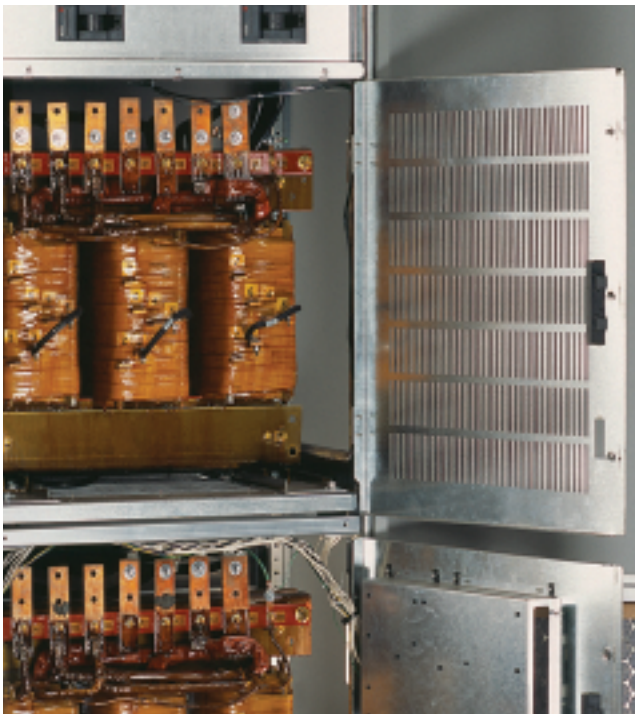
AC Power
For *Business-Critical Continuity™*

Liebert® STS2/PDU, Static Transfer Switch 2/Power Distribution Unit

A Streamlined Package For Power Distribution And Source Switching



EMERSON™
Network Power

An All-In-One Power System With A Smaller Footprint And A Smaller Price Tag

Liebert is making it easier to protect your critical equipment by giving your single cord loads the reliability of dual cord power or by providing added redundancy to your dual cord devices. With a single, space-saving unit, the Liebert Static Transfer Switch 2/Power Distribution Unit provides power distribution and automatic switching between two different AC power sources.

Critical Power Distribution and Switching Made Easy

This is why Liebert designed the STS2/PDU — to bring you a distribution system that will close the power delivery loop in your critical facility. Liebert STS2/PDU offers the benefits of a custom-tailored power system, with the convenience and cost savings of a pre-packaged, factory-tested unit. Housed in a single, self-contained cabinet, it combines distribution, computer-grade grounding, isolation, and power monitoring, as well as dual-source switching, to provide the protection your vital computer or communications equipment demands. Available in 250 – 800 A capacity systems, the Liebert STS2/PDU offers flexible expansion capabilities to fit growing sites.

Liebert STS2/PDU 600A

A Proven System

The packaged system approach of the Liebert STS2/PDU is convenient and space-saving, reducing installation time and cost compared to a conventional approach using multiple interconnected components. The Liebert STS2/PDU is built on proven system designs used in thousands of installations. And unlike the one-of-a-kind, built-up distribution constructed at the site, it undergoes thorough factory testing as a complete system to assure reliable, consistent performance.

Flexibility

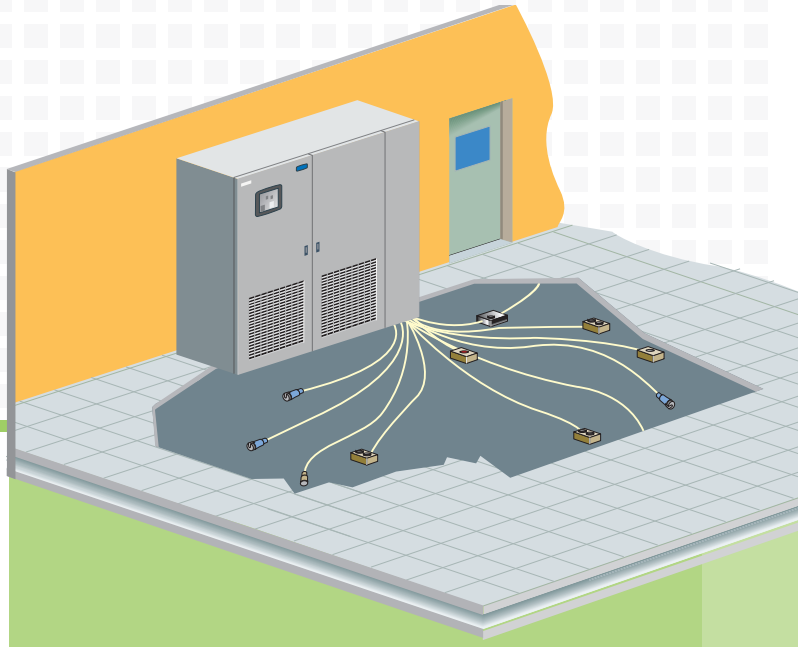
- Compact single cabinet conserves valuable floorspace compared to non-packaged solutions.
- A choice of distribution options to fit site requirements
- Easily relocated when site needs change.

Higher Availability

- Computer-grade grounding automatically establishes a single point ground to meet manufacturer and code requirements
- Fully compatible with the non-linear loads of modern computer systems and other electronic equipment.
- Standard on-unit monitoring and optional centralized monitoring capability provide continuous system visibility.

Lowest Total Cost Of Ownership

- When applied as primary side switching, costs are lower due to requiring only one power distribution unit, a lower current due to 480V vs. 208V, and lower installation and wiring costs.
- Single cabinet design reduces installation time and cost.
- UL listed as complete system.



A Reliable Choice for Critical Equipment Protection

A number of integral features allow Liebert STS2/PDU to provide a higher quality level of electrical power for your critical applications:

- Dual AC Input and automatic or manual switching capability boost the availability of reliable power to the protected single-source equipment.
- The main input breaker provides primary transformer overcurrent protection and a power disconnecting means.
- Built-in transformers eliminate harmonic neutral currents, which are possible with building wiring systems.
- Double-shielded isolation transformers located close to the load provide superior noise attenuation.
- Power Distribution:

  A single output breaker

  Or, up to four individually enclosed 42 pole output panelboards with panelboard main breaker and individual isolated neutral and ground bus bars distribute power to the sensitive load equipment.

  Or, I-Line Panelboard with up to 10 circuit breakers for distribution to loads, with separate isolated neutral and ground bus bars.
- Oversized neutral components safely withstand neutral currents of at least 1.73 times full load currents.

The Liebert packaged approach gives you an easily installed package with simplified hook-up and reduced installation time and cost. Front and side access allows greater location flexibility and smaller installed footprint. And since the power source is right in the room, it eliminates difficulties in establishing a proper ground.

Designed From The Ground Up For Effective Power Protection

Liebert STS2/PDU is designed with proven-effective Liebert components, combined into a package that greatly improves power quality while saving valuable floorspace.

Computer Grade Grounding

Liebert STS2/PDU establishes a single point ground for the critical load. Power ground and computer ground points are identical, minimizing ground-loop currents and common mode disturbances. Short output cables maintain the integrity of the isolation and conditioning.

Non-Linear Load Compatibility

Liebert STS2/PDU is designed to accommodate moderate levels of harmonic currents. Where severe levels of harmonic currents are anticipated, K-Factor transformers for harmonic current cancellation are available.

Secure Distribution And Circuit Identification

Distribution panels are in the computer room, limiting access to authorized personnel only. Each breaker has an adjacent identification tag for rapid circuit ID.

Dual Input Source for Single Input Loads

The internal solid-state bus transfer switch automatically or manually switches to the second AC source in the event of a power failure, providing true dual source protection for single input equipment.

True Internal Redundancy

In addition to the redundancy provided by the dual internal transformers, the transfer switch itself 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.

On-Site Power Monitoring

The integral power monitoring panel provides comprehensive metering and alarms for system power parameters. The color touch-screen LCD monitor has easy to understand pop-up menus, with a wealth of operational and diagnostic information. Monitoring features include:

- True RMS measurements
- Adjustable alarm thresholds
- Programmable custom alarms
- Battery-backed alarm memory

Central Monitoring Interface

Liebert STS2/PDU is compatible with our Liebert SiteScan® centralized monitoring systems, allowing single point monitoring and alarm of power conditions. In addition, an isolated RS-232 ASCII port is provided for communication of monitored parameters and alarm information to other monitoring systems. Liebert OpenComms NIC interface card can also be used to enable cost-effective monitoring of a Liebert STS2/PDU by your facility or network monitoring system.

A host of options enable you to design the Liebert packaged power system to your exact needs:

- **Up to four, 42 pole panelboards** for power distribution to critical equipment.
- **I-Line panelboard with 10 circuit breakers** for power distribution to the intended loads.
- **Transient voltage surge suppression (TVSS)** is available for increased protection from damaging voltage surges. Very short interconnecting wiring provides superior surge-clamping performance.
- **K20 transformers** safely withstand high harmonic currents associated with electronic loads without derating.

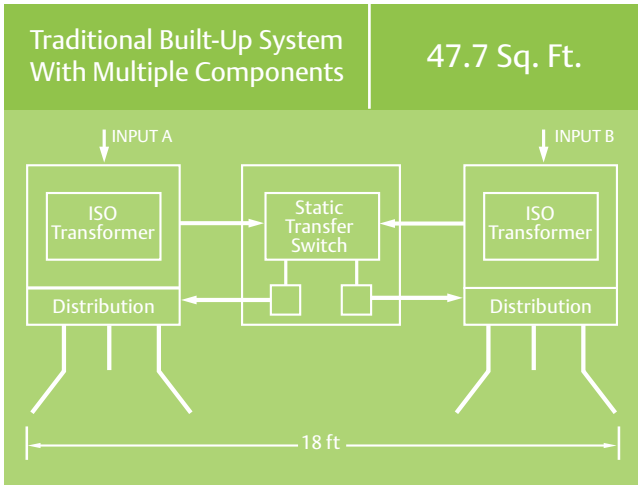
Easy Installation And Maintenance In A Compact Footprint

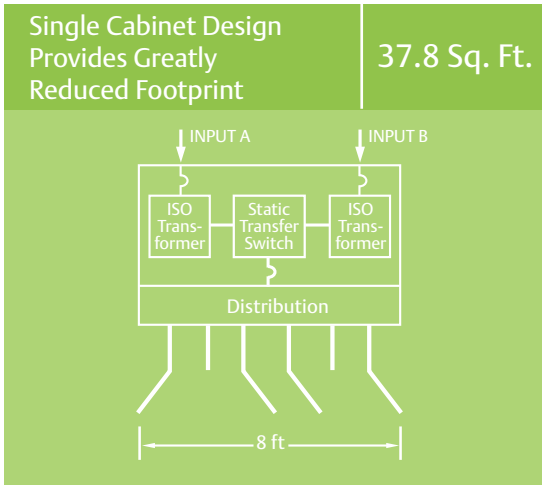
As with all Liebert systems, the Liebert STS2/PDU is a marriage of form and function. In addition to unbeatably reliable power, the unit also saves time with easy installation and routine maintenance while conserving space with its compact package.

Single Cabinet Design

The smart design of Liebert STS2/PDU minimizes installation time while it uses less floorspace. The single cabinet design of the Liebert STS2/PDU is a factory wired and tested, field proven solution requiring less than two thirds the space of traditional built-up systems. This design allows the system to expand with your growth needs, or to easily relocate to a new space if protected equipment is moved to a new facility.

High Efficiency Power Distribution In Far Less Space





Convenient, Fast Maintenance

The Liebert STS2/PDU requires only front, top or side access for installation, operation and maintenance. Any area requiring routine maintenance is accessed through hinged or easily removed panels. The unit is constructed of replaceable subassemblies that can be easily changed by authorized personnel without exposure to high voltage. Nameplates are provided to identify protected devices, for error-free connection and maintenance.

Liebert Static Transfer Switch 2 / Power Distribution Unit Specifications

Amp Rating	Input Voltage	Output Voltage	Heat Output (KW)	Uncrated Dimensions (WxDxH) (inches)	Uncrated Dimensions (WxDxH) (mm)	Uncrated Weight (lbs)	Uncrated Weight (kg)	Shipping Dimensions[1] (WxDxH) (inches)	Shipping Dimensions[1] (WxDxH) (mm)	Shipping Weight[1] (lbs)	Shipping Weight[1] (kg)
250	208,380,400, 415, 480 or 600 VAC	208	3.69	77x32x77	1956x813x1956	3530	1601	99x44x86	2515x1194x2184	3730	1692
400	380,400, 415, 480 or 600 VAC	208	5.90	73x49x77	1854x1245x1956	4700	2132	79x56x86	2007x1422x2184	4900	2223
600	380,400, 415, 480 or 600 VAC	208	8.85	73x49x77	1854x1245x1956	5380	2440	79x56x86	2007x1422x2184	5580	2531
800[2]	480 or 600 VAC	208	11.80	97x49x77	2464x1245x1956	8362	3794	*Module A* 48x56x86	*Module A* 1016x1422x2184	*Module A* 4052	*Module A* 1838
								Module B 64x56x86	*Module B* 1626x1422x2184	*Module B* 4595	*Module B* 2084

Note: [1] Shipping dimensions and weight include the pallet and packing material. Actual weights will vary depending on installed options.
[2] The 800 A ships as 2 modules (shipping split).

Operating Specifications

Input Voltage: 208, 380, 400, 415, 480 or 600 VAC, +/- 10%

Frequency: 50 or 60 Hz, +/- 5%

Sense and transfer time: 4ms maximum

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

Operating Temperature: 0 to 40° C

Standard Features

- Front and side accessible for installation and service
- Color touch-screen LCD interface eliminates mechanical pushbuttons
- Intuitive user interface with drop-down menus and dialog boxes
- Triple-redundant DSP digital logic
- Dual-redundant power supplies
- 100% rated, fuseless design
- Hot-swappable circuit breakers
- Flash memory enables firmware updates while supporting critical load
- CANBUS internal control wiring
- Rack-out control/power assembly on units up to 600A, to allow maintenance, service, or full replacement without disrupting the critical load
- Top and bottom cable entry
- Dual-lug installation bus
- UL listed

Optional Features

- Full range of Liebert Open Comms™ hardware and software
- Programmable output relays for custom customer alarms and connections
- Customizable input relays allow alarms from other devices to be displayed on Liebert STS2/PDU display
- TVSS
- Keylock Switch
- Remote Source Selection
- Subfeed Breakers

Ensuring The High Availability Of Mission-Critical Data And Applications.

Emerson Network Power, the global leader in enabling business-critical continuity, ensures network resiliency and adaptability through a family of technologies – including Liebert power and cooling technologies – that protect and support business-critical systems. Liebert solutions employ an adaptive architecture that responds to changes in criticality, density and capacity. Enterprises benefit from greater IT system availability, operational flexibility, and reduced capital equipment and operating costs.

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Emerson Network Power.
The global leader in enabling *Business-Critical Continuity™*.

- **AC Power**
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection