



Series 300 UPS

Power Availability

HIGH RELIABILITY POWER PROTECTION FOR CRITICAL APPLICATIONS



True Double-Conversion UPS

Protection For Critical Sites

Including Computer Rooms,

Telecommunications Centers,

Industrial Process Control

Facilities And Other Sensitive

Electronic Loads



THE SECURITY OF PROVEN DOUBLE-CONVERSION POWER PROTECTION

The true double-conversion design of Series 300 protects your computer equipment from utility frequency and voltage variations that could result in downtime. This reliable, constant power protection has made Series 300 UPS an ideal choice to support 10-20 kVA critical loads.

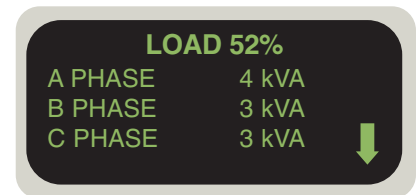
Power quality is maintained by a transistorized, Pulse-Width Modulated Inverter. It continually adjusts the output waveform to the load's requirements. The result is computer-grade power within your system's specifications.

Outstanding Standard Features That Make The Difference

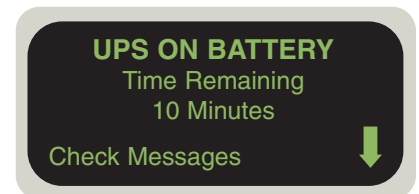
- **Complete Load Handling** — Series 300 has superior load handling capabilities for both three-phase and single-phase loads. It supports unbalanced and 100% non-linear loads — and has one of the highest overload capabilities in the industry.
- **Continuous Operation** — Because the Series 300 is a true double-conversion UPS, there is no interruption in the power flow as the load is assumed by the battery.
- **Bypass Operation** — Both static bypass and maintenance bypass are standard, allowing your critical load to operate on utility power when necessary.
- **Space Saving Design** — The Series 300 UPS doesn't require back access, so it can be placed against a wall for best the use of floorspace.
- **Easy Installation** — For simplified installation, Series 300 is available with either a single or dual power feed for the entire system. Optional flexible distribution cables are specified to match your equipment and room layout, and have identifying labels to simplify hook-up.
- **Field-Selectable Input Voltage** — For flexible installation, most models can operate from either 208 or 480 volt input power.

Additional Options Enhance Operation

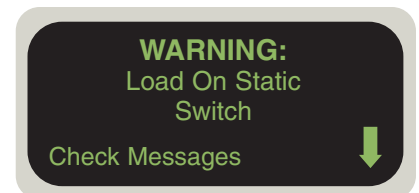
- **Battery Power Packs** — Matching battery cabinets are available in a wide range of capacities to meet any application requirements. Bolt-on cabinets, only 22 inches wide.
- **Slim Line Distribution Cabinet** — This cabinet is easily attached to the UPS module, adding only 10 inches to the width of the unit. The cabinet can be specified with one or two 42-pole panelboards and plug-in or bolt-in circuit breakers.
- **Input Isolation** — The input isolation transformer requires no additional cabinetry. It improves power quality by isolating utility power from your critical load.
- **Input Filtering** — The input filter reduces reflected input current distortion to 10% at full load. It lowers distortion to a level approved for office equipment, minimizing the impact of the UPS to upstream non-protected loads operating from the same utility service. The filter also improves compatibility between an on-site generator and the UPS.



The Load Power monitoring screen displays the percent load your UPS is supporting, as well as the kVA load on each phase.



Continuous operation is inherent in the double-conversion design of the Series 300 UPS. There is no interruption in power flow when the load is assumed by the system battery.



Series 300 alerts you to system alarm conditions. These alarm messages are archived to provide a path for faster diagnosis and service.

Comprehensive Control And Monitoring

- **Single Point Of Control** — To ensure operator safety, Series 300 is designed so the user will never have to open the cabinet doors. All operating procedures — start-up, control, shutdown and bypass — are performed with the rotary switch on the front of the UPS module.
- **System Diagnostics** — At start-up, the UPS will perform self-diagnostics to ensure that all components are ready to handle your critical load.



The monitoring and control system, a standard part of the Series 300 UPS, is easily operated without complicated instructions.

- **Comprehensive Monitoring** — System operating information is displayed on the 64 character LCD screen. The menu-driven system allows you to check parameters including phase loading, battery condition and time remaining, voltages, frequency and current.
- **Field Selectable Parameters** — Using the buttons and display screen, you can tailor Series 300 operation to your site needs. You can select operating parameters for auto restart, rectifier/charger walk-in, frequency synchronizing range, slew rate, low battery signal time, and time and date.
- **System Start-Up And Service** — After installation, Liebert Global Services will perform an orderly start-up to ensure proper system operation. Service and maintenance are available 24-hours a day from the largest service organization in the industry.

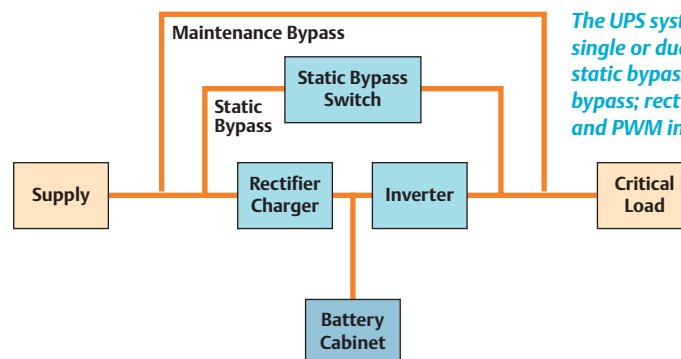
Optional Communications Features Keep You In Touch

- **Remote Status Panel** — Wall-mounted panel displays basic operating and alarm parameters, allowing remote monitoring of UPS operation.
- **Computer Interface Signals** — Communication connector cables, sensors and contacts provide communications between Series 300 and your computer.
- **Remote Contact Board** — Allows remote indication of several UPS operating parameters, through use of form "C" contact closures.
- **RS232 Communications** — You can also access UPS operating status in ASCII format on a dedicated terminal or computer system, with the simple addition of the RS232 communications package.
- **Compatible With Liebert Monitoring Systems** — The Series 300 is fully compatible with Liebert's SiteScan® Web system, a web-based site monitoring and control solution for computer support equipment. Remote



supervision of the Series 300 can also be accomplished using Liebert's OpenComms™ Nform network-based monitoring software along with the internal SNMP adapter option. Server shutdown can be managed via Liebert's MultiLink® software.

- **Remote Front Panel (Enhanced Terminal Mode)** — When connected to a remote terminal from the RS-232C interface, a representation of the Series 300's display panel will appear on screen. The user may view screens, set modifiable values, turn the load on or off, or perform any other function available from the front panel of the UPS.
- **Internal Modem** — The UPS can dial out and notify up to two remote computers, terminals, PCs or pagers when important events occur. You may also call a modem-equipped UPS from a remote terminal, computer, or PC and monitor, and remotely control the UPS or check system status.
- **Internal SNMP Support (Simple Network Management Protocol)** — An SNMP adapter allows the UPS to be directly connected to any IP-based network using Ethernet media.



The UPS system is available with single or dual input power feed; static bypass and maintenance bypass; rectifier/charger filter; and PWM inverter.

TOTAL CONFIDENCE IN THE DECISION YOU'VE MADE.



Series 300 UPS

Power Availability

General Specifications

UPS Rating	Input /Output Voltage	Nominal Battery Requirements	Maximum Heat Dissipation At Full Load	Dimensions WxDxH	Approximate Weight	
kVA kW	(VAC)	(Cells)	(BTU/Hr)	(inches)	LBS	KG
10 8	208, 240, 480 or 600	102	6000	36x28x72	1100	499
15 12	208, 240, 480 or 600	102	8000	36x28x72	1400	635
20 16	208, 240, 480 or 600	180	8900	36x28x72	1900	862

Input

- **Voltage** 208, 240, 480 or 600 VAC, 60 Hz, 3 or 4-Wire plus ground
- **Voltage Range** +10%, -25%
- **Frequency Range** 60 Hz \pm 5%
- **Current Limit** 125% of full load input current
- **Current Walk-In** 20 seconds to full load
- **Surge Protection** Sustains input surges without damage, per criteria listed in ANSI C62.41-1980 (IEEE 587)

Output

- **Voltage** 208, 240, 480 or 600 VAC, 60 Hz, 3 or 4-Wire plus ground
- **Voltage Regulation** \pm 1% for balanced load
- **Voltage Unbalance** \pm 1% for balanced load, \pm 2% for 50% unbalanced load, \pm 5% for 100% unbalanced load
- **Voltage Adjustment Range** \pm 5%
- **Frequency Regulation** 60 Hz \pm 0.1%
- **Load Power Factor Range** 0.9 Leading to 0.5 Lagging
- **Power Rating** Rated kVA at 0.8 lagging power factor
- **Harmonic Distortion** 5% maximum total for linear loads. 3% maximum for single harmonics
- **Phase Displacement** 120° \pm 1° for balanced load. 120° \pm 3° for unbalanced load.

- **Transient Response** \pm 1% for loss or return of input power. \pm 4% for 20% step load or a manual transfer of 100% load. \pm 5% for 30% step load. \pm 8% for 50% step load.
- **Transient Recovery Time** To within 1% of output voltage within 50 milliseconds
- **Overload Capability** 125% for 10 minutes. 150% for 30 seconds.
- **Fault Clearing Current** 300% subcycle

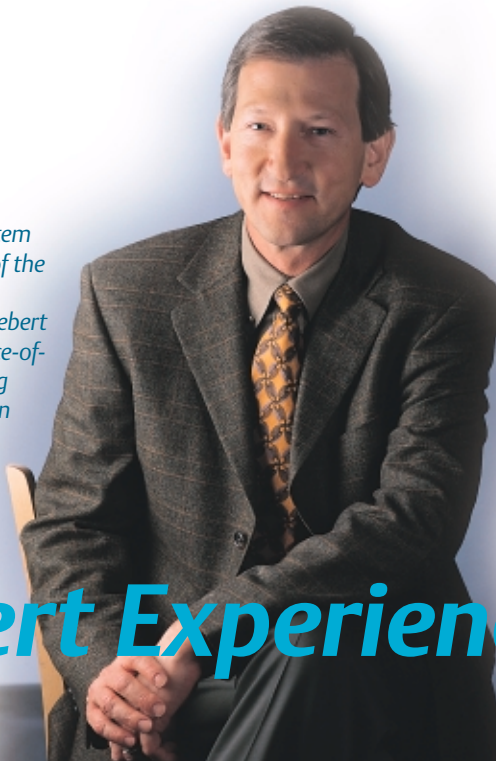
Environmental

- **Operating Temperature** 32-104° F (0-40° C) for UPS; 68-86° F (20-30° C) for battery
- **Non-Operating Temperature** -4°F to 158°F (-20°C to 70°C)
- **For battery**, check manufacturer's recommendations
- **Relative Humidity** 0 to 95% non-condensing
- **Altitude** Up to 2000 meters. Derated for higher elevations
- **Audible Noise Level** 65 dBA measured at 1 meter from the UPS

Physical

- **Cabinet** NEMA Type 1 freestanding. Provided with casters and leveling feet.
- **Cooling** Forced air. Redundant fans
- **Cable Entry** Top or bottom
- **Access** Front access only

A simple answer to critical system protection may handle some of the potential problems that will arise...but what if it doesn't. Liebert can give you the absolute peace-of-mind that comes with knowing you've made the smart decision about safeguarding your electronic infrastructure.



That Is
The Liebert Experience

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