Vertiv™ Liebert®

STS2 Static Transfer Switch2

The Cornerstone of High-Availability
Power Systems

Vertiv™ Liebert® STS2 Static Transfer Switch2

The Power to Protect Your Critical Operations

For maximum availability applications, the Liebert® Static Transfer Switch2 (STS2) provides an automatic, seamless transfer between your critical load and the outputs of two independent UPS systems in a dual-bus power configuration. If the primary UPS should fail, the switch will automatically transfer the loads to the alternate UPS.

Liebert is the market leader in dual-bus power systems, building the world's most reliable UPS and Static Transfer Switch products. Liebert® STS2 further extends our market leadership with design benefits unmatched by competitive products.

Color Touch-Screen Interface

The color touch-screen LCD interface allows you to quickly check the status of the unit and identify problems. The controls of the Liebert STS2 are intuitive and simple.

The color LCD monitor is divided into three segments. In addition to a system mimic diagram, there is a Status/Alarm panel and a section dedicated to operator instructions and menus. The screen allows you to configure the unit, including the control of the preferred source, auto/manual retransfer selection, alarm notification and other system setpoints. You benefit from improved operator effectiveness, reduced training time, and less chance of operator error.

Standard features of the Liebert STS2 provide greater overall protection

Reliability

- 100% rated, fuseless design.

- Flash memory enables firmware updates while supporting critical load.

Flexibility

- Internal CANBUS protocol: high-bandwidth communication between system components via twisted-pair cables. Options can be added as simple network nodes.

Low Total Cost Of Ownership

- Conservative design margins and excellent overload capacity.

- CE listed.

True Front-Access Design

All mechanical and electronic components of the Vertiv™ Liebert® STS2 are accessible from the front of the unit for installation and service—no side or rear access required.

This gives you several immediate benefits:

- Greater freedom in system design. The Liebert® STS2 can be placed adjacent to or in back of other equipment.

- Less floor space required for maintenance access.

- Designed for maintainability, with all key components visible and accessible from the front of the unit, without shutting down the connected load.


A separate compartment for option modules provides safe and convenient field access

True Internal Redundancy

The Liebert STS2 has triple-redundant logic. Each DSP controller is capable of working independently, and each helps monitor the other two. If one malfunctions, the other two lock it out. Each controller has power feeds from both power supplies.

The two power supplies feature true dual-bus power distribution. Both have dual inputs, one from each AC input source. All power connections have diode protection, so that internal or external faults cannot propagate. The result is a rugged, fault-resilient package that is optimized for real-world applications.

One-Line Diagram
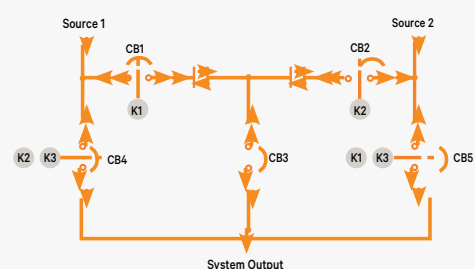
Vertiv™ Liebert® STS2 Static Transfer Switch2

Liebert® STS2 1250-1800A Chassis

The Liebert® STS2 Chassis provides the advantages and performance of the Liebert STS2 in a compact cabinet that can be easily integrated with switchgear as required by the project site.

Liebert STS2 Reliability in Larger Sizes

The Liebert® Chassis brings the serviceability, reliability, and transfer performance of the Liebert STS2 into larger sizes such as 1250A, 1400A, 1600A, all the way up to 1800A in the 380-415V input voltage range.

Vertiv™ STS2 Switchboard Solution

Switchboard Adaptability

The STS2 Chassis connects through its side to desired switchboard. This can be either supplied by Vertiv or a third-party switchboard manufacturer. The Vertiv-supplied switchboard utilizes engineering expertise to provide a CE solution that close-couples to the STS2 Chassis. Vertiv switchboard offers Form 4B separation of energized components, and its modular design allows for compact variations of cable entry and exit.

Customers can choose from multiple input switch configurations including all rotary switches, all mechanical isolator switches, or a combination of ACB and ISO switches. The system also features configurable output subfeed distribution that integrates seamlessly with the switchboard to meet your project's specific requirements.

Standard Internal Components of the Vertiv™ STS2 Switchboard Solution

1. Cableway Compartment
Designated for customer connection hookups.

2. MCCB/Manual Isolators Compartment
Housing unit for the MCCBs or Load Break Switches.

3. MCCB- UL489 fixed-mount circuit breaker
Equipment designed to break an electrical circuit if tripped. The housing is made of and supported by an insulating material.

4. ACB draw-out circuit breaker
Equipment meant to provide protection to an electrical circuit from overcurrent and short circuits using air.

5. Neutral Busbar
Voltage difference to each phase is approximately equal in magnitude and are equally spaced in phase.

6. Main Busbar
Carries the majority of the current.

7. Cable or Flange Connection
Adaptable connection system designed for both cable termination and busway flange integration, allowing flexible power input and output configurations.

8. Ground Busbar
The grounding busbar network with connections for individual pieces of equipment.

9. Custom Output Solutions
Vertiv switchboards allows the configuration of close-coupled output sub feed distribution panels to fit your architecture requirements.

Vertiv™ Liebert® STS2 Static Transfer Switch2

Liebert® STS2 Communication and Product Options

Liebert STS2 has a wide choice of monitoring and communications options to keep you connected to your critical power protection system.

RS-232 Terminal Port: Standard on all units, this port is primarily used as an alternate user interface to configure, control, and diagnose the system.

Input Contact Isolator (ICI) Board: Customizable input relays allow alarms from other devices to be displayed on Liebert STS2 display. Provides an interface for up to eight user inputs. External messages and alarms can be routed to the unit, via the ICI.

Programmable Relay Board (PRB): Programmable output relays for custom customer alarms and connections. Up to two PRBs can be installed in the Liebert STS2 to route system events to external devices.

Options and Accessories

Seismic Anchors: To ensure stability for the unit in the event of seismic activity, anchors are available for securing the unit to a concrete floor to meet seismic Zone 4 requirements.

Remote Source Selection: An optional Remote Source Selection board may be installed in your Liebert STS2. This option allows you choose the preferred input source from a remote location. Terminal connections enable you to remotely select a preferred source in the same process as the local source transfer selection.

Key Lockout Switch: The key lockout switch activates a software lockout of the touch-screen display to prevent manual transfers and configuration changes. When locked out, the touch-screen becomes a read only display. A key is needed to perform manual transfers or change settings.

Transfer Inhibit: Transfer Inhibit prevents the Vertiv™ Liebert® STS2 from transferring under certain conditions. When a customer supplied closed dry contact is provided, the Liebert® STS2 will not transfer and remain on its present source even if the source is no longer supplying power.

Vertiv™ Liebert® IntelliSlot™ Unity-DP Card

- Allows systems to be viewed from the network using a web browser.

- Delivers SNMP, Telnet and web management.

- Provides security using HTTPS message encryption.

- Supports 10 and 100 MBit Ethernet for legacy and modern networks.

- Interfaces to **Vertiv™ Environet™ Alert** alarm notification software, to facilitate quick corrective action.

Liebert® IntelliSlot Unity-DP Card provides connectivity to any TCP/IP-based Ethernet network to allow the device to communicate with network management systems (NMS) via SNMP. Events can be transmitted to the NMS to provide remote status monitoring, plus fault and alarm detection. The card includes an RJ-45 port for an Ethernet connection, via Category 5 cable. The card can also integrate the system with an existing Building Management System (BMS) or out-of-band monitoring, using Modbus.

Critical Space Support from Vertiv Service

Guarantee continuity to your business activities with a service partner who stands by you throughout your critical equipment lifecycle. From product delivery and installation to its remote and direct maintenance, Vertiv ensures your equipment performs optimally.

Proactive equipment maintenance reduces downtime and extends equipment life which in turn maximises return on investment and increases system availability.

Vertiv supports any application with an extensive service offering including installation, startup, maintenance, replacements, and much more.

Warranty Contracts

Preferred Warranty
Preventive Maintenance
Response Time

After Warranty Contracts

Basic	Essential	Preferred
Preventive Maintenance	Preventive Maintenance	Preventive Maintenance
Response Time	Response Time	Response Time
-	Labour Included	Labour Included
-	-	Parts Included

6

Specifications

Configuration	Amp Rating	Heat Output	Dimensions (WxDxH)		Net Weight		Shipping Dimensions (WxDxH)		Shipping Weight	
		(KW)	(inches)	(mm)	(lbs)	(kg)	(inches)	(mm)	(lbs)	(kg)
Chassis Only	1250-1800	6.30	26x36x88	661x915x2236	1435	650	49x50x94	1245x1270x2380	1525	690
Cabinet Solution	1250-1800	2kW	105x41x94	2668x1043x2387	970-1100	2130-2430	109x44x101	2776x1126x2571	1000-1135	2200-2500

Note: ¹Shipping dimensions and weight include the pallet and packing material. Actual weights will vary depending on installed options.

Operating Specifications

- Voltage: 380, 400, 415 VAC +/-10%

- Frequency: 50 or 60 Hz (field selectable), +/- 0.5 Hz

- Overload Capability: 125% for 10 minutes, 150% for 2 minutes

- Operating Temperature: 0 to 40° C

Our Presence

GLOBAL PRESENCE

Manuf. and Assembly Locations **24**
Service Centers **220+**
Service Field Engineers **3,500+**
Technical Support/Response **220+**
Customer Experience Centers/Labs **19**

EUROPE, MIDDLE EAST AND AFRICA

Manuf. and Assembly Locations **10**
Service Centers **65+**
Service Field Engineers **650+**
Technical Support/Response **100+**
Customer Experience Centers/Labs **5**
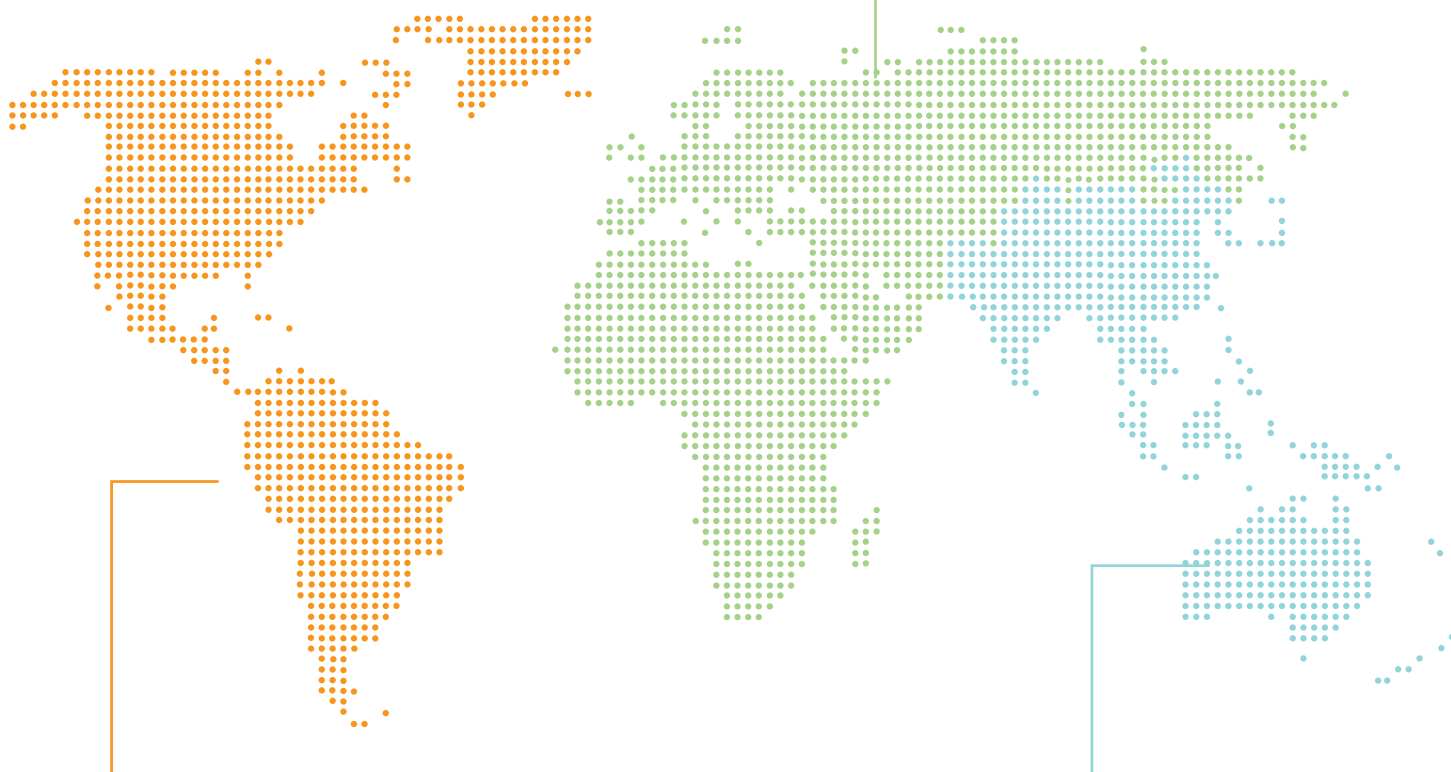
AMERICAS

Manuf. and Assembly Locations **10**
Service Centers **80+**
Service Field Engineers **1,600+**
Technical Support/Response **90+**
Customer Experience Centers/Labs **5**

ASIA PACIFIC AND INDIA

Manuf. and Assembly Locations **4**
Service Centers **75+**
Service Field Engineers **1,250+**
Technical Support/Response **30+**
Customer Experience Centers/Labs **9**