

Vertiv[™] Liebert® PSI5 Lithium-Ion TAA Compliant UPS

High Performance Line Interactive UPS for Critical Network Power Protection





Liebert[®] Lithium-ion technology delivers up to 3 times the life of lead-acid batteries along with a lower total cost of ownership, making the Liebert[®] PSI5 Lithium-Ion TAA line-interactive UPSs ideally suited for server rooms, network closets, and other edge or distributed IT applications.

Lithium-Ion Battery Technology

Lithium-ion is a game-changing technology when it comes to UPS batteries. When compared to traditional valve-regulated-lead-acid (VRLA) batteries , Liebert PSI5 Lithium-Ion batteries have greater power density, up to 3 times longer, recharge much more quickly, and can endure up to 10x more discharge cycles. With a 5 year standard warranty, more than double the useful life, and significantly more runtime, the Liebert PSI5 Lithium-Ion UPS is at the top of its class.



Liebert PSI5 Lithium-Ion TAA Key Benefits vs VRLA

- Up to 3x battery life
- Lowest TCO
- 5 year standard warranty on UPS and Batteries
- Longer Runtime
- Quicker recharge times
- Smaller and lighter:
- Greater power density
- Reduced unit depth
- Up to 10x more discharge cycles





Feature	VRLA Battery	Li FePO4 Battery	Lithium-Ion Benefit
Standard battery life	3-5 years	8-10 years	up to 3 times longer life
Typical cycle life	200-260	2000	Up to 10x more discharge/recharge cycles available
Battery recharge time (to 90%)	3-6 hours	<2 hours	Fast recovery time, multiple outages can be handled over a short period
Battery weight	24lbs	13.2lbs	45% weight reduction, suited for smaller spaces and wallmount racks
Warranty	2-3 year	5 year	Install and go - ideal for remote or unmanned locations

Visit the TCO calculator at: https://www.vertiv.com/en-us/support/tools-and-application/tco-calculator to calculate the cost savings for your installation.

Lowest Total Cost of Ownership (TCO)

The Liebert PSI5 Lithium-Ion line-interactive UPSs are ideally suited to protect critical infrastructure in edge or distributed IT applications. The life expectancy of lithium-ion batteries is up to three times that of VRLA batteries – up to 10 years. That delivers up to 50% or more in TCO savings vs. VRLA batteries, chiefly because the Liebert PSI5 Lithium-Ion requires fewer battery replacements over its lifespan. You save not only on the cost of batteries but on the labor required to replace them – an especially significant issue at remote locations with few or no IT personnel on site. In short, the Liebert PSI5 Lithium-Ion UPS is a true low-maintenance, set-it-and-forget-it solution.

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
- Rack mounting kit
 - 4-Post Kit with 2U Rack/Tower models
- 2-Post Kit with 3U Short Depth Rack/Tower Model
- Rackmount Ears
- Support base for tower configuration (rack/tower models)
- Free download Vertiv[™] Power Assist, Vertiv[™] Power Insight software
- Vertiv[™] Liebert[®] RDU120 Network Card (Only Models ending with an "N")



Reliable UPS protection to keep your network up and running

The Liebert[®] PSI5 Lithium-Ion also includes automatic voltage regulation (AVR) technology, which protects against utility voltage fluctuation, extends battery life by maximizing time on utility power, and provides premium protection from power disturbances. In battery mode, the Liebert PSI5 delivers pure sine wave output to protect sensitive servers and networking equipment. With up to 9 minutes of runtime at full load and 20 minutes at half load – more than comparable competing models – the Liebert PSI5 Lithium-Ion provides plenty of runtime during an outage for an orderly shutdown. It comes with a rotating LCD display to allow both rack and tower configurations, provides real time information regarding UPS status and operating conditions, and supports remote monitoring. It's also highly energy efficient, delivering up to 98% efficiency at full load in normal operating mode. You can rest assured your business is protected with this Vertiv[™] solution, which includes a 5-year full standard warranty.



Liebert® PSI5-2200RT120LITAA



Liebert® PSI5-3000RT120LITAA



- B USB Port
- Output Receptacles
- Input Power Cord
- Input Circuit Breaker
- Emergency Power Off (EPO) Connector
- G Liebert[®] IntelliSlot (Optional Communications Card)
- 🕕 Programmable Outlet Group
- NEMA L5-30R Output Receptacle
- NEMA L5-20R Output Receptacle



Liebert® PSI5 Lithium-Ion UPS Key Features

High Availability

Fewer Battery Replacements:

Liebert[®] PSI5 Lithium-Ion batteries on average last up to 3 times as long as traditional VRLA batteries. That means less scheduled maintenance, reduced operating costs, and lowest overall total cost of ownership.

More Runtime:

The Liebert PSI5 Lithium-Ion UPS's internal batteries offer up to 9 min. of runtime at full load, more than any comparable UPS model.

Higher power density:

Liebert[®] Lithium-ion batteries can pack more power into smaller spaces.

Quicker recharge:

Get back to max capacity quickly after an outage – the Liebert PSI5 Lithium-Ion UPS can recharge to 90% capacity in 2 hours or less.

More discharge cycles:

Lithium-ion batteries deliver up to 10x more charge/discharge cycles than VRLA batteries. Again, lowest TCO.

High Availability 0.9 Output Power Factor:

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

Wide 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 audible and visual alarms to alert you to an input voltage fluctuation (buck/boost), output overload, low battery or replace battery condition.



Flexibility

Up to Ten Battery-Backed Outlets:

Allows flexibility in accommodating additional equipment to be connected to the UPS.

Optimized Form Factors:

Liebert PSI5 Lithium-Ion offers Tower, 2U or 3U Short Depth Rack/Tower convertible solutions to meet your application needs. The 3U Short Depth model offers the greatest power capacity with the smallest chassis depth making it ideal for 2-Post and wall mount racks.

Configurable Input Voltage Window:

Properly match the UPS to incoming utility power and adjust input window and transfer points to ensure regulated power to connected loads is within the selected range.

Programmable Outlet Group:

Extend run time when on battery power by power-cycling connected equipment and shedding less-critical loads.

Hot Swappable Batteries:

Increase product life and provide prolonged UPS reliability. Batteries are easily replaced without disrupting power to connected equipment.



Manageability

Communications:

Power management functions through the USB port provide monitoring of UPS status and manage the automatic, orderly shutdown of attached equipment if power outage duration ever exceeds the battery capacity of the UPS or configured shutdown parameters.

Power Management Software:

Vertiv[™] Power Assist provides intelligent monitoring and management software that is easy to connect and control directly connected USB / Serial devices in personal or general business.

Vertiv[™] Power Insight provides on-premises and remote monitoring through the IntelliSlot networking cards that supports up to 100 devices with notification and control of your network-based devices.

For more details and Free downloads of Vertiv Power Assist or Vertiv Power Insight go <u>here</u>.

SNMP Communication Option:

Add optional Vertiv[™] Liebert[®] IntelliSlot[™] communications card to enable SNMP and web-based management for the Liebert PSI5 UPS. The Liebert[®] IntelliSlot[™] communication cards provide network integration connectivity and allow 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/1GB Ethernet
- Compatible with shutdown software to ensure graceful computer shutdown
- Vertiv[™] Liebert[®] IntelliSlot[™]
 Communications Cards also have Environmental Sensor support
- Allows remote, start-up or restart for connected equipment

Environmental Sensors:

Allows remote monitoring, start-up, or restart for connected equipment.

Remote Emergency Power Off:

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

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Technical Specifications

Form Factor Power Rating Dimensions, W X D X H, IN (MM) Unit Rackmount depth	2U Rack/Tower 1500VA / 1350W 172 × 162 × 34	2U Rack/Tower 1920VA / 1920W	2U Rack/Tower 3000VA / 2700W
Dimensions, W X D X H, IN (MM) Unit Rackmount depth	17.2 x 16.2 x 3.4	1920VA / 1920W	3000VA / 2700W
Unit Rackmount depth			
Rackmount depth			
	(438 x 411 x 86)	17.2 x 20.1 x 3.4 (438 x 510 x 86)	17.2 x 24.8 x 3.4 (438 x 630 x 86)
	15 (380)	18.9 (480)	23.62 (600)
Shipping	22.4 x 22.9 x10.2 in (570 x 582 x 258 mm)	22.4 x 26.5 x 10.2 in (570 x 672 x 258 mm)	21.7 x 30.8 x 10.2 in (550 x 782 x 258 mm)
Weight, LB (KG)			
Unit	28.3 (12.9)	39.5 (18.0)	53.5 (24.3)
Shipping	42.1 (19.1)	53.8 (24.4)	67.9 (30.8)
Input/Output AC Parameters			
input Plug	NEMA 5-15P	NEMA L5-20P (5-20 Adapter included)	NEMA L5-30P
Input Cord	8ft (2.4m) Attached	8ft (2.4m) Attached	8ft (2.4m) Attached
Non-Programmable Receptacles	(3) NEMA 5-15R	(1) NEMA L5-20R, (3) NEMA 5-20R	(1) NEMA L5-30R, (3) NEMA 5-20R
Programmable Receptacles	(3) NEMA 5-15R	(3) NEMA 5-20R	(3) NEMA 5-20R
Nominal Voltage Setting		120VAC Default; 100/110/115/125VAC User Selectable	
Voltage Range Without Battery Operation		75 - 146VAC	
Frequency Range		55~65Hz (57~63Hz Battery to Normal Comeback)	
Surge Protection		ANSI C62.41, Category A, Level 3	
Transfer Time		4 - 6ms Typical	
Battery Waveform		Pure Sine Wave	
Efficiency			
Normal (Line) Mode	98%	98%	98%
Battery Parameters			
Туре		Lithium-Ion (LiFePO4)	
Recharge Time (from full discharge)	2hrs to 90%	2hrs to 90%	2hrs to 90%
Full-Load Runtime	7.5 min	8.6 min	8.9 min
Half-Load Runtime	17.7 min	19.0 min	20.0 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, ft (m)	Op	0 to 9,942 (0 to 3,000) without derating. erating temperature reduced 9°F (5 °C) for each additional 1,640ft (500m) of altitude	3
Audible Noise		< 45 dB @ line mode, < 55 dB @ battery mode	
Certifications			
Safety		UL 1642 (LiFe cells), UL 1973 (LiFe pack), UL 1778, CSA 22.2 no. 107.3	
Agency		UL 1778, c-UL, NOM, FCC Part 15, Class B	
Environmental		RoHS2 / REACH / WEEE	
Network Surge		ANSI C62.41, Category A, Level 3	
Transportation		ISTA Procedure 2A UN 38.3 (Lithium-ion)	
Warranty		5 years on UPS and Battery	
Protection Plan			
Equipment Protection Plan			\$400,000

*Liebert® PSI5 2U Rack/Tower UPS + Vertiv Liebert Intellislot Communications Card bundles available - Add an "N" to the end of the model number. Available through select distributors."

UPS Battery Runtime Tables

Runtime Table for Liebert® PSI5 Lithium-Ion is available at <u>https://www.vertiv.com/en-us/support/tools-applications/vertiv-ups-interactive-runtime-tools/</u> liebert-psi5-lithium-ion-ups-runtime-tool/

Accessories and Options

Mounting Kit Options

These mounting kits are only applicable to Liebert PSI5 Rack/Tower Products

Application	Model Supported	Style	Part Number	Description
		Bracket	2POSTRMKIT	Flexible installation capability on typical 2 post network equipment racks. Securely mount the UPS into a typical 3-6" rail width solution
2 Post-Telecom rack	PSI5 Rack/Tower	Shelf	RS500	Flush-mount shelf for 19" rack wide
2 Post-Telecom rack	2U UPS	Shelf	RS600	Center-mount shelf for 19" rack wide
		Shelf	RS700	Flush-mount shelf for 23" rack wide
		Shelf	RS800	Center-mount shelf for 23" rack wide
4 Post Rack	PSI5 Rack/Tower	4-Post Rail Kit	RMKIT12-18	4-Post Fixed Shallow Depth 12-18" rail kit
4 POSL RACK	3U Short Depth UPS	4-Post Rail Kit	201193G1L	4-Post Fixed 18-32" rail kit

Note: RS600 and RS800 kits include adapter brackets for installation of up to (2) Liebert PSI5 2U model

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-UNITY-SNMP*	10/100 Mbit Ethernet SNMP, Device Web Page, with MIB and configuration cable
	IS-UNITY-DP*	Same as IS-UNITY-SNMP plus SN series environmental sensor support
	IS-RELAY	Intellisiot Interface Kit for Relay Contacts
UNITY Card	SN-Z01	Integrated cable with single temperature sensor Network Cards are in
Environmental Sensors	SN-Z02	Integrated cable with three temperature sensors Phase Out
	SN-Z03	Integrated cable with three temperature and one humidity sensors
	SN-T	Modular with single temperature sensor
	SN-TH	Modular with single temperature and single humidity sensor
	SN-2D	Modular with two door contact inputs
	SN-3C	Modular with three dry contact inputs
	SN-L20	Modular leak zone sensor with 20 foot cable (Liebert RDU-S only)
RDU120 Card	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.
Environmental Sensors	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

*IS-UNITY-DP and IS-UNITY-SNMP Network Communications Card are being phased out and will remain available for purchase only until Dec 2025.



Internal Battery Replacement Kits

Model Number	Applicable To	Shipping Weight (lbs)
PSI5-1500LIBATKIT	PSI5-1500MT120LI(N) PSI5-1500RT120LI(N)	10.0 lbs
PSI5-2200LIBATKIT	PSI5-2200RT120LI(N)	14.6 lbs
PSI5-3000LIBATKIT	PSI5-3000RT120LI(N)	14.6 lbs

Liebert[®] MicroPod Features & Benefits:

- Power continuity during UPS maintenance
- 2U height minimizes rack space requirements
- Plug-and-play installation

Critical IT infrastructure should never be without power. The Liebert MicroPod ensures continuous uptime, including during scheduled UPS maintenance. It allows you to manually transfer connected equipment to utility power permitting scheduled service or UPS replacement without the need to shut down connected equipment.

Liebert MicroPod – Maintenance Bypass and Output Distribution

UPS Model Number	MicroPod Model Number	Plug to Utility	Output Receptacles
PSI5-1500RT120LITAA(N)	MP2-115HW	Hardwired	Hardwired
	MP2-115A	5-15P	8 x 5-15R
PSI5-2200RT120LITAA(N)	MP2-120HW	Hardwired	Hardwired, 5-20R
	MP2-120C	5-20P	5-20R, 8 x 5-15/20R
	MP2-120E	5-20P	L5-20R, 5-20R, 4 x 5-15/20R
PSI5-3000RT120LITAA(N)	MP2-130HW	Hardwired	Hardwired, L5-30R
	MP2-130C	L5-30P	8 x 5-15/20R
	MP2-130E	L5-30P	2 x 5-15/20R; 1 x L5-30R, 4 x 5-15/20R
	MP2-130P	L5-30P	4 x 5-15/20R; 2 x L5-20R

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

Vertiv[™] Liebert[®] PSI5 UPS Lithium-Ion TAA - 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 Lithium-Ion UP TO 3KVA	PAPPSI-1K3KLI	PAPPSI-1K3KLILF	PAPPSI-1K3KLIRMV	PAPPSI-1K3KLIRLF
Power Start-up Services				
Startup service Only	Standard		With Removal	
Equipment Model / Type	Part Number		Part Number	
Liebert PSI5 Lithium-Ion UP TO 3KVA	SUPSI-1K3K		SUPSI-1K3KRMV	
Power Emergency Services				
5-Year On-site Emergency Coverage - Only	Standard		With LIFE Services	
Equipment Model / Type	Part Number		Part Number	
Liebert PSI5 Lithium-Ion 1500VA	PEPPSI-1500LI5Y		PEPPSI-1500LILF	
Liebert PSI5 Lithium-Ion 2200VA	PEPPSI-2200LI5Y		PEPPSI-2200LILF	
Liebert PSI5 Lithium-Ion 3000VA	PEPPSI-3000LI5Y		PEPPSI-3000LILF	

Power Assurance Package - Summary



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Includes all "Power Start-up Services" and "Power Emergency Services" support

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 above plus:

• Continuous Monitoring, Expert Analysis, and Proactive Response

Note: LIFE Services requires a Network card. Please refer to the appropriate Scope of Work for additional details.

Power Startup Services - Summary

- Installation includes mounting and start-up of new UPS (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 equipment, if selected



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