

# Liebert PSI

High Performance Power Protection for Servers and Networking Equipment  
750VA to 3kVA

Liebert PSI is a feature-rich UPS system with industry leading 0.9 power factor. Its high power output delivers superior performance on power factor corrected (PFC) power supply and satisfactory backup time in the high demand environment. Liebert Multilink UPS software protects servers through local USB communication or via network. Matching external battery cabinets offer UPS backup time to several hours in the extended requirements (for Liebert PSI-XR models only).

## Features



### Lowest Total Cost of Ownership

- Operates at a high 0.9 power factor that makes it ideal for today's modern IT equipment, providing 29% more power than typical UPS
- Reduced installation time and costs - shipped with batteries connected and charged
- Two-year warranty - no-hassle replacement
- Supports Liebert Multilink shutdown software



### Higher Availability

- Greater than three to five minutes of internal battery backup time at 100% load provides ample time for an orderly shutdown of equipment.
- Buck/boost automatic voltage regulation technology protects against utility voltage fluctuation by raising and lowering utility power to the level needed by connected equipment



### Flexibility

- Eight to nine battery-backed outlets for Liebert PSI models, six to seven battery-backed outlets for Liebert PSI-XR models
- User replaceable and hot-swappable batteries
- Rack/Tower Convertible with rotatable display panel, 2U in height on all models
- Multiple remote communications and shutdown options provide remote monitoring and power management - EB/ SNMP, USB, contact closure and remote power off



### The Liebert PSI Is Ideally Suited For:



- Network Computers
- Servers
- Network Closets
- Computer Rooms
- Large Network Peripherals
- Network Storage Devices

## Bringing our Enterprise Level IT Expertise to your SMB

Emerson Network Power offers a full range of power protection solutions suitable for every requirement or scenario. From desktop computing, network equipment, computer rooms to large scale data centers, we make sure you get the same level of protection the Fortune 500 companies enjoy with Emerson. It is our way of Bringing Enterprise Level IT expertise to your SMB.



### Desktop Computing

- Liebert PSP
- Liebert PSA



### Network / Computer Room

- Liebert PSI
- Liebert GXT
- Liebert ITA



### Data Center

- Liebert ITA
- Liebert NX
- Liebert Hipulse

# Reliable UPS Protection And Extended Battery Time To Keep Your Network Up And Running

The flexible design of Liebert PSI allows the unit to be configured as a self-standing tower or to be rack-mounted within a 2U space. It is available in four capacities, in both 120V or 230V models.

The UPS features an innovative design incorporating buck/boost automatic voltage regulation technology. This protects against utility voltage fluctuation by raising and lowering utility power to the level needed by the connected equipment. It also allows the UPS to prolong battery life by maximizing its time on utility power before going to battery.



Rotatable Display Panel 90 degrees rotatable LED display panel rotates 90° to make the readout of the LED display easy to see in rack or tower position.

Automatic Frequency Sensing The UPS automatically adjusts to the input frequency, 50Hz or 60Hz.



Optional Liebert MicroPOD Output Distribution And Maintenance Bypass Module

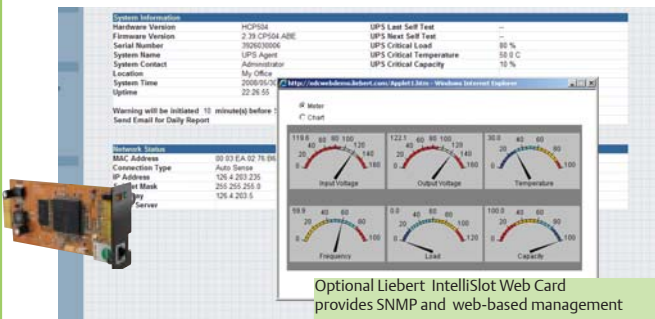
When your computer system can't be without power, even for scheduled UPS maintenance, the Liebert MicroPOD Maintenance Bypass and Output Distribution Unit ensures continuous uptime. It allows you to manually transfer connected equipment to utility power via a maintenance bypass switch, permitting scheduled service or UPS replacement without the need to shut down connected equipment. Features include:

- 2U height minimizes rack space requirements
- Installs with plug-and-play ease
- Two-year, no-hassle replacement warranty



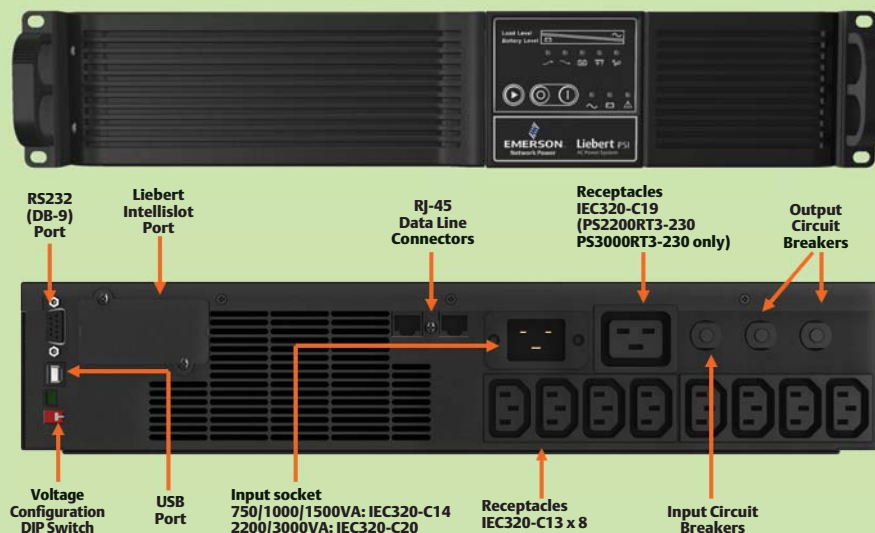
Liebert Multilink software provides you:

- Warnings to computer users of power loss, and graceful operating system shutdown when needed
- Full functionality and automatic shutdown protection right out of box - virtually no configuration is required
- Intergration with Liebert Web card and network shutdown capability



Optional Liebert IntelliSlot Web Card provides SNMP and web-based management

## Liebert PSI Rear View Parts



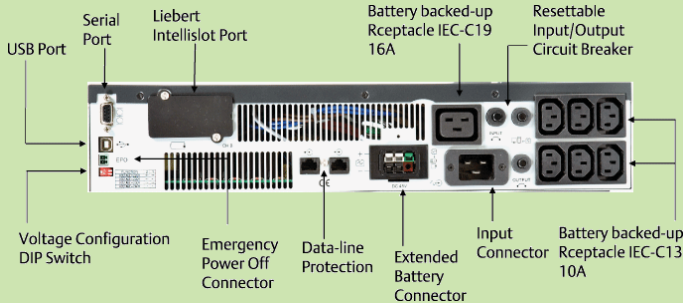
# Liebert PSI-XR

High Performance Power Protection for Server and Networking Equipment with Extended Run Capability

For servers and networks requiring extended runtime, Liebert PSI-XR provides longer backup time with additional features on top of Liebert PSI. Liebert PSI-XR has matching external battery cabinets that enables longer backup time to several hours in the extended requirements. It provides greater than five minutes of internal battery backup time at 100% load measured at pf 0.9.



## Liebert PSI-XR Rear View Parts



## Battery Runtime Chart of Liebert PSI-XR

(Runtimes are in minutes, assuming fully charged batteries at 25°C)

Number of batteries	%Load	PS100RT3-230XR	PS1500RT3-230XR	PS2200RT3-230XR	PS3000RT3-230XR
Internal Battery	50	15	13	14	13
	100	6	5	5	5
Internal Battery+1 External Battery Cabinet	50	73	55	45	31
	100	31	18	15	12
Internal Battery+2 External Battery Cabinets	50	129	95	67	56
	100	65	46	29	18
Internal Battery+3 External Battery Cabinets	50	181	131	95	73
	100	96	64	48	31
Internal Battery+4 External Battery Cabinets	50	233	167	143	95
	100	124	82	72	47
Internal Battery+5 External Battery Cabinets	50	185	203	167	113
	100	151	109	84	56
Internal Battery +6 External Battery Cabinets	50	336	239	191	131
	100	179	124	102	65

\* For connecting more external battery cabinets, please contact Emerson staff

## Battery Cabinet Specifications

Model Number	PSRT3-24VBXR	PSRT3-48VBXR
Used w/ UPS Model	PS1000RT3-230XR / PS1500RT3-230XR	PS2200RT3-230XR / PS3000RT3-230XR
Unit Dimensions/ Shipping Dim.: (mm)	88(2U) x 440 x 490.5 / 560 x 675	
Net Weight / Shipping Weight: kg	29 / 33	
Battery Type	Sealed, non-spillage, maintenance-free, lead acid with 5 year typical lifetime	
Operation Condition	3,000 meter max. elevation, 0-90% humidity non condensing 0-40 deg. C	
Form Factor	Rack/ Tower Convertible, Tower Stand and rail kit included	
EMI Classification	IEC/EN/AS62040-2 2nd Ed Class A	
Agency Approvals	Safety	IEC/EN/ AS62040-1-1
	Transportation	ISTA Procedure IA Certification
	WEEE and ROHS	Yes

Model Number	PS1000RT3-230XR	PS1500RT3-230XR	PS2200RT3-230XR	PS3000RT3-230XR
Input Connection	IEC-320 C14		IEC-320 C20	
Output Connection	IEC-320 C13 x 6		IEC-320 C13 x 6 + C19 x 1	
Communication Interface	REPO, USB, Serial, Intellislot			
Dimensions: (mm)	88(2U) x 440 x 490.5		88 (2U) x 440 x 700.5	
Shipping Dimensions: (mm)	228 x 560 x 612		228 x 560 x 821	
Net Weight: (kg)	25	28	42	46
Shipping Weight: kg	29	32	47	51
Form Factor	Rack/Tower Convertible, Tower Stand included			
Input Power Cable	Nil		"Shucko" CEE 7/7 and BS1363 to IEC-320-C19	
Number of Output Cable	2		3	
Software	Liebert Multilink 4, support for Windows NT/2000/XP/Vista			
Operation	PS1500RT3-230XR	PS2200RT3-230XR	PS3000RT3-230XR	
Capacity (Volt-Amps, Watts)	1000/900	1500/1350	2200/1980	3000/2700
Normal Input Voltage	220/230/240VAC (configurable)			
Input Voltage Window	165-300VAC			
Input Frequency Window	45-65Hz			
Input Protection Type	Resettable Circuit Breaker			
Default frequency	50Hz			
Boost Mode Voltage	Input Voltage x 117%			
Buck Mode Voltage	Input Voltage , 115%			
Transfer Time (AC to DC)	4-6 ms typical			
Efficiency	>96% on Line Mode			
Surge Protection	220 J			
Output (battery mode)	Voltage	220/230/240VAC (configurable)		
	Voltage Regulation	± 5%		
	Wave Form	Pure Sine Wave		
Battery type	Sealed, non-spillage, maintenance-free, lead acid with 5 year typical lifetime			
Backup Time at full load pf 0.9	>6 minutes	>5 minutes	>5 minutes	>5 minutes
Typical Recharge Time	5 hours to 90%			
Hot Swappable Battery	Yes			
EMI Classification	IEC/EN/AS62040-2			
Agency Approvals	Safety	IEC/EN/AS62040-1-1		
	Transportation	ISTA Procedure 1A Certification		
	WEEE and ROHS	Yes		
Operation Condition	3,000 meter max. elevation, 0-90% humidity non-condensing 0-40 deg. C			
Noise Level	>40dBa on Line Mode			
Accessories	PS1000RT3-230XR	PS1500RT3-230XR	PS2200RT3-230XR	PS3000RT3-230XR
Rack Mount Kit	RAILKITPS3G-AEC			
SNMP/WEB Management Card	IS-WEBRT3			
Maintenance Bypass Switch	MP2-210K		MP2-220L	
Extended Battery Cabinets	PSRT3-24VBXR		PSRT3-48VBXR	
Typical Runtime (VA/W)	PS1000RT3-230XR	PS1500RT3-230XR	PS2200RT3-230XR	PS3000RT3-230XR
200/180	55 minutes	70 minutes	85 minutes	110 minutes
400/360	25 minutes	32 minutes	55 minutes	70 minutes
600/540	14 minutes	20 minutes	31 minutes	46 minutes
800/720	9 minutes	13 minutes	23 minutes	32 minutes
1000/900	6 minutes	10 minutes	18 minutes	24 minutes
1500/1350	-	5 minutes	11 minutes	13 minutes
2000/1800	-	-	7 minutes	10 minutes
2500/2350	-	-	-	7 minutes
3000/2700	-	-	-	5 minutes

## Battery Runtime Chart of Liebert PSI

(Runtimes are in minutes, assuming fully charged batteries at 25°C)

Typical Runtime (Watts)	PS750RT3-230	PS1000RT3-230	PS1500RT3-230	PS2200RT3-230	PS3000RT3-230
200	25	45	60	85	120
400	10	15	20	45	65
600	5	8	12	20	30
800	-	5	8	14	18
1000	-	-	5	11	14
1500	-	-	-	6	8
2000	-	-	-	-	5
2500	-	-	-	-	4
100% load	>4 minutes	>4 minutes	>3 minutes	>3 minutes	>3 minutes

Actual runtime may vary depending on operating conditions.

## Liebert PSI Specifications

Model Number	PS750RT3-230	PS1000RT3-230	PS1500RT3-230	PS2200RT3-230	PS3000RT3-230
Input Connection	IEC-320 C14			IEC-320 C20	
Output Connection	IEC-320 C13 x 8			IEC-320 C13 x 8 + C19 x 1	
Communication Interface	REPO, USB, Contact Closure, Intellislot				
Dimensions: (mm)	88(2U) x 440 x 412			88 (2U) x 440 x 657	
Shipping Dimensions: (mm)	228 x 560 x 595			228 x 560 x 776	
Net Weight: (kg)	15.0	19.4	20.9	33.8	37.2
Shipping Weight: kg	18.2	22.6	24.1	38.3	41.5
Form Factor	Rack/Tower Convertible, Tower Stand included				
Input Power Cable	Nil			"Shucko" CEE 7/7 and BS1363 to IEC-320-C19	
Number of Output Cable	2			3	
Software	Liebert Multilink, support for Windows NT/2000/XP/Vista, Linux				
Operation	PS750RT3-230	PS1000RT3-230	PS1500RT3-230	PS2200RT3-230	PS3000RT3-230
Capacity	750VA/675W	1000VA/900W	1500VA/1350W	2200VA/1980W	3000VA/2700W
Normal Input Voltage	220/230/240VAC ± 10% (configurable)				
Input Voltage Window	165-300VAC				
Input Frequency Window	45-65Hz ± 0.5Hz				
Input Protection Type	Resettable Circuit Breaker				
Default frequency	50Hz				
Boost Mode Voltage	Input Voltage x 117%				
Buck Mode Voltage	Input Voltage / 115%				
Transfer Time (AC to DC)	4-6 ms typical				
Efficiency	>96% on Line Mode				
Surge Protection	220 J				
Output (battery mode)	Voltage	220/230/240VAC (configurable)			
	Voltage Regulation	± 5%			
	Wave Form	Pure Sine Wave			
Battery type	Sealed, non-spillage, maintenance-free, lead acid with 5 year typical lifetime				
Quantity x Voltage x Ah	2 x 12 x 7.2	3 x 12 x 7.2	3 x 12 x 9	6 x 12 x 7.2	6 x 12 x 9
Backup Time at full load pf 0.7	>6 minutes	>6 minutes	>5 minutes	>6 minutes	>5 minutes
Backup Time at full load pf 0.9	>4 minutes	>4 minutes	>3 minutes	>3 minutes	>3 minutes
Typical Recharge Time	5 hours to 90% of rated capacity, after full discharge into resistive load				
Hot Swappable Battery	Yes				
Electrical Fast Transient	IEC/EN/AS62040-2 2nd Ed Class A				
Agency Approvals	Safety	IEC/EN/AS 62040-1-1			
	Surge	IEC/EN/AS 61000-4-2			
	ESD	IEC/EN/AS 61000-4-3			
	Susceptibility	IEC/EN/AS 61000-4-4			
	Emission	IEC/EN/AS 61000-4-6			
	Conducted Immunity	IEC/EN/AS 61000-3-2			
	Harmonics	IEC/EN/AS 61000-4-6			
	Transportation	ISTA Procedure 1A Certification			
WEEE and ROHS	Yes				
Operation Condition	3,000 meter max. elevation, 0-90% humidity non-condensing 0-40 deg. C				
Noise Level	<45dBA on Line Mode				
Accessories	PS750RT3-230	PS1000RT3-230	PS1500RT3-230	PS2200RT3-230	PS3000RT3-230
SNMP/WEB Management Card	IS-WEBRT3				
Maintenance Bypass Switch	MP2-210K			4	MP2-220L

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AP09DPG-PSIV1-B