown	Binary_Value	109	8274_1	RD	Active on Alarm
Power Modules 2					
Power Module Input Current Abnormal	Binary_Value	120	6438_2	RD	Active on Alarm
Power Module Input Current High	Binary_Value	121	8285_2	RD	Active on Alarm

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Table 5.150 Liebert® EXM2/APM Plus—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Data Label
Rectifier Failure	Binary_Value	122	4295_2	RD	Active on Alarm
Inverter Failure	Binary_Value	123	4233_2	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	124	5154_2	RD	Active on Alarm
Load Sharing Fault	Binary_Value	125	5153_2	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	126	6059_2	RD	Active on Alarm
Battery Charging Error	Binary_Value	127	4164_2	RD	Active on Alarm
Battery Converter Failure	Binary_Value	128	5151_2	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	129	6439_2	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	130	4290_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	131	6440_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	132	6441_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	133	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	134	5839_2	RD	Active on Alarm
Power Module Communication status	Binary_Value	135	8098_2	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	136	6528_2	RD	Active on Alarm
Discharger Shutdown	Binary_Value	137	8274_2	RD	Active on Alarm
Power Modules 20					
Power Module Input Current Abnormal	Binary_Value	624	6438_20	RD	Active on Alarm
Power Module Input Current High	Binary_Value	625	8285_20	RD	Active on Alarm
Rectifier Failure	Binary_Value	626	4295_20	RD	Active on Alarm
Inverter Failure	Binary_Value	627	4233_20	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	628	5154_20	RD	Active on Alarm
Load Sharing Fault	Binary_Value	629	5153_20	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	630	6059_20	RD	Active on Alarm
Battery Charging Error	Binary_Value	631	4164_20	RD	Active on Alarm
Battery Converter Failure	Binary_Value	632	5151_20	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	633	6439_20	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	634	4290_20	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	635	6440_20	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	636	6441_20	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	637	5838_20	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	638	5839_20	RD	Active on Alarm

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Table 5.150 Liebert® EXM2/APM Plus—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Data Label
Power Module Communication status	Binary_Value	639	8098_20	RD	Active on Alarm
Power Module Lever Unlocked	Binary_Value	640	6528_20	RD	Active on Alarm
Discharger Shutdown	Binary_Value	641	8274_20	RD	Active on Alarm
System Status					
Loss of Redundancy	Binary_Value	652	5817_1	RD	Active on Alarm
Hardware Mismatch	Binary_Value	653	6529_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	654	6066_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	655	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	656	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	657	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	658	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	659	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	660	4300_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	661	4823_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	662	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	663	4758_1	RD	Active on Alarm
On Generator	Binary_Value	664	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	665	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	666	4213_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	667	6536_1	RD	Active on Alarm
Fuse Failure	Binary_Value	668	4440_1	RD	Active on Alarm
Ground Fault	Binary_Value	669	5970_1	RD	Active on Alarm
System Fan Failure	Binary_Value	670	4311_1	RD	Active on Alarm
Parameter Configuration Failed	Binary_Value	671	8286_1	RD	Active on Alarm
System Output Off	Binary_Value	672	4215_1	RD	Active on Alarm
Output Disabled	Binary_Value	673	8287_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	674	5770_1	RD	Active on Alarm
ECO mode Inhibited	Binary_Value	675	8100_1	RD	Active on Alarm
Inverter Transfer Inhibit - Ext	Binary_Value	676	4289_1	RD	Active on Alarm

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Table 5.151 Liebert®EXM2/APM Plus—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Power Phase A	Analog_Value	14	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	15	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	16	6320_1	RD	Units: kW
System Input Apparent Power Phs A	Analog_Value	17	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	18	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	19	8095_1	RD	Units: kVA
System Input Nominal Voltage	Analog_Value	20	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	21	4104_1	RD	Units: A AC
System Input Brown Out Count	Analog_Value	22	4119_1	RD	
System Input Black Out Count	Analog_Value	23	4120_1	RD	
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	34	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	35	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	36	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	37	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	38	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	39	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	40	4127_1	RD	Units: VAC

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Table 5.151 Liebert®EXM2/APM Plus—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Power Phase A	Analog_Value	41	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	42	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	43	6327_1	RD	Units: kW
Bypass Apparent Power Phase A	Analog_Value	44	6328_1	RD	Units: kVA
Bypass Apparent Power Phase B	Analog_Value	45	6329_1	RD	Units: kVA
Bypass Apparent Power Phase C	Analog_Value	46	6330_1	RD	Units: kVA
Bypass Nominal Voltage	Analog_Value	47	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	58	4150_1	RD	Units: min
DC Bus Current	Analog_Value	59	4149_1	RD	Units: A DC
Time Until Next Auto Battery Test	Analog_Value	60	5804_1	RD	Units: min
Battery Percentage Charge	Analog_Value	61	4153_1	RD	Units: %
Number of Discharge Cycles	Analog_Value	62	5845_1	RD	
Accumulated Discharge Time	Analog_Value	63	5846_1	RD	Units: hr
Low Battery Warning Time	Analog_Value	64	5802_1	RD	Units: min
Battery Self Test Cycle Time	Analog_Value	65	5991_1	RD	Units: day
DC Bus Voltage	Analog_Value	66	4148_1	RD	Units: VDC
Battery Temperature	Analog_Value	67	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10067	5853_1_deg_F	RD	Units: deg F
Positive DC Bus Voltage	Analog_Value	68	8281_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	69	8282_1	RD	Units: VDC
Battery - Battery Cabinets 1					
Battery Temperature for Cabinet	Analog_Value	78	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10078	4156_1_1_deg_F	RD	Units: deg F
Battery - Battery Cabinets 2					
Battery Temperature for Cabinet	Analog_Value	89	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10089	4156_1_2_deg_F	RD	Units: deg F
.Battery - Battery Cabinets 8					
Battery Temperature for Cabinet	Analog_Value	155	4156_1_8	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10155	4156_1_8_deg_F	RD	Units: deg F
Battery - Battery Cabinets 9					
Battery Temperature for Cabinet	Analog_Value	238	4156_1_9	RD	Units: deg C

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Table 5.151 Liebert®EXM2/APM Plus—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Temperature for Cabinet	Analog_Value	10238	4156_1_9_deg_F	RD	Units: deg F
Battery - Battery Cabinets 10					
Battery Temperature for Cabinet	Analog_Value	249	4156_1_10	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10249	4156_1_10_deg_F	RD	Units: deg F
Battery - Battery Cabinets 20					
Battery Temperature for Cabinet	Analog_Value	359	4156_1_20	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10359	4156_1_20_deg_F	RD	Units: deg F
Output					
System Output Voltage RMS A-N	Analog_Value	166	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	167	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	168	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	169	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	170	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	171	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	172	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	173	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	174	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	175	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	176	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	177	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	178	4212_1	RD	
System Output Pct Power Phase A	Analog_Value	179	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	180	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	181	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	182	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	183	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	184	5159_1	RD	
Output Current Crest Factor Phs B	Analog_Value	185	5160_1	RD	
Output Current Crest Factor Phs C	Analog_Value	186	5161_1	RD	
System Output Power Phase A	Analog_Value	187	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	188	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	189	5959_1	RD	Units: kW

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Table 5.151 Liebert®EXM2/APM Plus—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Apparent Power Phs A	Analog_Value	190	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	191	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	192	5870_1	RD	Units: kVA
System Output Power	Analog_Value	193	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	194	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	195	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	196	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	197	4228_1	RD	Units: %
ECO Suspended Time Remaining	Analog_Value	198	8097_1	RD	Units: sec
System Output Nominal Voltage	Analog_Value	199	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	200	4261_1	RD	Units: Hz
System Status					
Number Of Active Power Modules	Analog_Value	211	5824_1	RD	
Number of Installed Power Modules	Analog_Value	212	5823_1	RD	
Inlet Air Temperature	Analog_Value	213	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10213	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	214	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	225	4293_1	RW	Units: Secs since Epoch(UTC)
Total System Operating Time	Analog_Value	226	4292_1	RD	Units: hr
System Capacity	Analog_Value	227	5821_1	RD	Units: kVA

Table 5.152 Liebert® EXM2/APM Plus—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Breaker	MultiState_Value	1	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
Internal Bypass Breaker	MultiState_Value	12	4769_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery					

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Table 5.152 Liebert® EXM2/APM Plus—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Automatic Battery Test	MultiState_Value	23	5803_1	RD	1 = disabled 2 = enabled
UPS Battery Status	MultiState_Value	24	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	25	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Inverter					
Output Breaker	MultiState_Value	36	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Inverter On/Off State	MultiState_Value	37	4746_1	RD	1 = off 2 = on
Power Modules 1					
Power Module Sleep Status	MultiState_Value	48	6437_1	RD	1 = Sleeping 2 = Not Sleeping
Power Module Ready Status	MultiState_Value	49	8099_1	RD	1 = Not ready 2 = Ready
Module Operating Status	MultiState_Value	50	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	51	5864_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Modules 2					
Power Module Sleep Status	MultiState_Value	62	6437_2	RD	1 = Sleeping 2 = Not Sleeping
Power Module Ready Status	MultiState_Value	63	8099_2	RD	1 = Not ready 2 = Ready
Module Operating Status	MultiState_Value	64	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	65	5864_2	RD	1 = Inverter Inactive 2 = Inverter Active
Power Modules 20					
Power Module Sleep Status	MultiState_Value	314	6437_20	RD	1 = Sleeping 2 = Not Sleeping

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Table 5.152 Liebert® EXM2/APM Plus—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Ready Status	MultiState_Value	315	8099_20	RD	1 = Not ready 2 = Ready
Module Operating Status	MultiState_Value	316	5833_20	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Inverter Status	MultiState_Value	317	5864_20	RD	1 = Inverter Inactive 2 = Inverter Active
System Status					
Application Mode For UPS	MultiState_Value	328	8275_1	RD	1 = UPS Mode 2 = Frequency Converter Mode 3 = Intelligent Paralleling Mode 4 = Intelligent Paralleling Mode Demo 5 = ECO Mode 6 = Intelligent ECO Mode 7 = Intelligent ECO Mode Demo 8 = Testing Mode 9 = Regen Mode 10 = Power Conditioner Mode 11 = Frequency Converter Mode without Battery 12 = Dynamic Online Mode 13 = Dynamic Online Mode Demo
System Set To Operate With	MultiState_Value	329	5820_1	RD	1 = No Redundancy 2 = Redundancy
Maintenance Bypass Breaker	MultiState_Value	330	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
MMS UPS Output Source	MultiState_Value	331	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Configuration					
UPS Output Source	MultiState_Value	342	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	343	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

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Table 5.153 Liebert® EXM2/APM Plus—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Capacity Low	Battery capacity is low
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charge Status	Battery charge status.
Battery Charging Error	The battery is not charging properly
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Management System Fault	The Battery Management System has reported a Fault
Battery Management System General Warning	The Battery Management System has reported a General Warning
Battery Management System Rack is Offline Warning	The Battery Management System has reported a rack-is-offline warning
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temp Abnormal	Battery temperature is abnormal.
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature	The highest battery temperature among all Battery Cabinets
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Control Module Not Available	The bypass control module is not available.
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Module Not Available	The bypass module is not available.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Unable to Trace	The voltage amplitude or frequency of bypass is out of the range of trace.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Discharger Shutdown	A condition is present that prevents the Battery Discharger from working.
ECO mode Inhibited	ECO mode is inhibited due to an external inhibit signal.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Breaker	Input breaker
Input Source Backfeed	The battery is backfeeding the input source.
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Load Impact Transfer	On bypass as result of load impact.

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS UPS Output Source	Multi-module UPS output source
Module Operating Status	The operating status for this Power Module.
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Breaker Open	UPS internal or external output breaker is open.
Output Breaker	Output breaker
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Disabled	Output Disabled
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Lever Unlocked	The power module is inactive because the lever is in the unlocked position.
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Ready Status	Status of the inverter. Active means the inverter is ready to power the load. Inactive means the inverter is not ready to power the load.
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.

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Table 5.153 Liebert® EXM2/APM Plus—Glossary (continued)

Data Label	Data Description
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
User Operation Invalid	User attempted an invalid operation.

Table 5.154 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	4	6061_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	16	4143_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	20	5957_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	21	4216_1	RD	Active on Alarm
Battery					
Battery Circuit Breaker 1 Open	Binary_Value	32	4176_1	RD	Active on Alarm
Battery Self Test	Binary_Value	33	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	34	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	35	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	36	4171_1	RD	Active on Alarm

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Table 5.154 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Auto Test In Progress	Binary_Value	37	4172_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	38	4323_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	39	4219_1	RD	Active on Alarm
Battery Low	Binary_Value	40	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	41	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	42	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	43	5150_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	44	4166_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	45	6063_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	46	6065_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	47	4177_1	RD	Active on Alarm
Battery Equalize	Binary_Value	48	4170_1	RD	Active on Alarm
Battery Deep Discharge	Binary_Value	49	7164_1	RW	Active on Alarm
Inverter					
Loss of Synchronization	Binary_Value	59	6062_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	70	5806_1	RD	Active on Alarm
System Output Fault	Binary_Value	71	4389_1	RD	Active on Alarm
System Output Off	Binary_Value	72	4215_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	73	5808_1	RD	Active on Alarm
PowerModules 1					
Power Module Input Current Abnormal	Binary_Value	83	6438_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	84	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	85	4233_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	86	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	87	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	88	6059_1	RD	Active on Alarm
Battery Charging Error	Binary_Value	89	4164_1	RD	Active on Alarm
Battery Converter Failure	Binary_Value	90	5151_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	91	4290_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	92	6440_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	93	6441_1	RD	Active on Alarm

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Table 5.154 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Fan Fault	Binary_Value	94	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	95	5839_1	RD	Active on Alarm
PowerModules 2					
Power Module Input Current Abnormal	Binary_Value	106	6438_2	RD	Active on Alarm
Rectifier Failure	Binary_Value	107	4295_2	RD	Active on Alarm
Inverter Failure	Binary_Value	108	4233_2	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	109	5154_2	RD	Active on Alarm
Load Sharing Fault	Binary_Value	110	5153_2	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	111	6059_2	RD	Active on Alarm
Battery Charging Error	Binary_Value	112	4164_2	RD	Active on Alarm
Battery Converter Failure	Binary_Value	113	5151_2	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	114	4290_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	115	6440_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	116	6441_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	117	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	118	5839_2	RD	Active on Alarm
System Status					
Loss of Redundancy	Binary_Value	129	5817_1	RD	Active on Alarm
Hardware Mismatch	Binary_Value	130	6529_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	131	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	132	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	133	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	134	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	135	4300_1	RD	Active on Alarm
MMS Overload	Binary_Value	136	4831_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	137	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	138	4758_1	RD	Active on Alarm
On Generator	Binary_Value	139	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	140	4757_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	141	4213_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	142	6536_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	143	4147_1	RD	Active on Alarm

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Table 5.154 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ground Fault	Binary_Value	144	5970_1	RD	Active on Alarm
System Fan Failure	Binary_Value	145	4311_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	146	5770_1	RD	Active on Alarm

Table 5.155 Liebert® EXS 15-30 kVA 208 V/30-80 kVA 400 V—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	8	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	9	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	10	4100_1	RD	Units: VAC
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	—
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	—
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	—
System Input Nominal Voltage	Analog_Value	14	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	15	4103_1	RD	Units: Hz
System Input Nominal Current	Analog_Value	16	4104_1	RD	Units: A AC
System Input Brown Out Count	Analog_Value	17	4119_1	RD	—
System Input Black Out Count	Analog_Value	18	4120_1	RD	—
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	29	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	30	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	31	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	32	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	33	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	34	4126_1	RD	Units: VAC

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Table 5.155 Liebert® EXS 15-30 kVA 208 V/30-80 kVA 400 V—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Input Voltage RMS C-A	Analog_Value	35	4127_1	RD	Units: VAC
Bypass Nominal Voltage	Analog_Value	36	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	47	4150_1	RD	Units: min
DC Bus Current	Analog_Value	48	4149_1	RD	Units: A DC
Time Until Next Auto Battery Test	Analog_Value	49	5804_1	RD	Units: min
Battery Percentage Charge	Analog_Value	50	4153_1	RD	Units: %
Number of Discharge Cycles	Analog_Value	51	5845_1	RD	—
Accumulated Discharge Time	Analog_Value	52	5846_1	RD	Units: min
Low Battery Warning Time	Analog_Value	53	5802_1	RD	Units: min
Battery Self Test Cycle Time	Analog_Value	54	5991_1	RD	Units: day
DC Bus Voltage	Analog_Value	55	4148_1	RD	Units: VDC
Battery Temperature	Analog_Value	56	5853_1	RD	Units: deg C
Battery Temperature	Analog_Value	10056	5853_1_deg_F	RD	Units: deg F
Battery - Battery Cabinets 1					
Battery Temperature for Cabinet	Analog_Value	67	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10067	4156_1_1_deg_F	RD	Units: deg F
Battery - Battery Cabinets 2					
Battery Temperature for Cabinet	Analog_Value	78	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10078	4156_1_2_deg_F	RD	Units: deg F
. . .					
Battery - Battery Cabinets 4					
Battery Temperature for Cabinet	Analog_Value	100	4156_1_4	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10100	4156_1_4_deg_F	RD	Units: deg F
Output					
System Output Voltage RMS A-N	Analog_Value	111	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	112	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	113	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	114	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	115	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	116	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	117	4207_1	RD	Units: Hz

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Table 5.155 Liebert® EXS 15-30 kVA 208 V/30-80 kVA 400 V—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Voltage RMS A-B	Analog_Value	118	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	119	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	120	4203_1	RD	Units: VAC
System Output Power Factor Phs A	Analog_Value	121	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	122	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	123	4212_1	RD	—
System Output Pct Power Phase A	Analog_Value	124	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	125	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	126	4225_1	RD	Units: %
MMS Output Apparent Power	Analog_Value	127	4812_1	RD	Units: kVA
MMS Output Power	Analog_Value	128	4811_1	RD	Units: kW
Output Current Crest Factor Phs A	Analog_Value	129	5159_1	RD	—
Output Current Crest Factor Phs B	Analog_Value	130	5160_1	RD	—
Output Current Crest Factor Phs C	Analog_Value	131	5161_1	RD	—
System Output Power Phase A	Analog_Value	132	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	133	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	134	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	135	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	136	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	137	5870_1	RD	Units: kVA
System Output Power	Analog_Value	138	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	139	4209_1	RD	Units: kVA
System Output Nominal Voltage	Analog_Value	140	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	141	4261_1	RD	Units: Hz
System Status					
Number Of Active Power Modules	Analog_Value	152	5824_1	RD	—
Number of Installed Power Modules	Analog_Value	153	5823_1	RD	—
Average system efficiency	Analog_Value	154	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	165	4293_1	RW	Units: Secs since Epoch(UTC)
Total System Operating Time	Analog_Value	166	4292_1	RD	Units: hr
System Capacity	Analog_Value	167	5821_1	RD	Units: kVA

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Table 5.156 Liebert® EXS 15-30kVA 208 V/30-80 kVA 400 V—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Breaker	MultiState_Value	1	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
Internal Bypass Breaker	MultiState_Value	12	4769_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery					
UPS Battery Status	MultiState_Value	23	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery charge status.	MultiState_Value	24	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_Value	25	5803_1	RD	1 = disabled 2 = enabled
Inverter					
Output Breaker	MultiState_Value	36	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Inverter On/Off State	MultiState_Value	37	4746_1	RD	1 = off 2 = on
PowerModules 1					
Power Module Sleep Status	MultiState_Value	48	6437_1	RD	1 = Sleeping 2 = Not Sleeping
PowerModules 2					
Power Module Sleep Status	MultiState_Value	59	6437_2	RD	1 = Sleeping 2 = Not Sleeping
System Status					
System Set To Operate With	MultiState_Value	70	5820_1	RD	1 = No Redundancy 2 = Redundancy
Maintenance Bypass Breaker	MultiState_Value	71	4772_1	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.156 Liebert® EXS 15-30kVA 208 V/30-80 kVA 400 V—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MMS UPS Output Source	MultiState_Value	72	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Intelligent Parallel Operation State	MultiState_Value	73	5448_1	RD	1 = disabled 2 = enabled
Application Mode For UPS	MultiState_Value	74	6537_1	RD	1 = UPS Mode 2 = Frequency Converter Mode 3 = Intelligent Paralleling Mode 4 = Intelligent Paralleling Mode Demo 5 = ECO Mode 6 = Intelligent ECO Mode 7 = Intelligent ECO Mode Demo 8 = Testing Mode 9 = Regen Mode 10 = Power Conditioner Mode
System Configuration					
UPS Output Source	MultiState_Value	85	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	86	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open.
Battery Capacity Low	Battery capacity is low.

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Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary (continued)

Data Label	Data Description
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery charge status.	Battery charge status.
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Converter Failure	Battery converter failure. This is a summary event caused by one or more power sub-modules in a UPS module.
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level..
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Manual Test In Progress	Manual battery test is in progress.
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Percentage Charge	The percentage of battery charge.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature	The highest battery temperature among all Battery Cabinets.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed.
Battery Time Remaining	The calculated available time on battery.
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.

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Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
Equipment Over Temperature	Equipment over temperature summary event.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Input Breaker	Input breaker.
Input Source Backfeed	The battery is backfeeding the input source.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Bypass Breaker	Internal bypass breaker.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	inverter on/off state.
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
LBS Active	The Load Bus Sync option is active.

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Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary (continued)

Data Label	Data Description
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Power	The sum total power of all system output modules.
MMS Overload	Multi-module system overload.
MMS UPS Output Source	Multi-module UPS output source.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system.
Output Breaker	Output breaker.
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Overload	An overload exists on the output.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module.
Power Module Input Current Abnormal	Input current of the power module is abnormal.

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Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary (continued)

Data Label	Data Description
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure.
Power Module Sleep Status	Sleep status of the Power module.
Rectifier Failure	Rectifier failure - rectifier is off.
System Capacity	System capacity supported by the installed power modules.
System Date and Time	The system date and time.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a predetermined threshold for a specified amount of time
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Factor Phs A	The system input power factor for Phase A.
System Input Power Factor Phs B	The system input power factor for Phase B.
System Input Power Factor Phs C	The system input power factor for Phase C.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral.

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Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary (continued)

Data Label	Data Description
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Off	The system output is off.
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output Power	The sum total power of all system output phases.

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Table 5.157 Liebert®EXS 15-30 kVA 208 V/30-80 kVA 400 V—Glossary (continued)

Data Label	Data Description
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C.
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral.
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral.
System Set To Operate With	If this point reports 'Redundancy' then the system is configured for redundancy and the 'Loss of Redundancy' alarm is enabled.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system.
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit.
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
UPS Battery Status	UPS battery status.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
User Operation Invalid	User attempted an invalid operation.

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass					
Bypass Not Available	Binary_Value	1	4135_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	2	5957_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	3	4216_1	RD	Active on Alarm
Bypass Abnormal In ECO Mode	Binary_Value	4	8448_1	RD	Active on Alarm
Shutdown Due To Bypass Overcurrent Timeout	Binary_Value	5	8449_1	RD	Active on Alarm
Shutdown Due To Bypass Backfeed Fault	Binary_Value	6	8450_1	RD	Active on Alarm
ECO Bypass Mode	Binary_Value	7	8451_1	RD	Active on Alarm
Parallel Bypass Cable Connection Abnormal	Binary_Value	8	8452_1	RD	Active on Alarm
Battery					
Battery Self Test	Binary_Value	12	4741_1	RD	Active on Alarm
Battery Low	Binary_Value	13	4162_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	14	4323_1	RD	Active on Alarm
Replace Battery	Binary_Value	15	6182_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	16	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	17	5150_1	RD	Active on Alarm
Battery Deep Discharge	Binary_Value	18	7164_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	19	4219_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	20	4222_1	RD	Active on Alarm
Battery - Lithium Battery Group 1					
Battery Voltage Abnormal	Binary_Value	76	8344_1_1	RD	Active on Alarm

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Temperature Abnormal	Binary_Value	77	8345_1_1	RD	Active on Alarm
Battery Current Abnormal	Binary_Value	78	8346_1_1	RD	Active on Alarm
Battery Cabinet Address Fault	Binary_Value	79	8347_1_1	RD	Active on Alarm
Battery Cabinet Connect Fault	Binary_Value	80	8348_1_1	RD	Active on Alarm
Battery Cabinet Parallel Failure	Binary_Value	81	8438_1_1	RD	Active on Alarm
Battery Cabinet Communication Fail	Binary_Value	82	8349_1_1	RD	Active on Alarm
Lithium Battery Cabinet Wait Charge	Binary_Value	83	8336_1_1	RD	Active on Alarm
Lithium-Ion Battery System Abnormal	Binary_Value	84	7464_1_1	RD	Active on Alarm
Battery Cabinet SOH Low	Binary_Value	85	8439_1_1	RD	Active on Alarm
Incompatible Battery Management System version	Binary_Value	86	8474_1_1	RD	Active on Alarm
Lithium Battery EOL	Binary_Value	87	8475_1_1	RD	Active on Alarm
Lithium Battery Sampling Circuit Failure	Binary_Value	88	8476_1_1	RD	Active on Alarm
Lithium Battery Hardware Circuit Protection Active	Binary_Value	89	8477_1_1	RD	Active on Alarm
Lithium Battery Cell Capacity Low	Binary_Value	90	8478_1_1	RD	Active on Alarm
Battery - Lithium Battery Group 2					
Battery Voltage Abnormal	Binary_Value	96	8344_1_2	RD	Active on Alarm
Battery Temperature Abnormal	Binary_Value	97	8345_1_2	RD	Active on Alarm
Battery Current Abnormal	Binary_Value	98	8346_1_2	RD	Active on Alarm
Battery Cabinet Address Fault	Binary_Value	99	8347_1_2	RD	Active on Alarm
Battery Cabinet Connect Fault	Binary_Value	100	8348_1_2	RD	Active on Alarm
Battery Cabinet Parallel Failure	Binary_Value	101	8438_1_2	RD	Active on Alarm

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Communication Fail	Binary_Value	102	8349_1_2	RD	Active on Alarm
Lithium Battery Cabinet Wait Charge	Binary_Value	103	8336_1_2	RD	Active on Alarm
Lithium-Ion Battery System Abnormal	Binary_Value	104	7464_1_2	RD	Active on Alarm
Battery Cabinet SOH Low	Binary_Value	105	8439_1_2	RD	Active on Alarm
Incompatible Battery Management System version	Binary_Value	106	8474_1_2	RD	Active on Alarm
Lithium Battery EOL	Binary_Value	107	8475_1_2	RD	Active on Alarm
Lithium Battery Sampling Circuit Failure	Binary_Value	108	8476_1_2	RD	Active on Alarm
Lithium Battery Hardware Circuit Protection Active	Binary_Value	109	8477_1_2	RD	Active on Alarm
Lithium Battery Cell Capacity Low	Binary_Value	110	8478_1_2	RD	Active on Alarm
Battery - Lithium Battery Group 16					
Battery Voltage Abnormal	Binary_Value	376	8344_1_16	RD	Active on Alarm
Battery Temperature Abnormal	Binary_Value	377	8345_1_16	RD	Active on Alarm
Battery Current Abnormal	Binary_Value	378	8346_1_16	RD	Active on Alarm
Battery Cabinet Address Fault	Binary_Value	379	8347_1_16	RD	Active on Alarm
Battery Cabinet Connect Fault	Binary_Value	380	8348_1_16	RD	Active on Alarm
Battery Cabinet Parallel Failure	Binary_Value	381	8438_1_16	RD	Active on Alarm
Battery Cabinet Communication Fail	Binary_Value	382	8349_1_16	RD	Active on Alarm
Lithium Battery Cabinet Wait Charge	Binary_Value	383	8336_1_16	RD	Active on Alarm
Lithium-Ion Battery System Abnormal	Binary_Value	384	7464_1_16	RD	Active on Alarm
Battery Cabinet SOH Low	Binary_Value	385	8439_1_16	RD	Active on Alarm
Incompatible Battery Management System version	Binary_Value	386	8474_1_16	RD	Active on Alarm

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Lithium Battery EOL	Binary_Value	387	8475_1_16	RD	Active on Alarm
Lithium Battery Sampling Circuit Failure	Binary_Value	388	8476_1_16	RD	Active on Alarm
Lithium Battery Hardware Circuit Protection Active	Binary_Value	389	8477_1_16	RD	Active on Alarm
Lithium Battery Cell Capacity Low	Binary_Value	390	8478_1_16	RD	Active on Alarm
Battery - Lithium Battery System					
Battery Cabinet Serial Number Illegal Error	Binary_Value	396	8331_1_1	RD	Active on Alarm
Lithium Battery Cabinet Online Number Error	Binary_Value	397	8332_1_1	RD	Active on Alarm
Lithium Battery Cabinet Communication Failure	Binary_Value	398	8333_1_1	RD	Active on Alarm
Lithium Battery Cabinet mismatch the unit.	Binary_Value	399	8334_1_1	RD	Active on Alarm
Lithium Battery Cabinet Address Set Error	Binary_Value	400	8335_1_1	RD	Active on Alarm
Number of Lithium Battery Cabinets Over Limit	Binary_Value	401	8337_1_1	RD	Active on Alarm
Lithium Battery Manual Wake up Event	Binary_Value	402	8339_1_1	RD	Active on Alarm
Lithium Battery Cabinet Check	Binary_Value	403	8338_1_1	RD	Active on Alarm
Lithium Battery Cable Connection Issue	Binary_Value	404	8479_1_1	RD	Active on Alarm
Dischargeable Battery Count Less Than Configured Number	Binary_Value	405	8480_1_1	RD	Active on Alarm
Ambient temperature lower than recommended	Binary_Value	406	8481_1_1	RD	Active on Alarm
Ambient temperature higher than recommended	Binary_Value	407	8482_1_1	RD	Active on Alarm
Ambient temperature low pre-alarm	Binary_Value	408	8483_1_1	RD	Active on Alarm
Ambient temperature high pre-alarm	Binary_Value	409	8484_1_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	26	5806_1	RD	Active on Alarm

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Off	Binary_Value	27	4215_1	RD	Active on Alarm
System Output Fault	Binary_Value	28	4389_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	29	5808_1	RD	Active on Alarm
System output Inhibit - Ext	Binary_Value	30	8368_1	RD	Active on Alarm
System					
UPS Output on Bypass	Binary_Value	38	4298_1	RD	Active on Alarm
Battery Discharging	Binary_Value	39	4168_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	40	4122_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	41	4310_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	42	6186_1	RD	Active on Alarm
Shutdown Pending	Binary_Value	43	6187_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	44	5588_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	45	4823_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	46	4825_1	RD	Active on Alarm
Charger Failure	Binary_Value	47	6254_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	48	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	49	4233_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	50	5976_1	RD	Active on Alarm
System Fan Failure	Binary_Value	51	4311_1	RD	Active on Alarm
Emergency Power Off - Latched	Binary_Value	52	4229_1	RD	Active on Alarm
Input Wiring Fault	Binary_Value	53	6453_1	RD	Active on Alarm

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
DC to DC Converter Fault	Binary_Value	54	6454_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	55	5154_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	56	5153_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	57	6059_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	58	4300_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	59	4147_1	RD	Active on Alarm
Fan Replacement Required	Binary_Value	500	8454_1	RD	Active on Alarm
Load Off Due To Shutdown On Battery	Binary_Value	501	8455_1	RD	Active on Alarm
System Redundant Overload	Binary_Value	502	8456_1	RD	Active on Alarm
DSP Fault Condition	Binary_Value	503	8457_1	RD	Active on Alarm
On Intelligent Sleep Mode	Binary_Value	504	8458_1	RD	Active on Alarm
Fan Replaced	Binary_Value	505	8459_1	RD	Active on Alarm
Power Module Shutdown - Over Temperature	Binary_Value	506	5840_1	RD	Active on Alarm
System Input Current Imbalance	Binary_Value	507	4382_1	RD	Active on Alarm
Output Off	Binary_Value	508	4167_1	RD	Active on Alarm
UPS Output on Inverter	Binary_Value	509	4297_1	RD	Active on Alarm
Auxiliary power fault	Binary_Value	510	8310_1	RD	Active on Alarm
Battery cabinet connection abnormal	Binary_Value	511	8307_1	RD	Active on Alarm
General Fault	Binary_Value	512	6350_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	513	6066_1	RD	Active on Alarm
Bypass disabled	Binary_Value	514	8309_1	RD	Active on

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Table 5.158 Liebert® EXS and Liebert® ITA2—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					Alarm
Battery to utility transition	Binary_Value	515	8317_1	RD	Active on Alarm
Manual Power On	Binary_Value	516	8315_1	RD	Active on Alarm
Remote Power On	Binary_Value	517	8316_1	RD	Active on Alarm
System Shutdown - Remote Shutdown	Binary_Value	518	5810_1	RD	Active on Alarm
UPS was reset to factory defaults	Binary_Value	519	8318_1	RD	Active on Alarm
Device Faults were cleared, as requested	Binary_Value	520	8319_1	RD	Active on Alarm
Output off due to abnormal bypass	Binary_Value	521	8311_1	RD	Active on Alarm
Local output is disconnected	Binary_Value	522	8312_1	RD	Active on Alarm
Output off voltage is not zero	Binary_Value	523	8313_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	524	6064_1	RD	Active on Alarm
System Shutdown - Low Battery	Binary_Value	525	5809_1	RD	Active on Alarm
Parallel output frequency abnormal	Binary_Value	526	8314_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	527	8284_1	RD	Active on Alarm
UPS is in Service Mode	Binary_Value	528	8617_1	RD	Active on Alarm
Input					
Input Source Backfeed	Binary_Value	65	6061_1	RD	Active on Alarm
Shutdown Due To System Input Backfeed Fault	Binary_Value	66	8446_1	RD	Active on Alarm
Input Neutral Ground Abnormal	Binary_Value	67	8447_1	RD	Active on Alarm

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Table 5.159 Liebert® EXS and Liebert® ITA2—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS L1-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS L2-N	Analog_Value	2	4098_1	RD	Units: VAC
System Input RMS L3-N	Analog_Value	3	4100_1	RD	Units: VAC
System Input RMS L1-L2	Analog_Value	4	4097_1	RD	Units: VAC
System Input RMS L2-L3	Analog_Value	5	4099_1	RD	Units: VAC
System Input RMS L3-L1	Analog_Value	6	4101_1	RD	Units: VAC
System Input RMS Current L1	Analog_Value	7	4113_1	RD	Units: A AC
System Input RMS Current L2	Analog_Value	8	4114_1	RD	Units: A AC
System Input RMS Current L3	Analog_Value	9	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	10	4105_1	RD	Units: Hz
System Input Power Factor L1	Analog_Value	11	4116_1	RD	—
System Input Power Factor L2	Analog_Value	12	4117_1	RD	—
System Input Power Factor L3	Analog_Value	13	4118_1	RD	—
System Input Max Voltage L1-N	Analog_Value	14	4106_1	RD	Units: VAC
System Input Min Voltage L1-N	Analog_Value	15	4107_1	RD	Units: VAC
System Input Max Voltage L2-N	Analog_Value	16	4108_1	RD	Units: VAC
System Input Min Voltage L2-N	Analog_Value	17	4109_1	RD	Units: VAC
System Input Max Voltage L3-N	Analog_Value	18	4110_1	RD	Units: VAC
System Input Min Voltage L3-N	Analog_Value	19	4111_1	RD	Units: VAC
System Input Nominal Voltage	Analog_Value	20	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	21	4104_1	RD	Units: A AC
System Input Nominal Frequency	Analog_Value	22	4103_1	RD	Units: Hz
System Input Phase Count	Analog_Value	23	4112_1	RD	—
Input Energy	Analog_Value	24	5900_1	RD	Units: kWH
System Input Power Phase A	Analog_Value	25	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	26	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	27	6320_1	RD	Units: kW
Positive DC Bus Voltage	Analog_Value	28	8281_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	29	8282_1	RD	Units: VDC
Bypass					
Bypass Input Voltage RMS L1-N	Analog_Value	35	4128_1	RD	Units: VAC

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Table 5.159 Liebert® EXS and Liebert® ITA2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Input Voltage RMS L2-N	Analog_Value	36	4129_1	RD	Units: VAC
Bypass Input Voltage RMS L3-N	Analog_Value	37	4130_1	RD	Units: VAC
Bypass Input Voltage RMS L1-L2	Analog_Value	38	4125_1	RD	Units: VAC
Bypass Input Voltage RMS L2-L3	Analog_Value	39	4126_1	RD	Units: VAC
Bypass Input Voltage RMS L3-L1	Analog_Value	40	4127_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	41	4131_1	RD	Units: Hz
Bypass Nominal Voltage	Analog_Value	42	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	53	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	54	4153_1	RD	Units: %
Battery Current	Analog_Value	55	4149_1	RD	Units: A DC
DC Bus Voltage	Analog_Value	56	4148_1	RD	Units: VDC
DC Bus Nominal Voltage	Analog_Value	57	6189_1	RD	Units: VDC
Battery Temperature	Analog_Value	58	4156_1	RD	Units: deg C
Battery Temperature	Analog_Value	10058	4156_1_deg_F	RD	Units: deg F
Battery Rating	Analog_Value	59	4898_1	RD	Units: AH
Low Battery Warning Time	Analog_Value	60	5802_1	RW	Units: min
Number of EBC Installed	Analog_Value	61	5800_1	RD	—
Nominal Battery Capacity	Analog_Value	62	6195_1	RD	Units: min
Battery Discharge Time	Analog_Value	63	4151_1	RD	Units: min
Battery Total Discharge Time	Analog_Value	64	4152_1	RD	Units: hr
Total Number of Battery Discharges	Analog_Value	65	5767_1	RD	—
Battery Run Time	Analog_Value	66	8453_1	RD	Units: day
Relative Humidity	Analog_Value	67	4587_1	RD	Units: %
Battery Commission Date	Analog_Value	68	4160_1	RD	Units: Secs since Epoch(UTC)
Battery State of Health	Analog_Value	69	7462_1	RD	Units: %
Battery - Lithium Battery Group 1					
Lithium Battery Cabinet State of Charge	Analog_Value	153	8340_1_1	RD	Units: %
Battery State of Health	Analog_Value	154	8341_1_1	RD	Units: %
Battery - Lithium Battery Group 2					
Lithium Battery Cabinet State of Charge	Analog_Value	165	8340_1_2	RD	Units: %
Battery State of Health	Analog_Value	166	8341_1_2	RD	Units: %

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Table 5.159 Liebert® EXS and Liebert® ITA2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery - Lithium Battery Group 16					
Lithium Battery Cabinet State of Charge	Analog_Value	333	8340_1_16	RD	Units: %
Battery State of Health	Analog_Value	334	8341_1_16	RD	Units: %
Battery - Battery Configuration					
Low Battery Warning Time	Analog_Value	60	5802_1_1	RW	Units: min
Battery - Lithium Battery System					
Maximum Cell Voltage	Analog_Value	356	8328_1_1	RD	Units: mV DC
Minimum Cell Voltage	Analog_Value	357	8329_1_1	RD	Units: mV DC
Output					
System Output Voltage RMS L1-N	Analog_Value	76	4385_1	RD	Units: VAC
System Output Voltage RMS L2-N	Analog_Value	77	4386_1	RD	Units: VAC
System Output Voltage RMS L3-N	Analog_Value	78	4387_1	RD	Units: VAC
System Output Voltage RMS L1-L2	Analog_Value	79	4201_1	RD	Units: VAC
System Output Voltage RMS L2-L3	Analog_Value	80	4202_1	RD	Units: VAC
System Output Voltage RMS L3-L1	Analog_Value	81	4203_1	RD	Units: VAC
System Output RMS Current L1	Analog_Value	82	4204_1	RD	Units: A AC
System Output RMS Current L2	Analog_Value	83	4205_1	RD	Units: A AC
System Output RMS Current L3	Analog_Value	84	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	85	4207_1	RD	Units: Hz
System Output Power	Analog_Value	86	4208_1	RD	Units: W
System Output Power L1	Analog_Value	87	5859_1	RD	Units: W
System Output Power L2	Analog_Value	88	5860_1	RD	Units: W
System Output Power L3	Analog_Value	89	5959_1	RD	Units: W
System Output Pct Power	Analog_Value	90	5861_1	RD	Units: %
System Output Pct Power L1	Analog_Value	91	4223_1	RD	Units: %
System Output Pct Power L2	Analog_Value	92	4224_1	RD	Units: %
System Output Pct Power L3	Analog_Value	93	4225_1	RD	Units: %
System Output Apparent Power	Analog_Value	94	4209_1	RD	Units: VA
System Output Apparent Power L1	Analog_Value	95	5868_1	RD	Units: VA
System Output Apparent Power L2	Analog_Value	96	5869_1	RD	Units: VA
System Output Apparent Power L3	Analog_Value	97	5870_1	RD	Units: VA
Output Current Crest Factor L1	Analog_Value	98	5159_1	RD	—

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Table 5.159 Liebert® EXS and Liebert® ITA2—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Output Current Crest Factor L2	Analog_Value	99	5160_1	RD	—
Output Current Crest Factor L3	Analog_Value	100	5161_1	RD	—
System Output Power Factor L1	Analog_Value	101	4210_1	RD	—
System Output Power Factor L2	Analog_Value	102	4211_1	RD	—
System Output Power Factor L3	Analog_Value	103	4212_1	RD	—
System Output Nominal Voltage	Analog_Value	104	4260_1	RD	Units: VAC
Output Energy	Analog_Value	105	5166_1	RW	Units: kWH
Output Apparent Power Rating	Analog_Value	106	4264_1	RD	Units: VA
System Output Nominal Frequency	Analog_Value	107	4261_1	RD	Units: Hz
Output On Delay	Analog_Value	108	5816_1	RW	Units: sec
Reboot With Delay	Analog_Value	109	5815_1	RW	Units: sec
Shutdown After Delay	Analog_Value	110	5814_1	RW	Units: sec
Nominal Power Factor	Analog_Value	111	5812_1	RD	—
Parallel Output Power	Analog_Value	112	4811_1	RD	Units: W
Parallel Output Apparent Power	Analog_Value	113	4812_1	RD	Units: VA
Parallel ID	Analog_Value	114	4829_1	RD	—
Number of parallel units	Analog_Value	115	4833_1	RD	—
Outlet Group					
Outlet Group Identifier	Analog_Value	126	4510_1	RD	—
System					
System Input Black Out Count	Analog_Value	137	4120_1	RD	—
System Input Brown Out Count	Analog_Value	138	4119_1	RD	—
Auto Restart Delay	Analog_Value	139	4710_1	RW	Units: sec
Inlet Air Temperature	Analog_Value	140	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10140	4291_1_deg_F	RD	Units: deg F
Total System Operating Time	Analog_Value	141	4292_1	RD	Units: hr
System Capacity	Analog_Value	142	5821_1	RD	Units: kVA

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Table 5.160 Liebert® EXS and Liebert® ITA2—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Battery					
UPS Battery Status	MultiState_Value	12	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	13	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Automatic Battery Test	MultiState_Value	14	5803_1	RW	1 = disabled 2 = enabled
Auto Battery Test Interval	MultiState_Value	15	5805_1	RW	1 = 8 weeks 2 = 12 weeks 3 = 16 weeks 4 = 20 weeks 5 = 26 weeks
Manual Battery Test	MultiState_Value	16	5858_1	WO	1 = Start Test
Battery Test Result	MultiState_Value	17	6181_1	RD	1 = Unknown 2 = Passed 3 = Failed 4 = In Progress 5 = System Failure 6 = Inhibited
Battery Cabinet Type	MultiState_Value	18	6183_1	RD	1 = Internal 2 = External 3 = LRT
Battery type	MultiState_Value	19	8330_1	RD	1 = VRLA 2 = Lithium Battery
Battery - Lithium Battery Group 1					
Lithium Battery Status.	MultiState_Value	81	8350_1_1	RD	1 = Idle 2 = charging 3 = discharging 4 = Balance
Battery - Lithium Battery Group 2					
Lithium Battery Status.	MultiState_Value	92	8350_1_2	RD	1 = Idle 2 = charging 3 = discharging

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Table 5.160 Liebert® EXS and Liebert® ITA2—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					4 = Balance
Battery - Lithium Battery Group 16					
ithium Battery Status.	MultiState_Value	246	8350_1_16	D	1 = Idle 2 = charging 3 = discharging 4 = Balance
Battery - Battery Configuration					
Automatic Battery Test	MultiState_Value	14	5803_1_1	RW	1 = disabled 2 = enabled
Auto Battery Test Interval	MultiState_Value	15	5805_1_1	RW	1 = 8 weeks 2 = 12 weeks 3 = 16 weeks 4 = 20 weeks 5 = 26 weeks
Manual Battery Test	MultiState_Value	16	5858_1_1	WO	1 = Start Test
Battery - Lithium Battery System					
Lithium Battery Manual Wake Up	MultiState_Value	270	8361_1_1	WO	1 = Wake up the lithium battery manually
Output					
UPS Output Source	MultiState_Value	29	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Outlet Group					
Outlet Group Power Control	MultiState_Value	40	4365_1	RW	1 = Off 2 = On 3 = Cycle Power
ECO Mode					
ECO Mode Status	MultiState_Value	51	6198_1	RD	1 = off 2 = on
ECO Mode Operation State	MultiState_Value	52	5454_1	RW	1 = disabled 2 = enabled
System					

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Table 5.160 Liebert® EXS and Liebert® ITA2—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Status	MultiState_Value	63	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Auto Restart	MultiState_Value	64	5831_1	RW	1 = disabled 2 = enabled
Inverter On/Off State	MultiState_Value	65	4746_1	RD	1 = off 2 = on
Shutdown Reason	MultiState_Value	66	6197_1	RD	1 = None 2 = Over Temperature 3 = Overload 4 = DC Bus Overload 5 = Output Short 6 = Line Swap 7 = Low Battery 8 = Remote Command 9 = Input Under Voltage 10 = Power Factor Correction Fail 11 = External Signal Command
UPS Topology	MultiState_Value	67	6199_1	RD	1 = unknown 2 = Offline 3 = Line Interactive 4 = Online
Reset Power Statistics	MultiState_Value	68	6191_1	WO	1 = Reset
Audible Alarm Control	MultiState_Value	69	6188_1	RW	1 = off 2 = on
Silence Audible Alarm	MultiState_Value	70	6257_1	WO	1 = Silence Alarm

Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary

Data Label	Data Description
Ambient temperature high pre-alarm	The ambient temperature is close to the upper limit of the operating temperature.
Ambient temperature higher than recommended	The ambient temperature is higher than the upper limit of the recommended temperature.
Ambient temperature low pre-alarm	The ambient temperature is close to the lower limit of the operating temperature.
Ambient temperature lower than recommended	The ambient temperature is lower than the lower limit of the recommended temperature.
Audible Alarm Control	Audible Alarm Control
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Cabinet Address Fault	Battery Cabinet Addresses are set incorrectly.
Battery Cabinet Communication Fail	Battery Cabinet Cable failure.
Battery Cabinet Connect Fault	Battery cabinet ports have reversed connections.
Battery Cabinet Parallel Failure	Battery Cabinet Parallel failure of the online lithium battery cabinet.
Battery Cabinet Serial Number Illegal Error	Serial Number of the battery cabinet is illegal.
Battery Cabinet SOH Low	Battery cabinet state of health is low.
Battery Cabinet Type	Type of extended battery cabinets.
Battery Charge Status	Battery charge status.
Battery Current Abnormal	Battery current out-of-range of the online lithium battery cabinet.
Battery Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Percentage Charge	The percentage of battery charge
Battery Rating	Total rating of all parallel strings in the battery.
Battery Self Test	Battery self test is in progress
Battery State of Health	Battery State of Health
Battery Temperature Abnormal	Battery Temperature out-of-range of the online Lithium Battery Cabinet.
Battery Temperature	The temperature of the batteries
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery Total Discharge Time	The cumulative battery discharge time
Battery type	Battery type of the UPS system
Battery Voltage Abnormal	Battery voltage out-of-range in the online lithium battery cabinet.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass Input Frequency	The bypass input frequency

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Input Voltage RMS L2-L3	The bypass input RMS voltage between Lines 2 and 3
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral
Bypass Input Voltage RMS L3-L1	The bypass input RMS voltage between Lines 3 and 1
Bypass Input Voltage RMS L3-N	The bypass input RMS voltage between Line 3 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Charger Failure	Charger Failure - Charger is off
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Device Faults were cleared, as requested	Device Faults were cleared, as requested
Dischargeable Battery Count Less Than Configured Number	The number of connected battery cabinets is less than the configured number. Prevent Discharge.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equipment Over Temperature	Equipment over temperature summary event
Fan Replaced	Fan has been replaced.
Fan Replacement Required	Fan replacement required.
General Fault	A general fault in the UPS has been detected.
Incompatible Battery Management System version	The Battery Management System software version is incompatible.
Inlet Air Temperature	The temperature of the inlet air
Input Energy	Input energy consumption since the last reset of this value.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Source Backfeed	The battery is backfeeding the input source.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
Lithium Battery Cabinet Address Set Error	Lithium battery cabinet addresses have been set incorrectly.
Lithium Battery Cabinet Check	Check if the battery is present
Lithium Battery Cabinet Communication Failure	Battery cabinet communication has been disrupted.
Lithium Battery Cabinet mismatch the unit.	The warning is triggered when the online lithium battery cabinet can't be used by the UPS.
Lithium Battery Cabinet Online Number Error	The online battery cabinet number is different from the cofigured number.
Lithium Battery Cabinet State of Charge	State of charge of the online lithium battery cabinet.
Lithium Battery Cabinet Wait Charge	The battery is waiting for charge.
Lithium Battery Cable Connection Issue	Check the Lithium Battery cable connections.
Lithium Battery Cell Capacity Low	Lithium battery cell capacity is very low.
Lithium Battery EOL	Lithium battery is at the end of its life.
Lithium Battery Hardware Circuit Protection Active	Lithium battery has activated hardware circuit protection.
Lithium Battery Manual Wake up Event	The event of Wake up lithium battery manually
Lithium Battery Manual Wake Up	Wake up the lithium battery manually
Lithium Battery Sampling Circuit Failure	Lithium battery has sampling circuit failure.
Lithium Battery Status.	State of the selected Lithium Battery Cabinet.
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Manual Battery Test	Command to initiate a manual battery test.
Maximum Cell Voltage	The maximum cell voltage of the parallelled lithium battery cabinets.
Minimum Cell Voltage	The minimum cell voltage of the parallelled lithium battery cabinets.
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
Number of Lithium Battery Cabinets Over Limit	The number of batteries connected to the system exceeds the maximum
Number of parallel units	The number of modules in a parallel system
Outlet Group Identifier	A runtime assigned outlet group identification number
Outlet Group Power Control	Outlet Group Power Control (OFF, ON, Cycle, etc)
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	UPS internal or external output breaker is open.
Output Current Crest Factor L1	Output current crest factor of Line 1
Output Current Crest Factor L2	Output current crest factor of Line 2
Output Current Crest Factor L3	Output current crest factor of Line 3
Output Energy	Total accumulated energy output, since last energy reset.
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Parallel Comm Warning	Parallel communication bus warning
Parallel ID	Parallel Unit ID
Parallel Output Apparent Power	The sum total apparent power of a parallel system
Parallel Output Power	The sum total output power of a parallel system
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics
Server Class	The general classification for this system
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
System Capacity	System capacity supported by the installed power modules.
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Max Voltage L2-N	The maximum system input voltage measurement for Line 2-N since the last reset
System Input Max Voltage L3-N	The maximum system input voltage measurement for Line 3-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L2-N	The minimum system input voltage measurement for Line 2-N since the last reset
System Input Min Voltage L3-N	The minimum system input voltage measurement for Line 3-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phase Count	The number of phases for the system input
System Input Power Factor L1	The system input power factor for Line 1
System Input Power Factor L2	The system input power factor for Line 2
System Input Power Factor L3	The system input power factor for Line 3
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS Current L2	The system input RMS current for Line 2
System Input RMS Current L3	The system input RMS current for Line 3
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Input RMS L2-L3	The System Input RMS Voltage between Line 2 and Line 3
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral
System Input RMS L3-L1	The System Input RMS Voltage between Line 3 and Line 1
System Input RMS L3-N	The System Input RMS Voltage between Line 3 and Neutral
System Output Apparent Power L1	System output apparent power on Line 1
System Output Apparent Power L2	System output apparent power on Line 2
System Output Apparent Power L3	System output apparent power on Line 3
System Output Apparent Power	The sum total apparent power of all system output phases

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System output Inhibit - Ext	System output is inhibited by an external signal
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity
System Output Pct Power L3	The system output power on Line 3 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1
System Output Power Factor L2	The system output power factor of Line 2
System Output Power Factor L3	The system output power factor of Line 3
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.
System Output Power L3	The system output power on Line 3.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output RMS Current L2	The system output RMS current for Line 2
System Output RMS Current L3	The system output RMS current for Line 3
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Output Voltage RMS L2-L3	The system output RMS voltage between Lines 2 and 3
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral
System Output Voltage RMS L3-L1	The system output RMS voltage between Lines 3 and 1
System Output Voltage RMS L3-N	The system output RMS voltage between Line 3 and Neutral
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system
Total Number of Battery Discharges	The total number of battery discharges.
Total System Operating Time	The cumulative operation time of the unit
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status

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Table 5.161 Liebert® EXS and Liebert® ITA2—Glossary (continued)

Data Label	Data Description
UPS is in Service Mode	UPS is in Service Mode
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS Topology	UPS Topology
UPS was reset to factory defaults	UPS was reset to factory defaults

Table 5.162 Liebert® MTP—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input Power Problem	Binary_Value	1	4122_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
Input Undervoltage	Binary_Value	3	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	4	5569_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	5	6186_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	16	4135_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	17	4139_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	18	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	19	4299_1	RD	Active on Alarm
Bypass SCR Open	Binary_Value	20	8608_1	RD	Active on Alarm
Bypass SCR Short	Binary_Value	21	8609_1	RD	Active on Alarm
Battery					
Battery Discharging	Binary_Value	32	4168_1	RD	Active on Alarm
Charger Failure	Binary_Value	33	6254_1	RD	Active on Alarm
Battery Low	Binary_Value	34	4162_1	RD	Active on Alarm
Battery Fault	Binary_Value	35	6067_1	RD	Active on Alarm
Replace Battery	Binary_Value	36	6182_1	RD	Active on Alarm
Precharge Circuit Failed	Binary_Value	37	6216_1	RD	Active on Alarm
Rectifier Overcurrent Warning	Binary_Value	38	8472_1	RD	Active on Alarm
Rectifier Over Temperature	Binary_Value	39	8612_1	RD	Active on Alarm
Rectifier Communications Failure	Binary_Value	40	8613_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	41	4295_1	RD	Active on Alarm
Battery Self Test	Binary_Value	42	4741_1	RD	Active on Alarm

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Table 5.162 Liebert® MTP—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Test Failed	Binary_Value	43	4323_1	RD	Active on Alarm
Inverter					
DC Bus Low Fault	Binary_Value	54	5563_1	RD	Active on Alarm
Inverter Overload	Binary_Value	55	5960_1	RD	Active on Alarm
Inverter Over Temperature	Binary_Value	56	8615_1	RD	Active on Alarm
Inverter Communications Failure	Binary_Value	57	8616_1	RD	Active on Alarm
Inverter Failure	Binary_Value	58	4233_1	RD	Active on Alarm
Output					
Output Undervoltage	Binary_Value	69	5179_1	RD	Active on Alarm
Output Overvoltage	Binary_Value	70	5178_1	RD	Active on Alarm
Output Overload	Binary_Value	71	5806_1	RD	Active on Alarm
System Status					
Equipment Over Temperature	Binary_Value	82	4310_1	RD	Active on Alarm
System Output Off	Binary_Value	83	4215_1	RD	Active on Alarm
Shutdown Pending	Binary_Value	84	6187_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	85	5588_1	RD	Active on Alarm

Table 5.163 Liebert® MTP—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	2	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	3	4100_1	RD	Units: VAC
System Input Frequency	Analog_Value	4	4105_1	RD	Units: Hz
System Input RMS A-B	Analog_Value	5	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	6	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	7	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	8	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	9	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	10	4115_1	RD	Units: A AC
System Input Nominal Voltage	Analog_Value	11	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	12	4103_1	RD	Units: Hz
System Input Nominal Current	Analog_Value	13	4104_1	RD	Units: A AC

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Table 5.163 Liebert® MTP—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass					
Bypass Input Voltage RMS A-N	Analog_Value	24	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	25	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	26	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	27	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-B	Analog_Value	28	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	29	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	30	4127_1	RD	Units: VAC
Bypass Input RMS Current Phase A	Analog_Value	31	5570_1	RD	Units: A AC
Bypass Input RMS Current Phase B	Analog_Value	32	5571_1	RD	Units: A AC
Bypass Input RMS Current Phase C	Analog_Value	33	5572_1	RD	Units: A AC
Battery					
Battery Percentage Charge	Analog_Value	44	4153_1	RD	Units: %
DC Bus Voltage	Analog_Value	45	4148_1	RD	Units: VDC
PFC Temperature	Analog_Value	46	8610_1	RD	Units: deg C
PFC Temperature	Analog_Value	10046	8610_1_deg_F	RD	Units: deg F
Battery Temperature for Cabinet	Analog_Value	47	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10047	4156_1_deg_F	RD	Units: deg F
Battery Time Remaining	Analog_Value	48	4150_1	RD	Units: min
Battery Discharge Time	Analog_Value	49	4151_1	RD	Units: min
DC Bus Nominal Voltage	Analog_Value	50	6189_1	RD	Units: VDC
Battery Float Voltage	Analog_Value	51	5988_1	RD	Units: VDC
Battery EoD Voltage	Analog_Value	52	8611_1	RW	Units: VDC
Inverter					
Inverter Temperature	Analog_Value	63	8614_1	RD	Units: deg C
Inverter Temperature	Analog_Value	10063	8614_1_deg_F	RD	Units: deg F
Output					
System Output Voltage RMS A-N	Analog_Value	74	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	75	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	76	4387_1	RD	Units: VAC
System Output Frequency	Analog_Value	77	4207_1	RD	Units: Hz
System Output Voltage RMS A-B	Analog_Value	78	4201_1	RD	Units: VAC

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Table 5.163 Liebert® MTP—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Voltage RMS B-C	Analog_Value	79	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	80	4203_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	81	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	82	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	83	4206_1	RD	Units: A AC
System Output Pct Power	Analog_Value	84	5861_1	RD	Units: %
System Output Pct Power Phase A	Analog_Value	85	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	86	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	87	4225_1	RD	Units: %
System Output Power	Analog_Value	88	4208_1	RD	Units: kW
System Output Power Phase A	Analog_Value	89	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	90	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	91	5959_1	RD	Units: kW
System Output Apparent Power	Analog_Value	92	4209_1	RD	Units: kVA
System Output Apparent Power Phs A	Analog_Value	93	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	94	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	95	5870_1	RD	Units: kVA
System Output Nominal Voltage	Analog_Value	96	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	97	4261_1	RD	Units: Hz
Output Apparent Power Rating	Analog_Value	98	4264_1	RD	Units: kVA
Nominal Power Factor	Analog_Value	99	5812_1	RD	
System Status					
Outside Air Temperature	Analog_Value	110	5574_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10110	5574_1_deg_F	RD	Units: deg F

Table 5.164 Liebert® MTP—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery					
UPS Battery Status	MultiState_Value	1	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	2	5799_1	RD	1 = fully charged 2 = charging

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Table 5.164 Liebert® MTP—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = discharging 4 = not charging (charger off)
Battery Test Result	MultiState_Value	3	6181_1	RD	1 = Unknown 2 = Passed 3 = Failed 4 = In Progress 5 = System Failure 6 = Inhibited
Manual Battery Test	MultiState_Value	4	5858_1	WO	1 = Start Test
Inverter					
Inverter On/Off State	MultiState_Value	15	4746_1	RD	1 = off 2 = on
Eco Mode					
ECO Mode Status	MultiState_Value	26	6198_1	RD	1 = off 2 = on
ECO Mode Operation State	MultiState_Value	27	5454_1	RD	1 = disabled 2 = enabled
System Status					
System Status	MultiState_Value	38	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
UPS Output Source	MultiState_Value	39	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Power Factor Correction	MultiState_Value	40	6196_1	RD	1 = off 2 = on
DC Converter Status	MultiState_Value	41	6003_1	RD	1 = off 2 = on
Shutdown Reason	MultiState_Value	42	6197_1	RD	1 = None

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Table 5.164 Liebert® MTP—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Over Temperature 3 = Overload 4 = DC Bus Overload 5 = Output Short 6 = Line Swap 7 = Low Battery 8 = Remote Command 9 = Input Under Voltage 10 = Power Factor Correction Fail 11 = External Signal Command
System Configuration					
UPS Topology	MultiState_Value	53	6199_1	RD	1 = unknown 2 = Offline 3 = Line Interactive 4 = Online
Auto Restart	MultiState_Value	54	5831_1	RW	1 = disabled 2 = enabled
Audible Alarm Control	MultiState_Value	55	6188_1	RW	1 = off 2 = on
Silence Audible Alarm	MultiState_Value	56	6257_1	WO	1 = Silence Alarm
Emergency Power Off (EPO) Logic	MultiState_Value	57	6726_1	RW	1 = Active Open 2 = Active Close

Table 5.165 Liebert® MTP—Glossary

Data Label	Data Description
Audible Alarm Control	Audible Alarm Control
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Battery Charge Status	Battery charge status.
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery EoD Voltage	When the battery voltage falls to or below this value, the battery becomes unqualified (it can't support the load).
Battery Fault	A short circuit exists in the battery system.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Percentage Charge	The percentage of battery charge
Battery Self Test	Battery self test is in progress

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Table 5.165 Liebert® MTP—Glossary (continued)

Data Label	Data Description
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Input Frequency	The bypass input frequency
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Not Available	A problem associated with the bypass has been detected
Bypass SCR Open	The bypass SCR is in an open circuit condition.
Bypass SCR Short	The bypass SCR is in short circuit condition.
Charger Failure	Charger Failure - Charger is off
DC Bus Low Fault	The DC Bus voltage has reached a critical low level.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC Converter Status	The operating state of the dc converter.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
Emergency Power Off (EPO) Logic	Emergency Power Off (EPO) Logic
Equipment Over Temperature	Equipment over temperature summary event
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Inverter Communications Failure	Communication between internal monitor and Inverter has failed.
Inverter Failure	Inverter failure - inverter output is off

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Table 5.165 Liebert® MTP—Glossary (continued)

Data Label	Data Description
Inverter On/Off State	inverter on/off state
Inverter Over Temperature	Inverter temperature is too high to keep inverter running.
Inverter Overload	Inverter in overload fault
Inverter Temperature	Temperature measured at the inverter.
Manual Battery Test	Command to initiate a manual battery test.
Nominal Power Factor	The nominal (or rated) system power factor.
Output Apparent Power Rating	Output apparent power rating
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Output Overvoltage	One or more of the output phase voltages has exceeded the limit.
Output Undervoltage	One or more of the output phase voltages has dropped below the limit.
Outside Air Temperature	Ambient outside air temperature.
PFC Temperature	Temperature measured at the Power Factor Correction circuit.
Power Factor Correction	The state of the power factor correction circuitry of the system
Precharge Circuit Failed	DC Bus precharge/discharge didn't reach specified level within a specified time.
Rectifier Communications Failure	Communication between internal monitor and Rectifier has failed.
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Over Temperature	Rectifier temperature is too high to keep rectifier running.
Rectifier Overcurrent Warning	The rectifier stopped for overcurrent
Replace Battery	The battery is due for replacement.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C

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Table 5.165 Liebert® MTP—Glossary (continued)

Data Label	Data Description
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral

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Table 5.165 Liebert® MTP—Glossary (continued)

Data Label	Data Description
System Status	The operating status for the system
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS Topology	UPS Topology

Table 5.166 Vertiv™Liebert®GXE3 —Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input Current Limit	Binary_Value	1	4147_1	RD	Active on Alarm
Input Wiring Fault	Binary_Value	2	6453_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	3	5154_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	14	4135_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	15	4216_1	RD	Active on Alarm
Bypass disabled	Binary_Value	16	8309_1	RD	Active on Alarm
Bypass Abnormal In ECO Mode	Binary_Value	17	8448_1	RD	Active on Alarm
Battery					
Battery Self Test	Binary_Value	28	4741_1	RD	Active on Alarm
Battery Low	Binary_Value	29	4162_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	30	4323_1	RD	Active on Alarm
Replace Battery	Binary_Value	31	6182_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	32	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	33	5150_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	34	4219_1	RD	Active on Alarm
Battery Deep Discharge	Binary_Value	35	7164_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	46	5806_1	RD	Active on Alarm
System Output Off	Binary_Value	47	4215_1	RD	Active on Alarm
Turn on failed	Binary_Value	48	8362_1	RD	Active on Alarm
System					
UPS Output on Bypass	Binary_Value	59	4298_1	RD	Active on Alarm

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Table 5.166 Vertiv™Liebert®GXE3 —Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Discharging	Binary_Value	60	4168_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	61	4122_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	62	4310_1	RD	Active on Alarm
Shutdown Pending	Binary_Value	63	6187_1	RD	Active on Alarm
Charger Failure	Binary_Value	64	6254_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	65	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	66	4233_1	RD	Active on Alarm
System Fan Failure	Binary_Value	68	4311_1	RD	Active on Alarm
Emergency Power Off - Latched	Binary_Value	69	4229_1	RD	Active on Alarm
DC to DC Converter Fault	Binary_Value	70	6454_1	RD	Active on Alarm
Power Module Shutdown - Over Temperature	Binary_Value	71	5840_1	RD	Active on Alarm
Mains Input Neutral Lost	Binary_Value	72	5155_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	73	5808_1	RD	Active on Alarm
UPS Output on Inverter	Binary_Value	74	4297_1	RD	Active on Alarm
System Shutdown - Remote Shutdown	Binary_Value	75	5810_1	RD	Active on Alarm
Auxiliary power fault	Binary_Value	76	8310_1	RD	Active on Alarm
Output off due to abnormal bypass	Binary_Value	77	8311_1	RD	Active on Alarm
Output off voltage is not zero	Binary_Value	78	8313_1	RD	Active on Alarm
Manual Power On	Binary_Value	79	8315_1	RD	Active on Alarm
Remote Power On	Binary_Value	80	8316_1	RD	Active on Alarm
Battery to utility transition	Binary_Value	81	8317_1	RD	Active on Alarm
UPS was reset to factory defaults	Binary_Value	82	8318_1	RD	Active on Alarm
Device Faults were cleared as requested	Binary_Value	83	8319_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	84	6059_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	85	4300_1	RD	Active on Alarm
General Fault	Binary_Value	86	6350_1	RD	Active on Alarm

Table 5.167 Vertiv™Liebert® GXE3 Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS L1-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS Current L1	Analog_Value	2	4113_1	RD	Units: A AC
System Input Frequency	Analog_Value	3	4105_1	RD	Units: Hz

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Table 5.167 Vertiv™Liebert® GXE3 Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Power Factor L1	Analog_Value	4	4116_1	RD	
System Input Max Voltage L1-N	Analog_Value	5	4106_1	RD	Units: VAC
System Input Min Voltage L1-N	Analog_Value	6	4107_1	RD	Units: VAC
System Input Nominal Voltage	Analog_Value	7	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	8	4104_1	RD	Units: A AC
System Input Nominal Frequency	Analog_Value	9	4103_1	RD	Units: Hz
System Input Phase Count	Analog_Value	10	4112_1	RD	
Input Energy	Analog_Value	11	5900_1	RD	Units: kWH
Bypass					
Bypass Input Voltage RMS L1-N	Analog_Value	22	4128_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	23	4131_1	RD	Units: Hz
Bypass Nominal Voltage	Analog_Value	24	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	35	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	36	4153_1	RD	Units: %
Battery Current	Analog_Value	37	4149_1	RD	Units: A DC
DC Bus Voltage	Analog_Value	38	4148_1	RD	Units: VDC
DC Bus Nominal Voltage	Analog_Value	39	6189_1	RD	Units: VDC
Battery Rating	Analog_Value	40	4898_1	RD	Units: AH
Number of EBC Installed	Analog_Value	41	5800_1	RD	
Nominal Battery Capacity	Analog_Value	42	6195_1	RD	Units: min
Total Number of Battery Discharges	Analog_Value	43	5767_1	RD	
Battery State of Health	Analog_Value	44	7462_1	RD	Units: %
Battery Float Voltage	Analog_Value	45	5988_1	RD	Units: VDC
Battery - Battery Statistics					
Battery last replaced time	Analog_Value	57	4160_1_1	RD	Units: Secs since Epoch(UTC)
Battery - Battery Configuration					
Battery periodic test time (hour)	Analog_Value	68	8352_1_1	RW	
Battery periodic test time (minute)	Analog_Value	69	8353_1_1	RW	
Low Battery Warning Time	Analog_Value	70	5802_1_1	RW	Units: min
Battery reminder (months)	Analog_Value	71	8354_1_1	RW	
Discharge protect time	Analog_Value	72	8355_1_1	RW	Units: min

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Table 5.167 Vertiv™Liebert® GXE3 Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
External Battery Cabinets Ah	Analog_Value	73	8360_1_1	RW	
Max Charge Current	Analog_Value	74	6252_1_1	RW	Units: A DC
Output					
System Output Voltage RMS L1-N	Analog_Value	85	4385_1	RD	Units: VAC
System Output RMS Current L1	Analog_Value	86	4204_1	RD	Units: A AC
System Output Frequency	Analog_Value	87	4207_1	RD	Units: Hz
System Output Power	Analog_Value	88	4208_1	RD	Units: W
System Output Power L1	Analog_Value	89	5859_1	RD	Units: W
System Output Pct Power	Analog_Value	90	5861_1	RD	Units: %
System Output Pct Power L1	Analog_Value	91	4223_1	RD	Units: %
System Output Apparent Power	Analog_Value	92	4209_1	RD	Units: VA
System Output Apparent Power L1	Analog_Value	93	5868_1	RD	Units: VA
System Output Power Factor L1	Analog_Value	94	4210_1	RD	
System Output Nominal Voltage	Analog_Value	95	4260_1	RD	Units: VAC
Output Energy	Analog_Value	96	5166_1	RW	Units: kWH
Output Apparent Power Rating	Analog_Value	97	4264_1	RD	Units: VA
System Output Nominal Frequency	Analog_Value	98	4261_1	RD	Units: Hz
Output On Delay	Analog_Value	99	5816_1	RW	Units: sec
Reboot With Delay	Analog_Value	100	5815_1	RW	Units: sec
Shutdown After Delay	Analog_Value	101	5814_1	RW	Units: sec
Nominal Power Factor	Analog_Value	102	5812_1	RD	
System					
System Input Black Out Count	Analog_Value	113	4120_1	RD	
System Input Brown Out Count	Analog_Value	114	4119_1	RD	
Inlet Air Temperature	Analog_Value	115	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10115	4291_1_deg_F	RD	Units: deg F
System Configuration					
System Date and Time	Analog_Value	126	4293_1	RW	Units: Secs since Epoch(UTC)
Auto Restart Delay	Analog_Value	127	4710_1	RW	Units: sec

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Table 5.168 Vertiv™Liebert® GXE3 Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Battery					
UPS Battery Status	MultiState_Value	12	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	13	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Battery Test Result	MultiState_Value	14	6181_1	RD	1 = Unknown 2 = Passed 3 = Failed 4 = In Progress 5 = System Failure 6 = Inhibited
Battery Charger State	MultiState_Value	15	6192_1	RD	1 = off 2 = on
Battery type	MultiState_Value	16	8330_1	RD	1 = VRLA 2 = Lithium Battery
Battery - Battery Configuration					
Auto Battery Test Interval	MultiState_Value	27	8485_1_1	RW	1 = disabled 2 = 8 weeks 3 = 12 weeks 4 = 16 weeks 5 = 20 weeks 6 = 26 weeks
Battery periodic test weekday	MultiState_Value	28	8351_1_1	RW	1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday

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Table 5.168 Vertiv™Liebert® GXE3 Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					5 = Friday 6 = Saturday 7 = Sunday
Manual Battery Test	MultiState_Value	29	5858_1_1	WO	1 = Start Test
Equal charge	MultiState_Value	30	8356_1_1	RW	1 = disabled 2 = enabled
Temperature compensation	MultiState_Value	31	8357_1_1	RW	1 = disabled 2 = enabled
Set External Battery Cabinet Quantity	MultiState_Value	32	8486_1_1	RW	1 = 0 Cabinets 2 = 1 Cabinet 3 = 2 Cabinets 4 = 3 Cabinets 5 = 4 Cabinets
Output					
UPS Output Source	MultiState_Value	43	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
ECO Mode					
ECO Mode Status	MultiState_Value	54	6198_1	RD	1 = off 2 = on
ECO Mode Operation State	MultiState_Value	55	5454_1	RW	1 = disabled 2 = enabled
ECO voltage range	MultiState_Value	56	8363_1	RW	1 = +/- 5% 2 = +/- 10% 3 = +/- 15%
ECO frequency range	MultiState_Value	57	8364_1	RW	1 = +/- 1Hz 2 = +/- 2Hz 3 = +/- 3Hz
ECO requalification time	MultiState_Value	58	8365_1	RW	1 = 1 min 2 = 5 min 3 = 15 min 4 = 30 min

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Table 5.168 Vertiv™Liebert® GXE3 Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System					
System Status	MultiState_Value	69	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Inverter On/Off State	MultiState_Value	70	4746_1	RD	1 = off 2 = on
Shutdown Reason	MultiState_Value	71	6197_1	RD	1 = None 2 = Over Temperature 3 = Overload 4 = DC Bus Overload 5 = Output Short 6 = Line Swap 7 = Low Battery 8 = Remote Command 9 = Input Under Voltage 10 = Power Factor Correction Fail 11 = External Signal Command
UPS Topology	MultiState_Value	72	6199_1	RD	1 = unknown 2 = Offline 3 = Line Interactive 4 = Online
System Configuration					
Audible Alarm Control	MultiState_Value	83	6188_1	RW	1 = off 2 = on
Silence Audible Alarm	MultiState_Value	84	6257_1	WO	1 = Silence Alarm
Auto Restart	MultiState_Value	85	5831_1	RW	1 = disabled 2 = enabled
Clear UPS faults	MultiState_Value	86	8369_1	WO	1 = Clear UPS faults
Guaranteed shutdown	MultiState_Value	87	8372_1	RW	1 = disabled 2 = enabled
IT system compatibility	MultiState_Value	88	8376_1	RW	1 = disabled 2 = enabled
Turn to bypass	MultiState_Value	89	8378_1	WO	1 = Turn To Bypass

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Table 5.168 Vertiv™Liebert® GXE3 Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Startup on bypass	MultiState_Value	90	8379_1	RW	1 = disabled 2 = enabled
Bypass voltage upper limit	MultiState_Value	91	8381_1	RW	1 = +10% 2 = +15% 3 = +20%
Bypass voltage lower limit	MultiState_Value	92	8382_1	RW	1 = -10% 2 = -15% 3 = -20%
Output Voltage Setting	MultiState_Value	93	8383_1	RD	1 = AutoDetect 2 = 100 VAC 3 = 110 VAC 4 = 115 VAC 5 = 120 VAC 6 = 125 VAC 7 = 200 VAC 8 = 208 VAC 9 = 220 VAC 10 = 230 VAC 11 = 240 VAC 12 = 100/173 VAC 13 = 100/173rvs VAC 14 = 100/200 VAC 15 = 110/190.5 VAC 16 = 110/190.5rvs VAC 17 = 110/220 VAC 18 = 115/199 VAC 19 = 115/199rvs VAC 20 = 115/230 VAC 21 = 120/208 VAC 22 = 120/208rvs VAC 23 = 120/240 VAC 24 = 125/216.5 VAC 25 = 125/216.5rvs VAC 26 = 125/250 VAC

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Table 5.169 Vertiv™Liebert® GXE3 Glossary

Data Label	Data Description
Audible Alarm Control	Audible Alarm Control
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Auxiliary power fault	Auxiliary power fault
Battery Charge Status	Battery charge status.
Battery Charger State	Current state of the battery charger
Battery Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage
Battery Discharging	The battery is discharging
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery last replaced time	The UPS battery last replaced time
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery periodic test time (hour)	Sets the hour to run the Battery periodic test.
Battery periodic test time (minute)	Sets the minute to run the Battery periodic test time.
Battery periodic test weekday	Sets the day of week to run the Battery periodic test.
Battery Rating	Total rating of all parallel strings in the battery.
Battery reminder (months)	Battery reminder (months)
Battery Self Test	Battery self test is in progress
Battery State of Health	The UPS battery State of Health
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery to utility transition	Battery to utility transition
Battery type	Battery type of the UPS system
Bypass Abnormal In ECO Mode	UPS will return to inverter from bypass due to ECO Mode bypass abnormal condition.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected

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Table 5.169 Vertiv™Liebert® GXE3 Glossary (continued)

Data Label	Data Description
Bypass disabled	Bypass disabled
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass voltage lower limit	Sets the percentage that the input voltage may be below the selected output voltage setting and remain in Bypass mode.
Bypass voltage upper limit	Sets the percentage that the input voltage may be above the selected output voltage setting and remain in Bypass mode.
Charger Failure	Charger Failure - Charger is off
Clear UPS faults	Clear UPS faults
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Device Faults were cleared as requested	Device Faults were cleared as requested
Discharge protect time	Sets the maximum discharge time when on battery.
ECO frequency range	Sets the amount that the input frequency may be above or below the selected frequency setting and remain in ECO mode.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
ECO requalification time	Length of time that the UPS requires the input voltage and frequency tolerances to be maintained before switching to ECO-mode.
ECO voltage range	Sets the percentage that the input voltage may be above or below the selected output voltage setting and remain in ECO mode.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equal charge	Equal charge
Equipment Over Temperature	Equipment over temperature summary event
External Battery Cabinets Ah	Sets the amp-hour rating of the external battery when using non-Vertiv external batteries. Calculated automatically for Vertiv EBCs.
General Fault	A general fault in the UPS has been detected.
Guaranteed shutdown	Forces a continued shutdown of the UPS once the Low Battery threshold is reached, even if input power is restored during this time.
Inlet Air Temperature	The temperature of the inlet air
Input Energy	Input energy consumption since the last reset of this value.

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Table 5.169 Vertiv™Liebert® GXE3 Glossary (continued)

Data Label	Data Description
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
IT system compatibility	Allows for compatibility with IT grounding system. When this option is enabled, the Input Phase Reversed and Input Ground Lost alarms are disabled.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Manual Battery Test	Command to initiate a manual battery test.
Manual Power On	Manual Power On
Max Charge Current	The maximum allowed current to be used for charging the batteries.
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Output Apparent Power Rating	Output apparent power rating
Output Energy	Total accumulated energy output, since last energy reset.
Output off due to abnormal bypass	Output off due to abnormal bypass
Output off voltage is not zero	Output off voltage is not zero
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Voltage Setting	Sets the nominal system voltage.
Power Module Shutdown - Over Temperature	Power Module has shutdown due to over temperature.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Remote Power On	Remote Power On
Replace Battery	The battery is due for replacement.
Server Class	The general classification for this system
Set External Battery Cabinet Quantity	Autodetect or manually enter number of External Battery Cabinets.

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Table 5.169 Vertiv™Liebert® GXE3 Glossary (continued)

Data Label	Data Description
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
Startup on bypass	Allows the UPS to start-up in bypass mode before transitioning to the inverter.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phase Count	The number of phases for the system input
System Input Power Factor L1	The system input power factor for Line 1
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Output Apparent Power L1	System output apparent power on Line 1
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1

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Table 5.169 Vertiv™Liebert® GXE3 Glossary (continued)

Data Label	Data Description
System Output Power L1	The system output power on Line 1.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Shutdown - Remote Shutdown	Shutdown was due to a remote communications shutdown command.
System Status	The operating status for the system
Temperature compensation	When enabled, the UPS will adjust the battery charging voltage based on temperature to preserve battery life.
Total Number of Battery Discharges	The total number of battery discharges.
Turn on failed	Turn on failed
Turn to bypass	Turn to bypass
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output on Inverter	The output power is supplied by the inverter
UPS Output Source	UPS output source
UPS Topology	UPS Topology
UPS was reset to factory defaults	UPS was reset to factory defaults

Table 5.170 Liebert® GXT3 and Liebert® GXT4—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Undervoltage	Binary_Value	1	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	2	5569_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	13	4135_1	RD	Active on Alarm
Battery					
Battery Self Test	Binary_Value	24	4741_1	RD	Active on Alarm
Battery Low	Binary_Value	25	4162_1	RD	Active on Alarm
Battery Under Voltage	Binary_Value	26	6180_1	RD	Active on Alarm
Battery Over Voltage	Binary_Value	27	5874_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	28	4323_1	RD	Active on Alarm
Replace Battery	Binary_Value	29	6182_1	RD	Active on Alarm

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Table 5.170 Liebert® GXT3 and Liebert® GXT4—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Output					
Output Overload	Binary_Value	40	5806_1	RD	Active on Alarm
Output Undervoltage	Binary_Value	41	5179_1	RD	Active on Alarm
Output Overvoltage	Binary_Value	42	5178_1	RD	Active on Alarm
System Output Off	Binary_Value	43	4215_1	RD	Active on Alarm
System					
Unspecified General Event	Binary_Value	60	5588_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	61	4823_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	62	4825_1	RD	Active on Alarm
Charger Failure	Binary_Value	63	6254_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	64	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	65	4233_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	66	5976_1	RD	Active on Alarm
System Fan Failure	Binary_Value	67	4311_1	RD	Active on Alarm
Emergency Power Off - Latched	Binary_Value	68	4229_1	RD	Active on Alarm
Input Wiring Fault	Binary_Value	69	6453_1	RD	Active on Alarm
DC to DC Converter Fault	Binary_Value	70	6454_1	RD	Active on Alarm

Table 5.171 Liebert® GXT3 and Liebert® GXT4—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS L1-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS L2-N	Analog_Value	2	4098_1	RD	Units: VAC
System Input RMS L1-L2	Analog_Value	3	4097_1	RD	Units: VAC
System Input RMS Current L1	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current L2	Analog_Value	5	4114_1	RD	Units: A AC
System Input Frequency	Analog_Value	6	4105_1	RD	Units: Hz
System Input Max Voltage L1-N	Analog_Value	7	4106_1	RD	Units: VAC
System Input Min Voltage L1-N	Analog_Value	8	4107_1	RD	Units: VAC
System Input Max Voltage L2-N	Analog_Value	9	4108_1	RD	Units: VAC
System Input Min Voltage L2-N	Analog_Value	10	4109_1	RD	Units: VAC
System Input Nominal Voltage	Analog_Value	11	4102_1	RD	Units: VAC

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Table 5.171 Liebert® GXT3 and Liebert® GXT4—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Nominal Current	Analog_Value	12	4104_1	RD	Units: A AC
System Input Nominal Frequency	Analog_Value	13	4103_1	RD	Units: Hz
Bypass					
Bypass Input Voltage RMS L1-N	Analog_Value	24	4128_1	RD	Units: VAC
Bypass Input Voltage RMS L1-L2	Analog_Value	25	4125_1	RD	Units: VAC
Bypass Input Voltage RMS L2-N	Analog_Value	26	4129_1	RD	Units: VAC
Bypass Input RMS Current	Analog_Value	27	5570_1	RD	Units: A AC
Bypass Input RMS Current Line 2	Analog_Value	28	5571_1	RD	Units: A AC
Bypass Input Frequency	Analog_Value	29	4131_1	RD	Units: Hz
Bypass Nominal Voltage	Analog_Value	30	4259_1	RD	Units: VAC
Battery					
Battery Time Remaining	Analog_Value	41	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	42	4153_1	RD	Units: %
DC Bus Voltage	Analog_Value	43	4148_1	RD	Units: VDC
DC Bus Nominal Voltage	Analog_Value	44	6189_1	RD	Units: VDC
Battery Rating	Analog_Value	45	4898_1	RD	Units: AH
Low Battery Warning Time	Analog_Value	46	5802_1	RW	Units: min
Number of EBC Installed	Analog_Value	47	5800_1	RD	
Nominal Battery Capacity	Analog_Value	48	6195_1	RD	Units: min
Battery Discharge Time	Analog_Value	49	4151_1	RD	Units: min
Battery Float Voltage	Analog_Value	50	5988_1	RD	Units: VDC
Output					
System Output Voltage RMS L1-N	Analog_Value	61	4385_1	RD	Units: VAC
System Output Voltage RMS L1-L2	Analog_Value	62	4201_1	RD	Units: VAC
System Output RMS Current L1	Analog_Value	63	4204_1	RD	Units: A AC
System Output Voltage RMS L2-N	Analog_Value	64	4386_1	RD	Units: VAC
System Output RMS Current L2	Analog_Value	65	4205_1	RD	Units: A AC
System Output Frequency	Analog_Value	66	4207_1	RD	Units: Hz
System Output Max Voltage L1-N	Analog_Value	67	6184_1	RD	Units: VAC
System Output Min Voltage L1-N	Analog_Value	68	6185_1	RD	Units: VAC
System Output Max Voltage L2-N	Analog_Value	69	6213_1	RD	Units: VAC
System Output Min Voltage L2-N	Analog_Value	70	6214_1	RD	Units: VAC

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Table 5.171 Liebert® GXT3 and Liebert® GXT4—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Power	Analog_Value	71	4208_1	RD	Units: W
System Output Power L1	Analog_Value	72	5859_1	RD	Units: W
System Output Power L2	Analog_Value	73	5860_1	RD	Units: W
System Output Pct Power	Analog_Value	74	5861_1	RD	Units: %
System Output Pct Power L1	Analog_Value	75	4223_1	RD	Units: %
System Output Pct Power L2	Analog_Value	76	4224_1	RD	Units: %
System Output Apparent Power	Analog_Value	77	4209_1	RD	Units: VA
System Output Apparent Power L1	Analog_Value	78	5868_1	RD	Units: VA
System Output Apparent Power L2	Analog_Value	79	5869_1	RD	Units: VA
System Output Nominal Voltage	Analog_Value	80	4260_1	RD	Units: VAC
Output Apparent Power Rating	Analog_Value	81	4264_1	RD	Units: VA
System Output Nominal Frequency	Analog_Value	82	4261_1	RD	Units: Hz
Output On Delay	Analog_Value	83	5816_1	RW	Units: sec
Reboot With Delay	Analog_Value	84	5815_1	RW	Units: sec
Shutdown After Delay	Analog_Value	85	5814_1	RW	Units: sec
Nominal Power Factor	Analog_Value	86	5812_1	RD	
Outlet Group 1					
Outlet Group Identifier	Analog_Value	97	4510_1	RD	—
Outlet Group 2					
Outlet Group Identifier	Analog_Value	108	4510_2	RD	—
System					
System Input Black Out Count	Analog_Value	119	4120_1	RD	—
System Input Brown Out Count	Analog_Value	120	4119_1	RD	—
Auto Restart Delay	Analog_Value	121	4710_1	RW	Units: sec
Inlet Air Temperature	Analog_Value	122	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10122	4291_1_deg_F	RD	Units: deg F

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Table 5.172 Liebert® GXT3 and Liebert® GXT4—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Battery					
UPS Battery Status	MultiState_Value	12	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	13	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Battery Cabinet Type	MultiState_Value	14	6183_1	RD	1 = Internal 2 = External 3 = LRT
Battery Charge Compensating	MultiState_Value	15	6190_1	RD	1 = false 2 = true
Battery Charger State	MultiState_Value	16	6192_1	RD	1 = off 2 = on
Battery Test Result	MultiState_Value	17	6181_1	RD	1 = Unknown 2 = Passed 3 = Failed 4 = In Progress 5 = System Failure 6 = Inhibited
Manual Battery Test	MultiState_Value	18	5858_1	WO	1 = Start Test
Automatic Battery Test	MultiState_Value	19	5803_1	RD	1 = disabled 2 = enabled
Output					
UPS Output Source	MultiState_Value	30	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Power Factor Correction	MultiState_Value	31	6196_1	RD	1 = off 2 = on
Outlet Group 1					

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Table 5.172 Liebert® GXT3 and Liebert® GXT4—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Outlet Group Power Control	MultiState_Value	42	4365_1	RW	1 = Off 2 = On 3 = Cycle Power
Outlet Group 2					
Outlet Group Power Control	MultiState_Value	53	4365_2	RW	1 = off 2 = on 3 = Cycle Power
ECO Mode					
ECO Mode Status	MultiState_Value	64	6198_1	RD	1 = off 2 = on
ECO Mode Operation State	MultiState_Value	65	5454_1	RW	1 = disabled 2 = enabled
System					
System Status	MultiState_Value	76	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Auto Restart	MultiState_Value	77	5831_1	RW	1 = disabled 2 = enabled
Inverter On/Off State	MultiState_Value	78	4746_1	RD	1 = off 2 = on
Shutdown Reason	MultiState_Value	79	6197_1	RD	1 = None 2 = Over Temperature 3 = Overload 4 = DC Bus Overload 5 = Output Short 6 = Line Swap 7 = Low Battery 8 = Remote Command 9 = Input Under Voltage 10 = Power Factor Correction Fail 11 = External Signal Command
Abort Command	MultiState_Value	80	6200_1	WO	1 = Issue Command
DC Converter Status	MultiState_Value	81	6003_1	RD	1 = off 2 = on
UPS Topology	MultiState_Value	82	6199_1	RD	1 = unknown 2 = Offline 3 = Line Interactive 4 = Online
Bypass/Inverter Input Config	MultiState_Value	83	6224_1	RD	1 = Single/Combined Source 2 = Dual/Separate Sources

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Table 5.172 Liebert® GXT3 and Liebert® GXT4—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Reset Power Statistics	MultiState_Value	84	6191_1	WO	1 = Reset
Audible Alarm Control	MultiState_Value	85	6188_1	RW	1 = off 2 = on
Silence Audible Alarm	MultiState_Value	86	6257_1	WO	1 = Silence Alarm

Table 5.173 Liebert® GXT3 and Liebert® GXT4—Glossary

Data Label	Data Description
Abort Command	Attempt to abort a previously issued command to the device that is still pending.
Audible Alarm Control	Audible Alarm Control.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Cabinet Type	Type of extended battery cabinets.
Battery Charge Compensating	Battery charge algorithm changed due to battery temperature.
Battery Charge Status	Battery charge status.
Battery Charger State	Current state of the battery charger.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge.
Battery Rating	Total rating of all parallel strings in the battery.
Battery Self Test	Battery self test is in progress.
Battery Test Failed	Battery test failed.
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery.
Battery Under Voltage	Battery voltage is too low.
Bypass Input Frequency	The bypass input frequency.
Bypass Input RMS Current Line 2	The bypass input RMS current for Line 2.
Bypass Input RMS Current	The bypass input RMS current.
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2.

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Table 5.173 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral.
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass/Inverter Input Config	Input source configuration for the bypass and inverter.
Charger Failure	Charger Failure - Charger is off.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
DC Converter Status	The operating state of the DC converter.
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equipment Over Temperature	Equipment over temperature summary event.
Inlet Air Temperature	The temperature of the inlet air.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state.
Loss of Redundancy	The multimodule collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Manual Battery Test	Command to initiate a manual battery test.
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load.
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Outlet Group Identifier	A runtime assigned outlet group identification number.

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Table 5.173 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
Outlet Group Power Control	Outlet Group Power Control (OFF, ON, Cycle, etc).
Output Apparent Power Rating	Output apparent power rating.
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Overvoltage	One or more of the output phase voltages has exceeded the limit.
Output Undervoltage	One or more of the output phase voltages has dropped below the limit.
Parallel Comm Warning	Parallel communication bus warning.
Power Factor Correction	The state of the power factor correction circuitry of the system.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off.
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics.
Server Class	The general classification for this system.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown.
Silence Audible Alarm	Silence Audible Alarm.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system.
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time.
System Input Frequency	The system input frequency.
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset.
System Input Max Voltage L2-N	The maximum system input voltage measurement for Line 2-N since the last reset.
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset.
System Input Min Voltage L2-N	The minimum system input voltage measurement for Line 2-N since the last reset.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal	The nominal (or rated) system input frequency.

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Table 5.173 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
Frequency	
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS Current L1	The system input RMS current for Line 1.
System Input RMS Current L2	The system input RMS current for Line 2.
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2.
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral.
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral.
System Output Apparent Power L1	System output apparent power on Line 1.
System Output Apparent Power L2	System output apparent power on Line 2.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Frequency	The system output frequency.
System Output Max Voltage L1-N	The maximum system output voltage measurement for Line 1-N since the last reset.
System Output Max Voltage L2-N	The maximum system output voltage measurement for Line 2-N since the last reset.
System Output Min Voltage L1-N	The minimum system output voltage measurement for Line 1-N since the last reset.
System Output Min Voltage L2-N	The minimum system output voltage measurement for Line 2-N since the last reset.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Off	The system output is off.
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity.
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity.
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.

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Table 5.173 Liebert® GXT3 and Liebert® GXT4—Glossary (continued)

Data Label	Data Description
System Output Power	The sum total power of all system output phases.
System Output RMS Current L1	The system output RMS current for Line 1.
System Output RMS Current L2	The system output RMS current for Line 2.
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2.
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral.
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral.
System Status	The operating status for the system.
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.
UPS Topology	UPS Topology.

Table 5.174 Liebert® GXT5—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass					
Bypass Not Available	Binary_Value	1	4135_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	2	4216_1	RD	Active on Alarm
Bypass disabled	Binary_Value	3	8309_1	RD	Active on Alarm
Battery					
Battery Self Test	Binary_Value	12	4741_1	RD	Active on Alarm
Battery Low	Binary_Value	13	4162_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	14	4323_1	RD	Active on Alarm
Replace Battery	Binary_Value	15	6182_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	16	5149_1	RD	Active on Alarm
External Battery Cabinet Removed	Binary_Value	17	8120_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	18	5150_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	19	4219_1	RD	Active on Alarm
Battery cabinet connection abnormal	Binary_Value	20	8307_1	RD	Active on Alarm
Battery Deep Discharge	Binary_Value	21	7164_1	RD	Active on Alarm

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Table 5.174 Liebert® GXT5—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery - Lithium Battery Group 1					
Battery Voltage Abnormal	Binary_Value	115	8344_1_1	RD	Active on Alarm
Battery Temperature Abnormal	Binary_Value	116	8345_1_1	RD	Active on Alarm
Battery Current Abnormal	Binary_Value	117	8346_1_1	RD	Active on Alarm
Battery Cabinet Address Fault	Binary_Value	118	8347_1_1	RD	Active on Alarm
Battery Cabinet Connect Fault	Binary_Value	119	8348_1_1	RD	Active on Alarm
Battery Cabinet Communication Fail	Binary_Value	120	8349_1_1	RD	Active on Alarm
Lithium Battery Cabinet Wait Charge	Binary_Value	121	8336_1_1	RD	Active on Alarm
Lithium-Ion Battery System Abnormal	Binary_Value	122	7464_1_1	RD	Active on Alarm
Battery Cabinet SOH Low	Binary_Value	123	8439_1_1	RD	Active on Alarm
Battery Cabinet Parallel Failure	Binary_Value	124	8438_1_1	RD	Active on Alarm
Battery - Lithium Battery Group 2					
Battery Voltage Abnormal	Binary_Value	131	8344_1_2	RD	Active on Alarm
Battery Temperature Abnormal	Binary_Value	132	8345_1_2	RD	Active on Alarm
Battery Current Abnormal	Binary_Value	133	8346_1_2	RD	Active on Alarm
Battery Cabinet Address Fault	Binary_Value	134	8347_1_2	RD	Active on Alarm
Battery Cabinet Connect Fault	Binary_Value	135	8348_1_2	RD	Active on Alarm
Battery Cabinet Communication Fail	Binary_Value	136	8349_1_2	RD	Active on Alarm
Lithium Battery Cabinet Wait Charge	Binary_Value	137	8336_1_2	RD	Active on Alarm
Lithium-Ion Battery System Abnormal	Binary_Value	138	7464_1_2	RD	Active on Alarm
Battery Cabinet SOH Low	Binary_Value	139	8439_1_2	RD	Active on Alarm
Battery Cabinet Parallel Failure	Binary_Value	140	8438_1_2	RD	Active on Alarm
Battery - Lithium Battery Group 16					
Battery Voltage Abnormal	Binary_Value	355	8344_1_16	RD	Active on Alarm
Battery Temperature Abnormal	Binary_Value	356	8345_1_16	RD	Active on Alarm
Battery Current Abnormal	Binary_Value	357	8346_1_16	RD	Active on Alarm
Battery Cabinet Address Fault	Binary_Value	358	8347_1_16	RD	Active on Alarm
Battery Cabinet Connect Fault	Binary_Value	359	8348_1_16	RD	Active on Alarm
Battery Cabinet Communication Fail	Binary_Value	360	8349_1_16	RD	Active on Alarm
Lithium Battery Cabinet Wait Charge	Binary_Value	361	8336_1_16	RD	Active on Alarm
Lithium-Ion Battery System Abnormal	Binary_Value	362	7464_1_16	RD	Active on Alarm
Battery Cabinet SOH Low	Binary_Value	363	8439_1_16	RD	Active on Alarm

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Table 5.174 Liebert® GXT5—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Parallel Failure	Binary_Value	364	8438_1_16	RD	Active on Alarm
Battery - Lithium Battery System					
Battery Cabinet Serial Number Illegal Error	Binary_Value	372	8331_1_1	RD	Active on Alarm
Lithium Battery Cabinet Online Number Error	Binary_Value	373	8332_1_1	RD	Active on Alarm
Lithium Battery Cabinet Communication Failure	Binary_Value	374	8333_1_1	RD	Active on Alarm
Lithium Battery Cabinet mismatch the unit.	Binary_Value	375	8334_1_1	RD	Active on Alarm
Lithium Battery Cabinet Address Set Error	Binary_Value	376	8335_1_1	RD	Active on Alarm
Number of Lithium Battery Cabinets Over Limit	Binary_Value	377	8337_1_1	RD	Active on Alarm
Manual lithium battery wake up occurred.	Binary_Value	378	8339_1_1	RD	Active on Alarm
Lithium Battery Cabinet Check	Binary_Value	379	8338_1_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	26	5806_1	RD	Active on Alarm
System Output Off	Binary_Value	27	4215_1	RD	Active on Alarm
System Output Fault	Binary_Value	28	4389_1	RD	Active on Alarm
Insufficient capacity to start	Binary_Value	29	8308_1	RD	Active on Alarm
Turn on failed	Binary_Value	30	8362_1	RD	Active on Alarm
System					
UPS Output on Bypass	Binary_Value	39	4298_1	RD	Active on Alarm
Battery Discharging	Binary_Value	40	4168_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	41	4122_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	42	4310_1	RD	Active on Alarm
Shutdown Pending	Binary_Value	43	6187_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	44	5588_1	RD	Active on Alarm
Charger Failure	Binary_Value	47	6254_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	48	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	49	4233_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	50	5976_1	RD	Active on Alarm
System Fan Failure	Binary_Value	51	4311_1	RD	Active on Alarm
Emergency Power Off - Latched	Binary_Value	52	4229_1	RD	Active on Alarm
DC to DC Converter Fault	Binary_Value	54	6454_1	RD	Active on Alarm
Transformer Overtemperature	Binary_Value	56	5433_1	RD	Active on Alarm
Power Module Shutdown - Over Temperature	Binary_Value	57	5840_1	RD	Active on Alarm

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Table 5.174 Liebert® GXT5—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Shutdown - Transformer Over Temperature	Binary_Value	58	5850_1	RD	Active on Alarm
Mains Input Neutral Lost	Binary_Value	59	5155_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	60	5808_1	RD	Active on Alarm
UPS Output on Inverter	Binary_Value	61	4297_1	RD	Active on Alarm
System Shutdown - Remote Shutdown	Binary_Value	62	5810_1	RD	Active on Alarm
Auxiliary power fault	Binary_Value	63	8310_1	RD	Active on Alarm
Output off due to abnormal bypass	Binary_Value	64	8311_1	RD	Active on Alarm
Local output is disconnected	Binary_Value	65	8312_1	RD	Active on Alarm
Output off voltage is not zero	Binary_Value	66	8313_1	RD	Active on Alarm
Manual Power On	Binary_Value	67	8315_1	RD	Active on Alarm
Remote Power On	Binary_Value	68	8316_1	RD	Active on Alarm
Battery to utility transition	Binary_Value	69	8317_1	RD	Active on Alarm
UPS was reset to factory defaults	Binary_Value	70	8318_1	RD	Active on Alarm
Device Faults were cleared, as requested	Binary_Value	71	8319_1	RD	Active on Alarm
Scheduled power on occurred	Binary_Value	72	8320_1	RD	Active on Alarm
Scheduled power off occurred	Binary_Value	73	8321_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	74	6059_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	75	4300_1	RD	Active on Alarm
General Fault	Binary_Value	76	6350_1	RD	Active on Alarm
System output Inhibit - Ext	Binary_Value	77	8368_1	RD	Active on Alarm
System - Parallel Status					
Parallel Comm Warning	Binary_Value	45	4823_1_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	46	4825_1_1	RD	Active on Alarm
Load Sharing Fault	Binary_Value	393	5153_1_1	RD	Active on Alarm
Parallel output frequency abnormal	Binary_Value	394	8314_1_1	RD	Active on Alarm
Parallel Cable Failure	Binary_Value	395	6066_1_1	RD	Active on Alarm
Input Wiring Fault	Binary_Value	53	6453_1_1	RD	Active on Alarm
Input					
System Input Current Imbalance	Binary_Value	100	4382_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	101	4147_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	102	5154_1	RD	Active on Alarm
Rectifier soft start failure	Binary_Value	103	8306_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	104	6061_1	RD	Active on Alarm

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Table 5.175 Liebert® GXT5—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS L1-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS L2-N	Analog_Value	2	4098_1	RD	Units: VAC
System Input RMS L3-N	Analog_Value	3	4100_1	RD	Units: VAC
System Input RMS L1-L2	Analog_Value	4	4097_1	RD	Units: VAC
System Input RMS L2-L3	Analog_Value	5	4099_1	RD	Units: VAC
System Input RMS L3-L1	Analog_Value	6	4101_1	RD	Units: VAC
System Input RMS Current L1	Analog_Value	7	4113_1	RD	Units: A AC
System Input RMS Current L2	Analog_Value	8	4114_1	RD	Units: A AC
System Input RMS Current L3	Analog_Value	9	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	10	4105_1	RD	Units: Hz
System Input Power Factor L1	Analog_Value	11	4116_1	RD	
System Input Power Factor L2	Analog_Value	12	4117_1	RD	
System Input Power Factor L3	Analog_Value	13	4118_1	RD	
System Input Max Voltage L1-N	Analog_Value	14	4106_1	RD	Units: VAC
System Input Min Voltage L1-N	Analog_Value	15	4107_1	RD	Units: VAC
System Input Max Voltage L2-N	Analog_Value	16	4108_1	RD	Units: VAC
System Input Min Voltage L2-N	Analog_Value	17	4109_1	RD	Units: VAC
System Input Max Voltage L3-N	Analog_Value	18	4110_1	RD	Units: VAC
System Input Min Voltage L3-N	Analog_Value	19	4111_1	RD	Units: VAC
System Input Nominal Voltage	Analog_Value	20	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	21	4104_1	RD	Units: A AC
System Input Nominal Frequency	Analog_Value	22	4103_1	RD	Units: Hz
System Input Phase Count	Analog_Value	23	4112_1	RD	
Input Energy	Analog_Value	24	5900_1	RD	Units: kWH
Bypass					
Bypass Input Voltage RMS L1-N	Analog_Value	35	4128_1	RD	Units: VAC
Bypass Input Voltage RMS L2-N	Analog_Value	36	4129_1	RD	Units: VAC
Bypass Input Voltage RMS L1-L2	Analog_Value	37	4125_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	38	4131_1	RD	Units: Hz
Bypass Nominal Voltage	Analog_Value	39	4259_1	RD	Units: VAC
Battery					

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Table 5.175 Liebert® GXT5—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Time Remaining	Analog_Value	50	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	51	4153_1	RD	Units: %
Battery Current	Analog_Value	52	4149_1	RD	Units: A DC
DC Bus Voltage	Analog_Value	53	4148_1	RD	Units: VDC
DC Bus Nominal Voltage	Analog_Value	54	6189_1	RD	Units: VDC
Battery Temperature	Analog_Value	55	4156_1	RD	Units: deg C
Battery Temperature	Analog_Value	10055	4156_1_deg_F	RD	Units: deg F
The Highest Battery Temperature	Analog_Value	56	5853_1	RD	Units: deg C
The Highest Battery Temperature	Analog_Value	10056	5853_1_deg_F	RD	Units: deg F
Battery Rating	Analog_Value	57	4898_1	RD	Units: AH
Number of EBC Installed	Analog_Value	59	5800_1	RD	
Nominal Battery Capacity	Analog_Value	60	6195_1	RD	Units: min
Battery Discharge Time	Analog_Value	61	4151_1	RD	Units: min
Battery Total Discharge Time	Analog_Value	62	4152_1	RD	Units: hr
Total Number of Battery Discharges	Analog_Value	63	5767_1	RD	
Battery last replaced time	Analog_Value	65	4160_1	RD	Units: Secs since Epoch(UTC)
Battery State of Health	Analog_Value	66	7462_1	RD	Units: %
Battery Float Voltage	Analog_Value	67	5988_1	RD	Units: VDC
Battery expiration date	Analog_Value	68	8327_1	RD	Units: Secs since Epoch(UTC)
Battery average temperature	Analog_Value	69	8400_1	RD	Units: deg C
Battery average temperature	Analog_Value	10069	8400_1_deg_F	RD	Units: deg F
Battery lowest temperature	Analog_Value	70	8401_1	RD	Units: deg C
Battery lowest temperature	Analog_Value	10070	8401_1_deg_F	RD	Units: deg F
Battery - Lithium Battery Group 1					
Lithium Battery Cabinet State of Charge	Analog_Value	179	8340_1_1	RD	Units: %
Battery State of Health	Analog_Value	180	8341_1_1	RD	Units: %
Battery - Lithium Battery Group 2					
Lithium Battery Cabinet State of Charge	Analog_Value	191	8340_1_2	RD	Units: %
Battery State of Health	Analog_Value	192	8341_1_2	RD	Units: %
Battery - Lithium Battery Group 16					
Lithium Battery Cabinet State of Charge	Analog_Value	359	8340_1_16	RD	Units: %
Battery State of Health	Analog_Value	360	8341_1_16	RD	Units: %

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Table 5.175 Liebert® GXT5—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery - Battery Configuration					
Battery periodic test time (hour)	Analog_Value	371	8352_1_1	RW	
Battery periodic test time (minute)	Analog_Value	372	8353_1_1	RW	
Low Battery Warning Time	Analog_Value	58	5802_1_1	RW	Units: min
Battery reminder (months)	Analog_Value	374	8354_1_1	RW	
Discharge protect time	Analog_Value	375	8355_1_1	RW	Units: min
External Battery Cabinets Ah	Analog_Value	377	8360_1_1	RW	
Max Charge Current	Analog_Value	64	6252_1_1	RW	Units: A DC
Battery - Lithium Battery System					
Maximum Cell Voltage	Analog_Value	389	8328_1_1	RD	Units: mV DC
Minimum Cell Voltage	Analog_Value	390	8329_1_1	RD	Units: mV DC
Output					
System Output Voltage RMS L1-N	Analog_Value	77	4385_1	RD	Units: VAC
System Output Voltage RMS L2-N	Analog_Value	78	4386_1	RD	Units: VAC
System Output Voltage RMS L1-L2	Analog_Value	79	4201_1	RD	Units: VAC
System Output RMS Current L1	Analog_Value	80	4204_1	RD	Units: A AC
System Output RMS Current L2	Analog_Value	81	4205_1	RD	Units: A AC
System Output Frequency	Analog_Value	82	4207_1	RD	Units: Hz
System Output Power	Analog_Value	83	4208_1	RD	Units: W
System Output Power L1	Analog_Value	84	5859_1	RD	Units: W
System Output Power L2	Analog_Value	85	5860_1	RD	Units: W
System Output Pct Power	Analog_Value	86	5861_1	RD	Units: %
System Output Pct Power L1	Analog_Value	87	4223_1	RD	Units: %
System Output Pct Power L2	Analog_Value	88	4224_1	RD	Units: %
System Output Apparent Power	Analog_Value	89	4209_1	RD	Units: VA
System Output Apparent Power L1	Analog_Value	90	5868_1	RD	Units: VA
System Output Apparent Power L2	Analog_Value	91	5869_1	RD	Units: VA
System Output Power Factor L1	Analog_Value	92	4210_1	RD	
System Output Power Factor L2	Analog_Value	93	4211_1	RD	
System Output Nominal Voltage	Analog_Value	94	4260_1	RD	Units: VAC
Output Energy	Analog_Value	95	5166_1	RW	Units: kWH
Output Apparent Power Rating	Analog_Value	96	4264_1	RD	Units: VA

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Table 5.175 Liebert® GXT5—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Nominal Frequency	Analog_Value	97	4261_1	RD	Units: Hz
Output On Delay	Analog_Value	98	5816_1	RW	Units: sec
Reboot With Delay	Analog_Value	99	5815_1	RW	Units: sec
Shutdown After Delay	Analog_Value	100	5814_1	RW	Units: sec
Nominal Power Factor	Analog_Value	101	5812_1	RD	
Parallel Output Power	Analog_Value	102	4811_1	RD	Units: W
Parallel Output Apparent Power	Analog_Value	103	4812_1	RD	Units: VA
Parallel ID	Analog_Value	104	4829_1	RD	
Number of parallel units	Analog_Value	105	4833_1	RD	
Outlet Group 1					
Outlet Group Identifier	Analog_Value	116	4510_1	RD	
Outlet Group 2					
Outlet Group Identifier	Analog_Value	127	4510_2	RD	
Outlet Group 4					
Outlet Group Identifier	Analog_Value	149	4510_4	RD	
System					
System Input Black Out Count	Analog_Value	160	4120_1	RD	
System Input Brown Out Count	Analog_Value	161	4119_1	RD	
Inlet Air Temperature	Analog_Value	163	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10163	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	165	6069_1	RD	Units: %
System Configuration					
System Date and Time	Analog_Value	164	4293_1	RW	Units: Secs since Epoch(UTC)
Auto Restart Delay	Analog_Value	162	4710_1	RW	Units: sec
System Configuration - Sleep mode					
Sleep mode power on time Hour	Analog_Value	413	8386_1_1	RW	
Sleep mode power on time Minute	Analog_Value	414	8387_1_1	RW	
Sleep mode power off time Hour	Analog_Value	415	8389_1_1	RW	
Sleep mode power off time Minute	Analog_Value	416	8390_1_1	RW	

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Table 5.176 Liebert® GXT5 —Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Battery					
UPS Battery Status	MultiState_Value	12	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	13	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Battery Test Result	MultiState_Value	17	6181_1	RD	1 = Unknown 2 = Passed 3 = Failed 4 = In Progress 5 = System Failure 6 = Inhibited
Battery Cabinet Type	MultiState_Value	18	6183_1	RD	1 = Internal 2 = External 3 = LRT
Battery Charger State	MultiState_Value	20	6192_1	RD	1 = off 2 = on
Battery type	MultiState_Value	21	8330_1	RD	1 = VRLA 2 = Lithium Battery
Battery - Lithium Battery Group 1					
Lithium Battery Status.	MultiState_Value	228	8350_1_1	RD	1 = Idle 2 = charging 3 = discharging 4 = Balance
Battery - Lithium Battery Group 2					
Lithium Battery Status.	MultiState_Value	239	8350_1_2	RD	1 = Idle 2 = charging

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Table 5.176 Liebert® GXT5 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = discharging 4 = Balance
Battery - Lithium Battery Group 16					
Lithium Battery Status.	MultiState_Value	393	8350_1_16	RD	1 = Idle 2 = charging 3 = discharging 4 = Balance
Battery - Battery Configuration					
Automatic Battery Test	MultiState_Value	14	5803_1_1	RW	1 = disabled 2 = enabled
Auto Battery Test Interval	MultiState_Value	15	5805_1_1	RW	1 = 8 weeks 2 = 12 weeks 3 = 16 weeks 4 = 20 weeks 5 = 26 weeks
Battery periodic test weekday	MultiState_Value	406	8351_1_1	RW	1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday
Manual Battery Test	MultiState_Value	16	5858_1_1	WO	1 = Start Test
Acknowledge External Battery Cabinet Removed	MultiState_Value	19	8121_1_1	WO	1 = Acknowledge
Equal charge	MultiState_Value	409	8356_1_1	RW	1 = disabled 2 = enabled
Temperature compensation	MultiState_Value	410	8357_1_1	RW	1 = disabled 2 = enabled
Set External Battery Cabinet Quantity	MultiState_Value	411	8440_1_1	RW	1 = AutoDetect 2 = 0 Cabinets 3 = 1 Cabinet 4 = 2 Cabinets 5 = 3 Cabinets 6 = 4 Cabinets 7 = 5 Cabinets

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Table 5.176 Liebert® GXT5 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					8 = 6 Cabinets 9 = 7 Cabinets 10 = 8 Cabinets 11 = 9 Cabinets 12 = 10 Cabinets
Battery - Lithium Battery System					
Lithium Battery Manual Wake-up	MultiState_Value	422	8361_1_1	WO	1 = Wake up the lithium battery manually
Output					
UPS Output Source	MultiState_Value	29	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Outlet Group 1					
Outlet Group Power Control	MultiState_Value	40	4365_1	RW	1 = Off 2 = On 3 = Cycle Power
Outlet Group 2					
Outlet Group Power Control	MultiState_Value	51	4365_2	RW	1 = Off 2 = On 3 = Cycle Power
Outlet Group 4					
Outlet Group Power Control	MultiState_Value	73	4365_4	RW	1 = Off 2 = On 3 = Cycle Power
ECO Mode					
ECO Mode Status	MultiState_Value	84	6198_1	RD	1 = off 2 = on
ECO Mode Operation State	MultiState_Value	85	5454_1	RW	1 = disabled 2 = enabled
ECO voltage range	MultiState_Value	86	8363_1	RW	1 = +/- 5% 2 = +/- 10% 3 = +/- 15%

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Table 5.176 Liebert® GXT5 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
ECO frequency range	MultiState_Value	87	8364_1	RW	1 = +/- 1Hz 2 = +/- 2Hz 3 = +/- 3Hz
ECO requalification time	MultiState_Value	88	8365_1	RW	1 = 1 min 2 = 5 min 3 = 15 min 4 = 30 min
System					
System Status	MultiState_Value	96	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Inverter On/Off State	MultiState_Value	98	4746_1	RD	1 = off 2 = on
Shutdown Reason	MultiState_Value	99	6197_1	RD	1 = None 2 = Over Temperature 3 = Overload 4 = DC Bus Overload 5 = Output Short 6 = Line Swap 7 = Low Battery 8 = Remote Command 9 = Input Under Voltage 10 = Power Factor Correction Fail 11 = External Signal Command
UPS Topology	MultiState_Value	100	6199_1	RD	1 = unknown 2 = Offline 3 = Line Interactive 4 = Online
System - Parallel Status					
Master or slave	MultiState_Value	114	8367_1_1	RD	1 = Master 2 = Slave
System Configuration					
Audible Alarm Control	MultiState_Value	102	6188_1	RW	1 = off

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Table 5.176 Liebert® GXT5 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = on
Silence Audible Alarm	MultiState_Value	103	6257_1	WO	1 = Silence Alarm
Auto Restart	MultiState_Value	97	5831_1	RW	1 = disabled 2 = enabled
Reset Power Statistics	MultiState_Value	101	6191_1	WO	1 = Reset
Clear UPS faults	MultiState_Value	125	8369_1	WO	1 = Clear UPS faults
Guaranteed shutdown	MultiState_Value	126	8372_1	RW	1 = disabled 2 = enabled
Start with no battery	MultiState_Value	127	8374_1	RW	1 = disabled 2 = enabled
Any mode shutdown auto restart	MultiState_Value	128	8375_1	RW	1 = disabled 2 = enabled
IT system compatibility	MultiState_Value	129	8376_1	RW	1 = disabled 2 = enabled
Model supports Transformer Distribution Unit	MultiState_Value	130	8377_1	RW	1 = disabled 2 = enabled
Turn to bypass	MultiState_Value	131	8378_1	WO	1 = Turn To Bypass
Startup on bypass	MultiState_Value	132	8379_1	RW	1 = disabled 2 = enabled
Frequency selection	MultiState_Value	133	8380_1	RD	1 = Auto, Bypass enable 2 = Auto, Bypass disable 3 = 50Hz, Bypass disable 4 = 60Hz, Bypass disable
Bypass voltage upper limit	MultiState_Value	134	8381_1	RW	1 = +10% 2 = +15% 3 = +20%
Bypass voltage lower limit	MultiState_Value	135	8382_1	RW	1 = -10% 2 = -15% 3 = -20%
Output Voltage Setting	MultiState_Value	136	8383_1	RD	1 = AutoDetect 2 = 100 VAC 3 = 110 VAC 4 = 115 VAC 5 = 120 VAC 6 = 125 VAC

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Table 5.176 Liebert® GXT5 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					7 = 200 VAC 8 = 208 VAC 9 = 220 VAC 10 = 230 VAC 11 = 240 VAC 12 = 100/173 VAC 13 = 100/173rvs VAC 14 = 100/200 VAC 15 = 110/190.5 VAC 16 = 110/190.5rvs VAC 17 = 110/220 VAC 18 = 115/199 VAC 19 = 115/199rvs VAC 20 = 115/230 VAC 21 = 120/208 VAC 22 = 120/208rvs VAC 23 = 120/240 VAC 24 = 125/216.5 VAC 25 = 125/216.5rvs VAC 26 = 125/250 VAC
System Configuration - Sleep mode					
Sleep mode	MultiState_Value	147	8384_1_1	RW	1 = disabled 2 = enabled
Sleep mode power on day of week	MultiState_Value	148	8385_1_1	RW	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
Sleep mode power off day of week	MultiState_Value	149	8388_1_1	RW	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday

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Table 5.176 Liebert® GXT5 —Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					7 = Saturday 8 = Sunday
System Configuration - System Output DryContact Status Config					
Output dry contact	MultiState_Value	160	8391_1_1	RW	1 = NO 2 = NC
Dry contact 5 output	MultiState_Value	161	8393_1_1	RW	1 = Low battery 2 = On bypass 3 = On battery 4 = UPS fault
Dry contact 6 output	MultiState_Value	162	8394_1_1	RW	1 = Low battery 2 = On bypass 3 = On battery 4 = UPS fault
System Configuration - SystemDryContact					
Input dry contact	MultiState_Value	173	8392_1_1	RW	1 = NO 2 = NC
Dry contact 1 input	MultiState_Value	174	8395_1_1	RW	1 = disabled 2 = Battery mode shutdown 3 = Any mode shutdown 4 = Maintenance mode
Dry contact 2 input	MultiState_Value	175	8396_1_1	RW	1 = disabled 2 = Battery mode shutdown 3 = Any mode shutdown 4 = Maintenance mode
System Configuration - Input DryContact for GXT5 work with Transformer Distribution Unit 1					
Input Dry contact action setting	MultiState_Value	186	8402_1_1	RW	1 = disabled 2 = Battery mode shutdown 3 = Any mode shutdown 4 = TDU Over temp signal
System Configuration - Input DryContact for GXT5 work with Transformer Distribution Unit 2					
Input Dry contact action setting	MultiState_Value	197	8402_1_2	RW	1 = disabled 2 = Battery mode shutdown 3 = Any mode shutdown 4 = TDU Over temp signal

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Table 5.177 Liebert® GXT5 Glossary

Data Label	Data Description
Acknowledge External Battery Cabinet Removed	Acknowledge the detected removal of an external battery cabinet.
Any mode shutdown auto restart	Automatically restart the UPS after an Any Mode Shutdown signal is received and then cleared.
Audible Alarm Control	Audible Alarm Control
Auto Battery Test Interval	The time between automatic battery tests.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Auxiliary power fault	Auxiliary power fault
Average system efficiency	Average system efficiency
Battery average temperature	Battery average temperature
Battery Cabinet Address Fault	Battery Cabinet Addresses are set incorrectly.
Battery Cabinet Communication Fail	Battery Cabinet Cable failure.
Battery Cabinet Connect Fault	Battery cabinet ports have reversed connections.
Battery cabinet connection abnormal	Battery cabinet connection abnormal
Battery Cabinet Parallel Failure	Battery Cabinet Parallel failure of the online lithium battery cabinet.
Battery Cabinet Serial Number Illegal Error	Serial Number of the battery cabinet is illegal.
Battery Cabinet SOH Low	Battery cabinet state of health is low.
Battery Cabinet Type	Type of extended battery cabinets.
Battery Charge Status	Battery charge status.
Battery Charger State	Current state of the battery charger
Battery Current Abnormal	Battery current out-of-range of the online lithium battery cabinet.
Battery Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
Battery Deep Discharge	UPS depleted the batteries to the end of discharge(EOD) voltage
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery expiration date	Predicted data of expiration of the battery.
Battery Float Voltage	The cell voltage of the battery at float recharging.
Battery last replaced time	The UPS battery last replaced time
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery lowest temperature	Battery lowest temperature

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold
Battery Percentage Charge	The percentage of battery charge
Battery periodic test time (hour)	Sets the hour to run the Battery periodic test.
Battery periodic test time (minute)	Sets the minute to run the Battery periodic test time.
Battery periodic test weekday	Sets the day of week to run the Battery periodic test.
Battery Rating	Total rating of all parallel strings in the battery.
Battery reminder (months)	Battery reminder (months)
Battery Self Test	Battery self test is in progress
Battery State of Health	Battery State of Health
Battery State of Health	The UPS battery State of Health
Battery Temperature Abnormal	Battery Temperature out-of-range of the online Lithium Battery Cabinet.
Battery Temperature	The temperature of the batteries
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery
Battery to utility transition	Battery to utility transition
Battery Total Discharge Time	The cumulative battery discharge time
Battery type	Battery type of the UPS system
Battery Voltage Abnormal	Battery voltage out-of-range in the online lithium battery cabinet.
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass disabled	Bypass disabled
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage RMS L1-L2	The bypass input RMS voltage between Lines 1 and 2
Bypass Input Voltage RMS L1-N	The bypass input RMS voltage between Line 1 and Neutral
Bypass Input Voltage RMS L2-N	The bypass input RMS voltage between Line 2 and Neutral
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass Not Available	A problem associated with the bypass has been detected
Bypass voltage lower limit	Sets the percentage that the input voltage may be below the selected output voltage setting and remain in Bypass mode.
Bypass voltage upper limit	Sets the percentage that the input voltage may be above the selected output voltage setting and remain in Bypass mode.

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
Charger Failure	Charger Failure - Charger is off
Clear UPS faults	Clear UPS faults
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Device Faults were cleared, as requested	Device Faults were cleared, as requested
Discharge protect time	Sets the maximum discharge time when on battery.
Dry contact 1 input	Selects the action taken by the UPS when the input of dry-contact 1 is triggered
Dry contact 2 input	Selects the action taken by the UPS when the input of dry-contact 2 is triggered
Dry contact 5 output	Selects the output of dry-contact 5
Dry contact 6 output	Selects the output of dry-contact 6
ECO frequency range	Sets the amount that the input frequency may be above or below the selected frequency setting and remain in ECO mode.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Status	Current ECO Mode Status
ECO requalification time	Length of time that the UPS requires the input voltage and frequency tolerances to be maintained before switching to ECO-mode.
ECO voltage range	Sets the percentage that the input voltage may be above or below the selected output voltage setting and remain in ECO mode.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset
Equal charge	Equal charge
Equipment Over Temperature	Equipment over temperature summary event
External Battery Cabinet Removed	One or more external battery cabinets have been removed.
External Battery Cabinets Ah	Sets the amp-hour rating of the external battery when using non-Vertiv external batteries. Calculated automatically for Vertiv EBCs.
Frequency selection	Selects the frequency of the output.
General Fault	A general fault in the UPS has been detected.
Guaranteed shutdown	Forces a continued shutdown of the UPS once the Low Battery threshold is reached, even if input power is restored during this time.
Inlet Air Temperature	The temperature of the inlet air
Input Dry contact action setting	Selects the action taken by the UPS when the input of dry-contact is triggered when UPS work with Transformer distribution unit.
Input dry contact	Selects the states of the dry contact inputs

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
Input Energy	Input energy consumption since the last reset of this value.
Input Source Backfeed	The battery is backfeeding the input source.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Insufficient capacity to start	Insufficient capacity to start
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter On/Off State	inverter on/off state
Inverter Relay Fault	The inverter relay has malfunctioned.
IT system compatibility	Allows for compatibility with IT grounding system. When this option is enabled, the Input Phase Reversed and Input Ground Lost alarms are disabled.
Lithium Battery Cabinet Address Set Error	Lithium battery cabinet addresses have been set incorrectly.
Lithium Battery Cabinet Check	Check if the battery is present
Lithium Battery Cabinet Communication Failure	Battery cabinet communication has been disrupted.
Lithium Battery Cabinet mismatch the unit.	The warning is triggered when the online lithium battery cabinet can't be used by the UPS.
Lithium Battery Cabinet Online Number Error	The online battery cabinet number is different from the cofigured number.
Lithium Battery Cabinet State of Charge	State of charge of the online lithium battery cabinet.
Lithium Battery Cabinet Wait Charge	The battery is waiting for charge.
Lithium Battery Manual Wake-up	Wake up the lithium battery manually
Lithium Battery Status.	State of the selected Lithium Battery Cabinet.
Lithium-Ion Battery System Abnormal	Lithium-Ion Battery System Abnormal
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Local output is disconnected	Local output is disconnected
Loss of Redundancy	The multi-module collection doesn't have enough modules to satisfy the redundancy configuration.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Manual Battery Test	Command to initiate a manual battery test.

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
Manual lithium battery wake up occurred.	Manual Lithium Battery Wake Up Occurred
Manual Power On	Manual Power On
Master or slave	State of unit in a Parallel System, Master or slave.
Max Charge Current	The maximum allowed current to be used for charging the batteries.
Maximum Cell Voltage	The maximum cell voltage of the parallelled lithium battery cabinets.
Minimum Cell Voltage	The minimum cell voltage of the parallelled lithium battery cabinets.
Model supports Transformer Distribution Unit	Model supports Transformer Distribution Unit
Nominal Battery Capacity	The nominal (or rated) battery capacity time at full load
Nominal Power Factor	The nominal (or rated) system power factor.
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Number of Lithium Battery Cabinets Over Limit	The number of batteries connected to the system exceeds the maximum
Number of parallel units	The number of modules in a parallel system
Outlet Group Identifier	A runtime assigned outlet group identification number
Outlet Group Power Control	Outlet Group Power Control (OFF, ON, Cycle, etc)
Output Apparent Power Rating	Output apparent power rating
Output dry contact	Selects the states of the dry contact outputs
Output Energy	Total accumulated energy output, since last energy reset.
Output off due to abnormal bypass	Output off due to abnormal bypass
Output off voltage is not zero	Output off voltage is not zero
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Voltage Setting	Sets the nominal system voltage.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parallel ID	Parallel Unit ID
Parallel Output Apparent Power	The sum total apparent power of a parallel system
Parallel output frequency abnormal	Parallel output frequency abnormal
Parallel Output Power	The sum total output power of a parallel system
Power Module Shutdown - Over Temperature	Power Module has shutdown due to over temperature.

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier soft start failure	Rectifier soft start failure
Remote Power On	Remote Power On
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics
Scheduled power off occurred	Scheduled power off occurred
Scheduled power on occurred	Scheduled power on occurred
Server Class	The general classification for this system
Set External Battery Cabinet Quantity	Autodetect or manually enter number of External Battery Cabinets.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Shutdown Reason	The reason for the most recent shutdown
Silence Audible Alarm	Silence Audible Alarm
Sleep mode power off day of week	Sets the day of week to turn off the UPS.
Sleep mode power off time Hour	Sets the hour to power off the UPS on the selected day
Sleep mode power off time Minute	Sets the minute to power off the UPS on the selected day
Sleep mode power on day of week	Sets the day of week to turn on the UPS.
Sleep mode power on time Hour	Sets the hour to power on the UPS on the selected day
Sleep mode power on time Minute	Sets the minute to power on the UPS on the selected day
Sleep mode	Allows the UPS to turn off the output on a weekly schedule
Start with no battery	Allows the system to turn on the output with no battery connected.
Startup on bypass	Allows the UPS to start-up in bypass mode before transitioning to the inverter.
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Current Imbalance	System Input Currents are Imbalanced
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
System Input Max Voltage L1-N	The maximum system input voltage measurement for Line 1-N since the last reset
System Input Max Voltage L2-N	The maximum system input voltage measurement for Line 2-N since the last reset
System Input Max Voltage L3-N	The maximum system input voltage measurement for Line 3-N since the last reset
System Input Min Voltage L1-N	The minimum system input voltage measurement for Line 1-N since the last reset
System Input Min Voltage L2-N	The minimum system input voltage measurement for Line 2-N since the last reset
System Input Min Voltage L3-N	The minimum system input voltage measurement for Line 3-N since the last reset
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phase Count	The number of phases for the system input
System Input Power Factor L1	The system input power factor for Line 1
System Input Power Factor L2	The system input power factor for Line 2
System Input Power Factor L3	The system input power factor for Line 3
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current L1	The system input RMS current for Line 1
System Input RMS Current L2	The system input RMS current for Line 2
System Input RMS Current L3	The system input RMS current for Line 3
System Input RMS L1-L2	The System Input RMS Voltage between Line 1 and Line 2
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral
System Input RMS L2-L3	The System Input RMS Voltage between Line 2 and Line 3
System Input RMS L2-N	The System Input RMS Voltage between Line 2 and Neutral
System Input RMS L3-L1	The System Input RMS Voltage between Line 3 and Line 1
System Input RMS L3-N	The System Input RMS Voltage between Line 3 and Neutral
System Output Apparent Power L1	System output apparent power on Line 1
System Output Apparent Power L2	System output apparent power on Line 2
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System output Inhibit - Ext	System output is inhibited by an external signal
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off

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Table 5.177 Liebert® GXT5 Glossary (continued)

Data Label	Data Description
System Output Pct Power L1	The system output power on Line 1 as a percentage of the rated capacity
System Output Pct Power L2	The system output power on Line 2 as a percentage of the rated capacity
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power Factor L1	The system output power factor of Line 1
System Output Power Factor L2	The system output power factor of Line 2
System Output Power L1	The system output power on Line 1.
System Output Power L2	The system output power on Line 2.
System Output Power	The sum total power of all system output phases
System Output RMS Current L1	The system output RMS current for Line 1
System Output RMS Current L2	The system output RMS current for Line 2
System Output Voltage RMS L1-L2	The system output RMS voltage between Lines 1 and 2
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral
System Output Voltage RMS L2-N	The system output RMS voltage between Line 2 and Neutral
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Shutdown - Remote Shutdown	Shutdown was due to a remote communications shutdown command.
System Shutdown - Transformer Over Temperature	System shutdown due to transformer over temperature.
System Status	The operating status for the system
Temperature compensation	When enabled, the UPS will adjust the battery charging voltage based on temperature to preserve battery life.
The Highest Battery Temperature	The highest battery temperature among all installed Battery Modules.
Total Number of Battery Discharges	The total number of battery discharges.
Transformer Overtemperature	Transformer temperature has exceeded the limit
Turn on failed	Turn on failed
Turn to bypass	Turn to bypass
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output on Inverter	The output power is supplied by the inverter
UPS Output Source	UPS output source
UPS Topology	UPS Topology
UPS was reset to factory defaults	UPS was reset to factory defaults

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Table 5.178 Liebert® NX 225-600 kVA—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Rectifier Failure	Binary_Value	1	4295_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	3	4147_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	4	4122_1	RD	Active on Alarm
Bypass					
Bypass Static Switch Unavailable	Binary_Value	15	4143_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	16	5957_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	17	4135_1	RD	Active on Alarm
Bypass Overload	Binary_Value	18	5798_1	RD	Active on Alarm
Battery					
Bypass Static Switch Unavailable	Binary_Value	15	4143_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	16	5957_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	17	4135_1	RD	Active on Alarm
Bypass Overload	Binary_Value	18	5798_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	29	4323_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	30	4322_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	31	5150_1	RD	Active on Alarm
Battery Over Voltage	Binary_Value	32	5874_1	RD	Active on Alarm
Battery Temperature Out of Range	Binary_Value	33	5958_1	RD	Active on Alarm
Battery Low	Binary_Value	34	4162_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	35	4219_1	RD	Active on Alarm
Battery Discharging	Binary_Value	36	4168_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	37	4172_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	38	4171_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	39	4222_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	40	5154_1	RD	Active on Alarm
Output					
System Output Off	Binary_Value	51	4215_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	52	4299_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	53	4298_1	RD	Active on Alarm
Inverter					

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Table 5.178 Liebert® NX 225-600 kVA—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Inverter Failure	Binary_Value	64	4233_1	RD	Active on Alarm
Inverter Overload	Binary_Value	65	5960_1	RD	Active on Alarm
System Output Fault	Binary_Value	66	4389_1	RD	Active on Alarm
Output Of/Uf	Binary_Value	67	5144_1	RD	Active on Alarm
System Shutdown - Output Short	Binary_Value	68	5808_1	RD	Active on Alarm
Inverter Desaturation	Binary_Value	69	5968_1	RD	Active on Alarm
Booster-Charger					
Booster Failure	Binary_Value	80	6253_1	RD	Active on Alarm
Charger Failure	Binary_Value	81	6254_1	RD	Active on Alarm
System Status					
System Shutdown - EPO	Binary_Value	92	4213_1	RD	Active on Alarm
Generic DIC Fault	Binary_Value	93	5969_1	RD	Active on Alarm
Inlet Air Over Temperature	Binary_Value	94	4294_1	RD	Active on Alarm
Generic Test Event	Binary_Value	95	4551_1	RD	Active on Alarm
Fan Hours Exceeded	Binary_Value	96	5054_1	RD	Active on Alarm
Unit Shutdown	Binary_Value	97	5113_1	RD	Active on Alarm
Main Controller Fault	Binary_Value	98	4753_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	99	4310_1	RD	Active on Alarm
Maximum Load Alarm	Binary_Value	100	5851_1	RD	Active on Alarm
Ground Fault	Binary_Value	101	5970_1	RD	Active on Alarm
Switch Gear					
Backfeed Breaker Open	Binary_Value	112	4325_1	RD	Active on Alarm
Input Breaker Open	Binary_Value	113	5973_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	114	5975_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	115	5976_1	RD	Active on Alarm
Battery Breaker Open	Binary_Value	116	5977_1	RD	Active on Alarm

Table 5.179 Liebert® NX 225-600 kVA—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC

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Table 5.179 Liebert® NX 225-600 kVA—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
Input - Rectifier Module Temperatures 1					
Rectifier Phase A Temperature sensor	Analog_Value	18	6245_1_1	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10018	6245_1_1_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	19	6246_1_1	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10019	6246_1_1_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	20	6247_1_1	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10020	6247_1_1_deg_F	RD	Units: deg F
Input - Rectifier Module Temperatures 2					
Rectifier Phase A Temperature sensor	Analog_Value	31	6245_1_2	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10031	6245_1_2_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	32	6246_1_2	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10032	6246_1_2_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	33	6247_1_2	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10033	6247_1_2_deg_F	RD	Units: deg F
Input - Rectifier Module Temperatures 4					
Rectifier Phase A Temperature Sensor	Analog_Value	57	6245_1_4	RD	Units: deg C
Rectifier Phase A Temperature Sensor	Analog_Value	10057	6245_1_4_deg_F	RD	Units: deg F
Rectifier Phase B Temperature Sensor	Analog_Value	58	6246_1_4	RD	Units: deg C
Rectifier Phase B Temperature Sensor	Analog_Value	10058	6246_1_4_deg_F	RD	Units: deg F
Rectifier Phase C Temperature Sensor	Analog_Value	59	6247_1_4	RD	Units: deg C
Rectifier Phase C Temperature Sensor	Analog_Value	10059	6247_1_4_deg_F	RD	Units: deg F
Bypass					
Bypass Input Voltage RMS A-B	Analog_Value	70	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	71	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	72	4127_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	73	4131_1	RD	Units: Hz
Battery					

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Table 5.179 Liebert® NX 225-600 kVA—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
DC Bus Voltage	Analog_Value	84	4148_1	RD	Units: VDC
Battery Volts for Cabinet	Analog_Value	85	4155_1	RD	Units: VDC
DC Bus Current	Analog_Value	86	4149_1	RD	Units: A DC
Battery Time Remaining	Analog_Value	87	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	88	4153_1	RD	Units: %
Battery Temperature for Cabinet	Analog_Value	89	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10089	4156_1_deg_F	RD	Units: deg F
Output					
System Output Voltage RMS A-B	Analog_Value	100	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	101	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	102	4203_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	103	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	104	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	105	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	106	4207_1	RD	Units: Hz
System Output Apparent Power	Analog_Value	107	4209_1	RD	Units: kVA
System Output Power	Analog_Value	108	4208_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	109	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	110	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	111	5870_1	RD	Units: kVA
System Output Power Phase A	Analog_Value	112	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	113	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	114	5959_1	RD	Units: kW
System Output Pct Power Phase A	Analog_Value	115	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	116	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	117	4225_1	RD	Units: %
Output Percent Load	Analog_Value	118	5168_1	RD	Units: %
Temperature	Analog_Value	119	6248_1	RD	Units: deg C
Temperature	Analog_Value	10119	6248_1_deg_F	RD	Units: deg F
Inverter					
Inverter Overload Time Remaining	Analog_Value	130	4232_1	RD	Units: sec
Inverter - Inverter Module Temperatures 1					

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Table 5.179 Liebert® NX 225-600 kVA—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Inverter Phase A Temperature Sensor	Analog_Value	141	6249_1_1	RD	Units: deg C
Inverter Phase A Temperature Sensor	Analog_Value	10141	6249_1_1_deg_F	RD	Units: deg F
Inverter Phase B Temperature Sensor	Analog_Value	142	6250_1_1	RD	Units: deg C
Inverter Phase B Temperature Sensor	Analog_Value	10142	6250_1_1_deg_F	RD	Units: deg F
Inverter Phase C Temperature Sensor	Analog_Value	143	6251_1_1	RD	Units: deg C
Inverter Phase C Temperature Sensor	Analog_Value	10143	6251_1_1_deg_F	RD	Units: deg F
Inverter - Inverter Module Temperatures 2					
Inverter Phase A Temperature Sensor	Analog_Value	154	6249_1_2	RD	Units: deg C
Inverter Phase A Temperature Sensor	Analog_Value	10154	6249_1_2_deg_F	RD	Units: deg F
Inverter Phase B Temperature Sensor	Analog_Value	155	6250_1_2	RD	Units: deg C
Inverter Phase B Temperature Sensor	Analog_Value	10155	6250_1_2_deg_F	RD	Units: deg F
Inverter Phase C Temperature Sensor	Analog_Value	156	6251_1_2	RD	Units: deg C
Inverter Phase C Temperature Sensor	Analog_Value	10156	6251_1_2_deg_F	RD	Units: deg F
Inverter - Inverter Module Temperatures 4					
Inverter Phase A Temperature Sensor	Analog_Value	180	6249_1_4	RD	Units: deg C
Inverter Phase A Temperature Sensor	Analog_Value	10180	6249_1_4_deg_F	RD	Units: deg F
Inverter Phase B Temperature Sensor	Analog_Value	181	6250_1_4	RD	Units: deg C
Inverter Phase B Temperature Sensor	Analog_Value	10181	6250_1_4_deg_F	RD	Units: deg F
Inverter Phase C Temperature Sensor	Analog_Value	182	6251_1_4	RD	Units: deg C
Inverter Phase C Temperature Sensor	Analog_Value	10182	6251_1_4_deg_F	RD	Units: deg F
Booster-Charger					
Battery Recharge Voltage	Analog_Value	193	5987_1	RD	Units: VDC
Max Charge Current	Analog_Value	194	6252_1	RD	Units: A DC
Booster-Charger - Booster Charger Module Temperatures 1					
Booster-Charger Temperature	Analog_Value	205	5963_1_1	RD	Units: deg C
Booster-Charger Temperature	Analog_Value	10205	5963_1_1_deg_F	RD	Units: deg F
Booster-Charger - Booster Charger Module Temperatures 2					
Booster-Charger Temperature	Analog_Value	216	5963_1_2	RD	Units: deg C
Booster-Charger Temperature	Analog_Value	10216	5963_1_2_deg_F	RD	Units: deg F
Booster-charger - Booster Charger Module Temperatures 4					
Booster-Charger Temperature	Analog_Value	238	5963_1_4	RD	Units: deg C
Booster-Charger Temperature	Analog_Value	10238	5963_1_4_deg_F	RD	Units: deg F

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Table 5.179 Liebert® NX 225-600 kVA—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Ratings					
Output Apparent Power Rating	Analog_Value	249	4264_1	RD	Units: kVA
System Input Nominal Voltage	Analog_Value	250	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	251	4103_1	RD	Units: Hz

Table 5.180 Liebert® NX 225-600 kVA—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Rectifier Status	MultiState_Value	1	4748_1	RD	1 = Off 2 = On
Bypass					
Static Bypass Switch	MultiState_Value	12	4736_1	RD	1 = Off 2 = On
Bypass Qualification Status	MultiState_Value	13	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Battery					
DC Bus Qualification Status	MultiState_Value	24	4743_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
UPS battery1 status	MultiState_Value	25	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Output					
UPS Output Source	MultiState_Value	36	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Load Power Source	MultiState_Value	37	4319_1	RD	1 = Load Off 2 = Ups 3 = Maintenance Bypass
Inverter					
Inverter On/Off State	MultiState_Value	48	4746_1	RD	1 = Off 2 = On

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Table 5.180 Liebert® NX 225-600 kVA—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Inverter Synchronization Source	MultiState_Value	49	5961_1	RD	1 = External 2 = Self Clock (Internal) 3 = Output 4 = Bypass
Booster-Charger					
Booster On/Off State	MultiState_Value	60	6255_1	RD	1 = Off 2 = On
Charger On/Off State	MultiState_Value	61	6256_1	RD	1 = Off 2 = On
System Status					
System Status	MultiState_Value	72	4123_1	RD	1 = Normal Operation 2 = Startup 3 = Normal With Warning 4 = Normal With Alarm 5 = Abnormal Operation
UPS Operating Mode	MultiState_Value	73	5971_1	RD	1 = Idle 2 = Double Conversion Mode (Vfi) 3 = Interactive Mode (Vi) 4 = Stand-by Mode (Vfd) 5 = Cr Mode (Cr) 6 = Eco Mode (Dim)
ECO Mode Operation State	MultiState_Value	74	5454_1	RD	1 = Disabled 2 = Enabled

Table 5.181 Liebert® NX 225-600 kVA—Glossary

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker Open	The battery circuit is open.
Battery Discharging	The battery is discharging.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Manual Test In Progress	Manual battery test is in progress.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge.
Battery Recharge Voltage	The recharge cell voltage for the battery.
Battery Temperature for	The battery temperature for a cabinet.

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Table 5.181 Liebert® NX 225-600 kVA—Glossary (continued)

Data Label	Data Description
Cabinet	
Battery Temperature Out of Range	Battery temperature is outside of acceptable range.
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Booster Failure	Booster failure - boost is off.
Booster On/Off State	Booster on/off state.
Booster-Charger Temperature	Temperature measured at the charger stage.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Qualification Status	Bypass qualification status.
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Charger Failure	Charger Failure - Charger is off.
Charger On/Off State	Charger on/off state.
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Qualification Status	DC bus qualification status.
DC Bus Voltage	The voltage between the positive and negative terminals of the internal DC Bus.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event.
Fan Hours Exceeded	Operating hours for the unit blower fan have exceeded the threshold.

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Table 5.181 Liebert® NX 225-600 kVA—Glossary (continued)

Data Label	Data Description
Generic DIC Fault	The control board reports a fault - Service required.
Generic Test Event	A generic test event designed to evaluate system handling of events.
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold.
Input Breaker Open	The main input breaker is open.
Inverter Desaturation	Inverter desaturation.
Inverter Failure	Inverter failure - inverter output is off.
Inverter On/Off State	Inverter on/off state
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown.
Inverter Overload	Inverter in overload fault.
Inverter Phase A Temperature sensor	Inverter temperature sensor reading for Phase A.
Inverter Phase B Temperature sensor	Inverter temperature sensor reading for Phase B.
Inverter Phase C temperature sensor	Inverter temperature sensor reading for Phase C.
Inverter Synchronization Source	The reference source for inverter synchronization.
Load Power Source	Load power source.
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Max Charge Current	The maximum allowed current to be used for charging the batteries.
Maximum Load Alarm	Maximum load alarm indicating load setting has been exceeded.
Output Apparent Power Rating	Output apparent power rating.
Output Breaker Open	The output breaker is open.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Percent Load	The percentage of the system's total rated output current that is flowing from the system.
Rectifier Failure	Rectifier failure - rectifier is off.
Rectifier Phase A Temperature sensor	Rectifier temperature sensor reading for Phase A.
Rectifier Phase B Temperature sensor	Rectifier temperature sensor reading for Phase B.

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Table 5.181 Liebert® NX 225-600 kVA—Glossary (continued)

Data Label	Data Description
Rectifier Phase C Temperature sensor	Rectifier temperature sensor reading for Phase C.
Rectifier Status	Rectifier status.
Static Bypass Switch	Static Bypass Switch state - On/Off.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Output Apparent Power Phs A	System output apparent power on Phase A.
System Output Apparent Power Phs B	System output apparent power on Phase B.
System Output Apparent Power Phs C	System output apparent power on Phase C.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Fault	A fault has been detected in the system output.
System Output Frequency	The system output frequency.
System Output Off	The system output is off.
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity.

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Table 5.181 Liebert® NX 225-600 kVA—Glossary (continued)

Data Label	Data Description
System Output Power Phase A	The system output power on Phase A.
System Output Power Phase B	The system output power on Phase B.
System Output Power Phase C	The system output power on Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B.
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C.
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Shutdown - Output Short	Shutdown was due to a short on the output.
System Status	The operating status for the system.
Temperature	Temperature measured at the temperature sensor.
Unit Shutdown	An event has occurred requiring the unit to be shutdown and disabled to prevent damage to the system.
UPS battery1 status	UPS battery status.
UPS Operating Mode	UPS operating mode.
UPS Output on Bypass	The output power is supplied by the bypass.
UPS Output Source	UPS output source.

Table 5.182 Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Input						
System Input Power Problem	Binary_Value	1	4122_1	RD	Active on Alarm	SMS, 1+N, N+1
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm	SMS, 1+N, N+1
System Input Current Limit	Binary_Value	3	4147_1	RD	Active on Alarm	SMS, 1+N, N+1
System Input Current Imbalance	Binary_Value	4	4382_1	RD	Active on Alarm	SMS, 1+N,

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Table 5.182 Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Bypass						
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Overload Phase A	Binary_Value	16	4132_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Overload Phase B	Binary_Value	17	4133_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Overload Phase C	Binary_Value	18	4134_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Auto Retransfer Failed	Binary_Value	19	4138_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass - Excess Auto Retransfers	Binary_Value	20	4139_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Bypass Static Switch Overload	Binary_Value	21	4142_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Static Switch Unavailable	Binary_Value	22	4143_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Excessive Pulse Parallel	Binary_Value	23	4144_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Auto Transfer Failed	Binary_Value	24	4145_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Frequency Error	Binary_Value	25	4175_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass - Manual Rexfr Inhibited	Binary_Value	26	4218_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass - Manual Xfr Inhibited	Binary_Value	27	4217_1	RD	Active on Alarm	SMS, 1+N, SCC
Bypass Static Switch Off Extrnl	Binary_Value	28	4383_1	RD	Active on Alarm	CE models only
Battery						
Battery Charging Error	Binary_Value	39	4164_1	RD	Active on Alarm	—
Battery Test Inhibited	Binary_Value	40	4740_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Charging Reduced-Extrnl	Binary_Value	41	4165_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Capacity Low	Binary_Value	42	4166_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Discharging	Binary_Value	43	4168_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Temperature Imbalance	Binary_Value	44	4169_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Equalize	Binary_Value	45	4170_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Self Test	Binary_Value	46	4741_1	RD	Active on Alarm	SMS, 1+N, N+1
Main Battery Disconnect Open	Binary_Value	47	4173_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Low	Binary_Value	48	4162_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Temperature Sensor Fault	Binary_Value	49	4174_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Charging Inhibited	Binary_Value	50	4200_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 1 Open	Binary_Value	51	4176_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 2 Open	Binary_Value	52	4179_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 3 Open	Binary_Value	53	4182_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 4 Open	Binary_Value	54	4185_1	RD	Active on Alarm	SMS, 1+N, N+1

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Table 5.182 Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Battery Circuit Breaker 5 Open	Binary_Value	55	4188_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 6 Open	Binary_Value	56	4191_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 7 Open	Binary_Value	57	4194_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Circuit Breaker 8 Open	Binary_Value	58	4197_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery - External Monitor 1	Binary_Value	59	4220_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery - External Monitor 2	Binary_Value	60	4221_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Ground Fault	Binary_Value	61	4222_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Low Shutdown	Binary_Value	62	4742_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Over Temperature	Binary_Value	63	4219_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Test Failed	Binary_Value	64	4323_1	RD	Active on Alarm	SMS, 1+N, N+1
Battery Charging	Binary_Value	65	6354_1	RD	Active on Alarm	SMS, 1+N, N+1
DC Bus						
DC Bus Ground Fault - Positive	Binary_Value	75	4308_1	RD	Active on Alarm	SMS, 1+N, N+1
DC Bus Ground Fault - Negative	Binary_Value	76	4309_1	RD	Active on Alarm	SMS, 1+N, N+1
Output						
System Shutdown - EPO	Binary_Value	87	4213_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
System Shutdown - REPO	Binary_Value	88	4214_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
System Output Off	Binary_Value	89	4215_1	RD	Active on Alarm	SMS, 1+N, N+1
System Output Low Power Factor	Binary_Value	90	4230_1	RD	Active on Alarm	SMS, 1+N, N+1
Output Amp Over User Limit-Phs A	Binary_Value	91	4286_1	RD	Active on Alarm	SMS, 1+N, SCC
Output Amp Over User Limit-Phs B	Binary_Value	92	4287_1	RD	Active on Alarm	SMS, 1+N, SCC
Output Amp Over User Limit-Phs C	Binary_Value	93	4288_1	RD	Active on Alarm	SMS, 1+N, SCC
System Output Fault	Binary_Value	94	4389_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Output Of/Uf	Binary_Value	95	5144_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter						
Inverter Failure	Binary_Value	106	4233_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter Overload Phase A	Binary_Value	107	4234_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter Overload Phase B	Binary_Value	108	4235_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter Overload Phase C	Binary_Value	109	4236_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter Inhibit - External	Binary_Value	110	4237_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter Shutdown - Overload	Binary_Value	111	4290_1	RD	Active on Alarm	SMS, 1+N, N+1
Inverter Off - External	Binary_Value	112	4390_1	RD	Active on Alarm	CE models only

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Table 5.182 Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Inverter Static Switch SCR Short	Binary_Value	113	4391_1	RD	Active on Alarm	CE models only
Environment						
Inlet Air Over Temperature	Binary_Value	124	4294_1	RD	Active on Alarm	SMS, 1+N, N+1
Outlet Air Overtemperature Limit	Binary_Value	125	5768_1	RD	Active on Alarm	SMS, 1+N, N+1
Equipment Temperature Sensor Fail	Binary_Value	126	4747_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Equipment Over Temperature	Binary_Value	127	4310_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
External Input Signals						
Input Contact 01	Binary_Value	138	4270_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 02	Binary_Value	139	4271_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 03	Binary_Value	140	4272_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 04	Binary_Value	141	4273_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 05	Binary_Value	142	4274_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 06	Binary_Value	143	4275_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 07	Binary_Value	144	4276_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 08	Binary_Value	145	4277_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 09	Binary_Value	146	4278_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 10	Binary_Value	147	4279_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 11	Binary_Value	148	4280_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 12	Binary_Value	149	4281_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 13	Binary_Value	150	4282_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 14	Binary_Value	151	4283_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 15	Binary_Value	152	4284_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Contact 16	Binary_Value	153	4285_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Rectifier						
Rectifier Failure	Binary_Value	164	4295_1	RD	Active on Alarm	SMS, 1+N, N+1
Rectifier Operation Inhibit-Ext	Binary_Value	165	4296_1	RD	Active on Alarm	CE models only
System						
System Fan Failure - Redundant	Binary_Value	176	4749_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Multiple Fan Failure	Binary_Value	177	4750_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Internal Communications Failure	Binary_Value	178	4300_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
UPS Output on Bypass	Binary_Value	179	4298_1	RD	Active on Alarm	SMS, 1+N, SCC
Output Load on Maint. Bypass	Binary_Value	180	4299_1	RD	Active on Alarm	SMS, 1+N, SCC

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Table 5.182 Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Backfeed Breaker Open	Binary_Value	181	4325_1	RD	Active on Alarm	SMS, 1+N, SCC
Auto Restart In Progress	Binary_Value	182	4316_1	RD	Active on Alarm	SMS
Power Supply Failure	Binary_Value	183	4314_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
On Generator	Binary_Value	184	4315_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Auto Restart Inhibited - Ext	Binary_Value	185	4317_1	RD	Active on Alarm	SMS
Automatic Restart Failed	Binary_Value	186	4439_1	RD	Active on Alarm	SMS
Main Controller Fault	Binary_Value	187	4753_1	RD	Active on Alarm	SMS, 1+N, N+1
Fuse Failure	Binary_Value	188	4440_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
System Controller Error	Binary_Value	189	4441_1	RD	Active on Alarm	SMS, 1+N, N+1
System Breaker(s) Open Failure	Binary_Value	190	4442_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
System Breaker(s) Close Failure	Binary_Value	191	4754_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Input Filter Cycle Lock	Binary_Value	192	4755_1	RD	Active on Alarm	SMS, 1+N, N+1
EMO Shutdown	Binary_Value	193	5769_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Service Code Active	Binary_Value	194	4756_1	RD	Active on Alarm	SMS, 1+N, N+1
LBS Active	Binary_Value	195	4757_1	RD	Active on Alarm	Deprecated
LBS Inhibited	Binary_Value	196	4758_1	RD	Active on Alarm	SMS, 1+N, SCC
Leading Power Factor	Binary_Value	197	4759_1	RD	Active on Alarm	SMS, 1+N, N+1
Controls Reset Required	Binary_Value	198	4760_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
LBS Active - Master	Binary_Value	199	5561_1	RD	Active on Alarm	SMS, 1+N, SCC
LBS Active - Slave	Binary_Value	200	5562_1	RD	Active on Alarm	SMS, 1+N, SCC
Cont Tie Active	Binary_Value	201	5788_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
User kWh Reset	Binary_Value	202	5792_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Peak kW Reset	Binary_Value	203	5796_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
MultiModule						
Parallel Comm Warning	Binary_Value	214	4823_1	RD	Active on Alarm	1+N, N+1, SCC
System Comm Fail	Binary_Value	215	4824_1	RD	Active on Alarm	1+N, N+1, SCC
Loss of Redundancy	Binary_Value	216	4825_1	RD	Active on Alarm	1+N, SCC
BPSS Startup Inhibit	Binary_Value	217	4826_1	RD	Active on Alarm	Deprecated
MMS Transfer Inhibit	Binary_Value	218	4827_1	RD	Active on Alarm	1+N, SCC
MMS Retransfer Inhibit	Binary_Value	219	4828_1	RD	Active on Alarm	1+N, SCC
MMS Loss of Sync Pulse	Binary_Value	220	4830_1	RD	Active on Alarm	Deprecated
MMS Overload	Binary_Value	221	4831_1	RD	Active on Alarm	SCC

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Table 5.182 Liebert® NXL - 60 Hz, UL version (Model 40)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
MMS On Battery	Binary_Value	222	4834_1	RD	Active on Alarm	1+N, SCC
MMS Low Battery Warning	Binary_Value	223	4835_1	RD	Active on Alarm	1+N, SCC
MMS Module Alarm Active	Binary_Value	224	5145_1	RD	Active on Alarm	SCC
MMS Sharing Calib Active	Binary_Value	225	5447_1	RD	Active on Alarm	1+N, N+1
Intelligent Paralleling						
Module In Standby - Intelligent Paralleling	Binary_Value	236	5453_1	RD	Active on Alarm	1+N, N+1
ECO Mode						
ECO Mode Active	Binary_Value	247	5456_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
ECO Mode Suspended	Binary_Value	248	5457_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Excess ECO Suspends	Binary_Value	249	5458_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC
Service Reminder						
Service Required	Binary_Value	260	4726_1	RD	Active on Alarm	SMS, 1+N, N+1, SCC

Table 5.183 Liebert® NXL - 60 Hz, UL version (Model 40)—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Input						
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC	SMS, 1+N, N+1
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC	SMS, 1+N, N+1
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC	SMS, 1+N, N+1
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC	SMS, 1+N, N+1
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC	SMS, 1+N, N+1
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC	SMS, 1+N, N+1
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz	SMS, 1+N,
Bypass						
Bypass Input Voltage RMS A-B	Analog_Value	18	4125_1	RD	Units: VAC	SMS, 1+N, SCC
Bypass Input Voltage RMS B-C	Analog_Value	19	4126_1	RD	Units: VAC	SMS, 1+N, SCC
Bypass Input Voltage RMS C-A	Analog_Value	20	4127_1	RD	Units: VAC	SMS, 1+N, SCC
Bypass Input Frequency	Analog_Value	21	4131_1	RD	Units: Hz	SMS, 1+N, SCC
Bypass Sync Phase Difference	Analog_Value	22	4136_1	RD	Units: deg	SMS, 1+N, SCC
Bypass SS Overload Time Remain	Analog_Value	23	4157_1	RD	Units: sec	SMS, 1+N, SCC
Auto Retransfer Time Remaining	Analog_Value	24	4738_1	RD	Units: sec	SMS, 1+N, SCC
Total Bypass Operating Time	Analog_Value	25	6456_1	RD	Units: hr	SMS, 1+N, SCC

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Table 5.183 Liebert® NXL - 60 Hz, UL version (Model 40)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Battery						
Battery Total Discharge Time	Analog_Value	35	4152_1	RD	Units: hr	SMS, 1+N, N+1
Battery Percentage Charge	Analog_Value	36	4153_1	RD	—	SMS, 1+N, N+1
Battery Volts at Main Disconnect	Analog_Value	37	4154_1	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 1	Analog_Value	38	4155_1_1	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 2	Analog_Value	39	4155_1_2	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 3	Analog_Value	40	4155_1_3	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 4	Analog_Value	41	4155_1_4	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 5	Analog_Value	42	4155_1_5	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 6	Analog_Value	43	4155_1_6	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 7	Analog_Value	44	4155_1_7	RD	Units: VDC	SMS, 1+N, N+1
Battery Volts for Cabinet 8	Analog_Value	45	4155_1_8	RD	Units: VDC	SMS, 1+N, N+1
Battery Temperature for Cabinet 1	Analog_Value	46	4156_1_1	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 1	Analog_Value	10046	4156_1_1_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 2	Analog_Value	47	4156_1_2	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 2	Analog_Value	10047	4156_1_2_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 3	Analog_Value	48	4156_1_3	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 3	Analog_Value	10048	4156_1_3_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 4	Analog_Value	49	4156_1_4	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 4	Analog_Value	10049	4156_1_4_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 5	Analog_Value	50	4156_1_5	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 5	Analog_Value	10050	4156_1_5_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 6	Analog_Value	51	4156_1_6	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 6	Analog_Value	10051	4156_1_6_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 7	Analog_Value	52	4156_1_7	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 7	Analog_Value	10052	4156_1_7_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Temperature for Cabinet 8	Analog_Value	53	4156_1_8	RD	Units: deg C	SMS, 1+N, N+1
Battery Temperature for Cabinet 8	Analog_Value	10053	4156_1_8_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Battery Amp-Hours Consumed This Discharge	Analog_Value	54	4739_1	RD	Units: AH	SMS, 1+N, N+1
Battery Time Remaining	Analog_Value	55	4150_1	RD	Units: min	SMS, 1+N, N+1
Battery Discharge Time	Analog_Value	56	4151_1	RD	Units: sec	SMS, 1+N, N+1
Battery Discharge Power	Analog_Value	57	4159_1	RD	Units: W	SMS, 1+N, N+1

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Table 5.183 Liebert® NXL - 60 Hz, UL version (Model 40)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Battery Last Discharge Date	Analog_Value	58	4161_1	RD	—	SMS, 1+N, N+1
Battery Commission Date	Analog_Value	59	4160_1	RD	—	SMS, 1+N, N+1
Battery Amp-Hours Consumed	Analog_Value	60	4158_1	RD	Units: AH	SMS, 1+N, N+1
Total Number of Battery Discharges	Analog_Value	61	5767_1	RD	—	SMS, 1+N, N+1
DC Bus						
DC Bus Voltage	Analog_Value	72	4148_1	RD	Units: VDC	SMS, 1+N, N+1
DC Bus Current	Analog_Value	73	4149_1	RD	Units: A DC	SMS, 1+N, N+1
Output						
System Output Voltage RMS A-B	Analog_Value	84	4201_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output Voltage RMS B-C	Analog_Value	85	4202_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output Voltage RMS C-A	Analog_Value	86	4203_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output Voltage RMS A-N	Analog_Value	87	4385_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output Voltage RMS B-N	Analog_Value	88	4386_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output Voltage RMS C-N	Analog_Value	89	4387_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output RMS Current Phs A	Analog_Value	90	4204_1	RD	Units: A AC	SMS, 1+N, N+1, SCC
System Output RMS Current Phs B	Analog_Value	91	4205_1	RD	Units: A AC	SMS, 1+N, N+1, SCC
System Output RMS Current Phs C	Analog_Value	92	4206_1	RD	Units: A AC	SMS, 1+N, N+1, SCC
System Output Frequency	Analog_Value	93	4207_1	RD	Units: Hz	SMS, 1+N, N+1, SCC
System Output Power	Analog_Value	94	4208_1	RD	Units: kW	SMS, 1+N, N+1, SCC
System Output Apparent Power	Analog_Value	95	4209_1	RD	Units: kVA	SMS, 1+N, N+1, SCC
System Output Power Factor Phs A	Analog_Value	96	4210_1	RD	—	SMS, 1+N, N+1, SCC
System Output Power Factor Phs B	Analog_Value	97	4211_1	RD	—	SMS, 1+N, N+1, SCC
System Output Power Factor Phs C	Analog_Value	98	4212_1	RD	—	SMS, 1+N, N+1, SCC
System Output Pct Power Phase A	Analog_Value	99	4223_1	RD	Units: %	SMS, 1+N, N+1
System Output Pct Power Phase B	Analog_Value	100	4224_1	RD	Units: %	SMS, 1+N, N+1
System Output Pct Power Phase C	Analog_Value	101	4225_1	RD	Units: %	SMS, 1+N, N+1
System Output Pct Pwr (VA) Phs A	Analog_Value	102	4226_1	RD	Units: %	SMS, 1+N, N+1
System Output Pct Pwr (VA) Phs B	Analog_Value	103	4227_1	RD	Units: %	SMS, 1+N, N+1
System Output Pct Pwr (VA) Phs C	Analog_Value	104	4228_1	RD	Units: %	SMS, 1+N, N+1
Inverter						
Inverter Overload Time Remaining	Analog_Value	115	4232_1	RD	Units: sec	SMS, 1+N, N+1
Environment						

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Table 5.183 Liebert® NXL - 60 Hz, UL version (Model 40)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Inlet Air Temperature	Analog_Value	126	4291_1	RD	Units: deg C	SMS, 1+N, N+1
Inlet Air Temperature	Analog_Value	10126	4291_1_deg_F	RD	Units: deg F	SMS, 1+N, N+1
Total System Operating Time	Analog_Value	127	4292_1	RD	Units: hr	CE models only
System Date and Time	Analog_Value	128	4293_1	RW	—	SMS, 1+N, N+1, SCC
Total kW Hours Saved	Analog_Value	129	5446_1	RD	Units: kWH	SMS, 1+N, N+1, SCC
System						
System Accumulated Energy	Analog_Value	140	5789_1	RW	Units: kWH	SCC, 1+N, N+1
Module Accumulated Energy	Analog_Value	141	5790_1	RW	Units: kWH	SCC, 1+N, N+1
Output kWh Reset Timestamp	Analog_Value	142	5791_1	RD	—	SMS, 1+N, N+1, SCC
Output Peak kW Demand	Analog_Value	143	5793_1	RD	Units: kW	SMS, 1+N, N+1, SCC
Output Peak kW Demand Hist	Analog_Value	144	5794_1	RD	Units: kW	SMS, 1+N, N+1, SCC
Peak kW Demand Timestamp	Analog_Value	145	5797_1	RD	—	SMS, 1+N, N+1, SCC
Ratings						
Bypass Nominal Voltage	Analog_Value	156	4259_1	RD	Units: VAC	SMS, 1+N, SCC
System Input Nominal Voltage	Analog_Value	157	4102_1	RD	Units: VAC	SMS, 1+N, N+1
System Input Nominal Frequency	Analog_Value	158	4103_1	RD	Units: Hz	SMS, 1+N, N+1
System Output Nominal Voltage	Analog_Value	159	4260_1	RD	Units: VAC	SMS, 1+N, N+1, SCC
System Output Nominal Frequency	Analog_Value	160	4261_1	RD	Units: Hz	SMS, 1+N, N+1, SCC
Battery Cell Count - Lead Acid	Analog_Value	161	4262_1	RD	—	SMS, 1+N, N+1
Battery Cell Count-Nickel Cadmium	Analog_Value	162	4263_1	RD	—	SMS, 1+N, N+1
Output Apparent Power Rating	Analog_Value	163	4264_1	RD	Units: kVA	SMS, 1+N, N+1
Output Real Power Rating	Analog_Value	164	4265_1	RD	Units: kW	SMS, 1+N, N+1
System UPS Module Count	Analog_Value	165	4800_1	RD	—	SMS, 1+N, SCC
System Output Maximum Amp Rating	Analog_Value	166	4267_1	RD	Units: A AC	1+N, SCC
MultiModule						
Multi-module System Output Voltage RMS A-B	Analog_Value	177	4801_1	RD	Units: VAC	1+N, SCC
Multi-module System Output Voltage RMS B-C	Analog_Value	178	4802_1	RD	Units: VAC	1+N, SCC
Multi-module System Output Voltage RMS C-A	Analog_Value	179	4803_1	RD	Units: VAC	1+N, SCC
Multi-module System Output Voltage RMS A-N	Analog_Value	180	4804_1	RD	Units: VAC	1+N, SCC
Multi-module System Output Voltage RMS B-N	Analog_Value	181	4805_1	RD	Units: VAC	1+N, SCC
Multi-module System Output Voltage RMS C-N	Analog_Value	182	4806_1	RD	Units: VAC	1+N, SCC
Sum of MMS Output RMS Currents for Phase A	Analog_Value	183	4807_1	RD	Units: A AC	1+N, SCC

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Table 5.183 Liebert® NXL - 60 Hz, UL version (Model 40)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Sum of MMS Output RMS Currents for Phase B	Analog_Value	184	4808_1	RD	Units: A AC	1+N, SCC
Sum of MMS Output RMS Currents for Phase C	Analog_Value	185	4809_1	RD	Units: A AC	1+N, SCC
MMS Output Frequency	Analog_Value	186	4810_1	RD	Units: Hz	1+N, SCC
MMS Output Power	Analog_Value	187	4811_1	RD	Units: kW	1+N, SCC
MMS Output Apparent Power	Analog_Value	188	4812_1	RD	Units: kVA	1+N, SCC
MMS Output Power Factor Phase A	Analog_Value	189	4813_1	RD	—	1+N, SCC
MMS Output Power Factor Phase B	Analog_Value	190	4814_1	RD	—	1+N, SCC
MMS Output Power Factor Phase C	Analog_Value	191	4815_1	RD	—	1+N, SCC
MMS Output Pct Power Phase A	Analog_Value	192	4816_1	RD	Units: %	1+N, SCC
MMS Output Pct Power Phase B	Analog_Value	193	4817_1	RD	Units: %	1+N, SCC
MMS Output Pct Power Phase C	Analog_Value	194	4818_1	RD	Units: %	1+N, SCC
MMS Output Pct Apparent Pwr (kVA) Phase A	Analog_Value	195	4819_1	RD	Units: %	1+N, SCC
MMS Output Pct Apparent Pwr (kVA) Phase B	Analog_Value	196	4820_1	RD	Units: %	1+N, SCC
MMS Output Pct Apparent Pwr (kVA) Phase C	Analog_Value	197	4821_1	RD	Units: %	1+N, SCC
Number of Redundant Modules	Analog_Value	198	4822_1	RD	—	1+N, SCC
MMS Module Number	Analog_Value	199	4829_1	RD	—	1+N, N+1
Number of Modules in a MMS	Analog_Value	200	4833_1	RD	—	1+N, SCC
ModuleList 1						
MMS Module Total kW Output	Analog_Value	211	4861_2	RD	Units: kW	SCC
MMS Module Total kVA Output	Analog_Value	212	4862_2	RD	Units: kVA	SCC
MMS Module DC Bus Voltage	Analog_Value	213	4863_2	RD	Units: VDC	SCC
MMS Module Battery Current	Analog_Value	214	4864_2	RD	Units: A DC	SCC
MMS Module Battery Time Remaining	Analog_Value	215	4865_2	RD	Units: min	SCC
ModuleList 2						
MMS Module Total kW Output	Analog_Value	226	4861_2	RD	Units: kW	SCC
MMS Module Total kVA Output	Analog_Value	227	4862_2	RD	Units: kVA	SCC
MMS Module DC Bus Voltage	Analog_Value	228	4863_2	RD	Units: VDC	SCC
MMS Module Battery Current	Analog_Value	229	4864_2	RD	Units: A DC	SCC
MMS Module Battery Time Remaining	Analog_Value	230	4865_2	RD	Units: min	SCC
ModuleList 8						
MMS Module Total kW Output	Analog_Value	316	4861_8	RD	Units: kW	SCC
MMS Module Total kVA Output	Analog_Value	317	4862_8	RD	Units: kVA	SCC

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Table 5.183 Liebert® NXL - 60 Hz, UL version (Model 40)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
MMS Module DC Bus Voltage	Analog_Value	318	4863_8	RD	Units: VDC	SCC
MMS Module Battery Current	Analog_Value	319	4864_8	RD	Units: A DC	SCC
MMS Module Battery Time Remaining	Analog_Value	320	4865_8	RD	Units: min	SCC
Intelligent Paralleling						
Intelligent Paralleling Shutdown Delay	Analog_Value	331	5450_1	RD	Units: min	1+N, N+1, SCC
Intelligent Parallel Minimum Redundancy	Analog_Value	332	5451_1	RD	—	1+N, N+1, SCC
Intelligent Parallel Maximum Time in Standby	Analog_Value	333	5452_1	RD	Units: day	1+N, N+1, SCC
ECO Mode						
Maximum Auto Suspensions - ECO Mode	Analog_Value	344	5459_1	RD	—	SMS, 1+N, SCC
Restart Delay - ECO Mode	Analog_Value	345	5460_1	RD	Units: min	SMS, 1+N, SCC
Time Remaining - ECO Mode	Analog_Value	346	5466_1	RD	Units: min	SMS, 1+N, SCC
ECO Mode - EcoModeSchedule 1						
Schedule Hour - ECO Mode	Analog_Value	357	5464_1_1	RD	Units: hr	SMS, 1+N, SCC
Schedule Minute - ECO Mode	Analog_Value	358	5465_1_1	RD	Units: min	SMS, 1+N, SCC
ECO Mode - EcoModeSchedule 2						
Schedule Hour - ECO Mode	Analog_Value	369	5464_1_2	RD	Units: hr	SMS, 1+N, SCC
Schedule Minute - ECO Mode	Analog_Value	370	5465_1_2	RD	Units: min	SMS, 1+N, SCC
ECO Mode - EcoModeSchedule 16						
Schedule Hour - ECO Mode	Analog_Value	537	5464_1_16	RD	Units: hr	SMS, 1+N, SCC
Schedule Minute - ECO Mode	Analog_Value	538	5465_1_16	RD	Units: min	SMS, 1+N, SCC

Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Input						
Input Qualification Status	MultiState_ Value	1	4735_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	SMS, 1+N, N+1
Bypass						
Static Bypass Switch	MultiState_ Value	12	4736_1	RD	1 = off	SMS, 1+N, SCC
Bypass Qualification Status	MultiState_ Value	13	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	SMS, 1+N, SCC

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Battery						
UPS Battery Status	MultiState_ Value	24	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted	SMS, 1+N, N+1
DC Bus						
DC Bus Qualification Status	MultiState_ Value	35	4743_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	SMS, 1+N, N+1
Output						
Output Qualification Status	MultiState_ Value	46	4744_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	SMS, 1+N, N+1, SCC
Inverter						
Inverter Output Qualification Status	MultiState_ Value	57	4745_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	SMS, 1+N, N+1
Inverter On/Off State	MultiState_ Value	58	4746_1	RD	1 = off 2 = on	SMS, 1+N, N+1
Rectifier						
Rectifier Pulse Count	MultiState_ Value	69	4257_1	RD	1 = 6 Pulse 2 = 12 Pulse 3 = 18 Pulse 4 = 24 Pulse	SMS, 1+N, N+1
Rectifier Input Passive Filter	MultiState_ Value	70	4258_1	RD	1 = Not Installed 2 = Installed	SMS, 1+N, N+1
Rectifier Passive Filter Switch	MultiState_ Value	71	4301_1	RD	1 = Not Installed 2 = Installed	SMS, 1+N, N+1
Rectifier Active Filter	MultiState_ Value	72	4302_1	RD	1 = Not Installed 2 = Installed	SMS, 1+N, N+1
Rectifier Status	MultiState_ Value	73	4748_1	RD	1 = off 2 = on	SMS, 1+N, N+1
System						

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
UPS Module Type	MultiState_ Value	84	4303_1	RD	1 = Single Module System 2 = Module (1 + 1) 3 = Module (1 + N) 4 = Module (N + 1) 5 = System Control Cabinet 6 = Main Static Switch	SMS, 1+N, N+1, SCC
Bypass Input Wire Configuration	MultiState_ Value	85	4304_1	RD	1 = Two Wire (single phase + return) 2 = Two Wire (2 phase, no neutral) 3 = Three Wire (2 phase + neutral) 4 = Three Wire (3 phase, no neutral) 5 = Four Wire (3 phases + neutral)	SMS, 1+N, SCC
Output Wire Configuration	MultiState_ Value	86	4305_1	RD	1 = Two Wire (single phase + return) 2 = Two Wire (2 phase, no neutral) 3 = Three Wire (2 phase + neutral) 4 = Three Wire (3 phase, no neutral) 5 = Four Wire (3 phases + neutral)	SMS, 1+N, N+1, SCC
Static Switch Type	MultiState_ Value	87	4306_1	RD	1 = Not Applicable 2 = Continuous Duty 3 = Momentary Duty	SMS, 1+N, SCC
Configuration Description	MultiState_ Value	88	4751_1	RD	1 = Single Module System 33 2 = Single Module System 34 3 = Single Module System 44 4 = 1+1 33 5 = 1+1 34 6 = 1+1 44 7 = 1+N 33 8 = 1+N 34 9 = 1+N 44 10 = N+1 33 11 = N+1 34 12 = N+1 44 13 = SCC w/Continuous Duty SS 33 14 = SCC w/Continuous Duty SS 44 15 = SCC w/Momentary Duty SS 16 = Main Static Switch	SMS, 1+N, N+1, SCC

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
UPS System Output Source	MultiState_ Value	89	4752_1	RD	1 = off 2 = Normal 3 = Bypass 4 = Maintenance Bypass	SMS, 1+N, SCC
System Input Power Source	MultiState_ Value	90	4318_1	RD	1 = None 2 = Utility (mains) 3 = Generator	SMS, 1+N, N+1, SCC
System Status	MultiState_ Value	91	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = AbNormalOperation	SMS, 1+N, N+1, SCC
UPS Output Source	MultiState_ Value	92	4872_1	RD	1 = Other 2 = off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer	SMS, 1+N, N+1, SCC
Peak kW Demand Period	MultiState_ Value	93	5795_1	RD	1 = Hourly 2 = Daily 3 = Weekly 4 = Monthly 5 = Yearly	SMS, 1+N, N+1, SCC
Ratings						
Input Isolation Transformer	MultiState_ Value	104	4266_1	RD	1 = Not Installed 2 = Installed	SMS, 1+N, N
Device Status						
Backfeed Breaker	MultiState_ Value	115	4764_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N, SCC
SBS Load Disconnect	MultiState_ Value	116	4765_1	RD	1 = Open 2 = Close 3 = Not Installed	Obsolete
Input Breaker (CB1/RIB)	MultiState_ Value	117	4766_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N, N+1
Trap Filter Disconnect	MultiState_ Value	118	4767_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N, N+1
Output Breaker (CB2/IOB)	MultiState_ Value	119	4768_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N, N+1
Internal Bypass Breaker (CB3)	MultiState_ Value	120	4769_1	RD	1 = Open 2 = Close 3 = Not Installed	Obsolete

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Bypass Isolation Breaker (BIB)	MultiState_ Value	121	4770_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N
Rectifier Feed Breaker (RFB)	MultiState_ Value	122	4771_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS
Maintenance Bypass Breaker (MBB)	MultiState_ Value	123	4772_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N, SCC
Maintenance Isolation Breaker (MIB)	MultiState_ Value	124	4773_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N, SCC
Output Series Static Switch	MultiState_ Value	125	4774_1	RD	1 = Open 2 = Close 3 = Not Installed	LEU/LAP only
Module Output Breaker (MOB)	MultiState_ Value	126	4775_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
MultiModule						
Module Output Breaker for Module 1 (MOB1)	MultiState_ Value	137	4836_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 2 (MOB2)	MultiState_ Value	138	4837_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 3 (MOB3)	MultiState_ Value	139	4838_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 4 (MOB4)	MultiState_ Value	140	4839_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 5 (MOB5)	MultiState_ Value	141	4840_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 6 (MOB6)	MultiState_ Value	142	4841_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 7 (MOB7)	MultiState_ Value	143	4842_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC
Module Output Breaker for Module 8 (MOB8)	MultiState_ Value	144	4843_1	RD	1 = Open 2 = Close 3 = Not Installed	1+N, SCC

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
Bypass Isolation Breaker for Module 1 (BIB1)	MultiState_ Value	145	4844_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N
Bypass Isolation Breaker for Module 2 (BIB2)	MultiState_ Value	146	4845_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N
Bypass Isolation Breaker for Module 3 (BIB3)	MultiState_ Value	147	4846_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N
Bypass Isolation Breaker for Module 4 (BIB4)	MultiState_ Value	148	4847_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N
Bypass Isolation Breaker for Module 5 (BIB5)	MultiState_ Value	149	4848_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N,
Bypass Isolation Breaker for Module 6 (BIB6)	MultiState_ Value	150	4849_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N,
Bypass Isolation Breaker for Module 7 (BIB7)	MultiState_ Value	151	4850_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N,
Bypass Isolation Breaker for Module 8 (BIB8)	MultiState_ Value	152	4851_1	RD	1 = Open 2 = Close 3 = Not Installed	SMS, 1+N,
System Output Breaker (UOB)	MultiState_ Value	153	4852_1	RD	1 = Open 2 = Close 3 = Not Installed	SCC
System Load Bank Breaker (LBB)	MultiState_ Value	154	4853_1	RD	1 = Open 2 = Close 3 = Not Installed	SCC
System Isolation Output Breaker (IOB)	MultiState_ Value	155	4854_1	RD	1 = Open 2 = Close 3 = Not Installed	SCC
SCC Event Summary	MultiState_ Value	156	4855_1	RD	1 = None 2 = Alarm 3 = Fault	SCC
MMS UPS Battery Status	MultiState_ Value	157	4873_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted	1+N, N+1

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
MMS UPS Output Source	MultiState_ Value	158	4874_1	RD	1 = Other 2 = off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer	1+N, SCC
ModuleList 1						
MMS Inter-Module Comm Status	MultiState_ Value	169	4856_1	RD	1 = Failed 2 = Normal	1+N, SCC
MMS Event Summary	MultiState_ Value	170	4857_1	RD	1 = None 2 = Alarm 3 = Fault	1+N, SCC
MMS Module Inverter Status	MultiState_ Value	171	4858_1	RD	1 = off 2 = on	1+N
MMS Module Output Voltage Status	MultiState_ Value	172	4859_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	1+N, SCC
MMS Module Output Source	MultiState_ Value	173	4860_1	RD	1 = off 2 = Normal 3 = Bypass 4 = Maintenance Bypass	1+N, SCC
ModuleList 2						
MMS Inter-Module Comm Status	MultiState_ Value	184	4856_2	RD	1 = Failed 2 = Normal	1+N, SCC
MMS Event Summary	MultiState_ Value	185	4857_2	RD	1 = None 2 = Alarm 3 = Fault	1+N, SCC
MMS Module Inverter Status	MultiState_ Value	186	4858_2	RD	1 = off 2 = on	1+N
MMS Module Output Voltage Status	MultiState_ Value	187	4859_2	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	1+N, SCC
MMS Module Output Source	MultiState_ Value	188	4860_2	RD	1 = off 2 = Normal 3 = Bypass 4 = Maintenance Bypass	1+N, SCC
ModuleList 8						
MMS Inter-Module Comm Status	MultiState_ Value	274	4856_8	RD	1 = Failed 2 = Normal	1+N, SCC

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
MMS Event Summary	MultiState_ Value	275	4857_8	RD	1 = None 2 = Alarm 3 = Fault	1+N, SCC
MMS Module Inverter Status	MultiState_ Value	276	4858_8	RD	1 = off 2 = on	1+N
MMS Module Output Voltage Status	MultiState_ Value	277	4859_8	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High	1+N, SCC
MMS Module Output Source	MultiState_ Value	278	4860_8	RD	1 = off 2 = Normal 3 = Bypass 4 = Maintenance Bypass	1+N, SCC
Intelligent Paralleling						
Intelligent Parallel Operation State	MultiState_ Value	289	5448_1	RD	1 = disabled 2 = enabled	1+N, N+1, SCC
Intelligent Parallel Mode	MultiState_ Value	290	5449_1	RD	1 = Idle (Fast Recovery) 2 = Disconnect (More Efficient) 3 = off (Most Efficient)	1+N, N+1, SCC
ECO Mode						
ECO Mode Operation State	MultiState_ Value	301	5454_1	RW	1 = disabled 2 = enabled	SMS, 1+N, SCC
Continuous Operation - ECO Mode	MultiState_ Value	302	5455_1	RD	1 = disabled 2 = enabled	SMS, 1+N, SCC
ECO Mode - EcoModeSchedule 1						
Schedule Operation State - ECO Mode	MultiState_ Value	313	5461_1_1	RD	1 = disabled 2 = enabled	SMS, 1+N, SCC
Schedule Action - ECO Mode	MultiState_ Value	314	5462_1_1	RD	1 = stop 2 = start	SMS, 1+N, SCC
ECO Mode - EcoModeSchedule 2						
Schedule Operation State - ECO Mode	MultiState_ Value	326	5461_1_2	RD	1 = disabled 2 = enabled	SMS, 1+N, SCC
Schedule Action - ECO Mode	MultiState_ Value	327	5462_1_2	RD	1 = stop 2 = start	SMS, 1+N, SCC
Schedule Day of Week - ECO Mode	MultiState_ Value	328	5463_1_2	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday	SMS, 1+N, SCC

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Table 5.184 Liebert® NXL - 60 Hz, UL version (Model 40)—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes	Liebert NXL Type
ECO Mode - EcoModeSchedule 16						
Schedule Operation State - ECO Mode	MultiState_ Value	508	5461_1_16	RD	1 = disabled 2 = enabled	SMS, 1+N, SCC
Schedule Action - ECO Mode	MultiState_ Value	509	5462_1_16	RD	1 = stop 2 = start	SMS, 1+N, SCC
Schedule Day of Week - ECO Mode	MultiState_ Value	510	5463_1_16	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday	SMS, 1+N, SCC

Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary

Data Label	Data Description
Auto Restart In Progress	Auto restart is in progress.
Auto Restart Inhibited - Ext	Auto restart inhibited due to an external signal.
Auto Retransfer Time Remaining	Time remaining before an inverter overload or inverter fault can be cleared and auto retransfer from the bypass to the inverter can take place.
Automatic Restart Failed	Automatic restart failed.
Backfeed Breaker Open	The backfeed breaker is in the open position.
Backfeed Breaker	Backfeed breaker.
Battery - External Monitor 1	External battery monitor 1 - battery maintenance required.
Battery - External Monitor 2	External battery monitor 2 - battery maintenance required.
Battery Amp-Hours Consumed This Discharge	Battery amp-hours withdrawn this discharge.
Battery Amp-Hours Consumed	Cumulative battery amp-hours withdrawn over the life of the battery.
Battery Capacity Low	Battery capacity is low.
Battery Cell Count - Lead Acid	Battery cell count - lead acid.
Battery Cell Count-Nickel Cadmium	Battery cell count - nickel cadmium.
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98).
Battery Charging Error	The battery is not charging properly.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal.
Battery Charging Reduced-Extrnl	Using a reduced battery charging algorithm due to an external signal.

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open.
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open.
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open.
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open.
Battery Commission Date	Date and time when battery placed into service.
Battery Discharge Power	Instantaneous battery power while discharging.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Last Discharge Date	The date and time of the last battery discharge.
Battery Low Shutdown	Battery disconnect due to end-of-discharge.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Percentage Charge	The percentage of battery charge.
Battery Self Test	Battery self test is in progress.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected.
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected.
Battery Test Failed	Battery test failed.
Battery Test Inhibited	Automatic (scheduled) battery tests are inhibited.
Battery Time Remaining	The calculated available time on battery.
Battery Total Discharge Time	The cumulative battery discharge time.
Battery Volts at Main Disconnect	The voltage between the positive and the negative battery terminals of the common battery disconnect.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
BPSS Startup Inhibit	The Bypass Static Switch startup is inhibited.

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval.
Bypass - Manual Rexfr Inhibited	Manual transfer from bypass to inverter is inhibited.
Bypass - Manual Xfr Inhibited	Manual transfer from inverter to bypass is inhibited.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed.
Bypass Auto Transfer Failed	An automatic transfer to static bypass failed.
Bypass Excessive Pulse Parallel	The system has performed too many pulse parallel operations within a specified time interval.
Bypass Frequency Error	The bypass frequency is outside the inverter synchronization limits.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Input Wire Configuration	Bypass input wire configuration.
Bypass Isolation Breaker (BIB)	Bypass isolation breaker (BIB).
Bypass Isolation Breaker for Module 1 (BIB1)	Bypass isolation breaker for module 1 (BIB1).
Bypass Isolation Breaker for Module 2 (BIB2)	Bypass isolation breaker for module 2 (BIB2).
Bypass Isolation Breaker for Module 3 (BIB3)	Bypass isolation breaker for module 3 (BIB3).
Bypass Isolation Breaker for Module 4 (BIB4)	Bypass isolation breaker for module 4 (BIB4).
Bypass Isolation Breaker for Module 5 (BIB5)	Bypass isolation breaker for module 5 (BIB5).
Bypass Isolation Breaker for Module 6 (BIB6)	Bypass isolation breaker for module 6 (BIB6).
Bypass Isolation Breaker for Module 7 (BIB7)	Bypass isolation breaker for module 7 (BIB7).
Bypass Isolation Breaker for Module 8 (BIB8)	Bypass isolation breaker for module 8 (BIB8).
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload Phase A	An overload exists on output phase A while operating on the bypass.
Bypass Overload Phase B	An overload exists on output phase B while operating on the bypass.

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Bypass Overload Phase C	An overload exists on output phase C while operating on the bypass.
Bypass Qualification Status	bypass qualification status.
Bypass SS Overload Time Remain	The calculated time remaining before bypass static switch shutdown due to the present overload condition.
Bypass Static Switch Off Extrnl	Bypass static switch is off due to the state of an external signal.
Bypass Static Switch Overload	Bypass off due to static switch overload.
Bypass Static Switch Unavailable	The static bypass switch is off, and unable to operate.
Bypass Sync Phase Difference	The phase angle difference between the inverter output and bypass source.
Configuration Description	Configuration description.
Cont Tie Active	Continuous Power Tie Active.
Continuous Operation - ECO Mode	This setting gives the user the ability to Enable/Disable ECO Mode continuous operation.
Controls Reset Required	A controls reset is required due to one or more critical settings changing.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Ground Fault - Negative	A ground fault has been detected on the negative DC Bus link.
DC Bus Ground Fault - Positive	A ground fault has been detected on the positive DC Bus link.
DC Bus Qualification Status	dc bus qualification status.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
ECO Mode Active	Conditions for Activation or Automatic Reactivation have been satisfied.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Suspended	ECO Mode session is suspended.
EMO Shutdown	An Emergency Module Off command has been detected.
Equipment Over Temperature	Equipment over temperature summary event.
Equipment Temperature Sensor Fail	One or more temperature sensors report a temperature outside of the range of expected operation.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures.
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold.
Inlet Air Temperature	The temperature of the inlet air.
Input Breaker (CB1/RIB)	Input breaker (CB1/RIB).
Input Contact 01	The external input contact 1.
Input Contact 02	The external input contact 2.

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Input Contact 03	The external input contact 3.
Input Contact 04	The external input contact 4.
Input Contact 05	The external input contact 5.
Input Contact 06	The external input contact 6.
Input Contact 07	The external input contact 7.
Input Contact 08	The external input contact 8.
Input Contact 09	The external input contact 9.
Input Contact 10	The external input contact 10.
Input Contact 11	The external input contact 11.
Input Contact 12	The external input contact 12.
Input Contact 13	The external input contact 13.
Input Contact 14	The external input contact 14.
Input Contact 15	The external input contact 15.
Input Contact 16	The external input contact 16.
Input Filter Cycle Lock	The input filter disconnect is open due to exceeding the maximum number of cycles.
Input Isolation Transformer	Input isolation transformer.
Input Qualification Status	Input qualification status.
Intelligent Parallel Maximum Time in Standby	The maximum time a module can be in standby mode due to Intelligent Paralleling.
Intelligent Parallel Minimum Redundancy	This is the minimum Number of Redundant Modules that the system will allow before bringing one or more modules back to normal operation and terminating Intelligent Paralleling.
Intelligent Parallel Mode	This setting gives the user the ability to choose between different energy consumption modes while Intelligent Paralleling is active and module is in standby.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Intelligent Paralleling Shutdown Delay	This is the length of time the conditions for module standby must remain satisfied before the module goes into standby.
Internal Bypass Breaker (CB3)	Internal bypass breaker (CB3).
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter Inhibit - External	Restart of the inverter is inhibited by an external signal.
Inverter Off - External	Inverter is off (operation is inhibited) due to external signal state.
Inverter On/Off State	inverter on/off state.
Inverter Output Qualification Status	inverter output qualification status.

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Inverter Overload Phase A	Inverter is operating with an overload on Phase A.
Inverter Overload Phase B	Inverter is operating with an overload on Phase B.
Inverter Overload Phase C	Inverter is operating with an overload on Phase C.
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Static Switch SCR Short	The system has detected a short across one or more inverter static switch Silicon Controlled Rectifiers (SCR).
LBS Active - Master	This UPS system has been selected as the functional Master Load Bus Synchronization (LBS) system.
LBS Active - Slave	This UPS system is synchronized to the output bus of the UPS system that has been selected as the Master Load Bus Synchronization (LBS) system.
LBS Active	The Load Bus Sync option is active.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Leading Power Factor	The leading output Power Factor has fallen below a specified value
Loss of Redundancy	The multimodule collection doesn't have enough modules to redundantly support the load.
Main Battery Disconnect Open	Main battery disconnect is open.
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker (MBB)	Maintenance bypass breaker (MBB).
Maintenance Isolation Breaker (MIB)	Maintenance isolation breaker (MIB).
Maximum Auto Suspensions - ECO Mode	This setting sets the maximum number of automatic ECO Mode suspensions in a session.
MMS Event Summary	Summary of any active user alarm or fault of this module in a multimodule system.
MMS Inter-Module Comm Status	Inter-module communication status of this module in a multimodule system.
MMS Loss of Sync Pulse	Multimodule system loss of sync pulse.
MMS Low Battery Warning	Multimodule system low battery warning.
MMS Module Alarm Active	Active alarm or fault of any module in a multimodule system.
MMS Module Battery Current	Battery current of this module in a multimodule system.
MMS Module Battery Time Remaining	Battery time remaining for this module in a multimodule system.
MMS Module DC Bus Voltage	DC bus voltage of this module in a multimodule system
MMS Module Inverter Status	Multimodule inverter status of this module (on/off).
MMS Module Number	MMS module number.
MMS Module Output Source	Module output source in a multimodule system (normal/bypass/maintenance bypass/off).

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
MMS Module Output Voltage Status	Output voltage status of this module in multimodule system.
MMS Module Total kVA Output	Total kVA output of this module in a multimodule system.
MMS Module Total kW Output	Total kW output of this module in a multimodule system.
MMS On Battery	The multimodule system is on battery.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Frequency	The multimodule system output frequency.
MMS Output Pct Apparent Pwr (kVA) Phase A	The multimodule system output apparent power on phase A as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase B	The multimodule system output apparent power on phase B as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase C	The multimodule system output apparent power on phase C as a percentage of the rated capacity.
MMS Output Pct Power Phase A	The multimodule system output power on phase A as a percentage of the rated capacity.
MMS Output Pct Power Phase B	The multimodule system output power on phase B as a percentage of the rated capacity.
MMS Output Pct Power Phase C	The multimodule system output power on phase C as a percentage of the rated capacity.
MMS Output Power Factor Phase A	The multimodule system output power factor for Phase A.
MMS Output Power Factor Phase B	The multimodule system output power factor for Phase B.
MMS Output Power Factor Phase C	The multimodule system output power factor for Phase C.
MMS Output Power	The sum total power of all system output modules
MMS Overload	Multimodule system overload
MMS Retransfer Inhibit	The critical load can not be manually retransferred from bypass to inverter
MMS Sharing Calib Active	A module is not sharing power with the other modules in a multimodule system.
MMS Transfer Inhibit	The critical load can not be manually transferred from inverter to bypass
MMS UPS Battery Status	Multimodule UPS battery status
MMS UPS Output Source	Multimodule UPS output source
Module Accumulated Energy	Total accumulated energy output for this module, since last energy reset.
Module In Standby - Intelligent Paralleling	Module is placed into standby operation per Intelligent Paralleling.
Module Output Breaker (MOB)	Module output breaker (MOB)
Module Output Breaker for	Module output breaker for module 1 (MOB1)

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Module 1 (MOB1)	
Module Output Breaker for Module 2 (MOB2)	Module output breaker for module 2 (MOB2)
Module Output Breaker for Module 3 (MOB3)	Module output breaker for module 3 (MOB3)
Module Output Breaker for Module 4 (MOB4)	Module output breaker for module 4 (MOB4)
Module Output Breaker for Module 5 (MOB5)	Module output breaker for module 5 (MOB5)
Module Output Breaker for Module 6 (MOB6)	Module output breaker for module 6 (MOB6)
Module Output Breaker for Module 7 (MOB7)	Module output breaker for module 7 (MOB7)
Module Output Breaker for Module 8 (MOB8)	Module output breaker for module 8 (MOB8)
Multi-module System Output Voltage RMS A-B	Multimodule system output RMS voltage between phases A and B
Multi-module System Output Voltage RMS A-N	Multimodule system output RMS voltage between phase B and Neutral
Multi-module System Output Voltage RMS B-C	Multimodule system output RMS voltage between phases B and C
Multi-module System Output Voltage RMS B-N	Multimodule system output RMS voltage between phase B and Neutral
Multi-module System Output Voltage RMS C-A	Multimodule system output RMS voltage between phases C and A
Multi-module System Output Voltage RMS C-N	Multimodule system output RMS voltage between phase C and Neutral
Multiple Fan Failure	Multiple fan failure
Number of Modules in a MMS	The number of modules in a multimodule system
Number of Redundant Modules	The number of redundant modules in a multimodule collective.
On Generator	A generator is supplying the power to the system
Outlet Air Overtemperature Limit	The difference between the outlet air temperature and inlet air temperature exceeds a specified maximum temperature.
Output Amp Over User Limit-Phs A	The phase A output has exceeded the user amperage threshold
Output Amp Over User Limit-Phs B	The phase B output has exceeded the user amperage threshold
Output Amp Over User Limit-Phs C	The phase C output has exceeded the user amperage threshold

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
Output Apparent Power Rating	Output apparent power rating
Output Breaker (CB2/IOB)	Output breaker (CB2/IOB)
Output kWh Reset Timestamp	The date/time stamp when the User kWh accumulator was last reset to zero.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Peak kW Demand Hist	The Output Peak kW Demand for the last completed programmed time interval.
Output Peak kW Demand	The Output Peak kW Demand for the programmed time interval.
Output Qualification Status	Output qualification status
Output Real Power Rating	Output real power rating
Output Series Static Switch	Output series static switch
Output Wire Configuration	Output wire configuration
Parallel Comm Warning	Parallel communication bus warning
Peak kW Demand Period	The Peak kW Demand Period.
Peak kW Demand Timestamp	The date/time stamp when the Peak kW Demand accumulator was last reset.
Peak kW Reset	The Peak kW was reset.
Power Supply Failure	Power supply failure
Rectifier Active Filter	Rectifier input active filter configuration
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Feed Breaker (RFB)	Rectifier feed breaker (RFB)
Rectifier Input Passive Filter	Rectifier input passive filter configuration
Rectifier Operation Inhibit-Ext	The operation of the rectifier is inhibited by an external signal
Rectifier Passive Filter Switch	Rectifier input passive filter switch configuration
Rectifier Pulse Count	Rectifier pulse count per cycle configuration
Rectifier Status	Rectifier status
Restart Delay - ECO Mode	The time delay that the conditions to activate ECO Mode must be satisfied before ECO Mode can be reactivated during an active session.
SBS Load Disconnect	SBS load disconnect
SCC Event Summary	Summary of any active user alarms or faults on the SCC
Schedule Action - ECO Mode	This setting gives the user the ability to choose the action of a schedule entry to be either stop or start.
Schedule Day of Week - ECO Mode	This setting represents the day of the week when an associated ECO Mode schedule entry action will take effect.
Schedule Hour - ECO Mode	This setting represents the hour of the day when an associated schedule entry action will take effect.
Schedule Minute - ECO Mode	This setting represents the minute of the hour when an associated schedule entry action will take effect.
Schedule Operation State -	This setting gives the user the ability to either enable or disable a schedule entry if the action is Start.

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
ECO Mode	
Service Code Active	Service code is running
Service Required	Unit requires servicing.
Static Bypass Switch	Static Bypass Switch state - On/Off
Static Switch Type	Static switch type configuration
Sum of MMS Output RMS Currents for Phase A	The sum of the multimodule system output RMS currents for phase A
Sum of MMS Output RMS Currents for Phase B	The sum of the multimodule system output RMS currents for phase B
Sum of MMS Output RMS Currents for Phase C	The sum of the multimodule system output RMS currents for phase C
System Accumulated Energy	Total accumulated energy output for the mms system, since last energy reset.
System Breaker(s) Close Failure	One or more breakers in the system failed to close
System Breaker(s) Open Failure	One or more breakers in the system failed to open
System Comm Fail	Failure of a device on the multimodule system communication bus
System Controller Error	System controller internal error
System Date and Time	The system date and time
System Fan Failure - Redundant	Redundant system fan failure
System Input Current Imbalance	System Input Currents are Imbalanced
System Input Current Limit	The RMS input current has reached the input current limit threshold
System Input Frequency	The system input frequency
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Problem	The input is not qualified to provide power to the system
System Input Power Source	System input power source
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS Current Phase A	The system input RMS current for Phase A

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Isolation Output Breaker (IOB)	System isolation output breaker (IOB)
System Load Bank Breaker (LBB)	System load bank breaker (LBB)
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Breaker (UOB)	System output breaker (UOB)
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Low Power Factor	The system output power factor is low, resulting in reduced output capacity
System Output Maximum Amp Rating	System output maximum amperage rating
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C

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Table 5.185 Liebert® NXL - 60 Hz, UL version (Model 40)—Glossary (continued)

Data Label	Data Description
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Shutdown - REPO	System shutdown due to Remote Emergency Power Off (REPO)
System Status	The operating status for the system
System UPS Module Count	Number of UPS modules in the system
Time Remaining - ECO Mode	Time remaining before current active ECO Mode session stops.
Total Bypass Operating Time	The cumulative bypass time of the unit.
Total kW Hours Saved	Total kW hours saved by ECO Mode or Intelligent Paralleling.
Total Number of Battery Discharges	The total number of battery discharges.
Total System Operating Time	The cumulative operation time of the unit
Trap Filter Disconnect	Trap filter disconnect
UPS Battery Status	UPS battery status
UPS Module Type	UPS module type
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source
UPS System Output Source	The UPS system's output power source
User kWh Reset	The user kWh accumulator was reset to zero by the operator.

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Table 5.186 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input Power Problem	Binary_Value	1	4122_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Current Limit	Binary_Value	3	4147_1	RD	Active on Alarm
System Input Current Imbalance	Binary_Value	4	4382_1	RD	Active on Alarm
Bypass					
Bypass Not Available	Binary_Value	15	4135_1	RD	Active on Alarm
Bypass Overload Phase A	Binary_Value	16	4132_1	RD	Active on Alarm
Bypass Overload Phase B	Binary_Value	17	4133_1	RD	Active on Alarm
Bypass Overload Phase C	Binary_Value	18	4134_1	RD	Active on Alarm
Bypass Auto Retransfer Failed	Binary_Value	19	4138_1	RD	Active on Alarm
Bypass Static Switch Overload	Binary_Value	20	4142_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	21	4143_1	RD	Active on Alarm
Bypass Auto Transfer Failed	Binary_Value	22	4145_1	RD	Active on Alarm
Bypass Frequency Error	Binary_Value	23	4175_1	RD	Active on Alarm
Bypass - Manual Rexfr Inhibited	Binary_Value	24	4218_1	RD	Active on Alarm
Bypass - Manual Xfr Inhibited	Binary_Value	25	4217_1	RD	Active on Alarm
Battery					
Battery Automatic Test Inhibited	Binary_Value	36	4740_1	RD	Active on Alarm
Battery Capacity Low	Binary_Value	37	4166_1	RD	Active on Alarm
Battery Discharging	Binary_Value	38	4168_1	RD	Active on Alarm
Battery Temperature Imbalance	Binary_Value	39	4169_1	RD	Active on Alarm
Battery Equalize	Binary_Value	40	4170_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	41	4172_1	RD	Active on Alarm
Main Battery Disconnect Open	Binary_Value	42	4173_1	RD	Active on Alarm
Battery Low	Binary_Value	43	4162_1	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	44	4174_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	45	4176_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	46	4179_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	47	4182_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	48	4185_1	RD	Active on Alarm
Battery Circuit Breaker 5 Open	Binary_Value	49	4188_1	RD	Active on Alarm

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Table 5.186 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Circuit Breaker 6 Open	Binary_Value	50	4191_1	RD	Active on Alarm
Battery - External Monitor 1	Binary_Value	51	4220_1	RD	Active on Alarm
Battery - External Monitor 2	Binary_Value	52	4221_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	53	4222_1	RD	Active on Alarm
Battery Over Temperature Limit	Binary_Value	54	5871_1	RD	Active on Alarm
Battery Low Shutdown	Binary_Value	55	4742_1	RD	Active on Alarm
Battery Over Temperature	Binary_Value	56	4219_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	57	4323_1	RD	Active on Alarm
Unexpected Main Battery Disconnect Closure	Binary_Value	58	5873_1	RD	Active on Alarm
Battery Over Voltage	Binary_Value	59	5874_1	RD	Active on Alarm
Battery Fuse Fault	Binary_Value	60	5875_1	RD	Active on Alarm
Main Battery Disconnect Forced To Unlock	Binary_Value	61	5878_1	RD	Active on Alarm
Battery Charging	Binary_Value	65	6354_1	RD	Active on Alarm
DC Bus					
DC Bus Low Fault	Binary_Value	74	5563_1	RD	Active on Alarm
Output					
System Shutdown - EPO	Binary_Value	85	4213_1	RD	Active on Alarm
System Shutdown - REPO	Binary_Value	86	4214_1	RD	Active on Alarm
System Output Low Power Factor	Binary_Value	88	4230_1	RD	Active on Alarm
Output Amp Over User Limit-Phs A	Binary_Value	89	4286_1	RD	Active on Alarm
Output Amp Over User Limit-Phs B	Binary_Value	90	4287_1	RD	Active on Alarm
Output Amp Over User Limit-Phs C	Binary_Value	91	4288_1	RD	Active on Alarm
System Output Fault	Binary_Value	92	4389_1	RD	Active on Alarm
Output Of/Uf	Binary_Value	93	5144_1	RD	Active on Alarm
Inverter					
Inverter Failure	Binary_Value	104	4233_1	RD	Active on Alarm
Inverter Overload Phase A	Binary_Value	105	4234_1	RD	Active on Alarm
Inverter Overload Phase B	Binary_Value	106	4235_1	RD	Active on Alarm
Inverter Overload Phase C	Binary_Value	107	4236_1	RD	Active on Alarm
Inverter Inhibit - External	Binary_Value	108	4237_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	109	4290_1	RD	Active on Alarm
Inverter Static Switch SCR Short	Binary_Value	110	4391_1	RD	Active on Alarm

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Table 5.186 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Environment					
Inlet Air Over Temperature	Binary_Value	121	4294_1	RD	Active on Alarm
Outlet Air Overtemperature Limit	Binary_Value	122	5768_1	RD	Active on Alarm
Equipment Temperature Sensor Fail	Binary_Value	123	4747_1	RD	Active on Alarm
External Input Signals					
Input Contact 01	Binary_Value	134	4270_1	RD	Active on Alarm
Input Contact 02	Binary_Value	135	4271_1	RD	Active on Alarm
Input Contact 03	Binary_Value	136	4272_1	RD	Active on Alarm
Input Contact 04	Binary_Value	137	4273_1	RD	Active on Alarm
Input Contact 05	Binary_Value	138	4274_1	RD	Active on Alarm
Input Contact 06	Binary_Value	139	4275_1	RD	Active on Alarm
Input Contact 07	Binary_Value	140	4276_1	RD	Active on Alarm
Input Contact 08	Binary_Value	141	4277_1	RD	Active on Alarm
Input Contact 09	Binary_Value	142	4278_1	RD	Active on Alarm
Input Contact 10	Binary_Value	143	4279_1	RD	Active on Alarm
Input Contact 11	Binary_Value	144	4280_1	RD	Active on Alarm
Input Contact 12	Binary_Value	145	4281_1	RD	Active on Alarm
Input Contact 13	Binary_Value	146	4282_1	RD	Active on Alarm
Input Contact 14	Binary_Value	147	4283_1	RD	Active on Alarm
Input Contact 15	Binary_Value	148	4284_1	RD	Active on Alarm
Input Contact 16	Binary_Value	149	4285_1	RD	Active on Alarm
Rectifier					
Rectifier Failure	Binary_Value	160	4295_1	RD	Active on Alarm
Vdc Backfeed	Binary_Value	162	5879_1	RD	Active on Alarm
Rectifier Configuration Change Request	Binary_Value	163	5880_1	RD	Active on Alarm
System					
System Fan Failure - Redundant	Binary_Value	174	4749_1	RD	Active on Alarm
Multiple Fan Failure	Binary_Value	175	4750_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	176	4300_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	177	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	178	4299_1	RD	Active on Alarm
Backfeed Breaker Open	Binary_Value	179	4325_1	RD	Active on Alarm

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Table 5.186 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Auto Restart In Progress	Binary_Value	180	4316_1	RD	Active on Alarm
Power Supply Failure	Binary_Value	181	4314_1	RD	Active on Alarm
Auto Restart Inhibited - Ext	Binary_Value	183	4317_1	RD	Active on Alarm
Automatic Restart Failed	Binary_Value	184	4439_1	RD	Active on Alarm
Main Controller Fault	Binary_Value	185	4753_1	RD	Active on Alarm
Fuse Failure	Binary_Value	186	4440_1	RD	Active on Alarm
System Controller Error	Binary_Value	187	4441_1	RD	Active on Alarm
System Breaker(s) Open Failure	Binary_Value	188	4442_1	RD	Active on Alarm
System Breaker(s) Close Failure	Binary_Value	189	4754_1	RD	Active on Alarm
Input Filter Cycle Lock	Binary_Value	190	4755_1	RD	Active on Alarm
EMO Shutdown	Binary_Value	191	5769_1	RD	Active on Alarm
Service Code Active	Binary_Value	192	4756_1	RD	Active on Alarm
LBS Active	Binary_Value	193	4757_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	194	4758_1	RD	Active on Alarm
Regeneration Active	Binary_Value	195	5881_1	RD	Active on Alarm
Regeneration Operation Terminated	Binary_Value	196	5882_1	RD	Active on Alarm
Regeneration Operation Failure	Binary_Value	197	5883_1	RD	Active on Alarm
Leading Power Factor	Binary_Value	198	4759_1	RD	Active on Alarm
Controls Reset Required	Binary_Value	199	4760_1	RD	Active on Alarm
MultiModule					
Loss of Redundancy	Binary_Value	212	4825_1	RD	Active on Alarm
MMS Overload	Binary_Value	215	4831_1	RD	Active on Alarm
MMS On Battery	Binary_Value	216	4834_1	RD	Active on Alarm
MMS Module Alarm Active	Binary_Value	218	5145_1	RD	Active on Alarm
Program Input Signals					
Program Input Contact 01	Binary_Value	229	5884_1	RD	Active on Alarm
Program Input Contact 02	Binary_Value	230	5885_1	RD	Active on Alarm
Program Input Contact 03	Binary_Value	231	5886_1	RD	Active on Alarm
Program Input Contact 04	Binary_Value	232	5887_1	RD	Active on Alarm
Program Input Contact 05	Binary_Value	233	5888_1	RD	Active on Alarm
Program Input Contact 06	Binary_Value	234	5889_1	RD	Active on Alarm
Program Input Contact 07	Binary_Value	235	5890_1	RD	Active on Alarm

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Table 5.186 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Program Input Contact 08	Binary_Value	236	5891_1	RD	Active on Alarm
Program Input Contact 09	Binary_Value	237	5892_1	RD	Active on Alarm
Program Input Contact 10	Binary_Value	238	5893_1	RD	Active on Alarm
Program Input Contact 11	Binary_Value	239	5894_1	RD	Active on Alarm
Program Input Contact 12	Binary_Value	240	5895_1	RD	Active on Alarm
Intelligent Paralleling					
IP Inhibit	Binary_Value	251	5567_1	RD	Active on Alarm
ECO Mode					
ECO Mode Active	Binary_Value	262	5456_1	RD	Active on Alarm
ECO Mode Suspended	Binary_Value	263	5457_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	264	5458_1	RD	Active on Alarm

Table 5.187 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	4	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	5	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	6	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	7	4105_1	RD	Units: Hz
Bypass					
Bypass Input Voltage RMS A-B	Analog_Value	18	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	19	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	20	4127_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	21	4131_1	RD	Units: Hz
Bypass Sync Phase Difference	Analog_Value	22	4136_1	RD	Units: deg
Bypass SS Overload Time Remain	Analog_Value	23	4157_1	RD	Units: sec
Auto Retransfer Time Remaining	Analog_Value	24	4738_1	RD	Units: sec
Total Bypass Operating Time	Analog_Value	25	6456_1	RD	Units: hr
Battery					

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Table 5.187 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Total Discharge Time	Analog_Value	35	4152_1	RD	Units: hr
Battery Percentage Charge	Analog_Value	36	4153_1	RD	
Battery Volts at Main Disconnect	Analog_Value	37	4154_1	RD	Units: VDC
Battery Volts for Cabinet 1	Analog_Value	38	4155_1_1	RD	Units: VDC
Battery Volts for Cabinet 2	Analog_Value	39	4155_1_2	RD	Units: VDC
Battery Volts for Cabinet 3	Analog_Value	40	4155_1_3	RD	Units: VDC
Battery Volts for Cabinet 4	Analog_Value	41	4155_1_4	RD	Units: VDC
Battery Volts for Cabinet 5	Analog_Value	42	4155_1_5	RD	Units: VDC
Battery Volts for Cabinet 6	Analog_Value	43	4155_1_6	RD	Units: VDC
Battery Temperature for Cabinet 1	Analog_Value	44	4156_1_1	RD	Units: deg C
Battery Temperature for Cabinet 1	Analog_Value	10044	4156_1_1_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 2	Analog_Value	45	4156_1_2	RD	Units: deg C
Battery Temperature for Cabinet 2	Analog_Value	10045	4156_1_2_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 3	Analog_Value	46	4156_1_3	RD	Units: deg C
Battery Temperature for Cabinet 3	Analog_Value	10046	4156_1_3_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 4	Analog_Value	47	4156_1_4	RD	Units: deg C
Battery Temperature for Cabinet 4	Analog_Value	10047	4156_1_4_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 5	Analog_Value	48	4156_1_5	RD	Units: deg C
Battery Temperature for Cabinet 5	Analog_Value	10048	4156_1_5_deg_F	RD	Units: deg F
Battery Temperature for Cabinet 6	Analog_Value	49	4156_1_6	RD	Units: deg C
Battery Temperature for Cabinet 6	Analog_Value	10049	4156_1_6_deg_F	RD	Units: deg F
Battery Amp-Hours Consumed This Discharge	Analog_Value	50	4739_1	RD	Units: AH
Battery Time Remaining	Analog_Value	51	4150_1	RD	Units: min
Battery Discharge Time	Analog_Value	52	4151_1	RD	Units: sec
Battery Discharge Power	Analog_Value	53	4159_1	RD	Units: W
Battery Last Discharge Date	Analog_Value	54	4161_1	RD	
Battery Amp-Hours Consumed	Analog_Value	55	4158_1	RD	Units: AH
DC Bus					
DC Bus Voltage	Analog_Value	66	4148_1	RD	Units: VDC
DC Bus Current	Analog_Value	67	4149_1	RD	Units: A DC
Output					
System Output Voltage RMS A-B	Analog_Value	78	4201_1	RD	Units: VAC

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Table 5.187 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Voltage RMS B-C	Analog_Value	79	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	80	4203_1	RD	Units: VAC
System Output Voltage RMS A-N	Analog_Value	81	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	82	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	83	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	84	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	85	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	86	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	87	4207_1	RD	Units: Hz
System Output Power	Analog_Value	88	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	89	4209_1	RD	Units: kVA
System Output Power Factor Phs A	Analog_Value	90	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	91	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	92	4212_1	RD	
System Output Pct Power Phase A	Analog_Value	93	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	94	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	95	4225_1	RD	Units: %
System Output Pct Pwr (VA) Phs A	Analog_Value	96	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	97	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	98	4228_1	RD	Units: %
Inverter					
Inverter Overload Time Remaining	Analog_Value	109	4232_1	RD	Units: sec
Environment					
Inlet Air Temperature	Analog_Value	120	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10120	4291_1_deg_F	RD	Units: deg F
Total System Operating Time	Analog_Value	121	4292_1	RD	Units: hr
System Date and Time	Analog_Value	122	4293_1	RW	
Ratings					
Bypass Nominal Voltage	Analog_Value	133	4259_1	RD	Units: VAC
System Input Nominal Voltage	Analog_Value	134	4102_1	RD	Units: VAC
System Input Nominal Frequency	Analog_Value	135	4103_1	RD	Units: Hz
System Output Nominal Voltage	Analog_Value	136	4260_1	RD	Units: VAC

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Table 5.187 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Nominal Frequency	Analog_Value	137	4261_1	RD	Units: Hz
Battery Cell Count - Lead Acid	Analog_Value	138	4262_1	RD	
Battery Cell Count-Nickel Cadmium	Analog_Value	139	4263_1	RD	
Output Apparent Power Rating	Analog_Value	140	4264_1	RD	Units: kVA
Output Real Power Rating	Analog_Value	141	4265_1	RD	Units: kW
System UPS Module Count	Analog_Value	142	4268_1	RD	
System Output Maximum Amp Rating	Analog_Value	143	4267_1	RD	Units: A AC
System Redundant UPS Modules	Analog_Value	144	4269_1	RD	
MultiModule					
Multi-module System Output Voltage RMS A-B	Analog_Value	155	4801_1	RD	Units: VAC
Multi-module System Output Voltage RMS B-C	Analog_Value	156	4802_1	RD	Units: VAC
Multi-module System Output Voltage RMS C-A	Analog_Value	157	4803_1	RD	Units: VAC
Multi-module System Output Voltage RMS A-N	Analog_Value	158	4804_1	RD	Units: VAC
Multi-module System Output Voltage RMS B-N	Analog_Value	159	4805_1	RD	Units: VAC
Multi-module System Output Voltage RMS C-N	Analog_Value	160	4806_1	RD	Units: VAC
Sum of MMS Output RMS Currents for Phase A	Analog_Value	161	4807_1	RD	Units: A AC
Sum of MMS Output RMS Currents for Phase B	Analog_Value	162	4808_1	RD	Units: A AC
Sum of MMS Output RMS Currents for Phase C	Analog_Value	163	4809_1	RD	Units: A AC
MMS Output Frequency	Analog_Value	164	4810_1	RD	Units: Hz
MMS Output Power	Analog_Value	165	4811_1	RD	Units: kW
MMS Output Apparent Power	Analog_Value	166	4812_1	RD	Units: kVA
MMS Output Power Factor Phase A	Analog_Value	167	4813_1	RD	
MMS Output Power Factor Phase B	Analog_Value	168	4814_1	RD	
MMS Output Power Factor Phase C	Analog_Value	169	4815_1	RD	
MMS Output Pct Power Phase A	Analog_Value	170	4816_1	RD	Units: %
MMS Output Pct Power Phase B	Analog_Value	171	4817_1	RD	Units: %
MMS Output Pct Power Phase C	Analog_Value	172	4818_1	RD	Units: %
MMS Output Pct Apparent Pwr (kVA) Phase A	Analog_Value	173	4819_1	RD	Units: %
MMS Output Pct Apparent Pwr (kVA) Phase B	Analog_Value	174	4820_1	RD	Units: %
MMS Output Pct Apparent Pwr (kVA) Phase C	Analog_Value	175	4821_1	RD	Units: %
Number of Redundant Modules	Analog_Value	176	4822_1	RD	
MMS Module Number	Analog_Value	177	4829_1	RD	

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Table 5.187 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Number of Modules in a MMS	Analog_Value	178	4833_1	RD	
Intelligent Paralleling					
Intelligent Parallel Minimum Redundancy	Analog_Value	189	5451_1	RD	
Intelligent Parallel Maximum Time in Standby	Analog_Value	190	5452_1	RD	Units: day
ECO Mode					
Maximum Auto Suspensions - ECO Mode	Analog_Value	201	5459_1	RD	
Restart Delay - ECO Mode	Analog_Value	202	5460_1	RD	Units: min
Time Remaining - ECO Mode	Analog_Value	203	5466_1	RD	Units: min
ECO Mode - EcoModeSchedule 1					
Schedule Hour - ECO Mode	Analog_Value	214	5464_1_1	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	215	5465_1_1	RD	Units: min
ECO Mode - EcoModeSchedule 2					
Schedule Hour - ECO Mode	Analog_Value	226	5464_1_2	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	227	5465_1_2	RD	Units: min
ECO Mode - EcoModeSchedule 14					
Schedule Hour - ECO Mode	Analog_Value	370	5464_1_14	RD	Units: hr
Schedule Minute - ECO Mode	Analog_Value	371	5465_1_14	RD	Units: min

Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Qualification Status	MultiState_Value	1	4735_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Bypass					
Static Bypass Switch	MultiState_Value	12	4736_1	RD	1 = off 2 = on
Bypass Qualification Status	MultiState_Value	13	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Battery					
UPS Battery Status	MultiState_Value	24	4871_1	RD	1 = Unknown

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Normal 3 = Low 4 = Depleted
The main battery disconnect status.	MultiState_Value	25	5872_1	RD	1 = Open 2 = Closed 3 = Disabled
Battery SCR Status	MultiState_Value	26	5876_1	RD	1 = OK 2 = Fault 3 = unknown
Main Battery Disconnect Switch Lock Status	MultiState_Value	27	5877_1	RD	1 = Locked 2 = Unlocked 3 = unknown
DC Bus					
DC Bus Qualification Status	MultiState_Value	38	4743_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Output					
Output Qualification Status	MultiState_Value	49	4744_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Inverter					
Inverter Output Qualification Status	MultiState_Value	60	4745_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Inverter On/Off State	MultiState_Value	61	4746_1	RD	1 = off 2 = on
Rectifier					
Rectifier Pulse Count	MultiState_Value	72	4257_1	RD	1 = 6 Pulse 2 = 12 Pulse 3 = 18 Pulse 4 = 24 Pulse
Rectifier Input Passive Filter	MultiState_Value	73	4258_1	RD	1 = Not Installed

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Installed
Rectifier Passive Filter Switch	MultiState_Value	74	4301_1	RD	1 = Not Installed 2 = Installed
Rectifier Active Filter	MultiState_Value	75	4302_1	RD	1 = Not Installed 2 = Installed
Rectifier Status	MultiState_Value	76	4748_1	RD	1 = off 2 = on
System					
UPS Module Type	MultiState_Value	87	4303_1	RD	1 = Single Module System 2 = Module (1 + 1) 3 = Module (1 + N) 4 = Module (N + 1) 5 = System Control Cabinet 6 = Main Static Switch
Bypass Input Wire Configuration	MultiState_Value	88	4304_1	RD	1 = Two Wire (single phase + return) 2 = Two Wire (2 phase, no neutral) 3 = Three Wire (2 phase + neutral) 4 = Three Wire (3 phase, no neutral) 5 = Four Wire (3 phases + neutral)
Output Wire Configuration	MultiState_Value	89	4305_1	RD	1 = Two Wire (single phase + return) 2 = Two Wire (2 phase, no neutral) 3 = Three Wire (2 phase + neutral) 4 = Three Wire (3 phase, no neutral) 5 = Four Wire (3 phases + neutral)
Static Switch Type	MultiState_Value	90	4306_1	RD	1 = Not Applicable 2 = Continuous Duty 3 = Momentary Duty
Configuration Description	MultiState_Value	91	4751_1	RD	1 = Single Module System 33 2 = Single Module System 34 3 = Single Module System 44 4 = 1+1 33 5 = 1+1 34 6 = 1+1 44 7 = 1+N 33 8 = 1+N 34 9 = 1+N 44

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					10 = N+1 33 11 = N+1 34 12 = N+1 44 13 = SCC w/Continuous Duty SS 33 14 = SCC w/Continuous Duty SS 44 15 = SCC w/Momentary Duty SS 16 = Main Static Switch
UPS System Output Source	MultiState_Value	92	4307_1	RD	1 = None 2 = Inverter 3 = Bypass
System Input Power Source	MultiState_Value	93	4318_1	RD	1 = None 2 = Utility (mains) 3 = Generator
System Status	MultiState_Value	94	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
UPS Output Source	MultiState_Value	95	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Fan Status	MultiState_Value	96	4326_1	RD	1 = Unknown 2 = Normal 3 = Failure
System Fan Redundant Status	MultiState_Value	97	4327_1	RD	1 = Unknown 2 = Redundancy Available 3 = Loss of Redundancy
System Fan Capacity Status	MultiState_Value	98	4328_1	RD	1 = Unknown 2 = Normal 3 = Failure
Ratings					
Input Isolation Transformer	MultiState_Value	109	4266_1	RD	1 = Not Installed

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Installed
Device Status					
Backfeed Breaker	MultiState_Value	120	4764_1	RD	1 = Open 2 = Close 3 = Not Installed
SBS Load Disconnect	MultiState_Value	121	4765_1	RD	1 = Open 2 = Close 3 = Not Installed
Input Breaker	MultiState_Value	122	4766_1	RD	1 = Open 2 = Close 3 = Not Installed
Trap Filter Disconnect	MultiState_Value	123	4767_1	RD	1 = Open 2 = Close 3 = Not Installed
Output Breaker	MultiState_Value	124	4768_1	RD	1 = Open 2 = Close 3 = Not Installed
Internal Bypass Breaker	MultiState_Value	125	4769_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker	MultiState_Value	126	4770_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Bypass Breaker	MultiState_Value	127	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Isolation Breaker	MultiState_Value	128	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
Output Series Static Switch	MultiState_Value	129	4774_1	RD	1 = Off 2 = On 3 = Not Installed
Module Output Breaker	MultiState_Value	130	4775_1	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
MultiModule					
Module Output Breaker for Module 1	MultiState_Value	141	4836_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 2	MultiState_Value	142	4837_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 3	MultiState_Value	143	4838_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 4	MultiState_Value	144	4839_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 5	MultiState_Value	145	4840_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 6	MultiState_Value	146	4841_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 7	MultiState_Value	147	4842_1	RD	1 = Open 2 = Close 3 = Not Installed
Module Output Breaker for Module 8	MultiState_Value	148	4843_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 1	MultiState_Value	149	4844_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 2	MultiState_Value	150	4845_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 3	MultiState_Value	151	4846_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 4	MultiState_Value	152	4847_1	RD	1 = Open 2 = Close

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Not Installed
Bypass Isolation Breaker for Module 5	MultiState_Value	153	4848_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 6	MultiState_Value	154	4849_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 7	MultiState_Value	155	4850_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass Isolation Breaker for Module 8	MultiState_Value	156	4851_1	RD	1 = Open 2 = Close 3 = Not Installed
System Output Breaker	MultiState_Value	157	4852_1	RD	1 = Open 2 = Close 3 = Not Installed
System Load Bank Breaker	MultiState_Value	158	4853_1	RD	1 = Open 2 = Close 3 = Not Installed
System Isolation Output Breaker	MultiState_Value	159	4854_1	RD	1 = Open 2 = Close 3 = Not Installed
SCC Event Summary	MultiState_Value	160	4855_1	RD	1 = None 2 = Alarm 3 = Fault
MMS UPS Output Source	MultiState_Value	162	4874_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
ModuleList 1					
MMS Inter-Module Comm Status	MultiState_Value	173	4856_1	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_Value	174	4857_1	RD	1 = None

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_Value	175	4858_1	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_Value	176	4859_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_Value	177	4860_1	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 2					
MMS Inter-Module Comm Status	MultiState_Value	188	4856_2	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_Value	189	4857_2	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_Value	190	4858_2	RD	1 = off 2 = on
MMS Module Output Voltage Status	MultiState_Value	191	4859_2	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_Value	192	4860_2	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
ModuleList 8					
MMS Inter-Module Comm Status	MultiState_Value	278	4856_8	RD	1 = Failed 2 = Normal
MMS Event Summary	MultiState_Value	279	4857_8	RD	1 = None 2 = Alarm 3 = Fault
MMS Module Inverter Status	MultiState_Value	280	4858_8	RD	1 = off

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = on
MMS Module Output Voltage Status	MultiState_Value	281	4859_8	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
MMS Module Output Source	MultiState_Value	282	4860_8	RD	1 = Off 2 = Normal 3 = Bypass 4 = Maintenance Bypass
Intelligent Paralleling					
Intelligent Parallel Operation State	MultiState_Value	293	5448_1	RD	1 = disabled 2 = enabled
ECO Mode					
ECO Mode Operation State	MultiState_Value	304	5454_1	RW	1 = disabled 2 = enabled
Continuous Operation - ECO Mode	MultiState_Value	305	5455_1	RD	1 = disabled 2 = enabled
ECO Mode - EcoModeSchedule 1					
Schedule Operation State - ECO Mode	MultiState_Value	316	5461_1_1	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_Value	317	5462_1_1	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_Value	318	5463_1_1	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 2					
Schedule Operation State - ECO Mode	MultiState_Value	329	5461_1_2	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_Value	330	5462_1_2	RD	1 = stop 2 = start

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Table 5.188 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Schedule Day of Week - ECO Mode	MultiState_Value	331	5463_1_2	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday
ECO Mode - EcoModeSchedule 14					
Schedule Operation State - ECO Mode	MultiState_Value	485	5461_1_14	RD	1 = disabled 2 = enabled
Schedule Action - ECO Mode	MultiState_Value	486	5462_1_14	RD	1 = stop 2 = start
Schedule Day of Week - ECO Mode	MultiState_Value	487	5463_1_14	RD	1 = Unknown 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday 8 = Sunday

Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary

Data Label	Data Description
Auto Restart In Progress	Auto restart is in progress.
Auto Restart Inhibited - Ext	Auto restart inhibited due to an external signal.
Auto Retransfer Time Remaining	Time remaining before an inverter overload or inverter fault can be cleared and auto retransfer from the bypass to the inverter can take place.
Automatic Restart Failed	Automatic restart failed.
Backfeed Breaker Open	The backfeed breaker is in the open position.
Backfeed Breaker	Backfeed breaker.
Battery - External Monitor 1	External battery monitor 1 - battery maintenance required.
Battery - External Monitor 2	External battery monitor 2 - battery maintenance required.
Battery Amp-Hours Consumed This Discharge	Battery amp-hours withdrawn this discharge..

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Battery Amp-Hours Consumed	Cumulative battery amp-hours withdrawn over the life of the battery.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Automatic Test Inhibited	Automatic (scheduled) battery tests are inhibited.
Battery Capacity Low	Battery capacity is low.
Battery Cell Count - Lead Acid	Battery cell count - lead acid.
Battery Cell Count-Nickel Cadmium	Battery cell count - nickel cadmium.
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98).
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open.
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open.
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open.
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open.
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open..
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open.
Battery Discharge Power	Instantaneous battery power while discharging.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Fuse Fault	One or more battery fuse faults has occurred.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold.
Battery Last Discharge Date	The date and time of the last battery discharge.
Battery Low Shutdown	The battery voltage has dropped to the End of Discharge value.
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Over Temperature Limit	A battery temperature sensor is reporting a value above a predetermined limit.
Battery Over Temperature	A battery temperature sensor is reporting a value above a threshold.
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge.
Battery SCR Status	The status of the battery SCR.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Temperature Imbalance	Excessive temperature differences between battery sensors detected.
Battery Temperature Sensor	A battery temperature sensor fault has been detected.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Fault	
Battery Test Failed	Battery test failed.
Battery Time Remaining	The calculated available time on battery.
Battery Total Discharge Time	The cumulative battery discharge time.
Battery Volts at Main Disconnect	The voltage between the positive and the negative battery terminals of the common battery disconnect.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Bypass - Manual Rexfr Inhibited	Manual transfer from bypass to inverter is inhibited.
Bypass - Manual Xfr Inhibited	Manual transfer from inverter to bypass is inhibited.
Bypass Auto Retransfer Failed	After performing a recoverable transfer to bypass, an attempt to auto retransfer from bypass to inverter failed.
Bypass Auto Transfer Failed	An automatic transfer to static bypass failed.
Bypass Frequency Error	The bypass frequency is outside the inverter synchronization limits
Bypass Input Frequency	The bypass input frequency.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B.
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Wire Configuration	Bypass input wire configuration.
Bypass Isolation Breaker for Module 1	Bypass isolation breaker for module 1.
Bypass Isolation Breaker for Module 2	Bypass isolation breaker for module 2.
Bypass Isolation Breaker for Module 3	Bypass isolation breaker for module 3.
Bypass Isolation Breaker for Module 4	Bypass isolation breaker for module 4.
Bypass Isolation Breaker for Module 5	Bypass isolation breaker for module 5.
Bypass Isolation Breaker for Module 6	Bypass isolation breaker for module 6.
Bypass Isolation Breaker for Module 7	Bypass isolation breaker for module 7.
Bypass Isolation Breaker for Module 8	Bypass isolation breaker for module 8.
Bypass Isolation Breaker	Bypass isolation breaker.
Bypass Nominal Voltage	Bypass nominal (or rated) voltage.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass Overload Phase A	An overload exists on output Phase A while operating on the bypass.
Bypass Overload Phase B	An overload exists on output Phase B while operating on the bypass.
Bypass Overload Phase C	An overload exists on output Phase C while operating on the bypass.
Bypass Qualification Status	Bypass qualification status.
Bypass SS Overload Time Remain	The calculated time remaining before bypass static switch shutdown due to the present overload condition.
Bypass Static Switch Overload	Bypass off due to static switch overload.
Bypass Static Switch Unavailable	The static bypass switch is off, and unable to operate.
Bypass Sync Phase Difference	The phase angle difference between the inverter output and bypass source.
Configuration Description	Configuration description.
Continuous Operation - ECO Mode	This setting gives the user the ability to Enable/Disable ECO Mode continuous operation.
Controls Reset Required	A controls reset is required due to one or more critical settings changing.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value.
DC Bus Low Fault	The DC Bus voltage has reached a critical low level.
DC Bus Qualification Status	dc bus qualification status.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
ECO Mode Active	Conditions for Activation or Automatic Reactivation have been satisfied.
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
ECO Mode Suspended	ECO Mode session is suspended.
EMO Shutdown	An Emergency Module Off command has been detected.
Equipment Temperature Sensor Fail	One or more temperature sensors report a temperature outside of the range of expected operation.
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
Fuse Failure	A summary event indicating one or more fuse failures.
Inlet Air Over Temperature	The inlet air exceeds the maximum temperature threshold.
Inlet Air Temperature	The temperature of the inlet air.
Input Breaker	Input breaker.
Input Contact 01	The external input contact 1.
Input Contact 02	The external input contact 2.
Input Contact 03	The external input contact 3.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Input Contact 04	The external input contact 4.
Input Contact 05	The external input contact 5.
Input Contact 06	The external input contact 6.
Input Contact 07	The external input contact 7.
Input Contact 08	The external input contact 8.
Input Contact 09	The external input contact 9.
Input Contact 10	The external input contact 10.
Input Contact 11	The external input contact 11.
Input Contact 12	The external input contact 12.
Input Contact 13	The external input contact 13.
Input Contact 14	The external input contact 14.
Input Contact 15	The external input contact 15.
Input Contact 16	The external input contact 16.
Input Filter Cycle Lock	The input filter disconnect is open due to exceeding the maximum number of cycles.
Input Isolation Transformer	Input isolation transformer.
Input Qualification Status	input qualification status.
Intelligent Parallel Maximum Time in Standby	The maximum time a module can be in standby mode due to Intelligent Paralleling.
Intelligent Parallel Minimum Redundancy	This is the minimum Number of Redundant Modules that the system will allow before bringing one or more modules back to normal operation and terminating Intelligent Paralleling.
Intelligent Parallel Operation State	This setting is used to enable or disable Intelligent Paralleling.
Internal Bypass Breaker	Internal bypass breaker.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus.
Inverter Failure	Inverter failure - inverter output is off.
Inverter Inhibit - External	Restart of the inverter is inhibited by an external signal.
Inverter On/Off State	inverter on/off state.
Inverter Output Qualification Status	inverter output qualification status.
Inverter Overload Phase A	Inverter is operating with an overload on Phase A.
Inverter Overload Phase B	Inverter is operating with an overload on Phase B.
Inverter Overload Phase C	Inverter is operating with an overload on Phase C.
Inverter Overload Time Remaining	The calculated time remaining before inverter shutdown.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload.
Inverter Static Switch SCR Short	The system has detected a short across one or more inverter static switch Silicon Controlled Rectifiers (SCR).
IP Inhibit	The intelligent paralleling operation is inhibited.
LBS Active	The Load Bus Sync option is active.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied.
Leading Power Factor	The leading output Power Factor has fallen below a specified value.
Loss of Redundancy	The multimodule collection doesn't have enough modules to redundantly support the load.
Main Battery Disconnect Forced To Unlock	The main battery disconnect is forced to the unlocked state.
Main Battery Disconnect Open	Main battery disconnect is open.
Main Battery Disconnect Switch Lock Status	The main battery disconnect switch lock status.
Main Controller Fault	A Main Controller fault has been detected.
Maintenance Bypass Breaker	Maintenance bypass breaker.
Maintenance Isolation Breaker	Maintenance isolation breaker.
Maximum Auto Suspensions - ECO Mode	This setting sets the maximum number of automatic ECO Mode suspensions in a session.
MMS Event Summary	Summary of any active user alarm or fault of this module in a multimodule system.
MMS Inter-Module Comm Status	Inter-module communication status of this module in a multimodule system.
MMS Module Alarm Active	Active alarm or fault of any module in a multimodule system.
MMS Module Inverter Status	Multimodule inverter status of this module (on/off).
MMS Module Number	MMS module number.
MMS Module Output Source	Module output source in a multimodule system (normal/bypass/maintenance bypass/off).
MMS Module Output Voltage Status	Output voltage status of this module in multimodule system.
MMS On Battery	The multimodule system is on battery.
MMS Output Apparent Power	The sum total apparent power of all system output modules.
MMS Output Frequency	The multimodule system output frequency.
MMS Output Pct Apparent Pwr (kVA) Phase A	The multimodule system output apparent power on Phase A as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase B	The multimodule system output apparent power on Phase B as a percentage of the rated capacity.
MMS Output Pct Apparent Pwr (kVA) Phase C	The multimodule system output apparent power on Phase C as a percentage of the rated capacity.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
MMS Output Pct Power Phase A	The multimodule system output power on Phase A as a percentage of the rated capacity.
MMS Output Pct Power Phase B	The multimodule system output power on Phase B as a percentage of the rated capacity.
MMS Output Pct Power Phase C	The multimodule system output power on Phase C as a percentage of the rated capacity.
MMS Output Power Factor Phase A	The multimodule system output power factor for Phase A.
MMS Output Power Factor Phase B	The multimodule system output power factor for Phase B.
MMS Output Power Factor Phase C	The multimodule system output power factor for Phase C.
MMS Output Power	The sum total power of all system output modules.
MMS Overload	Multimodule system overload.
MMS UPS Output Source	Multimodule UPS output source.
Module Output Breaker for Module 1	Module output breaker for module 1.
Module Output Breaker for Module 2	Module output breaker for module 2.
Module Output Breaker for Module 3	Module output breaker for module 3.
Module Output Breaker for Module 4	Module output breaker for module 4.
Module Output Breaker for Module 5	Module output breaker for module 5.
Module Output Breaker for Module 6	Module output breaker for module 6.
Module Output Breaker for Module 7	Module output breaker for module 7.
Module Output Breaker for Module 8	Module output breaker for module 8.
Module Output Breaker	Module output breaker
Multi-module System Output Voltage RMS A-B	Multimodule system output RMS voltage between phases A and B.
Multi-module System Output Voltage RMS A-N	Multimodule system output RMS voltage between Phase A and Neutral.
Multi-module System Output Voltage RMS B-C	Multimodule system output RMS voltage between phases B and C.
Multi-module System Output Voltage RMS B-N	Multimodule system output RMS voltage between Phase B and Neutral.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Multi-module System Output Voltage RMS C-A	Multimodule system output RMS voltage between phases C and A.
Multi-module System Output Voltage RMS C-N	Multimodule system output RMS voltage between Phase C and Neutral.
Multiple Fan Failure	Multiple fan failure.
Number of Modules in a MMS	The number of modules in a multimodule system.
Number of Redundant Modules	The number of redundant modules in a multimodule collective.
Outlet Air Overtemperature Limit	The difference between the outlet air temperature and inlet air temperature exceeds a specified maximum temperature.
Output Amp Over User Limit-Phs A	The Phase A output has exceeded the user amperage threshold.
Output Amp Over User Limit-Phs B	The Phase B output has exceeded the user amperage threshold.
Output Amp Over User Limit-Phs C	The Phase C output has exceeded the user amperage threshold.
Output Apparent Power Rating	Output apparent power rating.
Output Breaker	Output breaker.
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass.
Output Of/Uf	The output frequency has exceeded a specified range for a specified period of time.
Output Qualification Status	Output qualification status.
Output Real Power Rating	Output real power rating.
Output Series Static Switch	Output series static switch.
Output Wire Configuration	Output wire configuration.
Power Supply Failure	Power supply failure.
Program Input Contact 01	When the signal from [Program Input Contact 01] is active the function assigned to this contact is executed.
Program Input Contact 02	When the signal from [Program Input Contact 02] is active the function assigned to this contact is executed.
Program Input Contact 03	When the signal from [Program Input Contact 03] is active the function assigned to this contact is executed.
Program Input Contact 04	When the signal from [Program Input Contact 04] is active the function assigned to this contact is executed.
Program Input Contact 05	When the signal from [Program Input Contact 05] is active the function assigned to this contact is executed.
Program Input Contact 06	When the signal from [Program Input Contact 06] is active the function assigned to this contact is executed.
Program Input Contact 07	When the signal from [Program Input Contact 07] is active the function assigned to this contact is executed.
Program Input Contact 08	When the signal from [Program Input Contact 08] is active the function assigned to this contact is executed.
Program Input Contact 09	When the signal from [Program Input Contact 09] is active the function assigned to this contact is executed.
Program Input Contact 10	When the signal from [Program Input Contact 10] is active the function assigned to this contact is executed.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
Program Input Contact 11	When the signal from [Program Input Contact 11] is active the function assigned to this contact is executed.
Program Input Contact 12	When the signal from [Program Input Contact 12] is active the function assigned to this contact is executed.
Rectifier Active Filter	Rectifier input active filter configuration.
Rectifier Configuration Change Request	This event indicates that the battery is not configured and PFC is not enabled.
Rectifier Failure	Rectifier failure - rectifier is off.
Rectifier Input Passive Filter	Rectifier input passive filter configuration.
Rectifier Passive Filter Switch	Rectifier input passive filter switch configuration.
Rectifier Pulse Count	Rectifier pulse count per cycle configuration.
Rectifier Status	rectifier status.
Regeneration Active	Regeneration operation is active.
Regeneration Operation Failure	Regeneration operation has been terminated due to bypass source instability or unit misoperation.
Regeneration Operation Terminated	Regeneration operation is not active.
Restart Delay - ECO Mode	The time delay that the conditions to activate ECO Mode must be satisfied before ECO Mode can be reactivated during an active session.
SBS Load Disconnect	SBS load disconnect.
SCC Event Summary	Summary of any active user alarms or faults on the SCC.
Schedule Action - ECO Mode	This setting gives the user the ability to choose the action of a schedule entry to be either stop or start.
Schedule Day of Week - ECO Mode	This setting represents the day of the week when an associated ECO Mode schedule entry action will take effect.
Schedule Hour - ECO Mode	This setting represents the hour of the day when an associated schedule entry action will take effect.
Schedule Minute - ECO Mode	This setting represents the minute of the hour when an associated schedule entry action will take effect.
Schedule Operation State - ECO Mode	This setting gives the user the ability to either enable or disable a schedule entry if the action is Start.
Service Code Active	Service code is running.
Static Bypass Switch	Static Bypass Switch state - On/Off.
Static Switch Type	Static switch type configuration.
Sum of MMS Output RMS Currents for Phase A	The sum of the multimodule system output RMS currents for Phase A.
Sum of MMS Output RMS Currents for Phase B	The sum of the multimodule system output RMS currents for Phase B.
Sum of MMS Output RMS Currents for Phase C	The sum of the multimodule system output RMS currents for Phase C.
System Breaker(s) Close Failure	One or more breakers in the system failed to close.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
System Breaker(s) Open Failure	One or more breakers in the system failed to open.
System Controller Error	System controller internal error.
System Date and Time	The system date and time.
System Fan Capacity Status	System fan capacity status.
System Fan Failure - Redundant	Redundant system fan failure.
System Fan Redundant Status	System fan redundant status.
System Fan Status	System fan status.
System Input Current Imbalance	System Input Currents are Imbalanced.
System Input Current Limit	The RMS input current has reached the input current limit threshold.
System Input Frequency	The system input frequency.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C).
System Input Power Problem	The input is not qualified to provide power to the system.
System Input Power Source	System input power source.
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B.
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C.
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A.
System Input RMS Current Phase A	The system input RMS current for Phase A.
System Input RMS Current Phase B	The system input RMS current for Phase B.
System Input RMS Current Phase C	The system input RMS current for Phase C.
System Isolation Output Breaker	System isolation output breaker.
System Load Bank Breaker	System load bank breaker.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Breaker	System output breaker.
System Output Fault	A fault has been detected in the system output.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
System Output Frequency	The system output frequency.
System Output Low Power Factor	The system output power factor is low, resulting in reduced output capacity.
System Output Maximum Amp Rating	System output maximum amperage rating.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Pct Power Phase A	The system output power on Phase A as a percentage of the rated capacity.
System Output Pct Power Phase B	The system output power on Phase B as a percentage of the rated capacity.
System Output Pct Power Phase C	The system output power on Phase C as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs A	The system output apparent power on Phase A as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs B	The system output apparent power on Phase B as a percentage of the rated capacity.
System Output Pct Pwr (VA) Phs C	The system output apparent power on Phase C as a percentage of the rated capacity.
System Output Power Factor Phs A	The system output power factor of Phase A.
System Output Power Factor Phs B	The system output power factor of Phase B.
System Output Power Factor Phs C	The system output power factor of Phase C.
System Output Power	The sum total power of all system output phases.
System Output RMS Current Phs A	The system output RMS current for Phase A.
System Output RMS Current Phs B	The system output RMS current for Phase B.
System Output RMS Current Phs C	The system output RMS current for Phase C.
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B.
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral.
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C.
System Output Voltage RMS	The system output RMS voltage between phases B and Neutral.

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Table 5.189 Liebert® NXL - 50 Hz, CE version (Models 48 and 49)—Glossary (continued)

Data Label	Data Description
B-N	
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A.
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral.
System Redundant UPS Modules	Number of redundant UPS modules in the system.
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO).
System Shutdown - REPO	System shutdown due to Remote Emergency Power Off (REPO).
System Status	The operating status for the system.
System UPS Module Count	Number of UPS modules in the system.
The main battery disconnect status.	Main Battery Disconnect Status.
Time Remaining - ECO Mode	Time remaining before current active ECO Mode session stops.
Total Bypass Operating Time	The cumulative bypass time of the unit.
Total System Operating Time	The cumulative operation time of the unit.
Trap Filter Disconnect	Trap filter disconnect.
Unexpected Main Battery Disconnect Closure	The main battery disconnect has closed unexpectedly.
UPS Battery Status	UPS battery status
UPS Module Type	UPS module type.
UPS Output on Bypass	The output power is supplied by the bypass
UPS Output Source	UPS output source.
UPS System Output Source	The UPS system's output power source.
Vdc Backfeed	The voltage between battery and DC bus measurements is out of tolerance.

Table 5.190 Vertiv™ PowerUPS 9000—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Mains Input Neutral Lost	Binary_Value	1	5155_1	RD	Active on Alarm
System Input Phs Rotation Error	Binary_Value	2	4146_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	3	4122_1	RD	Active on Alarm
Input Under Voltage	Binary_Value	4	6630_1	RD	Active on Alarm
Input Source Backfeed	Binary_Value	5	6061_1	RD	Active on Alarm
Input Surge Protection Device Alarm	Binary_Value	6	8736_1	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass					
Bypass out of sync	Binary_Value	17	6333_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	18	5957_1	RD	Active on Alarm
Backfeed Breaker Open	Binary_Value	19	4325_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	20	5976_1	RD	Active on Alarm
System Bypass Phase Rotation Error	Binary_Value	21	8489_1	RD	Active on Alarm
Bypass Surge Protection Device Alarm	Binary_Value	22	8737_1	RD	Active on Alarm
Output					
Output Overload	Binary_Value	33	5806_1	RD	Active on Alarm
System Output Fault	Binary_Value	34	4389_1	RD	Active on Alarm
Module Output Breaker Open	Binary_Value	35	6220_1	RD	Active on Alarm
System Control Card 1					
System Control Card Not Ready	Binary_Value	46	8494_1	RD	Active on Alarm
System Control Card Power Supply Failure	Binary_Value	47	8495_1	RD	Active on Alarm
System Control Card Communication Fail	Binary_Value	48	8496_1	RD	Active on Alarm
System Control Card 2					
System Control Card Not Ready	Binary_Value	59	8494_2	RD	Active on Alarm
System Control Card Power Supply Failure	Binary_Value	60	8495_2	RD	Active on Alarm
System Control Card Communication Fail	Binary_Value	61	8496_2	RD	Active on Alarm
Bypass Module					
Bypass Module Not Ready	Binary_Value	72	8501_1	RD	Active on Alarm
Bypass Module Power Supply Failure	Binary_Value	73	8502_1	RD	Active on Alarm
Bypass Module Communication Fault	Binary_Value	74	8503_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	75	4143_1	RD	Active on Alarm
Bypass Backfeed Detected	Binary_Value	76	4216_1	RD	Active on Alarm
Bypass controlling the SCR autonomously	Binary_Value	77	8096_1	RD	Active on Alarm
Bypass - Excess Auto Retransfers	Binary_Value	78	4139_1	RD	Active on Alarm
Bypass Module Over Temperature	Binary_Value	79	8504_1	RD	Active on Alarm
Bypass Module Fan Fault	Binary_Value	80	8505_1	RD	Active on Alarm
Power Module 1					
Power Module Not Ready	Binary_Value	91	8512_1	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	92	6441_1	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Communication status	Binary_Value	93	8098_1	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	94	6440_1	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	95	5838_1	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	96	5839_1	RD	Active on Alarm
Power Module 1 Rectifier 1					
Power Module Input Current Abnormal	Binary_Value	107	6438_1_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	108	8285_1_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	109	4295_1_1	RD	Active on Alarm
Power Module 1 DC Bus 1					
DC Bus Abnormal	Binary_Value	120	5154_1_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	121	6439_1_1	RD	Active on Alarm
Power Module 1 Inverter 1					
Load Sharing Fault	Binary_Value	132	5153_1_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	133	6059_1_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	134	4290_1_1	RD	Active on Alarm
Loss of Synchronization	Binary_Value	135	6062_1_1	RD	Active on Alarm
Inverter Failure	Binary_Value	136	4233_1_1	RD	Active on Alarm
Inverter Transfer Inhibit - Ext	Binary_Value	137	8786_1_1	RD	Active on Alarm
Power Module 1 Charger 1					
Charger Failure	Binary_Value	148	6254_1_1	RD	Active on Alarm
Power Module 1 Discharger 1					
Discharger Failure	Binary_Value	159	8510_1_1	RD	Active on Alarm
Discharger Shutdown	Binary_Value	160	8274_1_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	161	6063_1_1	RD	Active on Alarm
Power Module 2					
Power Module Not Ready	Binary_Value	172	8512_2	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	173	6441_2	RD	Active on Alarm
Power Module Communication status	Binary_Value	174	8098_2	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	175	6440_2	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	176	5838_2	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	177	5839_2	RD	Active on Alarm
Power Module 2 Rectifier 1					

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Input Current Abnormal	Binary_Value	188	6438_2_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	189	8285_2_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	190	4295_2_1	RD	Active on Alarm
Power Module 2 DC Bus 1					
DC Bus Abnormal	Binary_Value	201	5154_2_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	202	6439_2_1	RD	Active on Alarm
Power Module 2 Inverter 1					
Load Sharing Fault	Binary_Value	213	5153_2_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	214	6059_2_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	215	4290_2_1	RD	Active on Alarm
Loss of Synchronization	Binary_Value	216	6062_2_1	RD	Active on Alarm
Inverter Failure	Binary_Value	217	4233_2_1	RD	Active on Alarm
Inverter Transfer Inhibit - Ext	Binary_Value	218	8786_2_1	RD	Active on Alarm
Power Module 2 Charger 1					
Charger Failure	Binary_Value	229	6254_2_1	RD	Active on Alarm
Power Module 2 Discharger 1					
Discharger Failure	Binary_Value	240	8510_2_1	RD	Active on Alarm
Discharger Shutdown	Binary_Value	241	8274_2_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	242	6063_2_1	RD	Active on Alarm
Power Module 10					
Power Module Not Ready	Binary_Value	820	8512_10	RD	Active on Alarm
Power Module Power Supply Failure	Binary_Value	821	6441_10	RD	Active on Alarm
Power Module Communication status	Binary_Value	822	8098_10	RD	Active on Alarm
Power Module Fuse Failure	Binary_Value	823	6440_10	RD	Active on Alarm
Power Module Fan Fault	Binary_Value	824	5838_10	RD	Active on Alarm
Power Module Over Temperature	Binary_Value	825	5839_10	RD	Active on Alarm
Power Module 10 Rectifier 1					
Data Label	Object Type	Instance	Object Name	Access	Notes
Power Module Input Current Abnormal	Binary_Value	836	6438_10_1	RD	Active on Alarm
Power Module Input Current High	Binary_Value	837	8285_10_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	838	4295_10_1	RD	Active on Alarm
Power Module 10 DC Bus 1					

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
DC Bus Abnormal	Binary_Value	849	5154_10_1	RD	Active on Alarm
Power Module Balancer of DC Bus Failure	Binary_Value	850	6439_10_1	RD	Active on Alarm
Power Module 10 Inverter 1					
Load Sharing Fault	Binary_Value	861	5153_10_1	RD	Active on Alarm
Inverter Relay Fault	Binary_Value	862	6059_10_1	RD	Active on Alarm
Inverter Shutdown - Overload	Binary_Value	863	4290_10_1	RD	Active on Alarm
Loss of Synchronization	Binary_Value	864	6062_10_1	RD	Active on Alarm
Inverter Failure	Binary_Value	865	4233_10_1	RD	Active on Alarm
Inverter Transfer Inhibit - Ext	Binary_Value	866	8786_10_1	RD	Active on Alarm
Power Module 10 Charger 1					
Charger Failure	Binary_Value	877	6254_10_1	RD	Active on Alarm
Power Module 10 Discharger 1					
Discharger Failure	Binary_Value	888	8510_10_1	RD	Active on Alarm
Discharger Shutdown	Binary_Value	889	8274_10_1	RD	Active on Alarm
Battery Converter Current Limit	Binary_Value	890	6063_10_1	RD	Active on Alarm
Multi Module					
Parallel Cable Failure	Binary_Value	901	6066_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	902	4823_1	RD	Active on Alarm
MMS Capacity Exceeded	Binary_Value	903	6536_1	RD	Active on Alarm
Loss of Redundancy	Binary_Value	904	5817_1	RD	Active on Alarm
System Status					
Hardware Mismatch	Binary_Value	915	6529_1	RD	Active on Alarm
LBS Cable Failure	Binary_Value	916	6064_1	RD	Active on Alarm
Transfer to Bypass - System Overload	Binary_Value	917	6060_1	RD	Active on Alarm
Excess ECO Suspends	Binary_Value	918	5458_1	RD	Active on Alarm
User Operation Invalid	Binary_Value	919	5157_1	RD	Active on Alarm
Load Impact Transfer	Binary_Value	920	5156_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	921	4300_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	922	4310_1	RD	Active on Alarm
LBS Inhibited	Binary_Value	923	4758_1	RD	Active on Alarm
On Generator	Binary_Value	924	4315_1	RD	Active on Alarm
LBS Active	Binary_Value	925	4757_1	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Shutdown - EPO	Binary_Value	926	4213_1	RD	Active on Alarm
Fuse Failure	Binary_Value	927	4440_1	RD	Active on Alarm
Ground Fault	Binary_Value	928	5970_1	RD	Active on Alarm
System Fan Failure	Binary_Value	929	4311_1	RD	Active on Alarm
Parameter Configuration Failed	Binary_Value	930	8286_1	RD	Active on Alarm
System Output Off	Binary_Value	931	4215_1	RD	Active on Alarm
Output Disabled	Binary_Value	932	8287_1	RD	Active on Alarm
Top Outlet Fan Fault	Binary_Value	933	5770_1	RD	Active on Alarm
ECO mode Inhibited	Binary_Value	934	8100_1	RD	Active on Alarm
Inverter Transfer Inhibit - Ext	Binary_Value	935	4289_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	936	4298_1	RD	Active on Alarm
Output Load on Maint. Bypass	Binary_Value	937	4299_1	RD	Active on Alarm
Transformer Overtemperature	Binary_Value	938	5185_1	RD	Active on Alarm
System Control Cards Missing	Binary_Value	939	8718_1	RD	Active on Alarm
Loss of Control Redundancy	Binary_Value	940	8719_1	RD	Active on Alarm
Battery System					
Battery Self Test	Binary_Value	951	4741_1	RD	Active on Alarm
Battery Charging Inhibited	Binary_Value	952	4200_1	RD	Active on Alarm
Battery Discharging	Binary_Value	953	4168_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	954	4171_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	955	4172_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	956	4323_1	RD	Active on Alarm
Battery Low	Binary_Value	957	4162_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	958	4222_1	RD	Active on Alarm
Battery Not Qualified	Binary_Value	959	5149_1	RD	Active on Alarm
Battery Terminals Reversed	Binary_Value	960	5150_1	RD	Active on Alarm
Replace Battery	Binary_Value	961	6182_1	RD	Active on Alarm
Battery Charge Equalization Timeout	Binary_Value	962	6065_1	RD	Active on Alarm
Battery Room Alarm	Binary_Value	963	6068_1	RD	Active on Alarm
Battery Equalize	Binary_Value	964	4170_1	RD	Active on Alarm
Battery Terminal Abnormal	Binary_Value	965	8288_1	RD	Active on Alarm
Battery System Communication Abnormal	Binary_Value	966	8429_1	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery System Warning	Binary_Value	967	8430_1	RD	Active on Alarm
Battery System Fault	Binary_Value	968	8431_1	RD	Active on Alarm
Main Battery Circuit Breaker is Open	Binary_Value	969	8726_1	RD	Active on Alarm
Battery Circuit Breaker 1 Open	Binary_Value	970	4176_1	RD	Active on Alarm
Battery Circuit Breaker 2 Open	Binary_Value	971	4179_1	RD	Active on Alarm
Battery Circuit Breaker 3 Open	Binary_Value	972	4182_1	RD	Active on Alarm
Battery Circuit Breaker 4 Open	Binary_Value	973	4185_1	RD	Active on Alarm
Battery Circuit Breaker 5 Open	Binary_Value	974	4188_1	RD	Active on Alarm
Battery Circuit Breaker 6 Open	Binary_Value	975	4191_1	RD	Active on Alarm
Battery Circuit Breaker 7 Open	Binary_Value	976	4194_1	RD	Active on Alarm
Battery Circuit Breaker 8 Open	Binary_Value	977	4197_1	RD	Active on Alarm
Battery Circuit Breaker 9 Open	Binary_Value	978	8517_1	RD	Active on Alarm
Battery Circuit Breaker 10 Open	Binary_Value	979	8518_1	RD	Active on Alarm
Battery Circuit Breaker 11 Open	Binary_Value	980	8519_1	RD	Active on Alarm
Battery Circuit Breaker 12 Open	Binary_Value	981	8520_1	RD	Active on Alarm
Main Battery Breaker Open Failure	Binary_Value	982	8727_1	RD	Active on Alarm
Battery Breaker 1 Open Failure	Binary_Value	983	4178_1	RD	Active on Alarm
Battery Breaker 2 Open Failure	Binary_Value	984	4180_1	RD	Active on Alarm
Battery Breaker 3 Open Failure	Binary_Value	985	4183_1	RD	Active on Alarm
Battery Breaker 4 Open Failure	Binary_Value	986	4186_1	RD	Active on Alarm
Battery Breaker 5 Open Failure	Binary_Value	987	4190_1	RD	Active on Alarm
Battery Breaker 6 Open Failure	Binary_Value	988	4192_1	RD	Active on Alarm
Battery Breaker 7 Open Failure	Binary_Value	989	4195_1	RD	Active on Alarm
Battery Breaker 8 Open Failure	Binary_Value	990	4198_1	RD	Active on Alarm
Battery Breaker 9 Open Failure	Binary_Value	991	8521_1	RD	Active on Alarm
Battery Breaker 10 Open Failure	Binary_Value	992	8522_1	RD	Active on Alarm
Battery Breaker 11 Open Failure	Binary_Value	993	8523_1	RD	Active on Alarm
Battery Breaker 12 Open Failure	Binary_Value	994	8524_1	RD	Active on Alarm
Battery Cabinet 1					
Battery Cabinet High Overall Voltage	Binary_Value	1005	8537_1	RD	Active on Alarm
Battery Cabinet Low Overall Voltage	Binary_Value	1006	8538_1	RD	Active on Alarm
Battery Cabinet High Cell Voltage	Binary_Value	1007	8539_1	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Low Cell Voltage	Binary_Value	1008	8540_1	RD	Active on Alarm
Battery Cabinet Over Overall Voltage	Binary_Value	1009	8541_1	RD	Active on Alarm
Battery Cabinet Under Overall Voltage	Binary_Value	1010	8542_1	RD	Active on Alarm
Battery Cabinet Over Cell Voltage	Binary_Value	1011	8543_1	RD	Active on Alarm
Battery Cabinet Under Cell Voltage	Binary_Value	1012	8544_1	RD	Active on Alarm
Battery Cabinet Charge Over Current	Binary_Value	1013	8545_1	RD	Active on Alarm
Battery Cabinet Discharge Over Current	Binary_Value	1014	8546_1	RD	Active on Alarm
Battery Cabinet Over Temperature	Binary_Value	1015	8547_1	RD	Active on Alarm
Battery Cabinet Under Temperature	Binary_Value	1016	8548_1	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	1017	4174_1	RD	Active on Alarm
Battery Cabinet 2					
Battery Cabinet High Overall Voltage	Binary_Value	1028	8537_2	RD	Active on Alarm
Battery Cabinet Low Overall Voltage	Binary_Value	1029	8538_2	RD	Active on Alarm
Battery Cabinet High Cell Voltage	Binary_Value	1030	8539_2	RD	Active on Alarm
Battery Cabinet Low Cell Voltage	Binary_Value	1031	8540_2	RD	Active on Alarm
Battery Cabinet Over Overall Voltage	Binary_Value	1032	8541_2	RD	Active on Alarm
Battery Cabinet Under Overall Voltage	Binary_Value	1033	8542_2	RD	Active on Alarm
Battery Cabinet Over Cell Voltage	Binary_Value	1034	8543_2	RD	Active on Alarm
Battery Cabinet Under Cell Voltage	Binary_Value	1035	8544_2	RD	Active on Alarm
Battery Cabinet Charge Over Current	Binary_Value	1036	8545_2	RD	Active on Alarm
Battery Cabinet Discharge Over Current	Binary_Value	1037	8546_2	RD	Active on Alarm
Battery Cabinet Over Temperature	Binary_Value	1038	8547_2	RD	Active on Alarm
Battery Cabinet Under Temperature	Binary_Value	1039	8548_2	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	1040	4174_2	RD	Active on Alarm
Battery Cabinet 12					
Battery Cabinet High Overall Voltage	Binary_Value	1258	8537_12	RD	Active on Alarm
Battery Cabinet Low Overall Voltage	Binary_Value	1259	8538_12	RD	Active on Alarm
Battery Cabinet High Cell Voltage	Binary_Value	1260	8539_12	RD	Active on Alarm
Battery Cabinet Low Cell Voltage	Binary_Value	1261	8540_12	RD	Active on Alarm
Battery Cabinet Over Overall Voltage	Binary_Value	1262	8541_12	RD	Active on Alarm
Battery Cabinet Under Overall Voltage	Binary_Value	1263	8542_12	RD	Active on Alarm
Battery Cabinet Over Cell Voltage	Binary_Value	1264	8543_12	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Under Cell Voltage	Binary_Value	1265	8544_12	RD	Active on Alarm
Battery Cabinet Charge Over Current	Binary_Value	1266	8545_12	RD	Active on Alarm
Battery Cabinet Discharge Over Current	Binary_Value	1267	8546_12	RD	Active on Alarm
Battery Cabinet Over Temperature	Binary_Value	1268	8547_12	RD	Active on Alarm
Battery Cabinet Under Temperature	Binary_Value	1269	8548_12	RD	Active on Alarm
Battery Temperature Sensor Fault	Binary_Value	1270	4174_12	RD	Active on Alarm
Battery String 1					
Battery String High Overall Voltage	Binary_Value	1281	8605_1	RD	Active on Alarm
Battery String Low Overall Voltage	Binary_Value	1282	8606_1	RD	Active on Alarm
Battery String High Cell Voltage	Binary_Value	1283	8558_1	RD	Active on Alarm
Battery String Low Cell Voltage	Binary_Value	1284	8559_1	RD	Active on Alarm
Battery String Over Overall Voltage	Binary_Value	1285	8560_1	RD	Active on Alarm
Battery String Under Overall Voltage	Binary_Value	1286	8561_1	RD	Active on Alarm
Battery String Over Cell Voltage	Binary_Value	1287	8562_1	RD	Active on Alarm
Battery String Under Cell Voltage	Binary_Value	1288	8563_1	RD	Active on Alarm
Battery String Charge Over Current	Binary_Value	1289	8564_1	RD	Active on Alarm
Battery String Discharge Over Current	Binary_Value	1290	8565_1	RD	Active on Alarm
Battery String Over Temperature	Binary_Value	1291	8566_1	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	1292	8567_1	RD	Active on Alarm
Battery String 2					
Battery String High Overall Voltage	Binary_Value	1303	8605_2	RD	Active on Alarm
Battery String Low Overall Voltage	Binary_Value	1304	8606_2	RD	Active on Alarm
Battery String High Cell Voltage	Binary_Value	1305	8558_2	RD	Active on Alarm
Battery String Low Cell Voltage	Binary_Value	1306	8559_2	RD	Active on Alarm
Battery String Over Overall Voltage	Binary_Value	1307	8560_2	RD	Active on Alarm
Battery String Under Overall Voltage	Binary_Value	1308	8561_2	RD	Active on Alarm
Battery String Over Cell Voltage	Binary_Value	1309	8562_2	RD	Active on Alarm
Battery String Under Cell Voltage	Binary_Value	1310	8563_2	RD	Active on Alarm
Battery String Charge Over Current	Binary_Value	1311	8564_2	RD	Active on Alarm
Battery String Discharge Over Current	Binary_Value	1312	8565_2	RD	Active on Alarm
Battery String Over Temperature	Binary_Value	1313	8566_2	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	1314	8567_2	RD	Active on Alarm

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Table 5.190 Vertiv™ PowerUPS 9000—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String 12					
Battery String High Overall Voltage	Binary_Value	1523	8605_12	RD	Active on Alarm
Battery String Low Overall Voltage	Binary_Value	1524	8606_12	RD	Active on Alarm
Battery String High Cell Voltage	Binary_Value	1525	8558_12	RD	Active on Alarm
Battery String Low Cell Voltage	Binary_Value	1526	8559_12	RD	Active on Alarm
Battery String Over Overall Voltage	Binary_Value	1527	8560_12	RD	Active on Alarm
Battery String Under Overall Voltage	Binary_Value	1528	8561_12	RD	Active on Alarm
Battery String Over Cell Voltage	Binary_Value	1529	8562_12	RD	Active on Alarm
Battery String Under Cell Voltage	Binary_Value	1530	8563_12	RD	Active on Alarm
Battery String Charge Over Current	Binary_Value	1531	8564_12	RD	Active on Alarm
Battery String Discharge Over Current	Binary_Value	1532	8565_12	RD	Active on Alarm
Battery String Over Temperature	Binary_Value	1533	8566_12	RD	Active on Alarm
Battery String Under Temperature	Binary_Value	1534	8567_12	RD	Active on Alarm

Table 5.191 Vertiv™ PowerUPS 9000—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS A-B	Analog_Value	1	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	2	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	3	4101_1	RD	Units: VAC
System Input RMS A-N	Analog_Value	4	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	5	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	6	4100_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	7	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	8	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	9	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	10	4105_1	RD	Units: Hz
System Input Power Factor Phs A	Analog_Value	11	4116_1	RD	
System Input Power Factor Phs B	Analog_Value	12	4117_1	RD	
System Input Power Factor Phs C	Analog_Value	13	4118_1	RD	
System Input Power Phase A	Analog_Value	14	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	15	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	16	6320_1	RD	Units: kW

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Apparent Power Phs A	Analog_Value	17	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	18	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	19	8095_1	RD	Units: kVA
System Input Brown Out Count	Analog_Value	20	4119_1	RD	
System Input Black Out Count	Analog_Value	21	4120_1	RD	
Bypass					
Bypass Input Voltage RMS A-B	Analog_Value	32	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	33	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	34	4127_1	RD	Units: VAC
Bypass Input Voltage RMS A-N	Analog_Value	35	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	36	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	37	4130_1	RD	Units: VAC
Bypass Input Frequency	Analog_Value	38	4131_1	RD	Units: Hz
Bypass Power Phase A	Analog_Value	39	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	40	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	41	6327_1	RD	Units: kW
Bypass Apparent Power Phase A	Analog_Value	42	6328_1	RD	Units: kVA
Bypass Apparent Power Phase B	Analog_Value	43	6329_1	RD	Units: kVA
Bypass Apparent Power Phase C	Analog_Value	44	6330_1	RD	Units: kVA
Output					
System Output Voltage RMS A-B	Analog_Value	55	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	56	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	57	4203_1	RD	Units: VAC
System Output Voltage RMS A-N	Analog_Value	58	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	59	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	60	4387_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	61	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	62	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	63	4206_1	RD	Units: A AC
Output Current Crest Factor Phs A	Analog_Value	64	5159_1	RD	
Output Current Crest Factor Phs B	Analog_Value	65	5160_1	RD	
Output Current Crest Factor Phs C	Analog_Value	66	5161_1	RD	

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Frequency	Analog_Value	67	4207_1	RD	Units: Hz
System Output Power Factor Phs A	Analog_Value	68	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	69	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	70	4212_1	RD	
System Output Power Phase A	Analog_Value	71	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	72	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	73	5959_1	RD	Units: kW
System Output Apparent Power Phs A	Analog_Value	74	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	75	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	76	5870_1	RD	Units: kVA
System Output Power	Analog_Value	77	4208_1	RD	Units: kW
System Output Apparent Power	Analog_Value	78	4209_1	RD	Units: kVA
System Output Pct Pwr (VA) Phs A	Analog_Value	79	4226_1	RD	Units: %
System Output Pct Pwr (VA) Phs B	Analog_Value	80	4227_1	RD	Units: %
System Output Pct Pwr (VA) Phs C	Analog_Value	81	4228_1	RD	Units: %
System Output Pct Power Phase A	Analog_Value	82	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	83	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	84	4225_1	RD	Units: %
Power Module 1 DC Bus 1					
Positive DC Bus Voltage	Analog_Value	95	8281_1_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	96	8282_1_1	RD	Units: VDC
Power Module 2 DC Bus 1					
Positive DC Bus Voltage	Analog_Value	107	8281_2_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	108	8282_2_1	RD	Units: VDC
Power Module 10 DC Bus 1					
Positive DC Bus Voltage	Analog_Value	203	8281_10_1	RD	Units: VDC
Negative DC Bus Voltage	Analog_Value	204	8282_10_1	RD	Units: VDC
Multi Module					
MMS Output Power	Analog_Value	215	4811_1	RD	Units: kW
MMS Output Apparent Power	Analog_Value	216	4812_1	RD	Units: kVA
System Status					
Number Of Active Power Modules	Analog_Value	227	5824_1	RD	

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Number of Installed Power Modules	Analog_Value	228	5823_1	RD	
Redundant Count of Power Module	Analog_Value	229	8513_1	RD	
Inlet Air Temperature	Analog_Value	230	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	50230	4291_1_deg_F	RD	Units: deg F
Average system efficiency	Analog_Value	231	6069_1	RD	Units: %
ECO Suspended Time Remaining	Analog_Value	232	8097_1	RD	Units: sec
Total System Operating Time	Analog_Value	233	4292_1	RD	Units: hr
System Configuration					
System Date and Time	Analog_Value	244	4293_1	RW	Units: Secs since Epoch(UTC)
System Capacity	Analog_Value	245	5821_1	RD	Units: kVA
System Input Nominal Voltage	Analog_Value	246	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	247	4104_1	RD	Units: A AC
Bypass Nominal Voltage	Analog_Value	248	4259_1	RD	Units: VAC
System Output Nominal Voltage	Analog_Value	249	4260_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	250	4261_1	RD	Units: Hz
Battery System					
External Battery Cabinet Count	Analog_Value	261	8514_1	RD	
Battery String Count	Analog_Value	262	8515_1	RD	
DC Bus Voltage	Analog_Value	263	4148_1	RD	Units: VDC
DC Bus Current	Analog_Value	264	4149_1	RD	Units: A DC
Battery Temperature	Analog_Value	265	8516_1	RD	Units: deg C
Battery Temperature	Analog_Value	50265	8516_1_deg_F	RD	Units: deg F
Battery Percentage Charge	Analog_Value	266	4153_1	RD	Units: %
Battery Time Remaining	Analog_Value	267	4150_1	RD	Units: min
Number of Discharge Cycles	Analog_Value	268	5845_1	RD	
Accumulated Discharge Time	Analog_Value	269	5846_1	RD	Units: hr
Battery Self Test Cycle Time	Analog_Value	270	5991_1	RD	Units: day
Time Until Next Auto Battery Test	Analog_Value	271	5804_1	RD	Units: min
Low Battery Warning Time	Analog_Value	272	5802_1	RD	Units: min
Battery Cabinet 1					
Battery Volts for Cabinet	Analog_Value	283	4155_1	RD	Units: VDC
Battery Current for Cabinet	Analog_Value	284	8527_1	RD	Units: A DC

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Temperature for Cabinet	Analog_Value	285	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	50285	4156_1_deg_F	RD	Units: deg F
Battery Cabinet Capacity	Analog_Value	286	8528_1	RD	Units: %
Battery Cabinet Max Cell Voltage	Analog_Value	287	8529_1	RD	Units: VDC
Battery Cabinet Min Cell Voltage	Analog_Value	288	8530_1	RD	Units: VDC
Battery Cabinet Highest Cell Temperature	Analog_Value	289	8531_1	RD	Units: deg C
Battery Cabinet Highest Cell Temperature	Analog_Value	50289	8531_1_deg_F	RD	Units: deg F
Battery Cabinet Lowest Cell Temperature	Analog_Value	290	8532_1	RD	Units: deg C
Battery Cabinet Lowest Cell Temperature	Analog_Value	50290	8532_1_deg_F	RD	Units: deg F
Battery Cabinet 1 Battery Cell In Cabinet 1					
Cell Voltage	Analog_Value	301	4962_1_1	RD	Units: VDC
Cell Temperature	Analog_Value	302	4963_1_1	RD	Units: deg C
Cell Temperature	Analog_Value	50302	4963_1_1_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	303	5443_1_1	RD	Units: milli Ohm
Battery Cabinet 1 Battery Cell In Cabinet 2					
Cell Voltage	Analog_Value	314	4962_1_2	RD	Units: VDC
Cell Temperature	Analog_Value	315	4963_1_2	RD	Units: deg C
Cell Temperature	Analog_Value	50315	4963_1_2_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	316	5443_1_2	RD	Units: milli Ohm
Battery Cabinet 1 Battery Cell In Cabinet 200					
Cell Voltage	Analog_Value	2888	4962_1_200	RD	Units: VDC
Cell Temperature	Analog_Value	2889	4963_1_200	RD	Units: deg C
Cell Temperature	Analog_Value	52889	4963_1_200_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	2890	5443_1_200	RD	Units: milli Ohm
Battery Cabinet 2					
Battery Volts for Cabinet	Analog_Value	2901	4155_2	RD	Units: VDC
Battery Current for Cabinet	Analog_Value	2902	8527_2	RD	Units: A DC
Battery Temperature for Cabinet	Analog_Value	2903	4156_2	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	52903	4156_2_deg_F	RD	Units: deg F
Battery Cabinet Capacity	Analog_Value	2904	8528_2	RD	Units: %
Battery Cabinet Max Cell Voltage	Analog_Value	2905	8529_2	RD	Units: VDC
Battery Cabinet Min Cell Voltage	Analog_Value	2906	8530_2	RD	Units: VDC

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Highest Cell Temperature	Analog_Value	2907	8531_2	RD	Units: deg C
Battery Cabinet Highest Cell Temperature	Analog_Value	52907	8531_2_deg_F	RD	Units: deg F
Battery Cabinet Lowest Cell Temperature	Analog_Value	2908	8532_2	RD	Units: deg C
Battery Cabinet Lowest Cell Temperature	Analog_Value	52908	8532_2_deg_F	RD	Units: deg F
Battery Cabinet 2 Battery Cell In Cabinet 1					
Cell Voltage	Analog_Value	2919	4962_2_1	RD	Units: VDC
Cell Temperature	Analog_Value	2920	4963_2_1	RD	Units: deg C
Cell Temperature	Analog_Value	52920	4963_2_1_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	2921	5443_2_1	RD	Units: milli Ohm
Battery Cabinet 2 Battery Cell In Cabinet 2					
Cell Voltage	Analog_Value	2932	4962_2_2	RD	Units: VDC
Cell Temperature	Analog_Value	2933	4963_2_2	RD	Units: deg C
Cell Temperature	Analog_Value	52933	4963_2_2_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	2934	5443_2_2	RD	Units: milli Ohm
Battery Cabinet 2 Battery Cell In Cabinet 200					
Cell Voltage	Analog_Value	5506	4962_2_200	RD	Units: VDC
Cell Temperature	Analog_Value	5507	4963_2_200	RD	Units: deg C
Cell Temperature	Analog_Value	55507	4963_2_200_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	5508	5443_2_200	RD	Units: milli Ohm
Battery Cabinet 12					
Battery Volts for Cabinet	Analog_Value	29081	4155_12	RD	Units: VDC
Battery Current for Cabinet	Analog_Value	29082	8527_12	RD	Units: A DC
Battery Temperature for Cabinet	Analog_Value	29083	4156_12	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	79083	4156_12_deg_F	RD	Units: deg F
Battery Cabinet Capacity	Analog_Value	29084	8528_12	RD	Units: %
Battery Cabinet Max Cell Voltage	Analog_Value	29085	8529_12	RD	Units: VDC
Battery Cabinet Min Cell Voltage	Analog_Value	29086	8530_12	RD	Units: VDC
Battery Cabinet Highest Cell Temperature	Analog_Value	29087	8531_12	RD	Units: deg C
Battery Cabinet Highest Cell Temperature	Analog_Value	79087	8531_12_deg_F	RD	Units: deg F
Battery Cabinet Lowest Cell Temperature	Analog_Value	29088	8532_12	RD	Units: deg C
Battery Cabinet Lowest Cell Temperature	Analog_Value	79088	8532_12_deg_F	RD	Units: deg F
Battery Cabinet 12 Battery Cell In Cabinet 1					

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Cell Voltage	Analog_Value	29099	4962_12_1	RD	Units: VDC
Cell Temperature	Analog_Value	29100	4963_12_1	RD	Units: deg C
Cell Temperature	Analog_Value	79100	4963_12_1_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	29101	5443_12_1	RD	Units: milli Ohm
Battery Cabinet 12 Battery Cell In Cabinet 2					
Cell Voltage	Analog_Value	29112	4962_12_2	RD	Units: VDC
Cell Temperature	Analog_Value	29113	4963_12_2	RD	Units: deg C
Cell Temperature	Analog_Value	79113	4963_12_2_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	29114	5443_12_2	RD	Units: milli Ohm
Battery Cabinet 12 Battery Cell In Cabinet 200					
Cell Voltage	Analog_Value	31686	4962_12_200	RD	Units: VDC
Cell Temperature	Analog_Value	31687	4963_12_200	RD	Units: deg C
Cell Temperature	Analog_Value	81687	4963_12_200_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	31688	5443_12_200	RD	Units: milli Ohm
Battery String 1					
String Overall Voltage	Analog_Value	31699	4900_1	RD	Units: VDC
String Current	Analog_Value	31700	4901_1	RD	Units: A DC
Battery String Temperature	Analog_Value	31701	8549_1	RD	Units: deg C
Battery String Temperature	Analog_Value	81701	8549_1_deg_F	RD	Units: deg F
Battery String State Of Charge	Analog_Value	31702	8550_1	RD	Units: %
Battery String Max Cell Voltage	Analog_Value	31703	8551_1	RD	Units: VDC
Battery String Min Cell Voltage	Analog_Value	31704	8552_1	RD	Units: VDC
Battery String Highest Cell Temperature	Analog_Value	31705	8553_1	RD	Units: deg C
Battery String Highest Cell Temperature	Analog_Value	81705	8553_1_deg_F	RD	Units: deg F
Battery String Lowest Cell Temperature	Analog_Value	31706	8554_1	RD	Units: deg C
Battery String Lowest Cell Temperature	Analog_Value	81706	8554_1_deg_F	RD	Units: deg F
Battery String 2					
String Overall Voltage	Analog_Value	31717	4900_2	RD	Units: VDC
String Current	Analog_Value	31718	4901_2	RD	Units: A DC
Battery String Temperature	Analog_Value	31719	8549_2	RD	Units: deg C
Battery String Temperature	Analog_Value	81719	8549_2_deg_F	RD	Units: deg F
Battery String State Of Charge	Analog_Value	31720	8550_2	RD	Units: %

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Table 5.191 Vertiv™ PowerUPS 9000—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Max Cell Voltage	Analog_Value	31721	8551_2	RD	Units: VDC
Battery String Min Cell Voltage	Analog_Value	31722	8552_2	RD	Units: VDC
Battery String Highest Cell Temperature	Analog_Value	31723	8553_2	RD	Units: deg C
Battery String Highest Cell Temperature	Analog_Value	81723	8553_2_deg_F	RD	Units: deg F
Battery String Lowest Cell Temperature	Analog_Value	31724	8554_2	RD	Units: deg C
Battery String Lowest Cell Temperature	Analog_Value	81724	8554_2_deg_F	RD	Units: deg F
Battery String 12					
String Overall Voltage	Analog_Value	31897	4900_12	RD	Units: VDC
String Current	Analog_Value	31898	4901_12	RD	Units: A DC
Battery String Temperature	Analog_Value	31899	8549_12	RD	Units: deg C
Battery String Temperature	Analog_Value	81899	8549_12_deg_F	RD	Units: deg F
Battery String State Of Charge	Analog_Value	31900	8550_12	RD	Units: %
Battery String Max Cell Voltage	Analog_Value	31901	8551_12	RD	Units: VDC
Battery String Min Cell Voltage	Analog_Value	31902	8552_12	RD	Units: VDC
Battery String Highest Cell Temperature	Analog_Value	31903	8553_12	RD	Units: deg C
Battery String Highest Cell Temperature	Analog_Value	81903	8553_12_deg_F	RD	Units: deg F
Battery String Lowest Cell Temperature	Analog_Value	31904	8554_12	RD	Units: deg C
Battery String Lowest Cell Temperature	Analog_Value	81904	8554_12_deg_F	RD	Units: deg F

Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Rectifier Isolation Breaker	MultiState_Value	1	4771_1	RD	1 = Open 2 = Close 3 = Not Installed
Bypass					
Bypass Isolation Breaker	MultiState_Value	12	4770_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Bypass Breaker	MultiState_Value	13	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
Output					

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Module Output Breaker	MultiState_ Value	24	4775_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Isolation Breaker	MultiState_ Value	25	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
System Control Card 1					
System Control Card Operating Status	MultiState_ Value	36	8493_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
System Control Card 2					
System Control Card Operating Status	MultiState_ Value	47	8493_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Bypass Module					
Bypass Module Operating Status	MultiState_ Value	58	8500_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Static Bypass Switch	MultiState_ Value	59	4736_1	RD	1 = off 2 = on
Power Module 1					
Module Operating Status	MultiState_ Value	70	5833_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Power Module Sleep Status	MultiState_ Value	71	6437_1	RD	1 = Sleeping 2 = Not Sleeping
Power Module 1 Rectifier 1					

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Rectifier Status	MultiState_Value	82	4748_1_1	RD	1 = off 2 = on
Power Module 1 Inverter 1					
Inverter Status	MultiState_Value	93	5864_1_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module 1 Charger 1					
Charger On/Off State	MultiState_Value	104	6256_1_1	RD	1 = off 2 = on
Power Module 1 Discharger 1					
Discharger On/Off Status	MultiState_Value	115	8509_1_1	RD	1 = off 2 = on
Power Module 2					
Module Operating Status	MultiState_Value	126	5833_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Power Module Sleep Status	MultiState_Value	127	6437_2	RD	1 = Sleeping 2 = Not Sleeping
Power Module 2 Rectifier 1					
Rectifier Status	MultiState_Value	138	4748_2_1	RD	1 = off 2 = on
Power Module 2 Inverter 1					
Inverter Status	MultiState_Value	149	5864_2_1	RD	1 = Inverter Inactive 2 = Inverter Active
Power Module 2 Charger 1					
Charger On/Off State	MultiState_Value	160	6256_2_1	RD	1 = off 2 = on
Power Module 2 Discharger 1					
Discharger On/Off Status	MultiState_Value	171	8509_2_1	RD	1 = off 2 = on
Power Module 10					

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Module Operating Status	MultiState_Value	574	5833_10	RD	1 = Normal
					2 = Warning
					3 = Alarm
					4 = Fault
Power Module Sleep Status	MultiState_Value	575	6437_10	RD	1 = Sleeping
					2 = Not Sleeping
Power Module 10 Rectifier 1					
Rectifier Status	MultiState_Value	586	4748_10_1	RD	1 = off
					2 = on
Power Module 10 Inverter 1					
Inverter Status	MultiState_Value	597	5864_10_1	RD	1 = Inverter Inactive
					2 = Inverter Active
Power Module 10 Charger 1					
Charger On/Off State	MultiState_Value	608	6256_10_1	RD	1 = off
					2 = on
Power Module 10 Discharger 1					
Discharger On/Off Status	MultiState_Value	619	8509_10_1	RD	1 = off
					2 = on
Multi Module					
MMS UPS Loading Status	MultiState_Value	630	8594_1	RD	1 = Load on Other Module
					2 = Load Off
					3 = Load on Inverter
					4 = Load on Bypass
					5 = Load on Maintenance Bypass
					6 = Load on Battery
					7 = Load on Shared Source
System Status					

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Application Mode For UPS	MultiState_ Value	641	8275_1	RD	1 = UPS Mode
					2 = Frequency Converter Mode
					3 = Intelligent Paralleling Mode
					4 = Intelligent Paralleling Mode Demo
					5 = ECO Mode
					6 = Intelligent ECO Mode
					7 = Intelligent ECO Mode Demo
					8 = Testing Mode
					9 = Regen Mode
					10 = Power Conditioner Mode
					11 = Frequency Converter Mode without Battery
					12 = Dynamic Online Mode
					13 = Dynamic Online Mode Demo
UPS Loading Status	MultiState_ Value	642	8595_1	RD	1 = Load on Other Module
					2 = Load Off
					3 = Load on Inverter
					4 = Load on Bypass
					5 = Load on Maintenance Bypass
					6 = Load on Battery
					7 = Load on Shared Source
System Status	MultiState_ Value	643	4123_1	RD	1 = Normal Operation
					2 = StartUp
					3 = Normal with Warning
					4 = Normal with Alarm
					5 = Abnormal Operation
Battery System					
Battery type	MultiState_ Value	654	8330_1	RD	1 = VRLA
					2 = Lithium Battery
Lithium-Ion Battery Connected	MultiState_ Value	655	8721_1	RD	1 = Connected
					2 = Not Connected

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Flywheel Connected	MultiState_ Value	656	8722_1	RD	1 = Connected
					2 = Not Connected
Ultra Capacitor Connected	MultiState_ Value	657	8723_1	RD	1 = Connected
					2 = Not Connected
Main Battery Circuit Breaker	MultiState_ Value	658	8720_1	RD	1 = Open
					2 = Close
					3 = Not Installed
UPS Battery Status	MultiState_ Value	659	4871_1	RD	1 = Unknown
					2 = Normal
					3 = Low
					4 = Depleted
Battery is	MultiState_ Value	660	5799_1	RD	1 = fully charged
					2 = charging
					3 = discharging
					4 = not charging (charger off)
Automatic Battery Test	MultiState_ Value	661	5803_1	RD	1 = disabled
					2 = enabled
Battery Cabinet 1					
Battery Cabinet Type	MultiState_ Value	672	8607_1	RD	1 = Internal
					2 = External
Battery Cabinet Operating Status	MultiState_ Value	673	8533_1	RD	1 = Normal
					2 = Warning
					3 = Alarm
					4 = Fault
Battery Cabinet Circuit Breaker Status	MultiState_ Value	674	8534_1	RD	1 = Open
					2 = Close
					3 = Not Installed
Battery Cabinet Charge Disconnect Status	MultiState_ Value	675	8535_1	RD	1 = Open
					2 = Close
					3 = Not Installed

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Discharge Disconnect Status	MultiState_ Value	676	8536_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 2					
Battery Cabinet Type	MultiState_ Value	687	8607_2	RD	1 = Internal 2 = External
Battery Cabinet Operating Status	MultiState_ Value	688	8533_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	MultiState_ Value	689	8534_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Charge Disconnect Status	MultiState_ Value	690	8535_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Discharge Disconnect Status	MultiState_ Value	691	8536_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet 12					
Battery Cabinet Type	MultiState_ Value	837	8607_12	RD	1 = Internal 2 = External
Battery Cabinet Operating Status	MultiState_ Value	838	8533_12	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery Cabinet Circuit Breaker Status	MultiState_ Value	839	8534_12	RD	1 = Open 2 = Close 3 = Not Installed
Battery Cabinet Charge Disconnect Status	MultiState_ Value	840	8535_12	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Cabinet Discharge Disconnect Status	MultiState_ Value	841	8536_12	RD	1 = Open 2 = Close 3 = Not Installed
Battery String 1					
Battery String Operating Status	MultiState_ Value	852	8555_1	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery String Charge Disconnect Status	MultiState_ Value	853	8556_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery String Discharge Disconnect Status	MultiState_ Value	854	8557_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery String 2					
Battery String Operating Status	MultiState_ Value	865	8555_2	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault
Battery String Charge Disconnect Status	MultiState_ Value	866	8556_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery String Discharge Disconnect Status	MultiState_ Value	867	8557_2	RD	1 = Open 2 = Close 3 = Not Installed
Battery String 12					
Battery String Operating Status	MultiState_ Value	995	8555_12	RD	1 = Normal 2 = Warning 3 = Alarm 4 = Fault

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Table 5.192 Vertiv™ PowerUPS 9000—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Charge Disconnect Status	MultiState_ Value	996	8556_12	RD	1 = Open
					2 = Close
					3 = Not Installed
Battery String Discharge Disconnect Status	MultiState_ Value	997	8557_12	RD	1 = Open
					2 = Close
					3 = Not Installed

Table 5.193 Vertiv™ PowerUPS 9000—Glossary

Data Label	Data Description
Accumulated Discharge Time	Total accumulated discharge time for the Battery Module since it was made.
Application Mode For UPS	Application Mode for UPS.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Average system efficiency	Average system efficiency
Backfeed Breaker Open	The backfeed breaker is in the open position
Battery Auto Test In Progress	Automatic battery test is in progress
Battery Breaker 1 Open Failure	Battery circuit breaker 1 failed to open
Battery Breaker 10 Open Failure	Battery circuit breaker 10 failed to open
Battery Breaker 11 Open Failure	Battery circuit breaker 11 failed to open
Battery Breaker 12 Open Failure	Battery circuit breaker 12 failed to open
Battery Breaker 2 Open Failure	Battery circuit breaker 2 failed to open
Battery Breaker 3 Open Failure	Battery circuit breaker 3 failed to open
Battery Breaker 4 Open Failure	Battery circuit breaker 4 failed to open
Battery Breaker 5 Open Failure	Battery circuit breaker 5 failed to open
Battery Breaker 6 Open Failure	Battery circuit breaker 6 failed to open
Battery Breaker 7 Open Failure	Battery circuit breaker 7 failed to open
Battery Breaker 8 Open Failure	Battery circuit breaker 8 failed to open
Battery Breaker 9 Open Failure	Battery circuit breaker 9 failed to open
Battery Cabinet Capacity	The percentage of battery charge of a battery cabinet
Battery Cabinet Charge Disconnect Status	The charge disconnected status of a battery cabinet
Battery Cabinet Charge Over Current	Battery Cabinet Charge over current
Battery Cabinet Circuit Breaker Status	Battery cabinet circuit breaker status
Battery Cabinet Discharge Disconnect Status	The discharge disconnected status of a battery cabinet
Battery Cabinet Discharge Over Current	Battery Cabinet Discharge over current

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Battery Cabinet High Cell Voltage	The system has detected a high cell voltage condition.
Battery Cabinet High Overall Voltage	The system has detected a high battery cabinet overall voltage condition.
Battery Cabinet Highest Cell Temperature	Battery cabinet highest cell temperature
Battery Cabinet Low Cell Voltage	The system has detected a low cell voltage condition.
Battery Cabinet Low Overall Voltage	The system has detected a low battery cabinet overall voltage condition.
Battery Cabinet Lowest Cell Temperature	Battery cabinet lowest cell temperature
Battery Cabinet Max Cell Voltage	Battery cabinet max cell voltage
Battery Cabinet Min Cell Voltage	Battery cabinet min cell voltage
Battery Cabinet Operating Status	The operating status for this Battery Cabinet.
Battery Cabinet Over Cell Voltage	The system has detected a battery cabinet over cell voltage condition.
Battery Cabinet Over Overall Voltage	The system has detected a battery cabinet over overall voltage condition.
Battery Cabinet Over Temperature	The system has detected a battery cabinet over temperature condition.
Battery Cabinet Type	The type of Battery Cabinet: Internal or External
Battery Cabinet Under Cell Voltage	The system has detected a battery cabinet under cell voltage condition.
Battery Cabinet Under Overall Voltage	The system has detected a battery cabinet under overall voltage condition.
Battery Cabinet Under Temperature	The system has detected a battery cabinet under temperature condition.
Battery Charge Equalization Timeout	The battery equalizing is time out.
Battery Charging Inhibited	Battery charging is inhibited due to an external inhibit signal
Battery Circuit Breaker 1 Open	Battery circuit breaker 1 is open
Battery Circuit Breaker 10 Open	Battery circuit breaker 10 is open
Battery Circuit Breaker 11 Open	Battery circuit breaker 11 is open
Battery Circuit Breaker 12 Open	Battery circuit breaker 12 is open
Battery Circuit Breaker 2 Open	Battery circuit breaker 2 is open
Battery Circuit Breaker 3 Open	Battery circuit breaker 3 is open
Battery Circuit Breaker 4 Open	Battery circuit breaker 4 is open
Battery Circuit Breaker 5 Open	Battery circuit breaker 5 is open
Battery Circuit Breaker 6 Open	Battery circuit breaker 6 is open
Battery Circuit Breaker 7 Open	Battery circuit breaker 7 is open
Battery Circuit Breaker 8 Open	Battery circuit breaker 8 is open
Battery Circuit Breaker 9 Open	Battery circuit breaker 9 is open
Battery Converter Current Limit	The battery converter has reached is maximum current limit.
Battery Current for Cabinet	The current between the positive and negative battery terminals of a battery cabinet

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Battery Discharging	The battery is discharging
Battery Equalize	The rectifier output voltage is increased to equalize the battery voltage level.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery is	Battery charge status.
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Manual Test In Progress	Manual battery test is in progress
Battery Not Qualified	The UPS battery voltage is not qualified. This event will be detected even in the absence of battery disconnect or when it is open.
Battery Percentage Charge	The percentage of battery charge
Battery Room Alarm	The ambient temperature of the battery room is abnormal.
Battery Self Test Cycle Time	The time between automatic battery self test cycles.
Battery Self Test	Battery self test is in progress
Battery String Charge Disconnect Status	Battery String Charge Disconnect Status
Battery String Charge Over Current	Battery string Charge over current
Battery String Count	The battery string count
Battery String Discharge Disconnect Status	Battery String Discharge Disconnect Status
Battery String Discharge Over Current	Battery string Discharge over current
Battery String High Cell Voltage	The system has detected a high cell voltage condition.
Battery String High Overall Voltage	The system has detected a high battery string overall voltage condition.
Battery String Highest Cell Temperature	Battery string highest cell temperature
Battery String Low Cell Voltage	The system has detected a low cell voltage condition.
Battery String Low Overall Voltage	The system has detected a low battery string overall voltage condition.
Battery String Lowest Cell Temperature	Battery string lowest cell temperature
Battery String Max Cell Voltage	Battery string max cell voltage
Battery String Min Cell Voltage	Battery string min cell voltage
Battery String Operating Status	The operating status for this Battery String.
Battery String Over Cell Voltage	The system has detected a battery string over cell voltage condition.
Battery String Over Overall Voltage	The system has detected a battery string over overall voltage condition.
Battery String Over Temperature	The system has detected a battery string over temperature condition.
Battery String State Of Charge	Battery String State Of Charge
Battery String Temperature	The battery temperature for a battery string
Battery String Under Cell Voltage	The system has detected a battery string under cell voltage condition.

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Battery String Under Overall Voltage	The system has detected a battery string under overall voltage condition.
Battery String Under Temperature	The system has detected a battery string under temperature condition.
Battery System Communication Abnormal	Battery System Communication Abnormal
Battery System Fault	Battery System Fault
Battery System Warning	Battery System Warning
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Temperature Sensor Fault	A battery temperature sensor fault has been detected
Battery Temperature	Battery Temperature
Battery Terminal Abnormal	Battery Terminal Abnormal
Battery Terminals Reversed	The measured battery voltage is a negative value due to reverse battery terminal connections.
Battery Test Failed	Battery test failed
Battery Time Remaining	The calculated available time on battery
Battery type	Battery type of the UPS system
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Bypass - Excess Auto Retransfers	The number of auto retransfers, from bypass to inverter, has exceeded the maximum for a specified time interval
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Backfeed Detected	The system detected a voltage on the bypass when none was expected
Bypass controlling the SCR autonomously	The bypass is controlling the SCR autonomously because not all inverters are online.
Bypass Input Frequency	The bypass input frequency
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between phases A and B
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between phase A and Neutral
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between phases B and C
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between phase B and Neutral
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between phase C and Neutral
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Module Communication Fault	The bypass module communication failure.
Bypass Module Fan Fault	The Bypass Module has detected a fan fault.
Bypass Module Not Ready	Bypass Module is not ready

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Bypass Module Operating Status	The operating status for this Bypass Module.
Bypass Module Over Temperature	The Bypass Module has detected an over temperature condition.
Bypass Module Power Supply Failure	Bypass module power supply failure
Bypass Nominal Voltage	Bypass nominal (or rated) voltage
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B
Bypass Power Phase C	The bypass power on phase C
Bypass Static Switch Unavailable	The static bypass is unavailable to support the critical load.
Bypass Surge Protection Device Alarm	Bypass Surge Protection Device alarm
Cell Temperature	Temperature reading of a Cell within a BAM device.
Cell Voltage	Voltage reading of a Cell within a BAM device.
Charger Failure	Charger Failure - Charger is off
Charger On/Off State	Charger on/off state
DC Bus Abnormal	The system has detected an abnormal DC Bus Voltage.
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
Discharger Failure	Discharger failure
Discharger On/Off Status	Discharger on/off status
Discharger Shutdown	A condition is present that prevents the Battery Discharger from working.
ECO mode Inhibited	ECO mode is inhibited due to an external inhibit signal.
ECO Suspended Time Remaining	The time remaining before ECO mode is activated.
Equipment Over Temperature	Equipment over temperature summary event
Excess ECO Suspends	Number of automatic suspensions has exceeded the ECO Mode - Maximum Auto Suspensions setting.
External Battery Cabinet Count	The battery cabinet count
Flywheel Connected	Flywheel is connected
Fuse Failure	A summary event indicating one or more fuse failures
Ground Fault	An AC phase to ground fault or three phase fault to ground exists on the output of the UPS.
Hardware Mismatch	The assigned system model settings do not match the actual installed hardware. The module count is wrong, or a module of the wrong type is installed.
Inlet Air Temperature	The temperature of the inlet air
Input Source Backfeed	The battery is backfeeding the input source.

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Input Surge Protection Device Alarm	Input Surge Protection Device alarm
Input Under Voltage	Input under voltage.
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Internal Resistance Value	The measured internal resistance of a cell.
Inverter Failure	Inverter failure - inverter output is off
Inverter Relay Fault	The inverter relay has malfunctioned.
Inverter Shutdown - Overload	The inverter has shutdown due to a sustained overload
Inverter Status	Status of the inverter output. Active means the inverter is online with regulated output voltage and ready to power the load. Inactive means the inverter is offline and not ready to power the load.
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal
Inverter Transfer Inhibit - Ext	Transfer of critical bus source to inverter is inhibited by an external signal to this module
LBS Active	The Load Bus Sync option is active
LBS Cable Failure	Load Bus Sync communications is abnormal. A problem with the LBS cable may exist.
LBS Inhibited	The system has detected that conditions to perform Load Bus Sync are not satisfied
Lithium-Ion Battery Connected	Lithium-Ion battery is connected
Load Impact Transfer	On bypass as result of load impact.
Load Sharing Fault	Difference between any phase inverter current of unit and the relevant average output current of parallel system is more than a specific percent of nominal current.
Loss of Control Redundancy	Loss of control redundancy
Loss of Redundancy	The system has an insufficient number of power modules to provide redundancy.
Loss of Synchronization	The inverter and bypass are no longer synchronized.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Main Battery Breaker Open Failure	Main battery circuit breaker failed to open
Main Battery Circuit Breaker is Open	Main battery circuit is open
Main Battery Circuit Breaker	Main battery circuit breaker
Mains Input Neutral Lost	Loss of neutral in the input source is detected.
Maintenance Bypass Breaker Closed	The maintenance bypass breaker is closed.
Maintenance Bypass Breaker	Maintenance bypass breaker
Maintenance Isolation Breaker	Maintenance isolation breaker
MMS Capacity Exceeded	The critical load is larger than the redundant rating of a 1+N redundant multi-module system.
MMS Output Apparent Power	The sum total apparent power of all system output modules
MMS Output Power	The sum total power of all system output modules
MMS UPS Loading Status	Multi-module UPS loading status

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Module Operating Status	The operating status for this Power Module.
Module Output Breaker Open	The module output breaker is open.
Module Output Breaker	Module output breaker
Negative DC Bus Voltage	The voltage between the negative terminals of the DC bus and neutral line.
Number Of Active Power Modules	The total number of active power modules.
Number of Discharge Cycles	The total number of battery discharge cycles for the Battery Module since it was made.
Number of Installed Power Modules	The total number of Power Modules installed.
On Generator	A generator is supplying the power to the system
Output Current Crest Factor Phs A	Output current crest factor of Phase A.
Output Current Crest Factor Phs B	Output current crest factor of Phase B.
Output Current Crest Factor Phs C	Output current crest factor of Phase C.
Output Disabled	Output Disabled
Output Load on Maint. Bypass	The output power is supplied by the maintenance bypass
Output Overload	An overload exists on the output.
Parallel Cable Failure	The UPS parallel system communications is abnormal. A problem with the parallel cable may exist.
Parallel Comm Warning	Parallel communication bus warning
Parameter Configuration Failed	Parameter configuration failed
Positive DC Bus Voltage	The voltage between the positive terminals of the DC bus and neutral line.
Power Module Balancer of DC Bus Failure	Balancer of DC Bus in the power module has failed
Power Module Communication status	The control has detected a power module communication failure.
Power Module Fan Fault	The Power Module has detected a fan fault.
Power Module Fuse Failure	A summary event indicating one or more fuse failures in the power module
Power Module Input Current Abnormal	Input current of the power module is abnormal
Power Module Input Current High	Input current of the power module is over limit.
Power Module Not Ready	Power module not ready
Power Module Over Temperature	The Power Module has detected an over temperature condition.
Power Module Power Supply Failure	Power module power supply failure
Power Module Sleep Status	Sleep status of the Power module
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Isolation Breaker	Rectifier isolation breaker
Rectifier Status	rectifier status
Redundant Count of Power Module	The redundant count of power module

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
Replace Battery	The battery is due for replacement.
Static Bypass Switch	Static Bypass Switch state - On/Off
String Current	Discharge(-) or charge(+) current of a battery string.
String Overall Voltage	Overall voltage of a battery string.
System Bypass Phase Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the bypass (A-B-C)
System Capacity	System capacity supported by the installed power modules.
System Control Card Communication Fail	System control card communication fail
System Control Card Not Ready	System control card is not ready
System Control Card Operating Status	The operating status for this system control card
System Control Card Power Supply Failure	System control card power supply failure
System Control Cards Missing	System control cards missing
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Black Out Count	The number of occurrences, since the last reset, where the input was not qualified to provide power to the system
System Input Brown Out Count	The number of occurrences, since the last reset, where the system input voltage has fallen below a pre-determined threshold for a specified amount of time
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Phs Rotation Error	The power conductors on the input line are not wired to the UPS in the sequence preferred for the rectifier (A-B-C)
System Input Power Factor Phs A	The system input power factor for Phase A
System Input Power Factor Phs B	The system input power factor for Phase B
System Input Power Factor Phs C	The system input power factor for Phase C
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS A-B	The System Input RMS Voltage between Phase A and Phase B

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
System Input RMS A-N	The System Input RMS Voltage between Phase A and Neutral
System Input RMS B-C	The System Input RMS Voltage between Phase B and Phase C
System Input RMS B-N	The System Input RMS Voltage between Phase B and Neutral
System Input RMS C-A	The System Input RMS Voltage between Phase C and Phase A
System Input RMS C-N	The System Input RMS Voltage between Phase C and Neutral
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Apparent Power	The sum total apparent power of all system output phases
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs A	The system output apparent power on phase A as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs B	The system output apparent power on phase B as a percentage of the rated capacity
System Output Pct Pwr (VA) Phs C	The system output apparent power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output Power	The sum total power of all system output phases
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B

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Table 5.193 Vertiv™ PowerUPS 9000—Glossary (continued)

Data Label	Data Description
System Output RMS Current Phs C	The system output RMS current for Phase C
System Output Voltage RMS A-B	The system output RMS voltage between phases A and B
System Output Voltage RMS A-N	The system output RMS voltage between phases A and Neutral
System Output Voltage RMS B-C	The system output RMS voltage between phases B and C
System Output Voltage RMS B-N	The system output RMS voltage between phases B and Neutral
System Output Voltage RMS C-A	The system output RMS voltage between phases C and A
System Output Voltage RMS C-N	The system output RMS voltage between phases C and Neutral
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system
Time Until Next Auto Battery Test	The time until the next automatic battery test is started.
Top Outlet Fan Fault	Top outlet fan fault - one or more top outlet fans have failed.
Total System Operating Time	The cumulative operation time of the unit
Transfer to Bypass - System Overload	The UPS System has transferred to bypass because the active power modules cannot support the critical load.
Transformer Overtemperature	Indicates a unit transformer overtemperature condition.
Ultra Capacitor Connected	Ultra capacitor is connected
UPS Battery Status	UPS battery status
UPS Loading Status	UPS loading status
UPS Output on Bypass	The output power is supplied by the bypass
User Operation Invalid	User attempted an invalid operation.

Table 5.194 Liebert® PSI5—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
Input Undervoltage	Binary_Value	1	5568_1	RD	Active on Alarm
Input Overvoltage	Binary_Value	2	5569_1	RD	Active on Alarm
Battery					
Battery Self Test	Binary_Value	13	4741_1	RD	Active on Alarm
Battery Low	Binary_Value	14	4162_1	RD	Active on Alarm
Battery Under Voltage	Binary_Value	15	6180_1	RD	Active on Alarm
Battery Over Voltage	Binary_Value	16	5874_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	17	4323_1	RD	Active on Alarm
Replace Battery	Binary_Value	18	6182_1	RD	Active on Alarm
Output					

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Table 5.194 Liebert® PSI5—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Output Overload	Binary_Value	29	5806_1	RD	Active on Alarm
Output Undervoltage	Binary_Value	30	5179_1	RD	Active on Alarm
Output Overvoltage	Binary_Value	31	5178_1	RD	Active on Alarm
System Output Off	Binary_Value	32	4215_1	RD	Active on Alarm
System					
Battery Discharging	Binary_Value	43	4168_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	44	4122_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	45	4310_1	RD	Active on Alarm
Input Frequency Deviation	Binary_Value	46	6186_1	RD	Active on Alarm
Shutdown Pending	Binary_Value	47	6187_1	RD	Active on Alarm
Unspecified General Event	Binary_Value	48	5588_1	RD	Active on Alarm
Parallel Comm Warning	Binary_Value	49	4823_1	RD	Active on Alarm
Charger Failure	Binary_Value	50	6254_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	51	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	52	4233_1	RD	Active on Alarm
System Fan Failure	Binary_Value	53	4311_1	RD	Active on Alarm
Emergency Power Off - Latched	Binary_Value	54	4229_1	RD	Active on Alarm
Input Wiring Fault	Binary_Value	55	6453_1	RD	Active on Alarm
DC to DC Converter Fault	Binary_Value	56	6454_1	RD	Active on Alarm

Table 5.195 Liebert® PSI5—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Input					
System Input RMS L1-N	Analog_Value	1	4096_1	RD	Units: VAC
System Input RMS Current L1	Analog_Value	2	4113_1	RD	Units: A AC
System Input Frequency	Analog_Value	3	4105_1	RD	Units: Hz
System Input Nominal Voltage	Analog_Value	4	4102_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	5	4104_1	RD	Units: A AC
System Input Nominal Frequency	Analog_Value	6	4103_1	RD	Units: Hz
Battery					
Battery Time Remaining	Analog_Value	17	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	18	4153_1	RD	Units: %

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Table 5.195 Liebert® PSI5—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
DC Bus Voltage	Analog_Value	19	4148_1	RD	Units: VDC
DC Bus Nominal Voltage	Analog_Value	20	6189_1	RD	Units: VDC
Low Battery Warning Time	Analog_Value	21	5802_1	RW	Units: min
Number of EBC Installed	Analog_Value	22	5800_1	RW	
Battery Discharge Time	Analog_Value	23	4151_1	RD	Units: min
Output					
System Output Voltage RMS L1-N	Analog_Value	34	4385_1	RD	Units: VAC
System Output RMS Current L1	Analog_Value	35	4204_1	RD	Units: A AC
System Output Frequency	Analog_Value	36	4207_1	RD	Units: Hz
System Output Power	Analog_Value	37	4208_1	RD	Units: W
System Output Pct Power	Analog_Value	38	5861_1	RD	Units: %
System Output Apparent Power	Analog_Value	39	4209_1	RD	Units: VA
System Output Nominal Voltage	Analog_Value	40	4260_1	RD	Units: VAC
Output Apparent Power Rating	Analog_Value	41	4264_1	RD	Units: VA
System Output Nominal Frequency	Analog_Value	42	4261_1	RD	Units: Hz
Output On Delay	Analog_Value	43	5816_1	RW	Units: sec
Reboot With Delay	Analog_Value	44	5815_1	RW	Units: sec
Shutdown After Delay	Analog_Value	45	5814_1	RW	Units: sec
Nominal Power Factor	Analog_Value	46	5812_1	RD	—
Outlet Group 1					
Outlet Group Identifier	Analog_Value	57	4510_1	RD	—
Outlet Group 2					
Outlet Group Identifier	Analog_Value	68	4510_2	RD	—
System					
Auto Restart Delay	Analog_Value	79	4710_1	RW	Units: sec
Inlet Air Temperature	Analog_Value	80	4291_1	RD	Units: deg C
Inlet Air Temperature	Analog_Value	10080	4291_1_deg_F	RD	Units: deg F
Programmable outlet time limit	Analog_Value	81	6721_1	RW	Units: min
Non-Programmable outlet time limit	Analog_Value	82	6723_1	RW	Units: min

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Table 5.196 Liebert® PSI5—MultiState Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
Battery					
UPS Battery Status	MultiState_Value	12	4871_1	RD	1 = Unknown 2 = Normal 3 = Low 4 = Depleted
Battery Charge Status	MultiState_Value	13	5799_1	RD	1 = fully charged 2 = charging 3 = discharging 4 = not charging (charger off)
Battery Test Result	MultiState_Value	14	6181_1	RD	1 = Unknown 2 = Passed 3 = Failed 4 = In Progress 5 = System Failure 6 = Inhibited
Manual Battery Test	MultiState_Value	15	5858_1	WO	1 = Start Test
Automatic Battery Test	MultiState_Value	16	5803_1	RD	1 = disabled 2 = enabled
Output					
UPS Output Source	MultiState_Value	27	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
Outlet Group 1					
Outlet Group Power Control	MultiState_Value	38	6730_1	RW	1 = off 2 = on
Outlet Group 2					
Outlet Group Power Control	MultiState_Value	49	6730_2	RW	1 = off 2 = on
System					
System Status	MultiState_Value	60	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation

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Table 5.196 Liebert® PSI5—MultiState Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Auto Restart	MultiState_Value	61	5831_1	RW	1 = disabled 2 = enabled
Abort Command	MultiState_Value	62	6200_1	WO	1 = Issue Command
DC Converter Status	MultiState_Value	63	6003_1	RD	1 = off 2 = on
UPS Topology	MultiState_Value	64	6199_1	RD	1 = unknown 2 = Offline 3 = Line Interactive 4 = Online
Reset Power Statistics	MultiState_Value	65	6191_1	WO	1 = Reset
Audible Alarm Control	MultiState_Value	66	6188_1	RW	1 = off 2 = on
Silence Audible Alarm	MultiState_Value	67	6257_1	WO	1 = Silence Alarm
Enable/Disable programmable outlets	MultiState_Value	68	6720_1	RW	1 = enabled 2 = disabled
Enable/Disable non-programmable outlets	MultiState_Value	69	6722_1	RW	1 = enabled 2 = disabled
Enable/Disable site fault detection	MultiState_Value	70	6724_1	RW	1 = enabled 2 = disabled
Enable/Disable neutral grounding in battery mode	MultiState_Value	71	6725_1	RW	1 = enabled 2 = disabled
Emergency Power Off (EPO) Logic	MultiState_Value	72	6726_1	RW	1 = Active Open 2 = Active Close
Input Waveform Sensitivity	MultiState_Value	73	6727_1	RW	1 = High Sensitivity 2 = Middle Sensitivity 3 = Low Sensitivity

Table 5.197 Liebert® PSI5—Glossary

Data Label	Description
Abort Command	Attempt to abort a previously issued command to the device that is still pending.
Audible Alarm Control	Audible Alarm Control.
Auto Restart Delay	If power is lost, the control will delay this amount of time after power is restored before restarting the unit.
Auto Restart	When 'enabled', the UPS will automatically restart the load when utility power is restored after a battery discharge.
Automatic Battery Test	Enable/disable the automatic battery test schedule.
Battery Charge Status	Battery charge status.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.

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Table 5.197 Liebert® PSI5—Glossary (continued)

Data Label	Description
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Over Voltage	The system has detected that the battery voltage has exceeded a predetermined limit.
Battery Percentage Charge	The percentage of battery charge.
Battery Self Test	Battery self test is in progress.
Battery Test Failed	Battery test failed.
Battery Test Result	The outcome of the previous battery test.
Battery Time Remaining	The calculated available time on battery.
Battery Under Voltage	Battery voltage is too low.
Charger Failure	Charger Failure - Charger is off.
DC Bus Nominal Voltage	The nominal (or rated) voltage between the positive and negative terminals of the DC bus at the battery input.
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input.
DC Converter Status	The operating state of the dc converter.
DC to DC Converter Fault	A failure has occurred in the battery discharge circuit.
Emergency Power Off - Latched	System output is off - 'Emergency Power Off (EPO) - latched' requires manual reset.
Emergency Power Off (EPO) Logic	Emergency Power Off (EPO) Logic.
Enable/Disable neutral grounding in battery mode	Enable/Disable neutral grounding in battery mode.
Enable/Disable non-programmable outlets	Enable/Disable non-programmable outlets.
Enable/Disable programmable outlets	Enable/Disable programmable outlets.
Enable/Disable site fault detection	Enable/Disable site fault detection.
Equipment Over Temperature	Equipment over temperature summary event.
Inlet Air Temperature	The temperature of the inlet air.
Input Frequency Deviation	The input frequency is outside of the normal range.
Input Overvoltage	One or more of the input phase voltages has exceeded the limit.
Input Undervoltage	One or more of the input phase voltages has dropped below the limit.
Input Waveform Sensitivity	Set the sensitivity of acceptable input voltage quality.
Input Wiring Fault	The neutral/ground conductors on the input wiring are not properly bonded, or the line/neutral conductors have been swapped.
Inverter Failure	Inverter failure - inverter output is off.
Low Battery Warning Time	When battery time remaining falls to, or below, this value the low battery alarm is activated.
Manual Battery Test	Command to initiate a manual battery test.
Nominal Power Factor	The nominal (or rated) system power factor.
Non-Programmable outlet time limit	Maximum time non-programmable outlets will be powered while running on battery.

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Table 5.197 Liebert® PSI5—Glossary (continued)

Data Label	Description
Number of EBC Installed	The total number of Extended Battery Cabinets installed.
Outlet Group Identifier	A runtime assigned outlet group identification number.
Outlet Group Power Control	Outlet Group Power Control.
Output Apparent Power Rating	Output apparent power rating.
Output On Delay	When a value is written to this point the output will be turned on after the specified time has elapsed.
Output Overload	An overload exists on the output.
Output Overvoltage	One or more of the output phase voltages has exceeded the limit.
Output Undervoltage	One or more of the output phase voltages has dropped below the limit.
Parallel Comm Warning	Parallel communication bus warning.
Programmable outlet time limit	Maximum time programmable outlets will be powered while running on battery.
Reboot With Delay	When a value is written to this point the output will be turned off immediately and then turned back on after the specified time has elapsed.
Rectifier Failure	Rectifier failure - rectifier is off.
Replace Battery	The battery is due for replacement.
Reset Power Statistics	Reset Power Statistics.
Server Class	The general classification for this system.
Shutdown After Delay	When a value is written to this point the system will shutdown after the specified time has elapsed and output will remain off.
Shutdown Pending	Shutdown is pending.
Silence Audible Alarm	Silence Audible Alarm.
System Fan Failure	System fan failure - one or more fans have failed.
System Input Frequency	The system input frequency.
System Input Nominal Current	The nominal (or rated) system input current.
System Input Nominal Frequency	The nominal (or rated) system input frequency.
System Input Nominal Voltage	The nominal (or rated) system input voltage.
System Input Power Problem	The input is not qualified to provide power to the system.
System Input RMS Current L1	The system input RMS current for Line 1.
System Input RMS L1-N	The System Input RMS Voltage between Line 1 and Neutral.
System Output Apparent Power	The sum total apparent power of all system output phases.
System Output Frequency	The system output frequency.
System Output Nominal Frequency	The nominal (or rated) system output frequency.
System Output Nominal Voltage	The nominal (or rated) system output voltage.
System Output Off	The system output is off.

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Table 5.197 Liebert® PSI5—Glossary (continued)

Data Label	Description
System Output Pct Power	The system output power as a percentage of the rated capacity.
System Output Power	The sum total power of all system output phases.
System Output RMS Current L1	The system output RMS current for Line 1.
System Output Voltage RMS L1-N	The system output RMS voltage between Line 1 and Neutral.
System Status	The operating status for the system
Unspecified General Event	One or more unspecified events active. See local unit display for further details.
UPS Battery Status	UPS battery status.
UPS Output Source	UPS output source.
UPS Topology	UPS Topology.

Table 5.198 Liebert® Trinergy™ Cube—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Switch Gear					
Backfeed Breaker Open	Binary_Value	1	4325_1	RD	Active on Alarm
Input Breaker Open	Binary_Value	2	5973_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	3	5975_1	RD	Active on Alarm
Battery Breaker Open	Binary_Value	4	5977_1	RD	Active on Alarm
Maintenance Bypass Breaker Closed	Binary_Value	5	5976_1	RD	Active on Alarm
Bypass Breaker Closed	Binary_Value	14	4141_1	RD	Active on Alarm
Bypass Breaker (SBB) Open	Binary_Value	15	5982_1	RD	Active on Alarm
System Events					
General Fault	Binary_Value	16	6350_1	RD	Active on Alarm
General Warning	Binary_Value	17	6353_1	RD	Active on Alarm
System Output Off	Binary_Value	18	4215_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	19	4298_1	RD	Active on Alarm
Output Off Pending	Binary_Value	20	5807_1	RD	Active on Alarm
System Restart Pending	Binary_Value	21	6357_1	RD	Active on Alarm
Bypass out of sync	Binary_Value	22	6333_1	RD	Active on Alarm
System Output Fault	Binary_Value	23	4389_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	24	4213_1	RD	Active on Alarm
Ground Fault	Binary_Value	26	5970_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	27	4122_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	28	5957_1	RD	Active on Alarm

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Table 5.198 Liebert® Trinergy™ Cube—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Overload	Binary_Value	29	5798_1	RD	Active on Alarm
Inverter Overload	Binary_Value	30	5960_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	32	4135_1	RD	Active on Alarm
Bypass Static Switch Unavailable	Binary_Value	33	4143_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	34	4295_1	RD	Active on Alarm
Inverter Failure	Binary_Value	35	4233_1	RD	Active on Alarm
Charger Failure	Binary_Value	36	6254_1	RD	Active on Alarm
Booster Failure	Binary_Value	37	6253_1	RD	Active on Alarm
DC Bus Abnormal	Binary_Value	38	5154_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	39	4222_1	RD	Active on Alarm
Battery Discharging	Binary_Value	40	4168_1	RD	Active on Alarm
Battery Charging	Binary_Value	41	6354_1	RD	Active on Alarm
Battery Low	Binary_Value	42	4162_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	43	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	44	4323_1	RD	Active on Alarm
Battery Auto Test In Progress	Binary_Value	45	4172_1	RD	Active on Alarm
Battery Manual Test In Progress	Binary_Value	46	4171_1	RD	Active on Alarm
System Fan Failure	Binary_Value	47	4311_1	RD	Active on Alarm
Fuse Failure	Binary_Value	48	4440_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	49	4310_1	RD	Active on Alarm
Battery Under Voltage	Binary_Value	50	6180_1	RD	Active on Alarm
Battery Circuit Open	Binary_Value	53	6356_1	RD	Active on Alarm
On Generator	Binary_Value	54	4315_1	RD	Active on Alarm

Table 5.199 Liebert® Trinergy™ Cube—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System					
System Information	System Date and Time Analog_Value	1	4293_1	RW	Units: Secs since Epoch (UTC)
System Information - Ratings					
Output Apparent Power Rating	Analog_Value	11	4264_1_1	RD	Units: kVA
System Input Nominal Frequency	Analog_Value	12	4103_1_1	RD	Units: Hz

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Table 5.199 Liebert® Trinergy™ Cube—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Input Nominal Voltage	Analog_Value	13	4102_1_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	14	4261_1_1	RD	Units: Hz
System Output Nominal Voltage	Analog_Value	15	4260_1_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	16	4104_1_1	RD	Units: A AC
System Information - DSP FW Version 1					
Firmware version	Analog_Value	26	6317_1_1	RD	—
System Information - DSP FW Version 2					
Firmware version	Analog_Value	37	6317_1_2	RD	—
System Information - DSP FW Version 3					
Firmware version	Analog_Value	41	6317_1_3	RD	—
Input					
System Input Frequency	Analog_Value	49	4105_1	RD	Units: Hz
System Input RMS A-N	Analog_Value	50	4096_1	RD	Units: VAC
System Input RMS B-N	Analog_Value	51	4098_1	RD	Units: VAC
System Input RMS C-N	Analog_Value	52	4100_1	RD	Units: VAC
System Input RMS A-B	Analog_Value	53	4097_1	RD	Units: VAC
System Input RMS B-C	Analog_Value	54	4099_1	RD	Units: VAC
System Input RMS C-A	Analog_Value	55	4101_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	56	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	57	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	58	4115_1	RD	Units: A AC
System Input Power Phase A	Analog_Value	59	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	60	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	61	6320_1	RD	Units: kW
UPS DC input voltage	Analog_Value	62	6321_1	RD	Units: VDC
UPS input real power	Analog_Value	63	6322_1	RD	Units: kW
UPS input apparent power	Analog_Value	64	6323_1	RD	Units: kVA
Bypass					
Bypass Input Frequency	Analog_Value	125	4131_1	RD	Units: Hz
Bypass Input Voltage RMS A-N	Analog_Value	126	4128_1	RD	Units: VAC
Bypass Input Voltage RMS B-N	Analog_Value	127	4129_1	RD	Units: VAC
Bypass Input Voltage RMS C-N	Analog_Value	128	4130_1	RD	Units: VAC

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Table 5.199 Liebert® Trinergy™ Cube—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Input Voltage RMS A-B	Analog_Value	129	4125_1	RD	Units: VAC
Bypass Input Voltage RMS B-C	Analog_Value	130	4126_1	RD	Units: VAC
Bypass Input Voltage RMS C-A	Analog_Value	131	4127_1	RD	Units: VAC
Bypass Input RMS Current Phase A	Analog_Value	132	5570_1	RD	Units: A AC
Bypass Input RMS Current Phase B	Analog_Value	133	5571_1	RD	Units: A AC
Bypass Input RMS Current Phase C	Analog_Value	134	5572_1	RD	Units: A AC
Bypass Input Power Factor Phase A	Analog_Value	148	8048_1	RD	—
Bypass Input Power Factor Phase B	Analog_Value	149	8049_1	RD	—
Bypass Input Power Factor Phase C	Analog_Value	150	8050_1	RD	—
Bypass Power Phase A	Analog_Value	151	6325_1	RD	Units: kW
Bypass Power Phase B	Analog_Value	152	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	153	6327_1	RD	Units: kW
Battery					
Battery Volts for Cabinet	Analog_Value	142	4155_1	RD	Units: VDC
DC Bus Current	Analog_Value	143	4149_1	RD	Units: A DC
Battery Discharge Time	Analog_Value	144	4151_1	RD	Units: sec
Battery Time Remaining	Analog_Value	145	4150_1	RD	Units: min
Battery Percentage Charge	Analog_Value	146	4153_1	RD	Units: %
Battery Temperature for Cabinet	Analog_Value	147	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10147	4156_1_deg_F	RD	Units: deg F
Output					
System Output Frequency	Analog_Value	246	4207_1	RD	Units: Hz
System Output Voltage RMS A-N	Analog_Value	247	4385_1	RD	Units: VAC
System Output Voltage RMS B-N	Analog_Value	248	4386_1	RD	Units: VAC
System Output Voltage RMS C-N	Analog_Value	249	4387_1	RD	Units: VAC
System Output Voltage RMS A-B	Analog_Value	250	4201_1	RD	Units: VAC
System Output Voltage RMS B-C	Analog_Value	251	4202_1	RD	Units: VAC
System Output Voltage RMS C-A	Analog_Value	252	4203_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	253	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	254	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	255	4206_1	RD	Units: A AC

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Table 5.199 Liebert® Trinergy™ Cube—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Power Phase A	Analog_Value	256	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	257	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	258	5959_1	RD	Units: kW
System Output Pct Power Phase A	Analog_Value	259	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	260	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	261	4225_1	RD	Units: %
System Output Apparent Power Phs A	Analog_Value	262	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	263	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	264	5870_1	RD	Units: kVA
Outside Air Temperature	Analog_Value	265	5574_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10265	5574_1_deg_F	RD	Units: deg F
System Output Power Factor Phs A	Analog_Value	267	4210_1	RD	—
System Output Power Factor Phs B	Analog_Value	268	4211_1	RD	—
System Output Power Factor Phs C	Analog_Value	269	4212_1	RD	—

Table 5.200 Liebert® Trinergy™ Cube—MultiState DAta

Data Label	Object Type	Instance	Object Name	Access	Notes
System Information					
UPS manufacturer	MultiState_Value	1	6316_1	RD	1 = Chloride 2 = Masterguard 3 = Oneac 4 = Vertiv 5 = Other
UPS Module Type	MultiState_Value	2	4303_1	RD	1 = Single Module System 2 = Module (1 + 1) 3 = Module (1 + N) 4 = Module (N + 1) 5 = System Control Cabinet 6 = Main Static Switch
System Status					

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Table 5.200 Liebert® Trinergy™ Cube—MultiState DAta (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
UPS Output Source	MultiState_Value	13	4872_1	RD	1 = Other 2 = Off 3 = Normal 4 = Bypass 5 = Battery 6 = Booster 7 = Reducer
System Status	MultiState_Value	14	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
UPS Operating Mode	MultiState_Value	16	5971_1	RD	1 = Idle 2 = Double Conversion Mode (VFI) 3 = Interactive Mode (VI) 4 = Stand-By Mode (VFD) 5 = CR Mode (CR) 6 = ECO Mode (DIM)
ECO Mode Operation State	MultiState_Value	17	5454_1	RD	1 = disabled 2 = enabled
Static Bypass Switch	MultiState_Value	19	4736_1	RD	1 = off 2 = on
Bypass Qualification Status	MultiState_Value	20	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Charger On/Off State	MultiState_Value	21	6256_1	RD	1 = off 2 = on
Booster On/Off State	MultiState_Value	22	6255_1	RD	1 = off 2 = on
Bypass Status	MultiState_Value	24	6337_1	RD	1 = Bypass not present 2 = Bypass on 3 = Bypass off 4 = Bypass fault 5 = Bypass not ready
Inverter Status	MultiState_Value	25	6336_1	RD	1 = Inverter off 2 = Inverter turning on 3 = Inverter on 4 = Inverter stopped due to Fault 5 = Inverter in Stand By 6 = Inverter Ready and Sync 7 = Inverter Not Ready
Charger Status	MultiState_Value	26	6338_1	RD	1 = Charger in standby 2 = Charger on 3 = Charger switched off 4 = Charger forced on 5 = Charger stopped due to a fault

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Table 5.200 Liebert® Trinergy™ Cube—MultiState DAta (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Rectifier Status	MultiState_Value	27	6335_1	RD	1 = Rectifier off 2 = Rectifier turning on 3 = Rectifier on 4 = Rectifier fault
Switch Gear					
Maintenance Isolation Breaker	MultiState_Value	38	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
System Load Bank Breaker	MultiState_Value	39	4853_1	RD	1 = Open 2 = Close 3 = Not Installed
Static Switch Input Breaker	MultiState_Value	40	8128_1	RD	1 = Open 2 = Close 3 = Not Installed
Core Information 1 Core Breakers 1					
QS1 Breaker	MultiState_Value	48	8129_1_1	RD	1 = Open 2 = Close 3 = Not Installed
QS4 Breaker	MultiState_Value	49	8130_1_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Circuit Breaker	MultiState_Value	50	8131_1_1	RD	1 = Open 2 = Close 3 = Not Installed
Core Information 2 Core Breakers 1					
QS1 Breaker	MultiState_Value	61	8129_2_1	RD	1 = Open 2 = Close 3 = Not Installed
QS4 Breaker	MultiState_Value	62	8130_2_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Circuit Breaker	MultiState_Value	63	8131_2_1	RD	1 = Open 2 = Close 3 = Not Installed
Core Information 5 Core Breakers 1					
QS1 Breaker	MultiState_Value	100	8129_5_1	RD	1 = Open 2 = Close 3 = Not Installed
QS4 Breaker	MultiState_Value	101	8130_5_1	RD	1 = Open 2 = Close 3 = Not Installed
Battery Circuit Breaker	MultiState_Value	102	8131_5_1	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.201 Liebert® Trinergy™ Cube—Glossary

Data Label	Data Description
Backfeed Breaker Open	The backfeed breaker is in the open position.
Battery Auto Test In Progress	Automatic battery test is in progress.
Battery Breaker Open	The battery circuit is open.
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98).
Battery Circuit Breaker	Battery Circuit Breaker.
Battery Circuit Open	Battery Circuit Open.
Battery Discharge Time	The time on battery operation for this discharge.
Battery Discharging	The battery is discharging.
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold.
Battery Manual Test	In Progress Manual battery test is in progress.
Battery Percentage Charge	The percentage of battery charge.
Battery Temperature for Cabinet	The battery temperature for a cabinet.
Battery Test Failed	Battery test failed.
Battery Test Passed	Battery test passed.
Battery Time Remaining	The calculated available time on battery.
Battery Under Voltage	Battery voltage is too low.
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet.
Booster Failure	Booster failure - boost is off.
Booster On/Off State	Booster on/off state.
Bypass Breaker (SBB) Open	The bypass circuit breaker (SBB) indicates that it is in the open position.
Bypass Breaker Closed	The bypass breaker is closed.
Bypass Input Frequency	The bypass input frequency.
Bypass Input Power Factor Phase A	The bypass input Power Factor for Phase A.
Bypass Input Power Factor Phase B	The bypass input Power Factor for Phase B.
Bypass Input Power Factor Phase C	The bypass input Power Factor for Phase C.
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage RMS A-B	The bypass input RMS voltage between Phases A and B.
Bypass Input Voltage RMS A-N	The bypass input RMS voltage between Phase A and Neutral.

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Table 5.201 Liebert® Trinergy™ Cube—Glossary (continued)

Data Label	Data Description
Bypass Input Voltage RMS B-C	The bypass input RMS voltage between Phases B and C.
Bypass Input Voltage RMS B-N	The bypass input RMS voltage between Phase B and Neutral.
Bypass Input Voltage RMS C-A	The bypass input RMS voltage between phases C and A.
Bypass Input Voltage RMS C-N	The bypass input RMS voltage between Phase C and Neutral.
Bypass Not Available	A problem associated with the bypass has been detected.
Bypass out of sync	Bypass and Inverter inputs are not in sync.
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Power Phase A	The bypass power on Phase A.
Bypass Power Phase B	The bypass power on Phase B.
Bypass Power Phase C	The bypass power on Phase C.
Bypass Qualification	Status bypass qualification status.

Table 5.202 Vertiv™ Liebert® Trinergy™—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Events					
General Warning	Binary_Value	1	6353_1	RD	Active on Alarm
General Fault	Binary_Value	2	6350_1	RD	Active on Alarm
Inverter Failure	Binary_Value	3	4233_1	RD	Active on Alarm
Rectifier Failure	Binary_Value	4	4295_1	RD	Active on Alarm
Charger Failure	Binary_Value	5	6254_1	RD	Active on Alarm
Booster Failure	Binary_Value	6	6253_1	RD	Active on Alarm
Battery Low	Binary_Value	7	4162_1	RD	Active on Alarm
Battery Discharging	Binary_Value	8	4168_1	RD	Active on Alarm
System Fan Failure	Binary_Value	9	4311_1	RD	Active on Alarm
Bypass Not Available	Binary_Value	10	4135_1	RD	Active on Alarm
System Shutdown - EPO	Binary_Value	11	4213_1	RD	Active on Alarm
Input Breaker Open	Binary_Value	12	5973_1	RD	Active on Alarm
Output Breaker Open	Binary_Value	13	5975_1	RD	Active on Alarm
Internal Communications Failure	Binary_Value	14	4300_1	RD	Active on Alarm
UPS Output on Bypass	Binary_Value	15	4298_1	RD	Active on Alarm
Equipment Over Temperature	Binary_Value	16	4310_1	RD	Active on Alarm
System Output Off	Binary_Value	17	4215_1	RD	Active on Alarm
Output Off Pending	Binary_Value	18	5807_1	RD	Active on Alarm

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Table 5.202 Vertiv™ Liebert® Trinergy™—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass out of sync	Binary_Value	19	6333_1	RD	Active on Alarm
System Input Power Problem	Binary_Value	20	4122_1	RD	Active on Alarm
Bypass Input Voltage Fault	Binary_Value	21	5957_1	RD	Active on Alarm
Bypass Overload	Binary_Value	22	5798_1	RD	Active on Alarm
Battery Charging	Binary_Value	23	6354_1	RD	Active on Alarm
Fuse Failure	Binary_Value	24	4440_1	RD	Active on Alarm
Battery Over Temperature Limit	Binary_Value	25	5871_1	RD	Active on Alarm
System Output Fault	Binary_Value	26	4389_1	RD	Active on Alarm
Battery Test Passed	Binary_Value	27	4322_1	RD	Active on Alarm
Battery Test Failed	Binary_Value	28	4323_1	RD	Active on Alarm
Battery Ground Fault	Binary_Value	29	4222_1	RD	Active on Alarm

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
System Information					
Output Apparent Power Rating	Analog_Value	1	4264_1	RD	Units: kVA
System Input Nominal Frequency	Analog_Value	2	4103_1	RD	Units: Hz
System Input Nominal Voltage	Analog_Value	3	4102_1	RD	Units: VAC
System Output Nominal Frequency	Analog_Value	4	4261_1	RD	Units: Hz
System Output Nominal Voltage	Analog_Value	5	4260_1	RD	Units: VAC
System Input Nominal Current	Analog_Value	6	4104_1	RD	Units: A AC
System Date and Time	Analog_Value	7	4293_1	RW	Units: Secs since Epoch(UTC)
Input					
System Rectifier Mains Voltage Phase A	Analog_Value	18	8636_1	RD	Units: VAC
System Rectifier Mains Voltage Phase B	Analog_Value	19	8637_1	RD	Units: VAC
System Rectifier Mains Voltage Phase C	Analog_Value	20	8638_1	RD	Units: VAC
System Input RMS Current Phase A	Analog_Value	21	4113_1	RD	Units: A AC
System Input RMS Current Phase B	Analog_Value	22	4114_1	RD	Units: A AC
System Input RMS Current Phase C	Analog_Value	23	4115_1	RD	Units: A AC
System Input Frequency	Analog_Value	24	4105_1	RD	Units: Hz
DC Bus Voltage	Analog_Value	25	4148_1	RD	Units: VDC
System Input Apparent Power Phs A	Analog_Value	26	8093_1	RD	Units: kVA
System Input Apparent Power Phs B	Analog_Value	27	8094_1	RD	Units: kVA
System Input Apparent Power Phs C	Analog_Value	28	8095_1	RD	Units: kVA
System Input Power Phase A	Analog_Value	29	6318_1	RD	Units: kW
System Input Power Phase B	Analog_Value	30	6319_1	RD	Units: kW
System Input Power Phase C	Analog_Value	31	6320_1	RD	Units: kW
Bypass					
Bypass Input Voltage Phase A	Analog_Value	42	8639_1	RD	Units: VAC
Bypass Input Voltage Phase B	Analog_Value	43	8640_1	RD	Units: VAC
Bypass Input Voltage Phase C	Analog_Value	44	8641_1	RD	Units: VAC
Bypass Input RMS Current Phase A	Analog_Value	45	5570_1	RD	Units: A AC
Bypass Input RMS Current Phase B	Analog_Value	46	5571_1	RD	Units: A AC
Bypass Input RMS Current Phase C	Analog_Value	47	5572_1	RD	Units: A AC
Bypass Input Frequency	Analog_Value	48	4131_1	RD	Units: Hz
Bypass Power Phase A	Analog_Value	49	6325_1	RD	Units: kW

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Bypass Power Phase B	Analog_Value	50	6326_1	RD	Units: kW
Bypass Power Phase C	Analog_Value	51	6327_1	RD	Units: kW
Bypass Apparent Power Phase A	Analog_Value	52	6328_1	RD	Units: kVA
Bypass Apparent Power Phase B	Analog_Value	53	6329_1	RD	Units: kVA
Bypass Apparent Power Phase C	Analog_Value	54	6330_1	RD	Units: kVA
Outside Air Temperature	Analog_Value	55	5574_1	RD	Units: deg C
Outside Air Temperature	Analog_Value	10055	5574_1_deg_F	RD	Units: deg F
Battery					
Battery Volts for Cabinet	Analog_Value	65	4155_1	RD	Units: VDC
System Battery Cells Number	Analog_Value	66	8642_1	RD	
System Battery Voltage Per Cell	Analog_Value	67	8643_1	RD	Units: VDC
System Battery Minimum Voltage Last Discharge	Analog_Value	68	8644_1	RD	Units: VDC
DC Bus Current	Analog_Value	69	4149_1	RD	Units: A DC
Battery Temperature for Cabinet	Analog_Value	70	4156_1	RD	Units: deg C
Battery Temperature for Cabinet	Analog_Value	10070	4156_1_deg_F	RD	Units: deg F
Battery Time Remaining	Analog_Value	71	4150_1	RD	Units: min
System Battery Voltage Reference	Analog_Value	72	8645_1	RD	Units: VDC
System Battery Current Reference	Analog_Value	73	8646_1	RD	Units: A DC
Battery State of Health	Analog_Value	74	8341_1	RD	
Battery Percentage Charge	Analog_Value	75	4153_1	RD	
Output Measurements					
System Load Voltage Phase A	Analog_Value	86	8647_1	RD	Units: VAC
System Load Voltage Phase B	Analog_Value	87	8648_1	RD	Units: VAC
System Load Voltage Phase C	Analog_Value	88	8649_1	RD	Units: VAC
System Output RMS Current Phs A	Analog_Value	89	4204_1	RD	Units: A AC
System Output RMS Current Phs B	Analog_Value	90	4205_1	RD	Units: A AC
System Output RMS Current Phs C	Analog_Value	91	4206_1	RD	Units: A AC
System Output Frequency	Analog_Value	92	4207_1	RD	Units: Hz
System Output Power Phase A	Analog_Value	93	5859_1	RD	Units: kW
System Output Power Phase B	Analog_Value	94	5860_1	RD	Units: kW
System Output Power Phase C	Analog_Value	95	5959_1	RD	Units: kW
System Load Real Power Total	Analog_Value	96	8650_1	RD	Units: kW

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
System Output Apparent Power Phs A	Analog_Value	97	5868_1	RD	Units: kVA
System Output Apparent Power Phs B	Analog_Value	98	5869_1	RD	Units: kVA
System Output Apparent Power Phs C	Analog_Value	99	5870_1	RD	Units: kVA
System Load Apparent Power Total	Analog_Value	100	8651_1	RD	Units: kVA
System Output Pct Power Phase A	Analog_Value	101	4223_1	RD	Units: %
System Output Pct Power Phase B	Analog_Value	102	4224_1	RD	Units: %
System Output Pct Power Phase C	Analog_Value	103	4225_1	RD	Units: %
System Output Power Factor Phs A	Analog_Value	104	4210_1	RD	
System Output Power Factor Phs B	Analog_Value	105	4211_1	RD	
System Output Power Factor Phs C	Analog_Value	106	4212_1	RD	
System Status					
Total System Operating Time	Analog_Value	117	4292_1	RD	Units: hr
Core Information 1 Core Input 1					
Core Rectifier Mains Voltage Phase A	Analog_Value	128	8658_1_1	RD	Units: VAC
Core Rectifier Mains Voltage Phase B	Analog_Value	129	8659_1_1	RD	Units: VAC
Core Rectifier Mains Voltage Phase C	Analog_Value	130	8660_1_1	RD	Units: VAC
Core Rectifier Input Voltage Phase A	Analog_Value	131	8661_1_1	RD	Units: VAC
Core Rectifier Input Voltage Phase B	Analog_Value	132	8662_1_1	RD	Units: VAC
Core Rectifier Input Voltage Phase C	Analog_Value	133	8663_1_1	RD	Units: VAC
Core Rectifier Input Current Phase A	Analog_Value	134	8664_1_1	RD	Units: A AC
Core Rectifier Input Current Phase B	Analog_Value	135	8665_1_1	RD	Units: A AC
Core Rectifier Input Current Phase C	Analog_Value	136	8666_1_1	RD	Units: A AC
Core Input Frequency	Analog_Value	137	8667_1_1	RD	Units: Hz
Core DC Bus Voltage	Analog_Value	138	8668_1_1	RD	Units: VDC
Core Rectifier Apparent Power Phase A	Analog_Value	139	8669_1_1	RD	Units: kVA
Core Rectifier Apparent Power Phase B	Analog_Value	140	8670_1_1	RD	Units: kVA
Core Rectifier Apparent Power Phase C	Analog_Value	141	8671_1_1	RD	Units: kVA
Core Rectifier Real Power Phase A	Analog_Value	142	8672_1_1	RD	Units: kW
Core Rectifier Real Power Phase B	Analog_Value	143	8673_1_1	RD	Units: kW
Core Rectifier Real Power Phase C	Analog_Value	144	8674_1_1	RD	Units: kW
Rectifier Phase A Temperature sensor	Analog_Value	145	6245_1_1	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10145	6245_1_1_deg_F	RD	Units: deg F

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Rectifier Phase B Temperature sensor	Analog_Value	146	6246_1_1	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10146	6246_1_1_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	147	6247_1_1	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10147	6247_1_1_deg_F	RD	Units: deg F
Core Information 1 Core Output Measurements 1					
Core Load Voltage Phase A	Analog_Value	158	8675_1_1	RD	Units: VAC
Core Load Voltage Phase B	Analog_Value	159	8676_1_1	RD	Units: VAC
Core Load Voltage Phase C	Analog_Value	160	8677_1_1	RD	Units: VAC
Core Inverter Line Voltage Phase A	Analog_Value	161	8678_1_1	RD	Units: VAC
Core Inverter Line Voltage Phase B	Analog_Value	162	8679_1_1	RD	Units: VAC
Core Inverter Line Voltage Phase C	Analog_Value	163	8680_1_1	RD	Units: VAC
Core Load Current Phase A	Analog_Value	164	8681_1_1	RD	Units: A AC
Core Load Current Phase B	Analog_Value	165	8682_1_1	RD	Units: A AC
Core Load Current Phase C	Analog_Value	166	8683_1_1	RD	Units: A AC
Core Inverter DC Bus Voltage	Analog_Value	167	8684_1_1	RD	Units: VDC
Core Load Frequency	Analog_Value	168	8685_1_1	RD	Units: Hz
Core Load Real Power Phase A	Analog_Value	169	8686_1_1	RD	Units: kW
Core Load Real Power Phase B	Analog_Value	170	8687_1_1	RD	Units: kW
Core Load Real Power Phase C	Analog_Value	171	8688_1_1	RD	Units: kW
Core Load Real Power Total	Analog_Value	172	8689_1_1	RD	Units: kW
Core Load Apparent Power Phase A	Analog_Value	173	8690_1_1	RD	Units: kVA
Core Load Apparent Power Phase B	Analog_Value	174	8691_1_1	RD	Units: kVA
Core Load Apparent Power Phase C	Analog_Value	175	8692_1_1	RD	Units: kVA
Core Load Apparent Power Total	Analog_Value	176	8693_1_1	RD	Units: kVA
Core Load Power Factor Phase A	Analog_Value	177	8694_1_1	RD	
Core Load Power Factor Phase B	Analog_Value	178	8695_1_1	RD	
Core Load Power Factor Phase C	Analog_Value	179	8696_1_1	RD	
Core Load Percent Phase A	Analog_Value	180	8697_1_1	RD	Units: %
Core Load Percent Phase B	Analog_Value	181	8698_1_1	RD	Units: %
Core Load Percent Phase C	Analog_Value	182	8699_1_1	RD	Units: %
Core Inverter Temperature Phase A	Analog_Value	183	8700_1_1	RD	Units: deg C
Core Inverter Temperature Phase A	Analog_Value	10183	8700_1_1_deg_F	RD	Units: deg F

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Core Inverter Temperature Phase B	Analog_Value	184	8701_1_1	RD	Units: deg C
Core Inverter Temperature Phase B	Analog_Value	10184	8701_1_1_deg_F	RD	Units: deg F
Core Inverter Temperature Phase C	Analog_Value	185	8702_1_1	RD	Units: deg C
Core Inverter Temperature Phase C	Analog_Value	10185	8702_1_1_deg_F	RD	Units: deg F
Core Information 1 Core Battery 1					
Core Battery Voltage	Analog_Value	196	8703_1_1	RD	Units: VDC
Core Battery Current	Analog_Value	197	8704_1_1	RD	Units: A DC
Core Battery Voltage Per Cell	Analog_Value	198	8705_1_1	RD	Units: VDC
Core Battery Running Time	Analog_Value	199	8707_1_1	RD	Units: min
Core Information 1 Buck Booster 1					
Core Buck Booster Temperature Module Left	Analog_Value	210	8708_1_1	RD	Units: deg C
Core Buck Booster Temperature Module Left	Analog_Value	10210	8708_1_1_deg_F	RD	Units: deg F
Core Buck Booster Temperature Module Right	Analog_Value	211	8709_1_1	RD	Units: deg C
Core Buck Booster Temperature Module Right	Analog_Value	10211	8709_1_1_deg_F	RD	Units: deg F
Core Information 2 Core Input 1					
Core Rectifier Mains Voltage Phase A	Analog_Value	222	8658_2_1	RD	Units: VAC
Core Rectifier Mains Voltage Phase B	Analog_Value	223	8659_2_1	RD	Units: VAC
Core Rectifier Mains Voltage Phase C	Analog_Value	224	8660_2_1	RD	Units: VAC
Core Rectifier Input Voltage Phase A	Analog_Value	225	8661_2_1	RD	Units: VAC
Core Rectifier Input Voltage Phase B	Analog_Value	226	8662_2_1	RD	Units: VAC
Core Rectifier Input Voltage Phase C	Analog_Value	227	8663_2_1	RD	Units: VAC
Core Rectifier Input Current Phase A	Analog_Value	228	8664_2_1	RD	Units: A AC
Core Rectifier Input Current Phase B	Analog_Value	229	8665_2_1	RD	Units: A AC
Core Rectifier Input Current Phase C	Analog_Value	230	8666_2_1	RD	Units: A AC
Core Input Frequency	Analog_Value	231	8667_2_1	RD	Units: Hz
Core DC Bus Voltage	Analog_Value	232	8668_2_1	RD	Units: VDC
Core Rectifier Apparent Power Phase A	Analog_Value	233	8669_2_1	RD	Units: kVA
Core Rectifier Apparent Power Phase B	Analog_Value	234	8670_2_1	RD	Units: kVA
Core Rectifier Apparent Power Phase C	Analog_Value	235	8671_2_1	RD	Units: kVA
Core Rectifier Real Power Phase A	Analog_Value	236	8672_2_1	RD	Units: kW
Core Rectifier Real Power Phase B	Analog_Value	237	8673_2_1	RD	Units: kW
Core Rectifier Real Power Phase C	Analog_Value	238	8674_2_1	RD	Units: kW

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Rectifier Phase A Temperature sensor	Analog_Value	239	6245_2_1	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10239	6245_2_1_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	240	6246_2_1	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10240	6246_2_1_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	241	6247_2_1	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10241	6247_2_1_deg_F	RD	Units: deg F
Core Information 2 Core Output Measurements 1					
Core Load Voltage Phase A	Analog_Value	252	8675_2_1	RD	Units: VAC
Core Load Voltage Phase B	Analog_Value	253	8676_2_1	RD	Units: VAC
Core Load Voltage Phase C	Analog_Value	254	8677_2_1	RD	Units: VAC
Core Inverter Line Voltage Phase A	Analog_Value	255	8678_2_1	RD	Units: VAC
Core Inverter Line Voltage Phase B	Analog_Value	256	8679_2_1	RD	Units: VAC
Core Inverter Line Voltage Phase C	Analog_Value	257	8680_2_1	RD	Units: VAC
Core Load Current Phase A	Analog_Value	258	8681_2_1	RD	Units: A AC
Core Load Current Phase B	Analog_Value	259	8682_2_1	RD	Units: A AC
Core Load Current Phase C	Analog_Value	260	8683_2_1	RD	Units: A AC
Core Inverter DC Bus Voltage	Analog_Value	261	8684_2_1	RD	Units: VDC
Core Load Frequency	Analog_Value	262	8685_2_1	RD	Units: Hz
Core Load Real Power Phase A	Analog_Value	263	8686_2_1	RD	Units: kW
Core Load Real Power Phase B	Analog_Value	264	8687_2_1	RD	Units: kW
Core Load Real Power Phase C	Analog_Value	265	8688_2_1	RD	Units: kW
Core Load Real Power Total	Analog_Value	266	8689_2_1	RD	Units: kW
Core Load Apparent Power Phase A	Analog_Value	267	8690_2_1	RD	Units: kVA
Core Load Apparent Power Phase B	Analog_Value	268	8691_2_1	RD	Units: kVA
Core Load Apparent Power Phase C	Analog_Value	269	8692_2_1	RD	Units: kVA
Core Load Apparent Power Total	Analog_Value	270	8693_2_1	RD	Units: kVA
Core Load Power Factor Phase A	Analog_Value	271	8694_2_1	RD	
Core Load Power Factor Phase B	Analog_Value	272	8695_2_1	RD	
Core Load Power Factor Phase C	Analog_Value	273	8696_2_1	RD	
Core Load Percent Phase A	Analog_Value	274	8697_2_1	RD	Units: %
Core Load Percent Phase B	Analog_Value	275	8698_2_1	RD	Units: %
Core Load Percent Phase C	Analog_Value	276	8699_2_1	RD	Units: %

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Core Inverter Temperature Phase A	Analog_Value	277	8700_2_1	RD	Units: deg C
Core Inverter Temperature Phase A	Analog_Value	10277	8700_2_1_deg_F	RD	Units: deg F
Core Inverter Temperature Phase B	Analog_Value	278	8701_2_1	RD	Units: deg C
Core Inverter Temperature Phase B	Analog_Value	10278	8701_2_1_deg_F	RD	Units: deg F
Core Inverter Temperature Phase C	Analog_Value	279	8702_2_1	RD	Units: deg C
Core Inverter Temperature Phase C	Analog_Value	10279	8702_2_1_deg_F	RD	Units: deg F
Core Information 2 Core Battery 1					
Core Battery Voltage	Analog_Value	290	8703_2_1	RD	Units: VDC
Core Battery Current	Analog_Value	291	8704_2_1	RD	Units: A DC
Core Battery Voltage Per Cell	Analog_Value	292	8705_2_1	RD	Units: VDC
Core Battery Running Time	Analog_Value	293	8707_2_1	RD	Units: min
Core Information 2 Buck Booster 1					
Core Buck Booster Temperature Module Left	Analog_Value	304	8708_2_1	RD	Units: deg C
Core Buck Booster Temperature Module Left	Analog_Value	10304	8708_2_1_deg_F	RD	Units: deg F
Core Buck Booster Temperature Module Right	Analog_Value	305	8709_2_1	RD	Units: deg C
Core Buck Booster Temperature Module Right	Analog_Value	10305	8709_2_1_deg_F	RD	Units: deg F
Core Information 10 Core Input 1					
Core Rectifier Mains Voltage Phase A	Analog_Value	974	8658_10_1	RD	Units: VAC
Core Rectifier Mains Voltage Phase B	Analog_Value	975	8659_10_1	RD	Units: VAC
Core Rectifier Mains Voltage Phase C	Analog_Value	976	8660_10_1	RD	Units: VAC
Core Rectifier Input Voltage Phase A	Analog_Value	977	8661_10_1	RD	Units: VAC
Core Rectifier Input Voltage Phase B	Analog_Value	978	8662_10_1	RD	Units: VAC
Core Rectifier Input Voltage Phase C	Analog_Value	979	8663_10_1	RD	Units: VAC
Core Rectifier Input Current Phase A	Analog_Value	980	8664_10_1	RD	Units: A AC
Core Rectifier Input Current Phase B	Analog_Value	981	8665_10_1	RD	Units: A AC
Core Rectifier Input Current Phase C	Analog_Value	982	8666_10_1	RD	Units: A AC
Core Input Frequency	Analog_Value	983	8667_10_1	RD	Units: Hz
Core DC Bus Voltage	Analog_Value	984	8668_10_1	RD	Units: VDC
Core Rectifier Apparent Power Phase A	Analog_Value	985	8669_10_1	RD	Units: kVA
Core Rectifier Apparent Power Phase B	Analog_Value	986	8670_10_1	RD	Units: kVA
Core Rectifier Apparent Power Phase C	Analog_Value	987	8671_10_1	RD	Units: kVA
Core Rectifier Real Power Phase A	Analog_Value	988	8672_10_1	RD	Units: kW

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Core Rectifier Real Power Phase B	Analog_Value	989	8673_10_1	RD	Units: kW
Core Rectifier Real Power Phase C	Analog_Value	990	8674_10_1	RD	Units: kW
Rectifier Phase A Temperature sensor	Analog_Value	991	6245_10_1	RD	Units: deg C
Rectifier Phase A Temperature sensor	Analog_Value	10991	6245_10_1_deg_F	RD	Units: deg F
Rectifier Phase B Temperature sensor	Analog_Value	992	6246_10_1	RD	Units: deg C
Rectifier Phase B Temperature sensor	Analog_Value	10992	6246_10_1_deg_F	RD	Units: deg F
Rectifier Phase C Temperature sensor	Analog_Value	993	6247_10_1	RD	Units: deg C
Rectifier Phase C Temperature sensor	Analog_Value	10993	6247_10_1_deg_F	RD	Units: deg F
Core Information 10 Core Output Measurements 1					
Core Load Voltage Phase A	Analog_Value	1004	8675_10_1	RD	Units: VAC
Core Load Voltage Phase B	Analog_Value	1005	8676_10_1	RD	Units: VAC
Core Load Voltage Phase C	Analog_Value	1006	8677_10_1	RD	Units: VAC
Core Inverter Line Voltage Phase A	Analog_Value	1007	8678_10_1	RD	Units: VAC
Core Inverter Line Voltage Phase B	Analog_Value	1008	8679_10_1	RD	Units: VAC
Core Inverter Line Voltage Phase C	Analog_Value	1009	8680_10_1	RD	Units: VAC
Core Load Current Phase A	Analog_Value	1010	8681_10_1	RD	Units: A AC
Core Load Current Phase B	Analog_Value	1011	8682_10_1	RD	Units: A AC
Core Load Current Phase C	Analog_Value	1012	8683_10_1	RD	Units: A AC
Core Inverter DC Bus Voltage	Analog_Value	1013	8684_10_1	RD	Units: VDC
Core Load Frequency	Analog_Value	1014	8685_10_1	RD	Units: Hz
Core Load Real Power Phase A	Analog_Value	1015	8686_10_1	RD	Units: kW
Core Load Real Power Phase B	Analog_Value	1016	8687_10_1	RD	Units: kW
Core Load Real Power Phase C	Analog_Value	1017	8688_10_1	RD	Units: kW
Core Load Real Power Total	Analog_Value	1018	8689_10_1	RD	Units: kW
Core Load Apparent Power Phase A	Analog_Value	1019	8690_10_1	RD	Units: kVA
Core Load Apparent Power Phase B	Analog_Value	1020	8691_10_1	RD	Units: kVA
Core Load Apparent Power Phase C	Analog_Value	1021	8692_10_1	RD	Units: kVA
Core Load Apparent Power Total	Analog_Value	1022	8693_10_1	RD	Units: kVA
Core Load Power Factor Phase A	Analog_Value	1023	8694_10_1	RD	
Core Load Power Factor Phase B	Analog_Value	1024	8695_10_1	RD	
Core Load Power Factor Phase C	Analog_Value	1025	8696_10_1	RD	
Core Load Percent Phase A	Analog_Value	1026	8697_10_1	RD	Units: %

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Table 5.203 Vertiv™ Liebert® Trinergy™—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Core Load Percent Phase B	Analog_Value	1027	8698_10_1	RD	Units: %
Core Load Percent Phase C	Analog_Value	1028	8699_10_1	RD	Units: %
Core Inverter Temperature Phase A	Analog_Value	1029	8700_10_1	RD	Units: deg C
Core Inverter Temperature Phase A	Analog_Value	11029	8700_10_1_deg_F	RD	Units: deg F
Core Inverter Temperature Phase B	Analog_Value	1030	8701_10_1	RD	Units: deg C
Core Inverter Temperature Phase B	Analog_Value	11030	8701_10_1_deg_F	RD	Units: deg F
Core Inverter Temperature Phase C	Analog_Value	1031	8702_10_1	RD	Units: deg C
Core Inverter Temperature Phase C	Analog_Value	11031	8702_10_1_deg_F	RD	Units: deg F
Core Information 10 Core Battery 1					
Core Battery Voltage	Analog_Value	1042	8703_10_1	RD	Units: VDC
Core Battery Current	Analog_Value	1043	8704_10_1	RD	Units: A DC
Core Battery Voltage Per Cell	Analog_Value	1044	8705_10_1	RD	Units: VDC
Core Battery Running Time	Analog_Value	1045	8707_10_1	RD	Units: min
Core Information 10 Buck Booster 1					
Core Buck Booster Temperature Module Left	Analog_Value	1056	8708_10_1	RD	Units: deg C
Core Buck Booster Temperature Module Left	Analog_Value	11056	8708_10_1_deg_F	RD	Units: deg F
Core Buck Booster Temperature Module Right	Analog_Value	1057	8709_10_1	RD	Units: deg C
Core Buck Booster Temperature Module Right	Analog_Value	11057	8709_10_1_deg_F	RD	Units: deg F

Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Protocol					
Server Class	MultiState_ Value	1	4553_1	RD	1 = UPS 2 = AIR 3 = PMP 4 = PDU 5 = MONITOR
System Status					
Rectifier Status	MultiState_ Value	12	6335_1	RD	1 = Rectifier off 2 = Rectifier turning on 3 = Rectifier on 4 = Rectifier fault
Bypass Status	MultiState_ Value	13	6337_1	RD	1 = Bypass not present 2 = Bypass on

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Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Bypass off 4 = Bypass fault 5 = Bypass not ready
Inverter Status	MultiState_ Value	14	6336_1	RD	1 = Inverter off 2 = Inverter turning on 3 = Inverter on 4 = Inverter stopped due to Fault 5 = Inverter in Stand By 6 = Inverter Ready and Sync 7 = Inverter Not Ready
Charger Status	MultiState_ Value	15	6338_1	RD	1 = Charger in standby 2 = Charger on 3 = Charger switched off 4 = Charger forced on 5 = Charger stopped due to a fault
Booster Status	MultiState_ Value	16	6339_1	RD	1 = Booster off 2 = Booster turning on 3 = Booster on 4 = Booster stopped due to a fault
Load Status	MultiState_ Value	17	6341_1	RD	1 = Init 2 = Load secured by Inverter 3 = Load on Battery 4 = Load supplied by Bypass 5 = Load suppliedby Maintenance bypass 6 = Load not supplied
Battery Status	MultiState_ Value	18	6340_1	RD	1 = Idle 2 = Charging 3 = Discharging 4 = Not connected 5 = Fault
QS1 Breaker	MultiState_ Value	19	8129_1	RD	1 = Open 2 = Close 3 = Not Installed
QS4 Breaker	MultiState_ Value	20	8130_1	RD	1 = Open 2 = Close

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Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					3 = Not Installed
System Backfeed Disconnect Breaker Status	MultiState_ Value	21	8652_1	RD	1 = Open 2 = Close 3 = Not Installed
System Rectifier Input Breaker Status	MultiState_ Value	22	8653_1	RD	1 = Open 2 = Close 3 = Not Installed
System Rectifier Backfeed Breaker Status	MultiState_ Value	23	8654_1	RD	1 = Open 2 = Close 3 = Not Installed
System Maintenance Bypass Breaker Status	MultiState_ Value	24	8655_1	RD	1 = Open 2 = Close 3 = Not Installed
UPS Operating Mode	MultiState_ Value	25	5971_1	RD	1 = Idle 2 = Double Conversion Mode (VFI) 3 = Interactive Mode (VI) 4 = Stand-By Mode (VFD) 5 = CR Mode (CR) 6 = ECO Mode (DIM)
ECO Mode Operation State	MultiState_ Value	26	5454_1	RD	1 = disabled 2 = enabled
System Status	MultiState_ Value	27	4123_1	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
Inverter Synchronization Source	MultiState_ Value	28	5961_1	RD	1 = External 2 = Self clock (internal) 3 = Output 4 = Bypass
Bypass Qualification Status	MultiState_ Value	29	4737_1	RD	1 = Fail 2 = Marginal Low 3 = Normal 4 = Marginal High
Internal Bypass Breaker	MultiState_ Value	30	4769_1	RD	1 = Open

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Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Close 3 = Not Installed
Bypass Isolation Breaker	MultiState_ Value	31	4770_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Bypass Breaker	MultiState_ Value	32	4772_1	RD	1 = Open 2 = Close 3 = Not Installed
Maintenance Isolation Breaker	MultiState_ Value	33	4773_1	RD	1 = Open 2 = Close 3 = Not Installed
System Load Bank Breaker	MultiState_ Value	34	4853_1	RD	1 = Open 2 = Close 3 = Not Installed
Core Information 1					
Core Rectifier Status	MultiState_ Value	45	8710_1	RD	1 = Rectifier off 2 = Rectifier turning on 3 = Rectifier on 4 = Rectifier fault
Core Inverter Status	MultiState_ Value	46	8711_1	RD	1 = Inverter off 2 = Inverter turning on 3 = Inverter on 4 = Inverter stopped due to Fault 5 = Inverter in Stand By 6 = Inverter Ready and Sync 7 = Inverter Not Ready
Core Charger Status	MultiState_ Value	47	8712_1	RD	1 = Charger in standby 2 = Charger on 3 = Charger switched off 4 = Charger forced on 5 = Charger stopped due to a fault
Core Booster Status	MultiState_ Value	48	8713_1	RD	1 = Booster off 2 = Booster turning on 3 = Booster on 4 = Booster stopped due to a fault

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Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Core Load Status	MultiState_ Value	49	8714_1	RD	1 = Init 2 = Load secured by Inverter 3 = Load on Battery 4 = Load supplied by Bypass 5 = Load suppliedby Maintenance bypass 6 = Load not supplied
Core Battery Status	MultiState_ Value	50	8715_1	RD	1 = Idle 2 = Charging 3 = Discharging 4 = Not connected 5 = Fault
Core KM1 Breaker Status	MultiState_ Value	51	8716_1	RD	1 = Open 2 = Close 3 = Not Installed
Core KM4 Breaker Status	MultiState_ Value	52	8717_1	RD	1 = Open 2 = Close 3 = Not Installed
Core Information 2					
Core Rectifier Status	MultiState_ Value	63	8710_2	RD	1 = Rectifier off 2 = Rectifier turning on 3 = Rectifier on 4 = Rectifier fault
Core Inverter Status	MultiState_ Value	64	8711_2	RD	1 = Inverter off 2 = Inverter turning on 3 = Inverter on 4 = Inverter stopped due to Fault 5 = Inverter in Stand By 6 = Inverter Ready and Sync 7 = Inverter Not Ready
Core Charger Status	MultiState_ Value	65	8712_2	RD	1 = Charger in standby 2 = Charger on 3 = Charger switched off 4 = Charger forced on 5 = Charger stopped due to a fault
Core Booster Status	MultiState_	66	8713_2	RD	1 = Booster off

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Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
	Value				2 = Booster turning on 3 = Booster on 4 = Booster stopped due to a fault
Core Load Status	MultiState_ Value	67	8714_2	RD	1 = Init 2 = Load secured by Inverter 3 = Load on Battery 4 = Load supplied by Bypass 5 = Load suppliedby Maintenance bypass 6 = Load not supplied
Core Battery Status	MultiState_ Value	68	8715_2	RD	1 = Idle 2 = Charging 3 = Discharging 4 = Not connected 5 = Fault
Core KM1 Breaker Status	MultiState_ Value	69	8716_2	RD	1 = Open 2 = Close 3 = Not Installed
Core KM4 Breaker Status	MultiState_ Value	70	8717_2	RD	1 = Open 2 = Close 3 = Not Installed
Core Information 10					
Core Rectifier Status	MultiState_ Value	207	8710_10	RD	1 = Rectifier off 2 = Rectifier turning on 3 = Rectifier on 4 = Rectifier fault
Core Inverter Status	MultiState_ Value	208	8711_10	RD	1 = Inverter off 2 = Inverter turning on 3 = Inverter on 4 = Inverter stopped due to Fault 5 = Inverter in Stand By 6 = Inverter Ready and Sync 7 = Inverter Not Ready
Core Charger Status	MultiState_ Value	209	8712_10	RD	1 = Charger in standby 2 = Charger on 3 = Charger switched off

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Table 5.204 Vertiv™ Liebert® Trinergy™—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					4 = Charger forced on 5 = Charger stopped due to a fault
Core Booster Status	MultiState_ Value	210	8713_10	RD	1 = Booster off 2 = Booster turning on 3 = Booster on 4 = Booster stopped due to a fault
Core Load Status	MultiState_ Value	211	8714_10	RD	1 = Init 2 = Load secured by Inverter 3 = Load on Battery 4 = Load supplied by Bypass 5 = Load suppliedby Maintenance bypass 6 = Load not supplied
Core Battery Status	MultiState_ Value	212	8715_10	RD	1 = Idle 2 = Charging 3 = Discharging 4 = Not connected 5 = Fault
Core KM1 Breaker Status	MultiState_ Value	213	8716_10	RD	1 = Open 2 = Close 3 = Not Installed
Core KM4 Breaker Status	MultiState_ Value	214	8717_10	RD	1 = Open 2 = Close 3 = Not Installed

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary

Data Label	Data Description
Battery Charging	The UPS battery is charging (battery charge percentage lower than 98)
Battery Discharging	The battery is discharging
Battery Ground Fault	Battery system ground fault amperage exceeds the threshold
Battery Low	The calculated battery time remaining has reached the low battery threshold
Battery Over Temperature Limit	A battery temperature sensor is reporting a value above a predetermined limit.
Battery Percentage Charge	The percentage of battery charge
Battery State of Health	Battery State of Health
Battery Status	Battery Status
Battery Temperature for Cabinet	The battery temperature for a cabinet
Battery Test Failed	Battery test failed
Battery Test Passed	Battery test passed
Battery Time Remaining	The calculated available time on battery
Battery Volts for Cabinet	The voltage between the positive and negative battery terminals of a battery cabinet
Booster Failure	Booster failure - boost is off
Booster Status	Booster Status
Bypass Apparent Power Phase A	The bypass apparent power on phase A
Bypass Apparent Power Phase B	The bypass apparent power on phase B
Bypass Apparent Power Phase C	The bypass apparent power on phase C
Bypass Input Frequency	The bypass input frequency
Bypass Input RMS Current Phase A	The bypass input RMS current for Phase A.
Bypass Input RMS Current Phase B	The bypass input RMS current for Phase B.
Bypass Input RMS Current Phase C	The bypass input RMS current for Phase C.
Bypass Input Voltage Fault	The system has detected the bypass voltage is unqualified.
Bypass Input Voltage Phase A	Bypass Input Voltage Phase A
Bypass Input Voltage Phase B	Bypass Input Voltage Phase B
Bypass Input Voltage Phase C	Bypass Input Voltage Phase C
Bypass Isolation Breaker	Bypass isolation breaker
Bypass Not Available	A problem associated with the bypass has been detected
Bypass out of sync	Bypass and Inverter inputs are not in sync
Bypass Overload	Bypass overloaded, reduce load immediately.
Bypass Power Phase A	The bypass power on phase A
Bypass Power Phase B	The bypass power on phase B

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Bypass Power Phase C	The bypass power on phase C
Bypass Qualification Status	bypass qualification status
Bypass Status	Bypass Status
Charger Failure	Charger Failure - Charger is off
Charger Status	Charger Status
Core Battery Current	Core Battery Current
Core Battery Running Time	Core Battery Running Time
Core Battery Status	Core Battery Status
Core Battery Voltage Per Cell	Core Battery Voltage Per Cell
Core Battery Voltage	Core Battery Voltage
Core Booster Status	Core Booster Status
Core Buck Booster Temperature Module Left	Core Buck Booster Temperature Module Left
Core Buck Booster Temperature Module Right	Core Buck Booster Temperature Module Right
Core Charger Status	Core Charger Status
Core DC Bus Voltage	Core DC Bus Voltage
Core Input Frequency	Core Input Frequency
Core Inverter DC Bus Voltage	Core Inverter DC Bus Voltage
Core Inverter Line Voltage Phase A	Core Inverter Line Voltage Phase A
Core Inverter Line Voltage Phase B	Core Inverter Line Voltage Phase B
Core Inverter Line Voltage Phase C	Core Inverter Line Voltage Phase C
Core Inverter Status	Core Inverter Status
Core Inverter Temperature Phase A	Core Inverter Temperature Phase A
Core Inverter Temperature Phase B	Core Inverter Temperature Phase B
Core Inverter Temperature Phase C	Core Inverter Temperature Phase C
Core KM1 Breaker Status	Core KM1 Breaker Status
Core KM4 Breaker Status	Core KM4 Breaker Status
Core Load Apparent Power Phase A	Core Load Apparent Power Phase A
Core Load Apparent Power Phase B	Core Load Apparent Power Phase B
Core Load Apparent Power Phase C	Core Load Apparent Power Phase C
Core Load Apparent Power Total	Core Load Apparent Power Total
Core Load Current Phase A	Core Load Current Phase A

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Core Load Current Phase B	Core Load Current Phase B
Core Load Current Phase C	Core Load Current Phase C
Core Load Frequency	Core Load Frequency
Core Load Percent Phase A	Core Load Percent Phase A
Core Load Percent Phase B	Core Load Percent Phase B
Core Load Percent Phase C	Core Load Percent Phase C
Core Load Power Factor Phase A	Core Load Power Factor Phase A
Core Load Power Factor Phase B	Core Load Power Factor Phase B
Core Load Power Factor Phase C	Core Load Power Factor Phase C
Core Load Real Power Phase A	Core Load Real Power Phase A
Core Load Real Power Phase B	Core Load Real Power Phase B
Core Load Real Power Phase C	Core Load Real Power Phase C
Core Load Real Power Total	Core Load Real Power Total
Core Load Status	Core Load Status
Core Load Voltage Phase A	Core Load Voltage Phase A
Core Load Voltage Phase B	Core Load Voltage Phase B
Core Load Voltage Phase C	Core Load Voltage Phase C
Core Rectifier Apparent Power Phase A	Core Rectifier Apparent Power Phase A
Core Rectifier Apparent Power Phase B	Core Rectifier Apparent Power Phase B
Core Rectifier Apparent Power Phase C	Core Rectifier Apparent Power Phase C
Core Rectifier Input Current Phase A	Core Rectifier Input Current Phase A
Core Rectifier Input Current Phase B	Core Rectifier Input Current Phase B
Core Rectifier Input Current Phase C	Core Rectifier Input Current Phase C
Core Rectifier Input Voltage Phase A	Core Rectifier Input Voltage Phase A
Core Rectifier Input Voltage Phase B	Core Rectifier Input Voltage Phase B
Core Rectifier Input Voltage Phase C	Core Rectifier Input Voltage Phase C
Core Rectifier Mains Voltage Phase A	Core Rectifier Mains Voltage Phase A
Core Rectifier Mains Voltage Phase B	Core Rectifier Mains Voltage Phase B
Core Rectifier Mains Voltage Phase C	Core Rectifier Mains Voltage Phase C

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Core Rectifier Real Power Phase A	Core Rectifier Real Power Phase A
Core Rectifier Real Power Phase B	Core Rectifier Real Power Phase B
Core Rectifier Real Power Phase C	Core Rectifier Real Power Phase C
Core Rectifier Status	Core Rectifier Status
DC Bus Current	The current at the battery input terminals. In charging mode, the current will be a positive value. In discharging mode, the current will be a negative value
DC Bus Voltage	The voltage between the positive and negative terminals of the DC bus at the battery input
ECO Mode Operation State	This setting is used to enable or disable ECO Mode.
Equipment Over Temperature	Equipment over temperature summary event
Fuse Failure	A summary event indicating one or more fuse failures
General Fault	A general fault in the UPS has been detected.
General Warning	A warning in the UPS has been detected.
Input Breaker Open	The main input breaker is open.
Internal Bypass Breaker	Internal bypass breaker
Internal Communications Failure	The control has detected a communication failure of a component on the internal communication bus
Inverter Failure	Inverter failure - inverter output is off
Inverter Status	Inverter Status
Inverter Synchronization Source	The reference source for inverter synchronization
Load Status	Load Status
Maintenance Bypass Breaker	Maintenance bypass breaker
Maintenance Isolation Breaker	Maintenance isolation breaker
Output Apparent Power Rating	Output apparent power rating
Output Breaker Open	The output breaker is open.
Output Off Pending	Output off pending - shutdown imminent.
Outside Air Temperature	Ambient outside air temperature.
QS1 Breaker	QS1 Breaker
QS4 Breaker	QS4 Breaker
Rectifier Failure	Rectifier failure - rectifier is off
Rectifier Phase A Temperature sensor	Rectifier temperature sensor reading for Phase A.
Rectifier Phase B Temperature sensor	Rectifier temperature sensor reading for Phase B.
Rectifier Phase C Temperature sensor	Rectifier temperature sensor reading for Phase C.

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Rectifier Status	Rectifier Status
Server Class	The general classification for this system
System Backfeed Disconnect Breaker Status	System Backfeed Disconnect Breaker Status
System Battery Cells Number	System Battery Cells Number
System Battery Current Reference	System Battery Current Reference
System Battery Minimum Voltage Last Discharge	System Battery Minimum Voltage Last Discharge
System Battery Voltage Per Cell	System Battery Voltage Per Cell
System Battery Voltage Reference	System Battery Voltage Reference
System Date and Time	The system date and time
System Fan Failure	System fan failure - one or more fans have failed
System Input Apparent Power Phs A	The system apparent power on phase A
System Input Apparent Power Phs B	The system apparent power on phase B
System Input Apparent Power Phs C	The system apparent power on phase C
System Input Frequency	The system input frequency
System Input Nominal Current	The nominal (or rated) system input current
System Input Nominal Frequency	The nominal (or rated) system input frequency
System Input Nominal Voltage	The nominal (or rated) system input voltage
System Input Power Phase A	The system input power on phase A
System Input Power Phase B	The system input power on phase B
System Input Power Phase C	The system input power on phase C
System Input Power Problem	The input is not qualified to provide power to the system
System Input RMS Current Phase A	The system input RMS current for Phase A
System Input RMS Current Phase B	The system input RMS current for Phase B
System Input RMS Current Phase C	The system input RMS current for Phase C
System Load Apparent Power Total	System Load Apparent Power Total
System Load Bank Breaker	System load bank breaker
System Load Real Power Total	System Load Real Power Total
System Load Voltage Phase A	System Load Voltage Phase A
System Load Voltage Phase B	System Load Voltage Phase B
System Load Voltage Phase C	System Load Voltage Phase C
System Maintenance Bypass Breaker Status	System Maintenance Bypass Breaker Status

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
System Output Apparent Power Phs A	System output apparent power on phase A
System Output Apparent Power Phs B	System output apparent power on phase B
System Output Apparent Power Phs C	System output apparent power on phase C
System Output Fault	A fault has been detected in the system output
System Output Frequency	The system output frequency
System Output Nominal Frequency	The nominal (or rated) system output frequency
System Output Nominal Voltage	The nominal (or rated) system output voltage
System Output Off	The system output is off
System Output Pct Power Phase A	The system output power on phase A as a percentage of the rated capacity
System Output Pct Power Phase B	The system output power on phase B as a percentage of the rated capacity
System Output Pct Power Phase C	The system output power on phase C as a percentage of the rated capacity
System Output Power Factor Phs A	The system output power factor of phase A
System Output Power Factor Phs B	The system output power factor of phase B
System Output Power Factor Phs C	The system output power factor of phase C
System Output Power Phase A	The system output power on phase A.
System Output Power Phase B	The system output power on phase B.
System Output Power Phase C	The system output power on phase C.
System Output RMS Current Phs A	The system output RMS current for Phase A
System Output RMS Current Phs B	The system output RMS current for Phase B
System Output RMS Current Phs C	The system output RMS current for Phase C
System Rectifier Backfeed Breaker Status	System Rectifier Backfeed Breaker Status
System Rectifier Input Breaker Status	System Rectifier Input Breaker Status
System Rectifier Mains Voltage Phase A	System Rectifier Mains Voltage Phase A
System Rectifier Mains Voltage Phase B	System Rectifier Mains Voltage Phase B
System Rectifier Mains Voltage Phase C	System Rectifier Mains Voltage Phase C
System Shutdown - EPO	System shutdown due to Emergency Power Off (EPO)
System Status	The operating status for the system

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Table 5.205 Vertiv™ Liebert® Trinergy™—Glossary (continued)

Data Label	Data Description
Total System Operating Time	The cumulative operation time of the unit
UPS Operating Mode	UPS Operating Mode
UPS Output on Bypass	The output power is supplied by the bypass

5.4 Battery Monitoring Products—BACnet Protocols

Table 5.206 Alber™ BDSU—Binary Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Entity 1					
Battery Discharging	Binary_Value	1	4168_1	RD	Active on Alarm
Battery Entity 2					
Battery Discharging	Binary_Value	12	4168_2	RD	Active on Alarm
. . .					
Battery Entity 32					
Battery Discharging	Binary_Value	342	4168_32	RD	Active on Alarm
String Entity 1 Note: The configuration of a given BDSU device determines the hierarchical association of each String with a specific Battery. When Object Names of String data points are generated at runtime, this hierarchy information is substituted for the pattern "<SeeDnldMap>" seen in the table below. The substituted names are in the BACnetDataMap.txt file that can be downloaded from the Unity card from its Downloads web page for the managed device.					
Low Ambient Temperature	Binary_Value	353	4906_<SeeDnldMap>	RW	Active on Alarm
High Ambient Temperature	Binary_Value	354	4907_<SeeDnldMap>	RW	Active on Alarm
Low Ambient Temperature Probe Two	Binary_Value	355	5436_<SeeDnldMap>	RW	Active on Alarm
High Ambient Temperature Probe Two	Binary_Value	356	5437_<SeeDnldMap>	RW	Active on Alarm
Low Overall Voltage	Binary_Value	357	4908_<SeeDnldMap>	RW	Active on Alarm
High Overall Voltage	Binary_Value	358	4909_<SeeDnldMap>	RW	Active on Alarm
High Battery String Current	Binary_Value	359	4910_<SeeDnldMap>	RW	Active on Alarm
Low Battery String Float Current	Binary_Value	360	4911_<SeeDnldMap>	RW	Active on Alarm
High Battery String Float Current	Binary_Value	361	4912_<SeeDnldMap>	RW	Active on Alarm

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Table 5.206 Alber™ BDSU—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Battery String Ripple Current	Binary_Value	362	4913_<SeeDnldMap>	RW	Active on Alarm
Battery String Discharge Detected	Binary_Value	363	4914_<SeeDnldMap>	RW	Active on Alarm
Maximum Discharge Time Exceeded	Binary_Value	364	4915_<SeeDnldMap>	RW	Active on Alarm
Discharge Low Overall Voltage	Binary_Value	365	4916_<SeeDnldMap>	RW	Active on Alarm
Discharge High Battery String Current	Binary_Value	366	4918_<SeeDnldMap>	RW	Active on Alarm
Excessive Cell to Ambient Temperature Deviation	Binary_Value	367	4920_<SeeDnldMap>	RW	Active on Alarm
Excessive Cell to Cell Temperature Deviation	Binary_Value	368	4919_<SeeDnldMap>	RW	Active on Alarm
Battery String Equalize	Binary_Value	369	5439_<SeeDnldMap>	RW	Active on Alarm
Battery String Offline	Binary_Value	370	5440_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Detected	Binary_Value	371	5438_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Cell to Ambient Temperature Event	Binary_Value	372	5609_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Cell to Cell Temperature Event	Binary_Value	373	5610_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Charger Current Level One Event	Binary_Value	374	5611_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Charger Current Level Two Event	Binary_Value	375	5612_<SeeDnldMap>	RW	Active on Alarm
Ground Fault Detected	Binary_Value	376	5896_<SeeDnldMap>	RW	Active on Alarm
String Entity 2					
Low Ambient Temperature	Binary_Value	387	4906_<SeeDnldMap>	RW	Active on Alarm
High Ambient Temperature	Binary_Value	388	4907_<SeeDnldMap>	RW	Active on Alarm
Low Ambient Temperature Probe Two	Binary_Value	389	5436_<SeeDnldMap>	RW	Active on Alarm

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Table 5.206 Alber™ BDSU—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
High Ambient Temperature Probe Two	Binary_Value	390	5437_<SeeDnldMap>	RW	Active on Alarm
Low Overall Voltage	Binary_Value	391	4908_<SeeDnldMap>	RW	Active on Alarm
High Overall Voltage	Binary_Value	392	4909_<SeeDnldMap>	RW	Active on Alarm
High Battery String Current	Binary_Value	393	4910_<SeeDnldMap>	RW	Active on Alarm
Low Battery String Float Current	Binary_Value	394	4911_<SeeDnldMap>	RW	Active on Alarm
High Battery String Float Current	Binary_Value	395	4912_<SeeDnldMap>	RW	Active on Alarm
High Battery String Ripple Current	Binary_Value	396	4913_<SeeDnldMap>	RW	Active on Alarm
Battery String Discharge Detected	Binary_Value	397	4914_<SeeDnldMap>	RW	Active on Alarm
Maximum Discharge Time Exceeded	Binary_Value	398	4915_<SeeDnldMap>	RW	Active on Alarm
Discharge Low Overall Voltage	Binary_Value	399	4916_<SeeDnldMap>	RW	Active on Alarm
Discharge High Battery String Current	Binary_Value	400	4918_<SeeDnldMap>	RW	Active on Alarm
Excessive Cell to Ambient Temperature Deviation	Binary_Value	401	4920_<SeeDnldMap>	RW	Active on Alarm
Excessive Cell to Cell Temperature Deviation	Binary_Value	402	4919_<SeeDnldMap>	RW	Active on Alarm
Battery String Equalize	Binary_Value	403	5439_<SeeDnldMap>	RW	Active on Alarm
Battery String Offline	Binary_Value	404	5440_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Detected	Binary_Value	405	5438_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Cell to Ambient Temperature Event	Binary_Value	406	5609_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Cell to Cell Temperature Event	Binary_Value	407	5610_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Charger Current Level One Event	Binary_Value	408	5611_<SeeDnldMap>	RW	Active on Alarm

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Table 5.206 Alber™ BDSU—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Thermal Runaway Charger Current Level Two Event	Binary_Value	409	5612_<SeeDnldMap>	RW	Active on Alarm
Ground Fault Detected	Binary_Value	410	5896_<SeeDnldMap>	RW	Active on Alarm
. . .					
String Entity 3					
Low Ambient Temperature	Binary_Value	1407	4906_<SeeDnldMap>	RW	Active on Alarm
High Ambient Temperature	Binary_Value	1408	4907_<SeeDnldMap>	RW	Active on Alarm
Low Ambient Temperature Probe Two	Binary_Value	1409	5436_<SeeDnldMap>	RW	Active on Alarm
High Ambient Temperature Probe Two	Binary_Value	1410	5437_<SeeDnldMap>	RW	Active on Alarm
Low Overall Voltage	Binary_Value	1411	4908_<SeeDnldMap>	RW	Active on Alarm
High Overall Voltage	Binary_Value	1412	4909_<SeeDnldMap>	RW	Active on Alarm
High Battery String Current	Binary_Value	1413	4910_<SeeDnldMap>	RW	Active on Alarm
Low Battery String Float Current	Binary_Value	1414	4911_<SeeDnldMap>	RW	Active on Alarm
High Battery String Float Current	Binary_Value	1415	4912_<SeeDnldMap>	RW	Active on Alarm
High Battery String Ripple Current	Binary_Value	1416	4913_<SeeDnldMap>	RW	Active on Alarm
Battery String Discharge Detected	Binary_Value	1417	4914_<SeeDnldMap>	RW	Active on Alarm
Maximum Discharge Time Exceeded	Binary_Value	1418	4915_<SeeDnldMap>	RW	Active on Alarm
Discharge Low Overall Voltage	Binary_Value	1419	4916_<SeeDnldMap>	RW	Active on Alarm
Discharge High Battery String Current	Binary_Value	1420	4918_<SeeDnldMap>	RW	Active on Alarm
Excessive Cell to Ambient Temperature Deviation	Binary_Value	1421	4920_<SeeDnldMap>	RW	Active on Alarm
Excessive Cell to Cell Temperature Deviation	Binary_Value	1422	4919_<SeeDnldMap>	RW	Active on Alarm
Battery String Equalize	Binary_Value	1423	5439_<SeeDnldMap>	RW	Active on Alarm

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Table 5.206 Alber™ BDSU—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Offline	Binary_Value	1424	5440_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Detected	Binary_Value	1425	5438_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Cell to Ambient Temperature Event	Binary_Value	1426	5609_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Cell to Cell Temperature Event	Binary_Value	1427	5610_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Charger Current Level One Event	Binary_Value	1428	5611_<SeeDnldMap>	RW	Active on Alarm
Thermal Runaway Charger Current Level Two Event	Binary_Value	1429	5612_<SeeDnldMap>	RW	Active on Alarm
Ground Fault Detected	Binary_Value	1430	5896_<SeeDnldMap>	RW	Active on Alarm
Cell Entity 1 Note: The configuration of a given BDSU device determines the hierarchical association of each Cell with a specific String. When Object Names of Cell data points are generated at runtime, this hierarchy information is substituted for the pattern "<SeeDnldMap>" seen in the table below. The substituted names are in the BACnetDataMap.txt file that can be downloaded from the Unity card from its Downloads web page for the managed device.					
Low Cell Voltage	Binary_Value	1441	4964_<SeeDnldMap>	RD	Active on Alarm
High Cell Voltage	Binary_Value	1442	4965_<SeeDnldMap>	RD	Active on Alarm
Low Cell Temperature	Binary_Value	1443	4966_<SeeDnldMap>	RD	Active on Alarm
High Cell Temperature	Binary_Value	1444	4967_<SeeDnldMap>	RD	Active on Alarm
Low Internal Resistance	Binary_Value	1445	4968_<SeeDnldMap>	RD	Active on Alarm
High Internal Resistance	Binary_Value	1446	4969_<SeeDnldMap>	RD	Active on Alarm
High Intercell Resistance	Binary_Value	1447	4970_<SeeDnldMap>	RD	Active on Alarm
Discharge Low Cell Voltage	Binary_Value	1448	5442_<SeeDnldMap>	RD	Active on Alarm
Intertier Resistance High	Binary_Value	1449	4978_<SeeDnldMap>	RD	Active on Alarm
Cell Entity 2					
Low Cell Voltage	Binary_Value	1460	4964_<SeeDnldMap>	RD	Active on Alarm
High Cell Voltage	Binary_Value	1461	4965_<SeeDnldMap>	RD	Active on Alarm
Low Cell Temperature	Binary_Value	1462	4966_<SeeDnldMap>	RD	Active on Alarm
High Cell Temperature	Binary_Value	1463	4967_<SeeDnldMap>	RD	Active on Alarm

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Table 5.206 Alber™ BDSU—Binary Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Low Internal Resistance	Binary_Value	1464	4968_<SeeDnldMap>	RD	Active on Alarm
High Internal Resistance	Binary_Value	1465	4969_<SeeDnldMap>	RD	Active on Alarm
High Intercell Resistance	Binary_Value	1466	4970_<SeeDnldMap>	RD	Active on Alarm
Discharge Low Cell Voltage	Binary_Value	1467	5442_<SeeDnldMap>	RD	Active on Alarm
Intertier Resistance High	Binary_Value	1468	4978_<SeeDnldMap>	RD	Active on Alarm
. . .					
Cell Entity 360					
Low Cell Voltage	Binary_Value	8262	4964_<SeeDnldMap>	RD	Active on Alarm
High Cell Voltage	Binary_Value	8263	4965_<SeeDnldMap>	RD	Active on Alarm
Low Cell Temperature	Binary_Value	8264	4966_<SeeDnldMap>	RD	Active on Alarm
High Cell Temperature	Binary_Value	8265	4967_<SeeDnldMap>	RD	Active on Alarm
Low Internal Resistance	Binary_Value	8266	4968_<SeeDnldMap>	RD	Active on Alarm
High Internal Resistance	Binary_Value	8267	4969_<SeeDnldMap>	RD	Active on Alarm
High Intercell Resistance	Binary_Value	8268	4970_<SeeDnldMap>	RD	Active on Alarm
Discharge Low Cell Voltage	Binary_Value	8269	5442_<SeeDnldMap>	RD	Active on Alarm
Intertier Resistance High	Binary_Value	8270	4978_<SeeDnldMap>	RD	Active on Alarm

Table 5.207 Alber™ BDSU—Analog Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Entity 1					
Battery Time Remaining	Analog_Value	1	4150_1	RD	Units: sec
Battery Discharge Time	Analog_Value	2	4151_1	RD	Units: sec
Battery Entity 1 Battery Configuration 1					
Battery Rating	Analog_Value	13	4898_1_1	RD	Units: AH
Battery Entity 2					
Battery Time Remaining	Analog_Value	24	4150_2	RD	Units: sec

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Discharge Time	Analog_Value	25	4151_2	RD	Units: sec
Battery Entity 2 Battery Configuration 1					
Battery Rating	Analog_Value	36	4898_2_1	RD	Units: AH
. . .					
Battery Entity 32					
Battery Time Remaining	Analog_Value	714	4150_32	RD	Units: sec
Battery Discharge Time	Analog_Value	715	4151_32	RD	Units: sec
Battery Entity 32 Battery Configuration 1					
Battery Rating	Analog_Value	726	4898_32_1	RD	Units: AH
String Entity 1 Note: The configuration of a given BDSU device determines the hierarchical association of each String with a specific Battery. When Object Names of String data points are generated at runtime, this hierarchy information is substituted for the pattern "<SeeDnldMap>" seen in the table below. The					
String Ambient Temperature 1	Analog_Value	737	4899_<SeeDnldMap>_1	RD	Units: deg C
String Ambient Temperature 1	Analog_Value	20737	4899_<SeeDnldMap>_1_deg_F	RD	Units: deg F
String Ambient Temperature 2	Analog_Value	738	4899_<SeeDnldMap>_2	RD	Units: deg C
String Ambient Temperature 2	Analog_Value	20738	4899_<SeeDnldMap>_2_deg_F	RD	Units: deg F
String Overall Voltage	Analog_Value	739	4900_<SeeDnldMap>	RD	Units: VDC
String Current	Analog_Value	740	4901_<SeeDnldMap>	RD	Units: A DC
Float Current	Analog_Value	741	4902_<SeeDnldMap>	RD	Units: mA DC
Ripple Current	Analog_Value	742	4903_<SeeDnldMap>	RD	Units: A AC
Battery String Discharge Time	Analog_Value	743	4947_<SeeDnldMap>	RD	Units: sec
Total Active Alarms on a Battery String	Analog_Value	744	4904_<SeeDnldMap>	RD	—
String Entity 1 State Of String 1					
Battery String Time-To-Go	Analog_Value	755	4945_<SeeDnldMap>	RD	Units: min
Amp-Hours Remaining in Battery String	Analog_Value	756	4946_<SeeDnldMap>	RD	Units: AH
String Entity 1 String Alarm Thresholds 1					

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Low Ambient Temperature Global Threshold	Analog_Value	767	4921_<SeeDnldMap>	RD	Units: deg C
Low Ambient Temperature Global Threshold	Analog_Value	20767	4921_<SeeDnldMap>_deg_F	RD	Units: deg F
High Ambient Temperature Global Threshold	Analog_Value	768	4922_<SeeDnldMap>	RD	Units: deg C
High Ambient Temperature Global Threshold	Analog_Value	20768	4922_<SeeDnldMap>_deg_F	RD	Units: deg F
Battery String Overall Voltage Low Threshold	Analog_Value	769	4923_<SeeDnldMap>	RD	Units: VDC
Battery String Overall Voltage High Threshold	Analog_Value	770	4924_<SeeDnldMap>	RD	Units: VDC
Battery String Current High Threshold	Analog_Value	771	4925_<SeeDnldMap>	RD	Units: A DC
Battery String Float Current Low Threshold	Analog_Value	772	4926_<SeeDnldMap>	RD	Units: mA DC
Battery String Float Current High Threshold	Analog_Value	773	4927_<SeeDnldMap>	RD	Units: mA DC
Battery String Ripple Current High Threshold	Analog_Value	774	4928_<SeeDnldMap>	RD	Units: A AC
Cell Voltage Low Global Threshold	Analog_Value	775	4929_<SeeDnldMap>	RD	Units: VDC
Cell Voltage High Global Threshold	Analog_Value	776	4930_<SeeDnldMap>	RD	Units: VDC
Cell Temperature Low Global Threshold	Analog_Value	777	4931_<SeeDnldMap>	RD	Units: deg C
Cell Temperature Low Global Threshold	Analog_Value	20777	4931_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell Temperature High Global Threshold	Analog_Value	778	4932_<SeeDnldMap>	RD	Units: deg C
Cell Temperature High Global Threshold	Analog_Value	20778	4932_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Low Global Threshold	Analog_Value	779	4933_<SeeDnldMap>	RD	Units: microOhm
Internal Resistance High Global Threshold	Analog_Value	780	4934_<SeeDnldMap>	RD	Units: microOhm

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Intercell Resistance High Global Threshold	Analog_Value	781	4935_<SeeDnldMap>	RD	Units: microOhm
Intertier Resistance High Global Threshold	Analog_Value	782	4936_<SeeDnldMap>	RD	Units: microOhm
Cell to Cell Temperature Deviation Threshold	Analog_Value	783	4937_<SeeDnldMap>	RD	Units: deg C
Cell to Cell Temperature Deviation Threshold	Analog_Value	20783	4937_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell to Ambient Temperature Deviation Threshold	Analog_Value	784	4938_<SeeDnldMap>	RD	Units: deg C
Cell to Ambient Temperature Deviation Threshold	Analog_Value	20784	4938_<SeeDnldMap>_deg_F	RD	Units: deg F
String Entity 1 String Configuration 1					
Installation Date	Analog_Value	795	4940_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)
Cell/Monobloc Rating	Analog_Value	796	4943_<SeeDnldMap>	RD	Units: AH
String Entity 1 Discharge Thresholds 1					
Discharge Low Cell Voltage Threshold	Analog_Value	807	4948_<SeeDnldMap>	RD	Units: VDC
Discharge Low Overall Voltage Threshold	Analog_Value	808	4949_<SeeDnldMap>	RD	Units: VDC
Discharge Battery String Current High Threshold	Analog_Value	809	4950_<SeeDnldMap>	RD	Units: A DC
Discharge Maximum Time	Analog_Value	810	4951_<SeeDnldMap>	RD	Units: min
String Entity 1 String Startup Information 1					
Startup Date	Analog_Value	821	4961_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)
String Entity 2					
String Ambient Temperature 1	Analog_Value	832	4899_<SeeDnldMap>_1	RD	Units: deg C
String Ambient Temperature 1	Analog_Value	20832	4899_<SeeDnldMap>_1_deg_F	RD	Units: deg F
String Ambient Temperature 2	Analog_Value	833	4899_<SeeDnldMap>_2	RD	Units: deg C

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
String Ambient Temperature 2	Analog_Value	20833	4899_<SeeDnldMap>_2_deg_F	RD	Units: deg F
String Overall Voltage	Analog_Value	834	4900_<SeeDnldMap>	RD	Units: VDC
String Current	Analog_Value	835	4901_<SeeDnldMap>	RD	Units: A DC
Float Current	Analog_Value	836	4902_<SeeDnldMap>	RD	Units: mA DC
Ripple Current	Analog_Value	837	4903_<SeeDnldMap>	RD	Units: A AC
Battery String Discharge Time	Analog_Value	838	4947_<SeeDnldMap>	RD	Units: sec
Total Active Alarms on a Battery String	Analog_Value	839	4904_<SeeDnldMap>	RD	—
String Entity 2 State of String 1					
Battery String Time-To-Go	Analog_Value	850	4945_<SeeDnldMap>	RD	Units: min
Amp-Hours Remaining in Battery String	Analog_Value	851	4946_<SeeDnldMap>	RD	Units: AH
String Entity 2 String Alarm Thresholds 1					
Low Ambient Temperature Global Threshold	Analog_Value	862	4921_<SeeDnldMap>	RD	Units: deg C
Low Ambient Temperature Global Threshold	Analog_Value	20862	4921_<SeeDnldMap>_deg_F	RD	Units: deg F
High Ambient Temperature Global Threshold	Analog_Value	863	4922_<SeeDnldMap>	RD	Units: deg C
High Ambient Temperature Global Threshold	Analog_Value	20863	4922_<SeeDnldMap>_deg_F	RD	Units: deg F
Battery String Overall Voltage Low Threshold	Analog_Value	864	4923_<SeeDnldMap>	RD	Units: VDC
Battery String Overall Voltage High Threshold	Analog_Value	865	4924_<SeeDnldMap>	RD	Units: VDC
Battery String Current High Threshold	Analog_Value	866	4925_<SeeDnldMap>	RD	Units: A DC
Battery String Float Current Low Threshold	Analog_Value	867	4926_<SeeDnldMap>	RD	Units: mA DC
Battery String Float Current High Threshold	Analog_Value	868	4927_<SeeDnldMap>	RD	Units: mA DC

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Ripple Current High Threshold	Analog_Value	869	4928_<SeeDnldMap>	RD	Units: A AC
Cell Voltage Low Global Threshold	Analog_Value	870	4929_<SeeDnldMap>	RD	Units: VDC
Cell Voltage High Global Threshold	Analog_Value	871	4930_<SeeDnldMap>	RD	Units: VDC
Cell Temperature Low Global Threshold	Analog_Value	872	4931_<SeeDnldMap>	RD	Units: deg C
Cell Temperature Low Global Threshold	Analog_Value	20872	4931_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell Temperature High Global Threshold	Analog_Value	873	4932_<SeeDnldMap>	RD	Units: deg C
Cell Temperature High Global Threshold	Analog_Value	20873	4932_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Low Global Threshold	Analog_Value	874	4933_<SeeDnldMap>	RD	Units: microOhm
Internal Resistance High Global Threshold	Analog_Value	875	4934_<SeeDnldMap>	RD	Units: microOhm
Intercell Resistance High Global Threshold	Analog_Value	876	4935_<SeeDnldMap>	RD	Units: microOhm
Intertier Resistance High Global Threshold	Analog_Value	877	4936_<SeeDnldMap>	RD	Units: microOhm
Cell to Cell Temperature Deviation Threshold	Analog_Value	878	4937_<SeeDnldMap>	RD	Units: deg C
Cell to Cell Temperature Deviation Threshold	Analog_Value	20878	4937_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell to Ambient Temperature Deviation Threshold	Analog_Value	879	4938_<SeeDnldMap>	RD	Units: deg C
Cell to Ambient Temperature Deviation Threshold	Analog_Value	20879	4938_<SeeDnldMap>_deg_F	RD	Units: deg F
String Entity 2 String Configuration 1					
Installation Date	Analog_Value	890	4940_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)
Cell/Monobloc Rating	Analog_Value	891	4943_<SeeDnldMap>	RD	Units: AH
String Entity 2 Discharge Thresholds 1					

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Discharge Low Cell Voltage Threshold	Analog_Value	902	4948_<SeeDnldMap>	RD	Units: VDC
Discharge Low Overall Voltage Threshold	Analog_Value	903	4949_<SeeDnldMap>	RD	Units: VDC
Discharge Battery String Current High Threshold	Analog_Value	904	4950_<SeeDnldMap>	RD	Units: A DC
Discharge Maximum Time	Analog_Value	905	4951_<SeeDnldMap>	RD	Units: min
String Entity 2 String Startup Information 1					
Startup Date	Analog_Value	916	4961_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)
. . .					
String Entity 32					
String Ambient Temperature 1	Analog_Value	3682	4899_<SeeDnldMap>_1	RD	Units: deg C
String Ambient Temperature 1	Analog_Value	23682	4899_<SeeDnldMap>_1_deg_F	RD	Units: deg F
String Ambient Temperature 2	Analog_Value	3683	4899_<SeeDnldMap>_2	RD	Units: deg C
String Ambient Temperature 2	Analog_Value	23683	4899_<SeeDnldMap>_2_deg_F	RD	Units: deg F
String Overall Voltage	Analog_Value	3684	4900_<SeeDnldMap>	RD	Units: VDC
String Current	Analog_Value	3685	4901_<SeeDnldMap>	RD	Units: A DC
Float Current	Analog_Value	3686	4902_<SeeDnldMap>	RD	Units: mA DC
Ripple Current	Analog_Value	3687	4903_<SeeDnldMap>	RD	Units: A AC
Battery String Discharge Time	Analog_Value	3688	4947_<SeeDnldMap>	RD	Units: sec
Total Active Alarms on a Battery String	Analog_Value	3689	4904_<SeeDnldMap>	RD	—
String Entity 32 State of String 1					
Battery String Time-To-Go	Analog_Value	3700	4945_<SeeDnldMap>	RD	Units: min
Amp-Hours Remaining in Battery String	Analog_Value	3701	4946_<SeeDnldMap>	RD	Units: AH
String Entity 32 String Alarm Thresholds 1					
Low Ambient Temperature Global Threshold	Analog_Value	3712	4921_<SeeDnldMap>	RD	Units: deg C

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Low Ambient Temperature Global Threshold	Analog_Value	23712	4921_<SeeDnldMap>_deg_F	RD	Units: deg F
High Ambient Temperature Global Threshold	Analog_Value	3713	4922_<SeeDnldMap>	RD	Units: deg C
High Ambient Temperature Global Threshold	Analog_Value	23713	4922_<SeeDnldMap>_deg_F	RD	Units: deg F
Battery String Overall Voltage Low Threshold	Analog_Value	3714	4923_<SeeDnldMap>	RD	Units: VDC
Battery String Overall Voltage High Threshold	Analog_Value	3715	4924_<SeeDnldMap>	RD	Units: VDC
Battery String Current High Threshold	Analog_Value	3716	4925_<SeeDnldMap>	RD	Units: A DC
Battery String Float Current Low Threshold	Analog_Value	3717	4926_<SeeDnldMap>	RD	Units: mA DC
Battery String Float Current High Threshold	Analog_Value	3718	4927_<SeeDnldMap>	RD	Units: mA DC
Battery String Ripple Current High Threshold	Analog_Value	3719	4928_<SeeDnldMap>	RD	Units: A AC
Cell Voltage Low Global Threshold	Analog_Value	3720	4929_<SeeDnldMap>	RD	Units: VDC
Cell Voltage High Global Threshold	Analog_Value	3721	4930_<SeeDnldMap>	RD	Units: VDC
Cell Temperature Low Global Threshold	Analog_Value	3722	4931_<SeeDnldMap>	RD	Units: deg C
Cell Temperature Low Global Threshold	Analog_Value	23722	4931_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell Temperature High Global Threshold	Analog_Value	3723	4932_<SeeDnldMap>	RD	Units: deg C
Cell Temperature High Global Threshold	Analog_Value	23723	4932_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Low Global Threshold	Analog_Value	3724	4933_<SeeDnldMap>	RD	Units: microOhm
Internal Resistance High Global Threshold	Analog_Value	3725	4934_<SeeDnldMap>	RD	Units: microOhm
Intercell Resistance High Global Threshold	Analog_Value	3726	4935_<SeeDnldMap>	RD	Units: microOhm

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Intertier Resistance High Global Threshold	Analog_Value	3727	4936_<SeeDnldMap>	RD	Units: microOhm
Cell to Cell Temperature Deviation Threshold	Analog_Value	3728	4937_<SeeDnldMap>	RD	Units: deg C
Cell to Cell Temperature Deviation Threshold	Analog_Value	23728	4937_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell to Ambient Temperature Deviation Threshold	Analog_Value	3729	4938_<SeeDnldMap>	RD	Units: deg C
Cell to Ambient Temperature Deviation Threshold	Analog_Value	23729	4938_<SeeDnldMap>_deg_F	RD	Units: deg F
String Entity 32 String Configuration 1					
Installation Date	Analog_Value	3740	4940_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)
Cell/Monobloc Rating	Analog_Value	3741	4943_<SeeDnldMap>	RD	Units: AH
String Entity 32 Discharge Thresholds 1					
Discharge Low Cell Voltage Threshold	Analog_Value	3752	4948_<SeeDnldMap>	RD	Units: VDC
Discharge Low Overall Voltage Threshold	Analog_Value	3753	4949_<SeeDnldMap>	RD	Units: VDC
Discharge Battery String Current High Threshold	Analog_Value	3754	4950_<SeeDnldMap>	RD	Units: A DC
Discharge Maximum Time	Analog_Value	3755	4951_<SeeDnldMap>	RD	Units: min
String Entity 32 String Startup Information 1					
Startup Date	Analog_Value	3766	4961_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)
Cell Entity 1 Note: The configuration of a given BDSU device determines the hierarchical association of each Cell with a specific String. When Object Names of Cell data points are generated at runtime, this hierarchy information is substituted for the pattern "<SeeDnldMap>" seen in the table below. The substituted names are in the BACnetDataMap.txt file that can be downloaded from the Unity card from its Downloads web page for the managed device.					
Cell Voltage	Analog_Value	3777	4962_<SeeDnldMap>	RD	Units: VDC
Cell Temperature	Analog_Value	3778	4963_<SeeDnldMap>	RD	Units: deg C
Cell Temperature	Analog_Value	23778	4963_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	3779	5443_<SeeDnldMap>	RD	Units: microOhm

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Intercell Resistance Value	Analog_Value	3780	5444_<SeeDnldMap>	RD	Units: microOhm
Cell Entity 1 Threshold settings for a Cell 1					
Cell Voltage Low Threshold	Analog_Value	3791	4971_<SeeDnldMap>	RD	Units: VDC
Cell Voltage High Threshold	Analog_Value	3792	4972_<SeeDnldMap>	RD	Units: VDC
Cell Temperature Low Threshold	Analog_Value	3793	4973_<SeeDnldMap>	RD	Units: deg C
Cell Temperature Low Threshold	Analog_Value	23793	4973_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell Temperature High Threshold	Analog_Value	3794	4974_<SeeDnldMap>	RD	Units: deg C
Cell Temperature High Threshold	Analog_Value	23794	4974_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Low Threshold	Analog_Value	3795	4975_<SeeDnldMap>	RD	Units: microOhm
Internal Resistance High Threshold	Analog_Value	3796	4976_<SeeDnldMap>	RD	Units: microOhm
Intercell Resistance High Threshold	Analog_Value	3797	4977_<SeeDnldMap>	RD	Units: microOhm
Cell Entity 2					
Cell Voltage	Analog_Value	3808	4962_<SeeDnldMap>	RD	Units: VDC
Cell Temperature	Analog_Value	3809	4963_<SeeDnldMap>	RD	Units: deg C
Cell Temperature	Analog_Value	23809	4963_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	3810	5443_<SeeDnldMap>	RD	Units: microOhm
Intercell Resistance Value	Analog_Value	3811	5444_<SeeDnldMap>	RD	Units: microOhm
Cell Entity 2 Theshold Settings for a Cell 1					
Cell Voltage Low Threshold	Analog_Value	3822	4971_<SeeDnldMap>	RD	Units: VDC
Cell Voltage High Threshold	Analog_Value	3823	4972_<SeeDnldMap>	RD	Units: VDC
Cell Temperature Low Threshold	Analog_Value	3824	4973_<SeeDnldMap>	RD	Units: deg C
Cell Temperature Low Threshold	Analog_Value	23824	4973_<SeeDnldMap>_deg_F	RD	Units: deg F

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Cell Temperature High Threshold	Analog_Value	3825	4974_<SeeDnldMap>	RD	Units: deg C
Cell Temperature High Threshold	Analog_Value	23825	4974_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Low Threshold	Analog_Value	3826	4975_<SeeDnldMap>	RD	Units: microOhm
Internal Resistance High Threshold	Analog_Value	3827	4976_<SeeDnldMap>	RD	Units: microOhm
Intercell Resistance High Threshold	Analog_Value	3828	4977_<SeeDnldMap>	RD	Units: microOhm
. . .					
Cell Entity 360					
Cell Voltage	Analog_Value	14906	4962_<SeeDnldMap>	RD	Units: VDC
Cell Temperature	Analog_Value	14907	4963_<SeeDnldMap>	RD	Units: deg C
Cell Temperature	Analog_Value	34907	4963_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Value	Analog_Value	14908	5443_<SeeDnldMap>	RD	Units: microOhm
Intercell Resistance Value	Analog_Value	14909	5444_<SeeDnldMap>	RD	Units: microOhm
Cell Entity 360 Threshold settings for a Cell 1					
Cell Voltage Low Threshold	Analog_Value	14920	4971_<SeeDnldMap>	RD	Units: VDC
Cell Voltage High Threshold	Analog_Value	14921	4972_<SeeDnldMap>	RD	Units: VDC
Cell Temperature Low Threshold	Analog_Value	14922	4973_<SeeDnldMap>	RD	Units: deg C
Cell Temperature Low Threshold	Analog_Value	34922	4973_<SeeDnldMap>_deg_F	RD	Units: deg F
Cell Temperature High Threshold	Analog_Value	14923	4974_<SeeDnldMap>	RD	Units: deg C
Cell Temperature High Threshold	Analog_Value	34923	4974_<SeeDnldMap>_deg_F	RD	Units: deg F
Internal Resistance Low Threshold	Analog_Value	14924	4975_<SeeDnldMap>	RD	Units: microOhm
Internal Resistance High Threshold	Analog_Value	14925	4976_<SeeDnldMap>	RD	Units: microOhm

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Table 5.207 Alber™ BDSU—Analog Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Intercell Resistance High Threshold	Analog_Value	14926	4977_<SeeDnldMap>	RD	Units: microOhm
UXCM Device					
System Date and Time	Analog_Value	14937	4293_<SeeDnldMap>	RD	Units: Secs since Epoch(UTC)

Table 5.208 Alber™ BDSU—Multistate Data

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery Measurement and Control					
System Status	MultiState_Value	1	4123_<SeeDnldMap>	RD	1 = Normal Operation 2 = StartUp 3 = Normal with Warning 4 = Normal with Alarm 5 = Abnormal Operation
String Entity 1 Note: The configuration of a given BDSU device determines the hierarchical association of each String with a specific Battery. When Object Names of String data points are generated at runtime, this hierarchy information is substituted for the pattern "<SeeDnldMap>" seen in the table below. The substituted names are in the BACnetDataMap.txt file that can be downloaded from the Unity card from its Downloads web page for the managed device.					
Battery String Alarm Reset or Acknowledge	MultiState_Value	12	5435_<SeeDnldMap>	WO	1 = Reset 2 = Acknowledge
String Resistance Test Contact	MultiState_Value	13	6548_<SeeDnldMap>	WO	1 = Stop 2 = Start
String Entity 1 State of String 1					
Maintenance Mode Status	MultiState_Value	24	6549_<SeeDnldMap>	RD	1 = false 2 = true
Discharge State	MultiState_Value	25	6550_<SeeDnldMap>	RD	1 = Inactive 2 = Active 3 = Normalization
Resistance Test State	MultiState_Value	26	6551_<SeeDnldMap>	RD	1 = Inactive 2 = Active 3 = Normalization
Battery String Status Summary	MultiState_Value	27	6552_<SeeDnldMap>	RD	1 = Normal Operation 2 = Normal with Warning 3 = Normal with Alarm 4 = Abnormal Temperature Readings 5 = Abnormal Monitor Data Unavailable
String Entity 1 String Startup Information 1					

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Table 5.208 Alber™ BDSU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
Battery String Commissioned Status	MultiState_Value	23	5441_<SeeDnldMap>	RD	1 = Not Commissioned 2 = Commissioned
String Entity 2					
Battery String Alarm Reset or Acknowledge	MultiState_Value	34	5435_<SeeDnldMap>	WO	1 = Reset 2 = Acknowledge
String Resistance Test Contact	MultiState_Value	35	6548_<SeeDnldMap>	WO	1 = Stop 2 = Start
String Entity 2 State of String 1					
Maintenance Mode Status	MultiState_Value	46	6549_<SeeDnldMap>	RD	1 = false 2 = true
Discharge State	MultiState_Value	47	6550_<SeeDnldMap>	RD	1 = Inactive 2 = Active 3 = Normalization
Resistance Test State	MultiState_Value	48	6551_<SeeDnldMap>	RD	1 = Inactive 2 = Active 3 = Normalization
Battery String Status Summary	MultiState_Value	49	6552_<SeeDnldMap>	RD	1 = Normal Operation 2 = Normal with Warning 3 = Normal with Alarm 4 = Abnormal Temperature Readings 5 = Abnormal Monitor Data Unavailable
String Entity 2 String Startup Information 1					
Battery String Commissioned Status	MultiState_Value	45	5441_<SeeDnldMap>	RD	1 = Not Commissioned 2 = Commissioned
. . .					
String Entity 32					
Battery String Alarm Reset or Acknowledge	MultiState_Value	694	5435_<SeeDnldMap>	WO	1 = Reset 2 = Acknowledge
String Resistance Test Contact	MultiState_Value	695	6548_<SeeDnldMap>	WO	1 = Stop 2 = Start
String Entity 32 State of String 1					
Maintenance Mode Status	MultiState_Value	706	6549_<SeeDnldMap>	RD	1 = false 2 = true
Discharge State	MultiState_Value	707	6550_<SeeDnldMap>	RD	1 = Inactive

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Table 5.208 Alber™ BDSU—Multistate Data (continued)

Data Label	Object Type	Instance	Object Name	Access	Notes
					2 = Active 3 = Normalization
Resistance Test State	MultiState_Value	708	6551_<SeeDnldMap>	RD	1 = Inactive 2 = Active 3 = Normalization
Battery String Status Summary	MultiState_Value	709	6552_<SeeDnldMap>	RD	1 = Normal Operation 2 = Normal with Warning 3 = Normal with Alarm 4 = Abnormal Temperature Readings 5 = Abnormal Monitor Data Unavailable
String Entity 32 String Startup Information 1					
Battery String Commissioned Status	MultiState_Value	705	5441_<SeeDnldMap>	RD	1 = Not Commissioned 2 = Commissioned

Table 5.209 Alber™ BDSU—Glossary

Data Label	Data Description
Amp-Hours Remaining in Battery String	Capacity (Amp-Hours) remaining in battery string.
Battery Discharge Time	The time on battery operation for this discharge
Battery Discharging	The battery is discharging
Battery Rating	Total rating of all parallel strings in the battery.
Battery String Alarm Reset or Acknowledge	Initiates a reset/clear or acknowledgement of all alarms on a battery-string and its associated cells.
Battery String Commissioned Status	Current commissioned status of battery string.
Battery String Current High Threshold	If the battery string current is above this value a high string current event is triggered.
Battery String Discharge Detected	The system has detected a battery string discharge condition.
Battery String Discharge Time	Total time the battery string is in discharge.
Battery String Equalize	The system has detected a battery string equalize condition.
Battery String Float Current High Threshold	If the battery string float current is above this value a high float current event is triggered.
Battery String Float Current Low Threshold	If the battery string float current is below this value a low float current event is triggered.
Battery String Offline	The system has detected the battery string is offline.
Battery String Overall Voltage High Threshold	If the battery string overall voltage is above this value a high overall voltage event is triggered.
Battery String Overall Voltage Low Threshold	If the battery string overall voltage is below this value a low overall voltage event is triggered

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Table 5.209 Alber™ BDSU—Glossary (continued)

Data Label	Data Description
Battery String Ripple Current High Threshold	If the battery string ripple current is above this value a high ripple current event is triggered.
Battery String Status Summary	Summary status of the battery string
Battery String Time-To-Go	Time remaining (time-to-go) of battery string during a discharge.
Battery Time Remaining	The calculated available time on battery
Cell Temperature High Global Threshold	If the cell temperature is above this global threshold a high cell temperature event is triggered.
Cell Temperature High Threshold	If the cell temperature is above this value a high cell temperature event is triggered.
Cell Temperature Low Global Threshold	If the cell temperature is below this global threshold a low cell temperature event is triggered.
Cell Temperature Low Threshold	If the cell temperature is below this value a low cell temperature event is triggered.
Cell Temperature	Temperature reading of a Cell within a BAM device.
Cell to Ambient Temperature Deviation Threshold	If the cell to ambient temperature difference is above this value an excessive cell to ambient temperature deviation event is triggered
Cell to Cell Temperature Deviation Threshold	If the cell to cell temperature difference is above this value an excessive cell to cell temperature deviation event is triggered.
Cell Voltage High Global Threshold	If the cell voltage is above this global threshold a high cell voltage event is triggered.
Cell Voltage High Threshold	If the cell voltage is above this value a high cell voltage event is triggered
Cell Voltage Low Global Threshold	If the cell voltage is below this global threshold a low cell voltage event is triggered.
Cell Voltage Low Threshold	If the cell voltage is below this value a low cell voltage event is triggered
Cell Voltage	Voltage reading of a Cell within a BAM device.
Cell/Monobloc Rating	Name plate capacity rating of the Cell/Monobloc.
Discharge Battery String Current High Threshold	If the battery string current is above this value during a discharge a high battery string current during discharge event is triggered.
Discharge High Battery String Current	The system has detected a high battery string current condition during a discharge.
Discharge Low Cell Voltage Threshold	If the cell voltage is below this value during a discharge a low cell voltage during discharge event is triggered.
Discharge Low Cell Voltage	The system has detected a low cell voltage condition during a discharge.
Discharge Low Overall Voltage Threshold	If the battery string overall voltage is below this value during a discharge a low battery string overall voltage during discharge event is triggered.
Discharge Low Overall Voltage	The system has detected a low battery string overall voltage condition during a discharge.
Discharge Maximum Time	If the battery string is in discharge for a time greater than this value an excessive discharge time event is triggered.
Discharge State	An indication that the system load is being driven by the batteries (Active), is in a normalization state (Normalization), or is in an inactive discharge state (Inactive)
Excessive Cell to Ambient Temperature Deviation	The system has detected an excessive cell to ambient temperature deviation condition.

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Table 5.209 Alber™ BDSU—Glossary (continued)

Data Label	Data Description
Excessive Cell to Cell Temperature Deviation	The system has detected an excessive cell to cell temperature deviation condition.
Float Current	The current drawn by a battery string that is being float charged.
Ground Fault Detected	The system has detected a ground fault on a Battery-String.
High Ambient Temperature Global Threshold	If the battery string ambient temperature is above this global threshold a high ambient temperature event is triggered
High Ambient Temperature Probe Two	The system has detected a high ambient temperature condition on temperature probe 2.
High Ambient Temperature	The system has detected a high ambient temperature condition.
High Battery String Current	The system has detected a high battery string current condition.
High Battery String Float Current	The system has detected a high battery string float current condition.
High Battery String Ripple Current	The system has detected a high battery string ripple current condition.
High Cell Temperature	The system has detected a high cell temperature condition.
High Cell Voltage	The system has detected a high cell voltage condition.
High Intercell Resistance	The system has detected a high intercell resistance condition.
High Internal Resistance	The system has detected a high internal resistance condition.
High Overall Voltage	The system has detected a high battery string overall voltage condition.
Installation Date	Installation date of battery string
Intercell Resistance High Global Threshold	If the intercell resistance is above this global threshold a high intercell resistance event is triggered.
Intercell Resistance High Threshold	If the intercell resistance is above this value a high intercell resistance event is triggered.
Intercell Resistance Value	The total resistance of the connection between the terminals of two cells that are electrically connected to each other.
Internal Resistance High Global Threshold	If the internal cell resistance is above this global threshold a high internal cell resistance event is triggered.
Internal Resistance High Threshold	If the internal cell resistance is above this value a high internal cell resistance event is triggered.
Internal Resistance Low Global Threshold	If the internal cell resistance is below this global threshold a low internal cell resistance event is triggered.
Internal Resistance Low Threshold	If the internal cell resistance is below this value a low internal cell resistance event is triggered.
Internal Resistance Value	The measured internal resistance of a cell.
Intertier Resistance High Global Threshold	If the intertier resistance is above this global threshold a high intertier resistance event is triggered.
Intertier Resistance High	The system has detected a high intertier resistance condition.
Low Ambient Temperature Global Threshold	If the battery string ambient temperature is below this global threshold a low ambient temperature event is triggered.
Low Ambient Temperature Probe Two	The system has detected a low ambient temperature condition on temperature probe 2.

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Table 5.209 Alber™ BDSU—Glossary (continued)

Data Label	Data Description
Low Ambient Temperature	The system has detected a low ambient temperature condition.
Low Battery String Float Current	The system has detected a low battery string float current condition.
Low Cell Temperature	The system has detected a low cell temperature condition.
Low Cell Voltage	The system has detected a low cell voltage condition.
Low Internal Resistance	The system has detected a low internal resistance condition.
Low Overall Voltage	The system has detected a low battery string overall voltage condition.
Maintenance Mode Status	An indication of whether the system is undergoing maintenance.
Maximum Discharge Time Exceeded	The system has detected an excessive discharge time condition.
Resistance Test State	An indication that the system is performing a resistance test (Active), is in a normalization state at completion of the resistance test (Normalization), or is operating in a nominal state (Inactive) after completion of the resistance test and the normalization period.
Ripple Current	Ripple current on a string.
Startup Date	Startup date of monitoring system for this battery string.
String Ambient Temperature	Ambient temperature reading(s) for the battery string.
String Current	Discharge(-) or charge(+) current of a battery string.
String Overall Voltage	Overall voltage of a battery string.
String Resistance Test Contact	Control of the resistance test on a String (start/stop).
System Date and Time	The system date and time
System Status	The operating status for the system
Thermal Runaway Cell to Ambient Temperature Event	The delta temperature between a cell temperature and the ambient temperature has exceeded the thermal runaway cell to ambient temperature threshold.
Thermal Runaway Cell to Cell Temperature Event	The delta temperature between two cells has exceeded the thermal runaway cell to cell temperature threshold.
Thermal Runaway Charger Current Level One Event	The Battery-String charger current has exceeded the thermal runaway charger current level one threshold.
Thermal Runaway Charger Current Level Two Event	The Battery-String charger current has exceeded the thermal runaway charger current level two threshold.
Thermal Runaway Detected	The system has detected a thermal runaway condition.
Total Active Alarms on a Battery String	The number of active alarms (maintenance or critical) on a battery string.

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Appendices

Appendix A: Technical Support and Contacts

A.1 Technical Support/Service in the United States

Vertiv Group Corporation

24x7 dispatch of technicians for all products.

1-800-543-2378

Liebert® Thermal Management Products

1-800-543-2778

Liebert® Channel Products

1-800-222-5877

Liebert® AC and DC Power Products

1-800-543-2378

A.2 Locations

United States

Vertiv Headquarters

505 N Cleveland Ave

Westerville, OH, 43082, USA

Europe

Via Leonardo Da Vinci 8 Zona Industriale Tognana

35028 Piove Di Sacco (PD) Italy

Asia

7/F, Dah Sing Financial Centre

3108 Gloucester Road, Wanchai

Hong Kong

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SL-28170_REV30_04-25