



3-Phase
Power Systems

Documented
Reliability

Transistorized
Inverter

SECOND-GENERATION IGBT PRODUCTS, COMPACT FOOTPRINT

When your facility can't afford any unplanned outages, you need the Uninterruptible Power Supply system with the best reliability record in the business. The Series 600T is based on a conservative design philosophy that has produced field-documented MTBF *in excess of one million hours*.

These 100-225 kVA modules are ideal for industrial applications and data centers using the newest energy-efficient mainframes/large servers. These new modules are robust and feature-rich products, with the same efficiency, design margins, fault-tolerant logic and overload capabilities as the larger Series 600T products.

These T-UPS models make full use of the latest twin-pack and six-pack IGBTs and electronic packaging technology. As a result, T-UPS modules have a smaller footprint and lower parts count than competing "first-generation" IGBT-based products. And no other products in this power range give you more options for specifying true "distributed redundant" systems.

Some key features of these UPS modules:

- Same system architecture and design margins as larger 600T products, which have demonstrated critical bus MTBF in excess of 1,000,000 hours, with more than 3000 systems installed.
- Application-Specific Integrated Circuits (ASICs) replace the failure-prone discrete logic boards used in other brands of UPS.
- Transistorized inverters with the most advanced twin-pack and six-pack IGBTs for high efficiency and reliability.
- Full-featured monitoring and alarm systems, displayed in easy-to-read text and graphics on a large LCD monitor.
- New options include battery self-testing and temperature-compensated charging.

Series 600T™ UPS 100-225 kVA



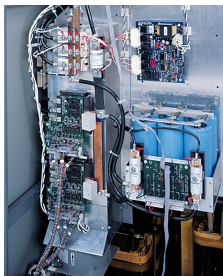
THE SERIES 600T GIVES YOU POWER PROTECTION IN MORE CONFIGURATIONS THAN ANY OTHER PRODUCT: • SINGLE MODULE SYSTEMS • PARALLEL REDUNDANT SYSTEMS • DISTRIBUTED REDUNDANT SYSTEMS • LOAD BUS SYNC™ SYSTEMS • POWER-TIE™ SYSTEMS • ISOLATED REDUNDANT SYSTEMS



SPECIFICATIONS

UPS RATING		LOAD POWER FACTOR	AC INPUT/ OUTPUT VOLTAGE	%EFFICIENCY AT VARIOUS LOADS ¹			NOMINAL BATTERY REQUIREMENTS (CELLS)	MAXIMUM HEAT DISSIPATION BTU/hr FULL LOAD	DIMENSIONS WxDxH (Inches)		APPROXIMATE WEIGHT	
kVA	kW			50%	75%	100%			TOP ENTRY ONLY	TOP & BOTTOM ENTRY	SMS	MMU
100	80	0.8	480/480	92.5%	93.5%	93.5%	240	19,000	48x33x78	56x33x78	2,500	2,465
100	80	0.8	480/208	92.5%	93.0%	93.0%	240	20,550	48x33x78	56x33x78	2,800	2,765
100	80	0.8	208/208	92.0%	92.0%	92.0%	240	23,750	48x33x78	56x33x78	3,100	3,065
125	100	0.8	480/480	92.5%	93.5%	93.5%	240	23,750	48x33x78	56x33x78	2,600	2,565
125	100	0.8	480/208	92.5%	93.0%	93.0%	240	25,700	48x33x78	56x33x78	2,900	2,865
125	100	0.8	208/208	92.0%	92.0%	92.0%	240	29,700	48x33x78	56x33x78	3,250	3,215
150	120	0.8	480/480	93.0%	94.0%	94.0%	240	26,150	48x33x78	56x33x78	2,850	2,800
150	120	0.8	480/208	93.0%	93.5%	93.5%	240	28,450	N/A	56x33x78	3,050	3,000
150	120	0.8	208/208	93.0%	92.5%	92.5%	240	33,200	N/A	56x33x78	3,320	3,270
225	180	0.8	480/480	93.0%	94.0%	94.0%	240	39,200	48x33x78	56x33x78	3,190	3,140
225	180	0.8	480/208	93.0%	93.5%	93.5%	240	42,700	N/A	56x33x78	3,475	3,425
225	180	0.8	208/208	93.0%	92.5%	92.5%	240	49,800	N/A	56x33x78	3,870	3,820

¹ Efficiency measured at rated power factor.



Liebert designers use advanced "six-pack" and "twin-pack" IGBT technology. This significantly reduces parts count for greater efficiency and reliability.

LIEBERT CORPORATION

1050 DEARBORN DRIVE
P.O. BOX 29186
COLUMBUS, OHIO 43229-0186
800.877.9222 PHONE (U.S. & CANADA ONLY)
614.888.0246 PHONE (OUTSIDE U.S.)
614.841.6022 FAX

GLOBE PARK
MARLOW
BUCKINGHAMSHIRE SL7 1YG
UNITED KINGDOM
+44 1628 403200 PHONE
+44 1628 403203 FAX

19/F, CAUSEWAY BAY PLAZA 1
489 HENNESSY ROAD
CAUSEWAY BAY
HONG KONG
852 2 572 2201 PHONE
852 2 831 0114 FAX

LIEBERT WEB SITE

<http://www.liebert.com>

Input

- Voltage: 208, 480 or 600 VAC, 3-phase, 3-wire plus ground
- Voltage Range: +10, -15% (no battery discharge at -20%)
- Power Factor: 0.85 lagging; 0.92 lagging with optional input filter
- Frequency Range: 60 Hz, $\pm 5\%$. 50Hz models also available
- Current Distortion: 7% maximum reflected THD at full load with optional input filter
- Subcycle Magnetizing Inrush: 2-3 times normal full load current; 5-8 times normal for units with optional isolation transformer. Walk-in of 20% to 100% in 15 seconds

Output and Bypass

- Voltage: 208, 480 or 600 VAC, 3-phase, 3-wire or 4-wire
- Voltage Adjustment: $\pm 5\%$
- Voltage Regulation: $\pm 0.5\%$ for balanced load; $\pm 2\%$ for 50% unbalanced load
- Dynamic Regulation: $\pm 5\%$ deviation for 100% load step. $\pm 4\%$ deviation for 50% load step. $\pm 1\%$ for loss or return of AC input. Manual return of load to UPS: $\pm 4\%$
- Transient Response Time: Recover to $\pm 1\%$ of steady state within 16 milliseconds (one cycle)
- Voltage Distortion: For linear loads, 4% THD, maximum total. 2% RMS maximum for any single harmonic. Less than 5% THD for 100% nonlinear loads without kVA/kW derating
- Phasing Balance: $120^\circ \pm 1^\circ$ for balanced load. $120^\circ \pm 3^\circ$ for 50% unbalanced load
- Frequency Regulation: $\pm 0.1\%$
- Load Power Factor Range: 1.0 to 0.7 lagging without derating
- Overload: 125% load for ten minutes. 150% load for 30 seconds. 104% continuous
- Fault-Clearing Current: Up to 1000% for 16 milliseconds; up to 500% for 40 milliseconds

Environmental

- Operating Temperature: 0° to 40°C without derating
- Non-Operating Temperature: -20° to 70°C
- Humidity: 0-95% relative humidity without condensation

- Operating Altitude: Up to 4,000 feet (1200 meters) without derating
- Non-Operating Altitude: Up to 50,000 feet (15,000 meters)
- Acoustical Noise: Less than 65 dBA typical, measured 1 meter from the unit

Physical

- ETL Listed to UL 1778 UPS standards, and CSA certified; meets current requirements for safe high performance UPS operation

Standard Features

- LCD 80-character x 25 line monitor/control panel
- Self-diagnostics
- 2-stage battery charge current limit
- 2-stage input AC current limit
- Battery overdischarge protection
- Battery-time-remaining display
- Internal maintenance bypass
- Programmable automatic retransfer
- Automatic equalize charge timer
- Automatic line-drop compensation
- Emergency Power Off
- Redundant cooling fans

Options and Accessories

- Auto Restart
- Battery self-testing
- Temperature-compensated battery charging
- Internally mounted input isolation transformer
- Load Bus Sync™ Systems
- Power-Tie™ Systems
- Input filter/power factor correction
- Maintenance bypass cabinet
- Standard and custom switchgear packages
- Valve-regulated lead-acid battery packs
- Flooded rack-mounted battery systems
- SNMP capabilities
- SiteScan centralized monitoring system
- Remote monitor panel
- Communications interfaces
- Alarm status contacts
- Customer alarm inputs
- Flywheel Energy Storage Systems

While every precaution has been taken to ensure accuracy and completeness in this literature, Liebert Corporation assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.
© 1999 Liebert Corporation.

All rights reserved throughout the world. Specifications subject to change without notice.
All names referred to are trademarks or registered trademarks of their respective owners.
© Liebert and the Liebert logo are registered trademarks of the Liebert Corporation.
® Keeping Business in Business is a registered trademark of the Liebert Corporation.