Liebert® PSI

High Performance Power Protection for Servers and Networking Equipment

■ 750VA ■ 1kVA ■ 1.5kVA ■ 2.2kVA ■ 3kVA

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 fl uctuation 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

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).





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 uctuation 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.

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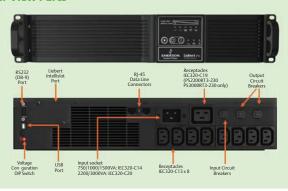
New Zealand V T: 64-3-3392060 T:

Vietnam T: 84-4-37628908

to

F: 64-3-3392063 F: 84-4-37628909

Liebert® PSI Rear View Parts



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AP14DPG-PSIV1-DS

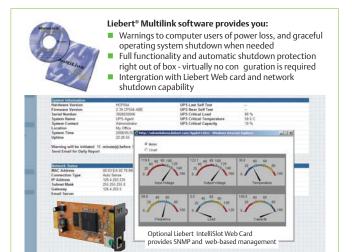


Optional Liebert MicroPOD Output Distribution And Maintenance Bypass Module

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



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Liebert® PSI XR

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

■ 1kVA

■ 1.5kVA

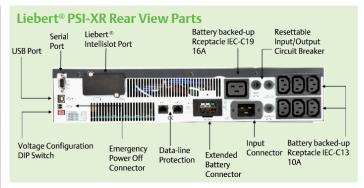
■ 2.2kVA

■ 3kVA

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.

		PS1000RT3- 230XR	PS1500RT3- 230XR	PS2200RT3- 230XR	PS3000RT3- 230XR		
Input Connection		IEC-32	20 C14	IEC-32	20 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 5	228 x 560 x 612 228 x 560 x 821				
Net Weight: (kg		25	25 28 42		46		
Shipping Weigh		29	32	47	51		
Form Factor		Rack/Tower Convertible, Tower Stand included					
Input Power Ca	ble	Nil "Shucko" CEE 7/7 and BS1363 to IEC-320-C19					
Number of Out	put Cable	2 3					
Software		Liebert M	Liebert Multilink 4, support for Windows NT/2000/XP/Vista				
			PS1500RT3- 230XR	PS2200RT3- 230XR	PS3000RT3- 230XR		
Capacity (Volt-/	Amps, Watts)	1000/900	1500/1350	2200/1980	3000/2700		
Norminal Input	Voltage		220/230/240VA	C (configurable)			
Input Voltage V	Vindow		165-3	00VAC			
Input Frequenc	y Window		45-6	55Hz			
Input Protection	n Type		Resettable C	ircuit Breaker			
Default frequen	ncy		50	Hz			
Boost Mode Vo	ltage		Input Volta	age x 117%			
Buck Mode Volt	tage		Input Volta	age , 115%			
Transfer Time (/	AC to DC)	4-6 ms typical					
Efficiency			>96% on I	ine Mode			
Surge Protectio	n		66	i0			
Output	Voltage	220/230/240VAC (configurable)					
(battery	Voltage Regulation	>± 5%					
mode)	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	tes >5 minutes >5 minutes >5 minutes				
Typical Recharg	e Time	5 hours to 90%					
Hot Swappable		Yes					
EMI Classification	on	IEC/EN/AS62040-2					
Agency	Safety	IEC/EN/AS62040-1-1					
Approvals	Transportation	ISTA Procedure 1A Certification					
	WEEE and ROHS	Yes					
Operation Cond	dition	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 Mai		IS-WEBRT3					
Maintenance By		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 miuntes	13 minutes		
2000/1800		-	-	7 minutes	10 minutes		
2500/2350		-	-	-	7 minutes		
		_	-				





Battery Runtime Chart of Liebert® PSI-XR (Runtimes are in minutes, assuming fully charged batteries at 25°C)

Number of batteries		PS100RT3-230XR	PSI500RT3- 230XR	PS2200RT3- 230XR	PS3000RT3- 230XR
Internal Battery	50	15	13	14	13
	100	6	5	5	5
Internal Battery+1 External	50	73	55	45	31
Battery Cabinet	100	31	18	15	12
Internal Battery+2 External	50	129	95	67	56
Battery Cabinets	100	65	46	29	18
Internal Battery+3 External	50	181	131	95	73
Battery Cabinets	100	96	64	48	31
Internal Battery+4 External Battery Cabinets	50	233	167	143	95
Battery Cabinets	100	124	82	72	47
Internal Battery+5 External	50	285	203	167	113
Battery Cabinets	100	151	109	84	56
Internal Battery +6 External	50	336	239	191	131
Battery Cabinets	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 Mode	I	PS1000RT3-230XR / PSI500RT3- 230XR	PS2200RT3-230XR / PS3000RT3-230XR	
Unit Dimensions/ S : (mm)	hipping Dim.	88(2U) x 440 x 490.5 / 560 x 675		
Net Weight / Shipp	ing Weight: kg	29 / 33		
Battery Type		Sealed, non-spillage, maintenance-free, lead acid with 5 year typical lifetime		
Operation Condition	on	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		
	Safety	IEC/EN/ AS62040-1-1		
Agency Approvals	Transportation	ISTA Procedure IA Certification		
	WEEE and ROHS		Yes	



Battery Runtime Chart of Liebert PSI

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

Typical Runtime (Watts)		PS1000RT3-230	PS1500RT3-230	PS2200RT3-230	
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-32	20 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 Weigh	t: kg	18.2	22.6	24.1	38.3	41.5	
Form Factor		Rack/Tower Convertible, Tower Stand included					
Input Power Cab	ole	Nil "Shucko" CEE 7/7 and BS1363 to IEC-320-C19					
Number of Outp	out Cable	2			3		
Software			Liebert Mult	ilink, support for Wir	ndows 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	
Norminal Input	Voltage	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , ,	220/230/240VAC ±	· · · · · · · · · · · · · · · · · · ·	, , , ,	
Input Voltage W		165-300VAC					
Input Frequency				45-65Hz			
Input Protection				Resettable Cir			
Default frequen				50H			
Boost Mode Vol	-	Input Voltage x 117%					
Buck Mode Volta		Input Voltage / 115%					
Transfer Time (A		4-6 ms typical					
Efficiency		>96% on Line Mode					
Surge Protection	n	220					
Output	Voltage	220/230/240VAC (configurable)					
(battery	Voltage Regulation	± 5%					
mode)	Wave Form	± 5% Pure Sine Wave					
Battery type	viare i o i i i	Sealed, non-spillage, maintenance-free, lead acid with 5 year typical lifetime					
Quantity x Volta	σe v Δh	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	-	>6 minutes	>6 minutes	>5 minutes	>6 minutes	>5 minutes	
Backup Time at	<u>.</u>	>4 minutes	>4 minutes	>3 minutes	>3 minutes	>3 minutes	
Typical Recharge		5 hours to 90% of rated capacity, after full discharge into resistive load					
Hot Swappable		S nours to 90% or rated capacity, after full discharge into resistive load Yes					
Electrical Fast Tr		IEC/EN/AS62040-2 2nd Ed Class A					
Agency	Safety	IEC/EN/AS 62040-1-1					
Approvals	Surge	IEC/EN/AS 62040-1-1 IEC/EN/AS 61000-4-2					
	ESD	IEC/EN/AS 61000-4-2 IEC/EN/AS 61000-4-3					
	Susceptibility	IEC/EN/AS 61000-4-3 IEC/EN/AS 61000-4-4					
	Emission	IEC/EN/AS 61000-4-4 IEC/EN/AS 61000-4-6					
	Conducted Immunity	IEC/EN/AS 61000-4-0					
	Harmonics	IEC/EN/AS 61000-3-2					
	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	
	agement Card			IS-WEE		1 33000113-230	
SNMP/WEB Management Card							
wantenance by	Maintenance Bypass Switch		MP2-210K MP2-220L				

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