



Product brochure

Vertiv™ Liebert® PSI5 TAA Compliant UPS

High performance line interactive UPS for critical
network power protection



The Liebert® PSI5 TAA Compliant is a compact, Automatic Voltage Regulation (AVR) line-interactive UPS system designed especially for IT applications such as network closets and small data centers.

The Liebert® PSI5 TAA UPS supports advanced pure sine wave output on battery to safeguard critical IT equipment and business electronics. It is ideal for government environments that require a TAA compliant UPS to supply clean and reliable power protection for servers, critical nodes, network workstations, large network peripherals, network routers, bridges, and other electronic equipment.

Ideally suited for:

- Servers
- Networking equipment
- Safety and security systems
- Network workstations
- Large network peripherals
- Storage
- VoIP
- Media closet equipment
- POS systems



Features

The Liebert PSI5 TAA Compliant allows you to get more from your UPS and your protected equipment, with features normally found only on more expensive systems:

- Battery backup provides ample time for an orderly shutdown of connected equipment
- The Liebert PSI5 TAA Compliant UPS can accept external battery cabinets for long runtime applications
- Liebert PSI5 UPS operates at a high 0.9 output power factor
- RDU120 included with Liebert PSI5 TAA N SKU Bundle
- Controllable outlets enable users to power cycle connected equipment and drop non-critical loads so that runtime can be extended to critical loads
- Free Vertiv™ Power Insight management software
- Liebert PSI5 UPS is compliant with the Restriction of Hazardous Substances Directive (RoHS)





Reliable UPS protection to keep your network up and running

The flexible design of the TAA Compliant Liebert® PSI5 allows the UPS to be configured as a self-standing tower or to be rack-mounted within a 2U space. It is available in 1500VA, 2200VA and 3000VA at 120V.

The TAA compliant Liebert PSI5 UPS features an innovative advanced line-interactive design incorporating buck/boost Automatic Voltage Regulation (AVR) 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.



What's in the box

- UPS unit
- USB Type A to USB Type B cable 1.8 meter (6ft) in length
- Printed quick start guide with safety instructions
- Adjustable 4 post rack mounting kit
- Support base for tower configuration
- Vertiv™ Power Insight Management software (free download from vertiv.com)

Liebert® PSI5 TAA compliant UPS standard features

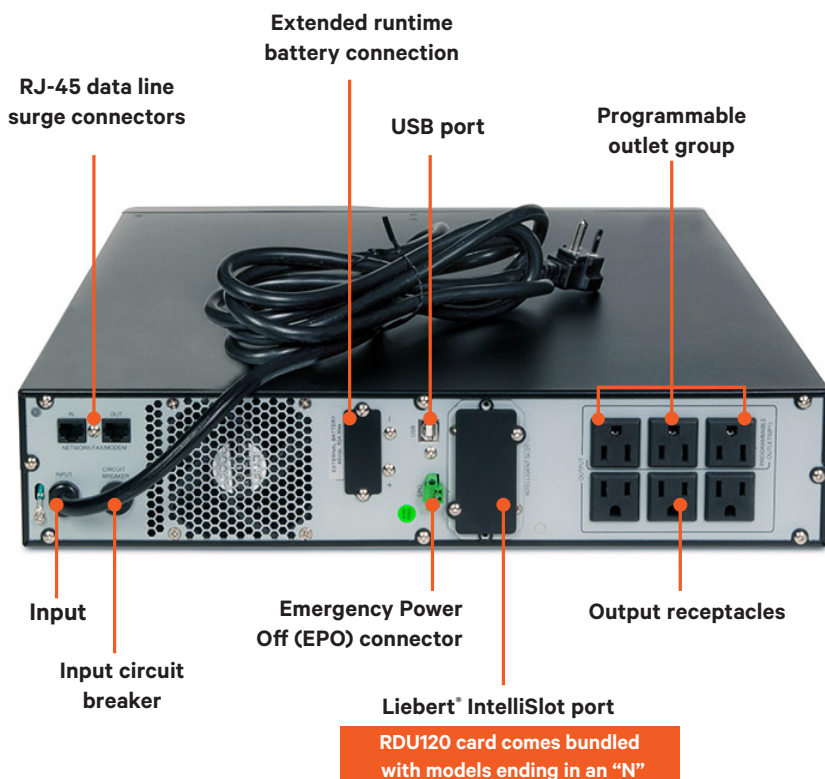
Flexibility:

Rotatable display panel

LCD monitor panel rotates 90° to make the readout of the LCD display easy to see in rack or tower position.

Rack or tower configurations

Telescoping rails and tower base included for flexible deployment solutions.



High availability

0.9 Output power factor:

More usable power enables more connected loads saving space and costs.

Wider input voltage window:

Prolongs battery life by allowing the UPS to maximize the use of utility power before transferring to battery when input exceeds specified limits (76 to 146 VAC @120V).

Full sequenced battery testing:

The Liebert® PSI5 UPS includes an automatic and manual self-diagnostic test feature. This provides a comprehensive analysis of the condition of the batteries within the UPS and will notify you when the internal batteries need to be replaced.

Advance early warning of ups

system status: The Liebert PSI5 UPS offers multiple audible and visual alarms to immediately alert you to an input voltage fluctuation (buck/boost), output overload, low battery or replace battery condition.

Flexibility

Up to seven battery-backed

outlets: Allows the Liebert PSI5 more flexibility in accommodating additional equipment to be connected to the UPS via the receptacles.

Configurable input voltage

window: Allows the UPS to be properly matched to the incoming utility power and adjusts its input window and transfer points to supply regulated power to connected loads within the selected range.

Programmable outlet group:

Power cycle connected equipment and load shed on battery to extend run time.

Hot swappable batteries: Increase product life and provide prolonged UPS reliability. Batteries are conveniently located behind the front bezel of the unit (RT models) or from the bottom (tower models).

Manageability

USB communications: Power management functions provide monitoring of UPS status and manage the automatic orderly shutdown of the computer if a power outage ever exceeds the battery capacity of the UPS. Vertiv™ Power Insight Shutdown Software is available at Vertiv.com.

SNMP communication available

with N bundles: Order the N bundle to add an RDU120 communication card to the Liebert PSI5 TAA Compliant UPS. The Liebert® RDU120 communication card provides network integration connectivity and allows you to monitor and control your UPS from your network management station or any PC.

- Sends both SNMP traps and emails for event notification
- Auto-senses 10M/100M/1G Ethernet
- Compatible with shutdown software to ensure graceful computer shutdown
- Allows remote monitoring, start-up or restart for connected equipment
- Vertiv™ Liebert® IntelliSlot™ Communications Cards also have Environmental Sensor support
- Select models include factory integrated network management card

Remote emergency power off:

Allows the UPS to be remotely shut down during an emergency.

Liebert® PSI5 TAA Compliant UPS accessories and options

Replacement internal battery kits

Liebert® part number	Description	Shipping weight lbs.
PSI5-1500BATKITTA	PSI5-1500TAA Replacement battery kit	25.5
PSI5-2200BATKITTA	PSI5-2200TAA Replacement battery kit	37.8
PSI5-3000BATKITTA	PSI5-3000TAA Replacement battery kit	38.8

External battery cabinets

Liebert® part number	Description	Shipping weight lbs.
PSI5-48VBATTAA	External battery cabinet for Liebert® PSI5-1500RT120TAA	70.3
PSI5-72VBATTAA	External battery cabinet for Liebert® PSI5-2200RT120TAA, PSI5-3000RT120TAA	96.1

Telecom / relay rack mounting kits

Part number	Description
2POSTRMKIT	Four pieces, two-post telecom rack kit

Note: Runtimes with EBC are shown on page 7



Network communication cards and environmental sensors

Optional Intellislot cards are compatible with all Liebert® PSI5 UPS systems

Network communications	RDU120	Network Communication Card with 10/100/1000 Mbps Ethernet, web interface, SNMP, BACnet IP/MSTP, Modbus TCP/RTU and environmental sensor support. UL-2900-1 certified. Includes a configuration cable.
	IS-RELAY	Intellislot Interface Kit for Relay Contacts.
RDU120 card environmental sensors	A2D-10	Analog to digital converter provides the ability to connect a dry contact, 0-10V, or 4-20mA sensor to a Plug-n-Play sensor port. Includes a 10ft / 3m cable.
	A2D-50	Analog to digital converter provides the ability to connect a dry contact, 0-10V, or 4-20mA sensor to a Plug-n-Play sensor port. Includes a 10ft / 3m cable.
	GT3HD	Temperature, humidity, and dew point sensor with dual inputs for included 3ft / .9m and 6ft / 1.8m temperature sensors for monitoring top, middle, and bottom of a rack or cabinet. Includes a supplementary input for daisy-chaining additional sensors. Includes 10ft / 3m cable.
	GT3HD-50	Temperature, humidity, and dew point sensor with dual inputs for included 3ft / .9m and 6ft / 1.8m temperature sensors for monitoring top, middle, and bottom of a rack or cabinet. Includes a supplementary input for daisy-chaining additional sensors. Includes 50ft / 15.2m cable.
	GTHD	Temperature, humidity, and dew point sensor. Includes a supplementary input for daisy-chaining additional sensors. Includes 10ft / 3m cable.
	GTHD-50	Temperature, humidity, and dew point sensor. Includes a supplementary input for daisy-chaining additional sensors. Includes 50ft / 15.2m cable.
	SRT-12	Temperature sensor used to monitor temperature in critical environments. Includes a 12ft / 3.6m cable.
	SRT-20	Temperature sensor used to monitor temperature in critical environments. Includes a 20ft / 6.1m cable.
	SRT-50	Temperature sensor used to monitor temperature in critical environments. Includes a 50ft / 15.2m cable.
	SRT-100	Temperature sensor used to monitor temperature in critical environments. Includes a 100ft / 30.4m cable.
	RTAFHD3-12	Temperature, airflow, humidity, and dew point sensor. Includes 12ft / 3.6m cable.
	RTAFHD3-20	Temperature, airflow, humidity, and dew point sensor. Includes 20ft / 6.1m cable.
	RTAFHD3-50	Temperature, airflow, humidity, and dew point sensor. Includes 50ft / 15.2m cable.
	RTAFHD3-100	Temperature, airflow, humidity, and dew point sensor. Includes 100ft / 30.4m cable.
	FS-15	0-5VDC conductivity based flood sensor used to detect the presence of water. Includes a 15ft / 4.5m cable.
	FS-100	0-5VDC conductivity based flood sensor used to detect the presence of water. Includes a 100ft / 30.4m cable.
	RDPS	Magnetic normally-closed dry-contact sensor used to monitor remote door position. Includes 30ft / 9.1m cable.
	RDPS-50	Magnetic normally-closed dry-contact sensor used to monitor remote door position. Includes 50ft / 15.2m cable.
	RDPS-100	Magnetic normally-closed dry-contact sensor used to monitor remote door position. Includes 100ft / 30.4m cable.
	PFS-100 US	0-5V power failure sensor to monitor the presence of utility power. Includes a 100ft / 30.4m cable and US NEMA power supply.

Vertiv™ Liebert® PSI5 TAA compliant UPS specification

Base models	PSI5-1500RT120TAA	PSI5-2200RT120TAA	PSI5-3000RT120TAA
*Models with SNMP Card	PSI5-1500RT120TAAN	PSI5-2200RT120TAAN	PSI5-3000RT120TAAN
Power rating, VA/W	1500VA/1350W	1920VA/1920W	2880VA/2700W
Dimensions, W X D X H, IN (MM)			
Unit	17.2 x 20 x 3.5 (438 x 510 x 88)	17.2 x 24.8 x 3.5 (438 x 630 x 88)	17.2 x 24.8 x 3.5 (438 x 630 x 88)
Shipping	10.2 x 26.5 x 21.7 (258 x 672 x 550)	10.2 x 26.7 x 21.7 (258 x 782 x 550)	10.2 x 26.7 x 21.7 (258 x 782 x 550)
Weight, LB (KG)			
Unit	42.6 (19.3)	59.1 (26.8)	70.8 (32.1)
Shipping	51.8 (23.5)	70.1 (31.8)	81.8 (37.1)
Input/output AC parameters			
Nominal voltage setting	100/110/115/120(default) / 125		
Voltage range without battery operation	75 to 146 VAC	75 to 146 VAC	75 to 146 VAC
Frequency range	55~65Hz (57~63Hz Battery to normal comeback)		
Surge protection	1372J	1372J	1372J
Input power cord, 8ft (2.4m) attached	NEMA 5-15	NEMA L5-20 std 5-20 adapter included	NEMA L5-30P
Output receptacles – not controllable	(3) NEMA5-15R	(3) NEMA5-15/20R, (1) NEMAL5-20R	(3) NEMA5-15/20R, (1) NEMAL5-30R
Output receptacles – controllable	(3) NEMA5-15R	(3) NEMA5-20R	(3) NEMA5-20R
Transfer time	4-6 ms Typical		
Battery waveform	Pure sinewave		
Battery parameters			
Type	Valve-regulated lead-acid (VRLA) in compliance with UL 1989		
Recharge time	4 hours to recover 90%		
Internal battery run time			
Full load	6 min	5 min	5.5 min
Half load	18 min	14 min	16 min
Environmental			
Operating temperature, °F (°C)	32° to 104° (0° to 40°)		
Storage temperature °F (°C)	5° to 120° (-15° to 50°)		
Relative humidity	20% – 90%, non-condensing		
Operating altitude	0 to 9,942 (0 to 3,000) without derating. Operating temperature reduced 9 °F (5 °C) for each additional 1,640ft (500m) of altitude.		
Audible noise	< 45 dB@line mode < 55 dB@battery mode	< 45 dB@line mode < 55 dB@battery mode	< 45 dB@line mode < 55 dB@battery mode
Agency			
Safety	UL 1778, c-UL-us Listed		
Emissions	FCC Part 15, Class B		
Network surge	UL 497 B		
Transportation	ISTA Procedure 1A Certification		
TAA compliant	Yes	Yes	Yes
Warranty	Standard 3 years	Standard 3 years	Standard 3 years
Protection plan			
Equipment Protection Plan	\$400,000		



Vertiv™ UPS software benefits ladder

Feature	Power Assist	Power Insight	Environet™ Alert	DSView Solutions	Environet™ Connect
Management					
Mass firmware upgrade (network card only)				•	•
Hypervisor plugin		vCenter, vXRail, Nutanix			
Automated server shutdown	•	•			
Reporting					
Analytics and reporting			•		•
Historical data		•	•		•
Thresholds and alerts		•	•	•	•
Alarm management	•	•	•	•	•
Monitoring					
IT device monitoring				•	
Thermal monitoring			•		•
Power monitoring	UPS Only	UPS and Rack PDU	•	UPS, Rack PDU, Servers	•
Specifications					
Protocol support	USB/SNMP	SNMP	SNMP, Modbus TCP, BACnet IP	SNMP, IPMI, Redfish	SNMP
Equipment support	Vertiv Only	Vertiv Only	Multi-Vendor	Multi-Vendor	Multi-Vendor
Max. Devices support	2	100	Scalable	Scalable	Scalable
Software architecture	On-prem	On-prem	On-Prem	On-Perm	Multi-Tenant Cloud based
Licensing	Free	Free	Perpetual	Subscription	Subscription

Liebert® PSI5 TAA compliant UPS - Power assurance services

Power assurance package

Bundled start-up service and 5-year on-site emergency response	Standard	With Life™ Services	With removal	With Life and removal
Equipment model / type	Part number	Part number	Part number	Part number
Liebert® PSI5 UP TO 3KVA	PAPPSI-1K3K	PAPPSI-1K3KLF	PAPPSI-1K3KRMV	PAPPSI-1K3KRLF
Liebert® PSI5 EXTERNAL BATTERY CABINETS	PAPPSI-BATT	-----	PAPPSI-BATTRMV	

Power start-up services

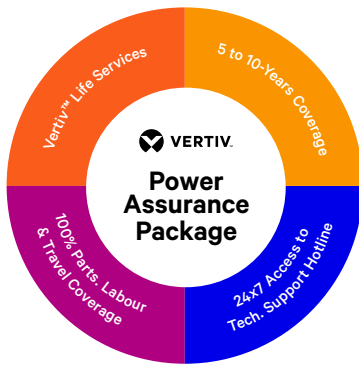
Startup service only	Standard	With removal
Equipment model / type	Part number	Part number
Liebert® PSI5 UP TO 3KVA	SUPSI-1K3K	SUPSI-1K3KRMV
Liebert® PSI5 EXTERNAL BATTERY CABINETS	SUPSI-EXTBTCB	SUPSIEXTBTCBRMV

Power emergency services

5-Year on-site emergency coverage - only	Standard	With Life™ Services
Equipment model / type	Part number	Part number
Liebert® PSI5 1500VA	PEPPSI-15005Y	PEPPSI-15005Y
Liebert® PSI5 2200VA	PEPPSI-22005Y	PEPPSI-22005Y
Liebert® PSI5 3000VA	PEPPSI-30005Y	PEPPSI-30005Y
Liebert® PSI5 48VBATT EXT BATT CABINET	PEPPSI-48VBATT	PEPPSI-48VBATT
Liebert® PSI5 72VBATT EXT BATT CABINET	PEPPSI-72VBATT	PEPPSI-72VBATT

Power Assurance Package - Summary

- Includes all "Power Start-up Services" and "Power Emergency Services" support
- One Preventative Maintenance visit after 3rd year (5kVA UPS only)



Power Startup Services - Summary

- Installation includes mounting and start-up of new UPS or EBC (excludes hard-wired applications)
- Services performed by Vertiv factory trained technician
- Services performed 7 X 24, excluding national holidays within the 48 contiguous states and Hawaii
- Removal and disposal of existing UPS or EBC equipment, if selected

Power Emergency Services - Summary

- On site service support
- Full-service five (5) year contract term commencing upon the start-up date
- 100% parts coverage, including internal batteries, POD and web card
- 100% labor and travel coverage 7 days/week, 24 hours/day
- 24-Hour Customer Resolution Center via 1-800-Liebert
- Access to Customer Services Network portal

Life™ Services Includes Assurance Package, Startup Services, Power Emergency Services plus:

- Continuous monitoring, expert analysis, and proactive response

Note: Life Services requires a Network card.

Please refer to the Scopes of Work for full and additional details.

Liebert® PSI5 TAA compliant extended warranty

			Warranty extension list price	
			Additional 1 year	Additional 3 years
UPS model number			Warranty part number	Warranty part number
PSI5-1500RT120TAA			1WEPSI5-1500	3WEPSI5-1500
PSI5-2200RT120TAA			1WEPSI5-2200	3WEPSI5-2200
PSI5-3000RT120TAA			1WEPSI5-3000	3WEPSI5-3000
External battery cabinets				
PSI5-48VBATTAA			1WEPSI5-48VBATT	3WEPSI5-48VBATT
PSI5-72VBATTAA			1WEPSI5-72VBATT	3WEPSI5-72VBATT

Note: Extended warranties can only be ordered when ordering the UPS and prior to shipment.

Liebert® PSI5-1500RT120TAA

Load			Number of external battery cabinets (EBCs)						
			Internal battery only	1	2	3	4	5	6
%	VA	W	Minutes						
100	1500	1350	6.0	24	50	78	107	138	169
75	1125	1013	9.5	33	66	102	141	181	222
50	750	675	18.0	59	119	183	249	316	383
25	375	337.5	37.0	122	240	363	486	611	736
10	150	135	110.5	330	619	911	1203	1496	1790



Liebert® PSI5-2200RT120TAA

Load			Number of EBCs	
			Internal battery only	1
%	VA	W	Minutes	
100	1920	1920	5.0	27
75	1440	1440	7.5	40
50	960	960	14.0	66
25	480	480	31.5	137
10	192	192	88.0	358

Load			Number of EBCs				
			2	3	4	5	6
%	VA	W					
100	1536	1536	72	111	152	194	237
75	1152	1152	104	159	216	274	333
50	768	768	170	257	346	435	525
25	384	384	336	497	661	824	989
10	153.6	154	835	1213	1592	1971	2350

Liebert® PSI5-3000RT120TAA

Load			Number of EBCs	
			Internal battery only	1
%	VA	W	Minutes	
100	3000	2700	5.5	20
75	2250	2025	8.5	27
50	1500	1350	16.0	50
25	750	675	34.0	102
10	300	270	103.0	282

Load			Number of EBCs				
			2	3	4	5	6
%	VA	W					
100	2400	2160	52	78	106	134	164
75	1800	1620	74	112	151	191	232
50	1200	1080	122	182	244	306	370
25	600	540	244	358	473	589	705
10	240	216	619	887	1156	1425	1695

