



Power Quality Systems

PowerSure PSI

Rack and Tower Protection for Network,
Telecom and Servers



*Hot Swap
Batteries*



*Line Interactive
Sinewave*



*Universal
Communication Options*



*Extensible
Runtime*



*Professional
Workstations*



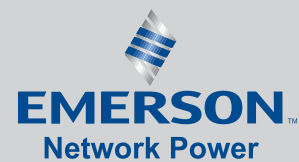
*Small Routers,
Bridges, Hubs*



*Data Center
Rooms*



Telecom Facilities



PowerSure PSI

Rack and Tower protection
for Network, Telecom and Servers



An efficient power protection package for your rack and tower equipment:

- Line Interactive Design With Sinewave Output
- Up to 9 Battery-Backed UPS Outlets
- Extended Battery Options
- USB, Serial and Network Communications
- Advanced Early Warning Shutdown
- Minimum Five Minutes of Battery Backup Time
- Configurable Input Voltage Window (220, 230, and 240V)
- Data-line Surge Protection
- Hot-Swappable, User Replaceable Batteries
- Cold-start on Battery
- Remote UPS Monitoring through SNMP/Web Card

Efficient protection for rack and tower, network and telecom equipment.

The Liebert PowerSure PSI is a full featured rack and tower UPS designed to protect your critical equipment. Its efficient line interactive design, with Automatic Voltage Regulation (AVR) offers a sinewave output from 1000 to 3000VA. The features package is extremely wide and flexible, making it the ideal product for professional use. The wide range of communication options integrates with your infrastructure and allows for safe application shutdown in case of a mains failure. Wide input voltage window, combined with a user selectable

voltage, ensures the UPS continues to supply clean power to your equipment without switching to battery even with very high input voltage fluctuations. Additional protection from surges or spikes is offered to your telephone or data network thanks to the convenient surge protection sockets.

All this and much more makes the Liebert PowerSure PSI the ideal solution for rack applications in data centers, for telecom applications, or for multiple servers, tower applications.

PowerSure PSI Rack and Tower protection for Network, Telecom and Servers



Applications

Ideally Suited for:

- Server Racks
- Telecom Hubs
- Switches, Routers, and Networking Equipment
- Storage Systems
- Other Sensitive Electronics

All PowerSure PSI models allow hot swap of batteries from the front for easier maintenance



Extended Runtimes

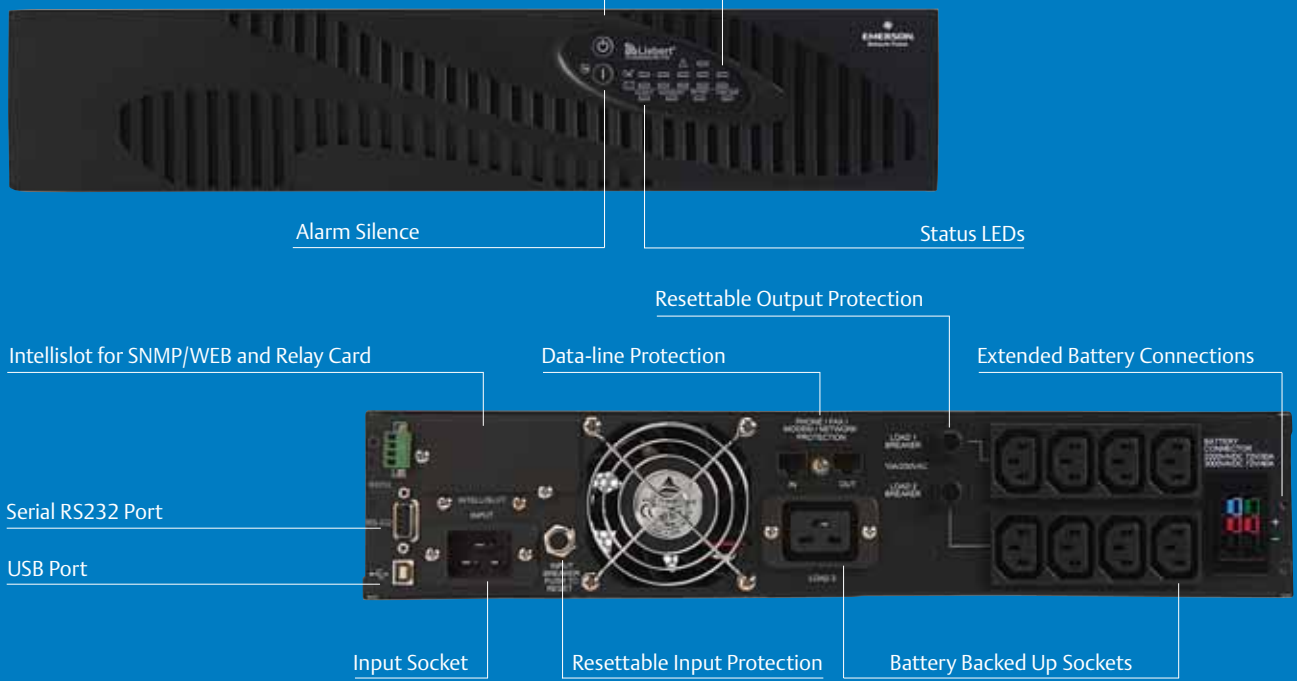
PowerSure PSI is designed and packaged for flexibility and high availability. In addition to a standard 5 minutes of backup at full load, and its user replaceable, hot-swap batteries, the PowerSure PSI can be combined with up to 4 extended battery cabinets. Designed in a compact 2U package, matching the UPS style, extended cabinets provide and extra runtime of up to 4 hours at full load.

This is ideal for distributed, unmanned applications where uptime is critical. The package includes 2 output power cords, a USB cable, a phone-line RJ11 cable, a MultiLink serial communications cable and MultiLink Software CD, and user manual in 5 languages.

The PowerSure PSI is certified by Microsoft for use with Windows XP and 2000 systems and by Apple Computer, Inc., for its Macintosh OS X (version 10.2 or later).

Power Communications

With USB, Serial, and Network communications available, the PowerSure PSI gives you all the information you need, all of the time. With the SNMP and Web enabled card, monitoring is simple from an Internet Browser or from your favourite Network Management platform. The card is also compatible with Liebert's MultiLink and OpenComms Nform software packages, which offer the highest availability to your load. The MultiLink Shutdown Software monitors the status of your UPS and safely shuts down your applications while saving your work. The OpenComms Nform package offers a full-fledged Network Management system to monitor and control all your networked UPS, from a centralized server. Both applications, finally, can be used to notify a Network Administrator, via email or SMS, of any power related event or problem, and allow quick intervention.

On Off Power Switch

% Load / Charge LEDs

Alarm Silence

Status LEDs

Resettable Output Protection

Intellislot for SNMP/WEB and Relay Card

Data-line Protection

Extended Battery Connections

Serial RS232 Port

USB Port

Input Socket

Resettable Input Protection

Battery Backed Up Sockets

PSI 2200VA model shown

Technical Data [PowerSure PSI]

Model	PS1000RT2-230	PS1440RT2-230	PS2200RT2-230E	PS3000RT2-230E
Power Rating				
VA	1000	1440	2200	3000
W	750	1080	1650	2250
Dimensions				
Unit (WxDxH mm)	87 (2U) x 557 x 430	87 (2U) x 557 x 430	87 (2U) x 612 x 430	87 (2U) x 612 x 430
Shipping (WxDxH mm)	300 x 706 x 598	300 x 706 x 598	333 x 864 x 598	333 x 864 x 598
Weight				
Unit (kg)	28	31	35	37
Shipping (kg)	36.6	39	43.6	45.6
Input Parameters				
Surge Protection	660J			
Voltage Range w/o Battery Operation	155-291 VAC Dip switch selectable 220-230-240V			
Frequency Range	45-65Hz (±0.1)			
Input Power Connection	1 IEC-320-C14			1 IEC-320-C20
Output Parameters				
Output Receptacles	8 IEC-320-C13			8 IEC-320-C13 +
Output Power Cables	2 m detached IEC-320-C14			
Voltage (Normal Mode)	220-230-240VAC ±10%			
Voltage (Battery Mode)	230VAC ±8%			
Waveform (Battery mode)	Sinewave			
Frequency	50 or 60Hz (auto-sensing)			
Overload warning	>100% (Normal and Battery Mode)			
Overload Shutdown	>200% - shortcircuit; after 15 cycles (normal mode)			
Battery Parameters				
Type - Approved manufacturers	Valve-regulated, non-spillable, lead acid - B&B Batteries, CSB, Panasonic, EnerSys			
Quantity x Voltage x Rating	4 x 12 V x 7Ah	4 x 12 V x 7Ah	6 x 12 V x 7Ah	6 x 12 V x 9Ah
Transfer time	4-6ms typical			
Backup Time	At 25°C resistive loading with fully charged batteries			
Full load (minutes)	11	5	5	6
Half load (minutes)	26	16	16	16
Recharge time	6 Hours to 90% capacity, after full discharge into a resistive load			
Battery test	Every 14 days			
Hot Swap Batteries	Yes			
Deep discharge protection	Yes			
Black start (w/o mains)	Yes			
Environmental				
Noise	< 40dB normal mode operation			
Operating temperature	0°C to +40°C for altitude 0 to 1500 meter above sea level 0°C to +30°C for altitude 1500 to 3000 meter above sea level			
Operating Altitude	Up to 2000m without derating			Up to 3000m without derating
Communications				
USB Compatibility	USB, Serial RS232, Contact Closure, Web and SNMP (optional card)			
Software Compatibility	Windows 2000, Windows XP, Apple Mac OS			
Package	MultiLink 3.0 supports MS Windows NT/2000/XP/95/98/ME, AIX, Linux, Sun Solaris, HP-UX, Novell Netware Multi-language, Multi-page User Manual - MultiLink 3.0 CD or later - One (1) DB9 Serial Cable One (1) RJ11 modem cable - One (1) USB Cable - Two (2) 10A 2.0 meter output power cord Rack mount handles, Support base for Tower configuration, Extensible Fixed Rack Mount rails (20.5" - 31") 2200, 3000VA models only: (1) Schucko CEE 7/7 to IEC-320-C19 and (1) BS1363 to IEC-320-C19, 16A input power cord			
Warranty				
Standards & Requirements	2 Years			
Safety	EN 62040-1-1; CE low voltage directive; TUV Certificate			
EMI / EMC	EN 50091-2, Class B; CE EMC directive			
Design	Line Interactive IEC62040-3 VI, EN61000-3, EN61000-4, EN60950			
Battery Cabinets				
Extensible Batteries	PS2-48VBATT			PS2-72VBATT
Unit (WxDxH mm)	87 x 557 x 430			87 x 612 x 430
Shipping (WxDxH mm)	300 x 706 x 598			333 x 864 x 598
Weight				
Unit (kg)	30			46
Shipping (kg)	38.6			53.6
Quantity x Voltage x Rating	2 by 4 x 12V x 7Ah			2 by 6 x 12V x 9Ah
Approved Manufacturers	CSB, B&B, EnerSys			
Battery cabinet package	(1) Battery Cable, Tower stand support base, Rack mount handles and fixed rail kits			
Extended Backup time				
1 Cabinet (full/half load)	46/119	30/72	40/99	29/67
2 Cabinets (full/half load)	98/209	56/133	77/150	52/129
3 Cabinets (full/half load)	136/274	95/209	120/222	88/168
4 Cabinets (full/half load)	188/305	125/257	144/274	118/222

Approximate discharge times are in minutes and at 25°C with resistive load.

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