



# Vertiv™ Liebert® PSI5 Lithium-Ion UPS

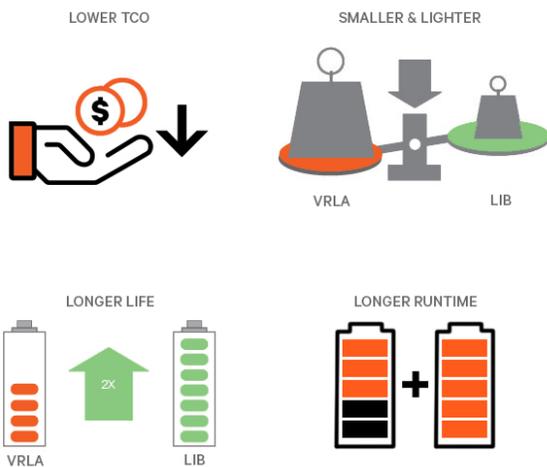
High Performance Line  
Interactive UPS for Critical  
Network Power Protection



*Lithium-ion technology delivers double the life of lead-acid batteries along with a lower total cost of ownership, making the Liebert® PSI5 Lithium-Ion 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, Lithium-ion batteries have greater power density, last about twice as long (or longer), recharge much more quickly, and can endure up to 10x more discharge cycles. With a 5 year standard warranty, double the useful life, and significantly more runtime, the PSI5 Lithium-ion UPS is at the top of its class.



## PSI5 Lithium-Ion Key Benefits vs VRLA

- 2x battery life
- Lower TCO
- 5 year standard warranty on UPS and Batteries
- Long Runtime
- Quicker recharge times
- Smaller and lighter:
  - Greater power density
  - Reduced unit depth
- Up to 10x more discharge cycles



## Lower Total Cost of Ownership (TCO)

The Liebert® PSI5 Lithium-ion line-interactive UPSs, which come in 2U 1500VA and 3000VA models, are ideally suited to protect critical infrastructure in edge or distributed IT applications. The life expectancy of lithium-ion batteries is twice that of VRLA batteries – up to 10 years. That delivers up to 50% or more in TCO savings vs. VRLA batteries, chiefly because the PSI5 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 PSI5 Lithium-ion UPS is a true low-maintenance, set-it-and-forget-it solution.



## Reliable UPS protection to keep your network up and running

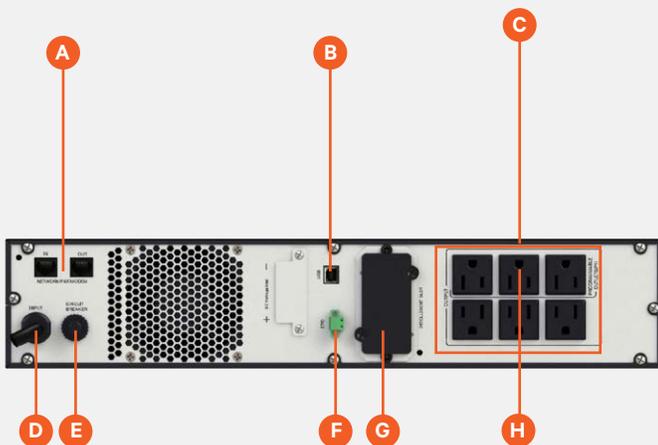
The PSI5 Lithium-ion also includes automatic voltage regulation (AVR) technology, which protects against utility voltage fluctuation, extends battery life by maximizing time on utility power, and provides premium protection from power disturbances. In battery mode, the PSI5 delivers pure sine wave output 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 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 97% 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.

- A** RJ-45 Data Line Surge Connectors
- B** USB Port
- C** Output Receptacles
- D** Input Power Cord
- E** Input Circuit Breaker
- F** Emergency Power Off (EPO) Connector
- G** Liebert® IntelliSlot Port (Optional Communications Card)
- H** Programmable Outlet Group
- I** NEMA L5-30R Output Receptacle

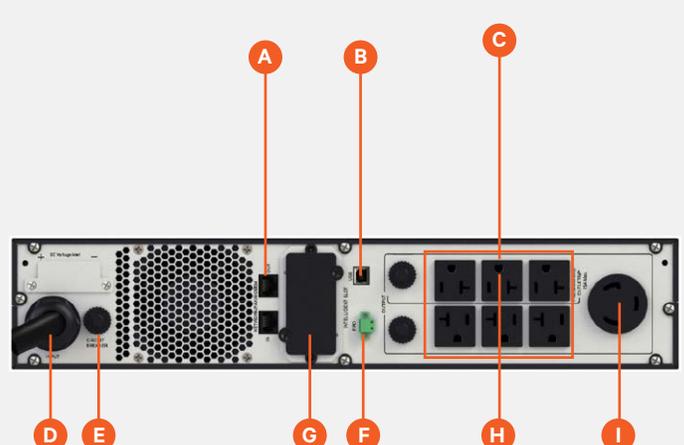
### What's In The Box

- 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
- [Trellis™ Power Insight](#) (free download)

PSI5-1500RT120LI



PSI5-3000RT120LI



## PSI5 Lithium-Ion UPS Key Features

### High Availability

#### Fewer Battery Replacements:

Lithium-ion batteries on average last twice as long as traditional VRLA batteries. That means less scheduled maintenance, reduced operating costs, and lower overall total cost of ownership.

**More Runtime:** The 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:** Lithium-ion batteries can pack more power into smaller spaces.

**Quicker recharge:** Get back to max capacity quickly after an outage – the PSI5 Lithium-Ion UPS can recharge to 100% capacity in 3 hours or less.

**More discharge cycles:** Lithium-ion batteries deliver up to 10x more charge/discharge cycles than VRLA batteries. Again, lower 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 Seven Battery-Backed Outlets:

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

#### 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 conveniently located behind the front bezel of the unit.



### Manageability

#### USB Communications:

Power management functions provide monitoring of UPS status and manage the automatic, orderly shutdown of attached computers if power outage duration ever exceeds the battery capacity of the UPS. *Trellis™* Power Insight Shutdown Software is available at Vertiv.com.

#### SNMP Support:

Add an optional Liebert® IntelliSlot IS-UNITY communications card to enable SNMP and web-based management for the Liebert® PSI5 Lithium-Ion UPS. The Liebert® IntelliSlot UNITY communication cards allow monitoring and control of the UPS from a network management station or any PC.

- Sends SNMP traps and emails for event notification
- Auto-senses 10M/100M Ethernet
- Compatible with shutdown software to ensure graceful computer shutdown
- IS-Unity-DP Communications Card also supports Vertiv Liebert® SN Series, 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.

#### Power Management Software:

Free downloads are available for [Trellis™ Power Insight](#).

Add an optional network (SNMP) communication card



FREE Power Insight Software



And monitor up to 100 devices

## Technical Specifications



Standard Models*	PSI5-1500RT120LI	PSI5-3000RT120LI
<b>Power Rating</b>	1500VA / 1350W	3000VA / 2700W
<b>Dimensions, W X D X H, IN (MM)</b>		
Unit	17.2 x 16.2 x 3.4 (438 x 411 x 86)	17.2 x 24.8 x 3.4 (438 x 630 x 86)
Shipping	10.2 x 22.9 x 22.4 (258 x 582 x 570)	10.2 x 30.8 x 22.4 (258 x 782 x 570)
<b>Weight, LB (KG)</b>		
Unit	28.3 (12.9)	53.5 (24.3)
Shipping	42.1 (19.1)	67.9 (30.8)
<b>Input/Output AC Parameters</b>		
Nominal Voltage Setting	120VAC Default; 100/110/115/125VAC User Selectable	120VAC Default; 100/110/115/125VAC User Selectable
Voltage Range Without Battery Operation	75 - 146VAC	75 - 146VAC
Frequency Range	55-65Hz (57-63Hz Battery to Normal Comeback)	55-65Hz (57-63Hz Battery to Normal Comeback)
Surge Protection	ANSI C62.41, Category A, Level 3 1372J	ANSI C62.41, Category A, Level 3 1372J
Input Plug	NEMA 5-15P, offset 90-deg type	NEMA L5-30P
Input Cord	10ft (3m) Attached	10ft (3m) Attached
Non-Programmable Receptacles	(3) NEMA 5-15R	(3) NEMA 5-20R, (1) NEMA L5-30R
Programmable Receptacles	(3) NEMA 5-15R	(3) NEMA 5-20R
Transfer Time	4 - 6ms Typical	4 - 6ms Typical
Battery Waveform	Pure Sine Wave	Pure Sine Wave
<b>Efficiency</b>		
Normal (Line) Mode	97.1%	97.3%
Boost Mode	94.1%	93.9%
Buck Mode	95.3%	95.4%
Battery Mode	90.0% @ Full-Load	89.3% @ Full-Load
<b>Battery Parameters</b>		
Type	Lithium-Ion (LiFePO4)	Lithium-Ion (LiFePO4)
Recharge Time (from full discharge)	2hrs to 100%	3hrs to 100%
Full-Load Runtime	7.5 min	8.9 min
Half-Load Runtime	17.7 min	20.0 min
<b>Environmental</b>		
Operating Temperature, °F (°C)	32° to 104° (0° to 40°)	32° to 104° (0° to 40°)
Storage Temperature °F (°C)	-5° to 122° (-15° to 50°)	-5° to 122° (-15° to 50°)
Relative Humidity	20% - 90%, non-condensing	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	
<b>Agency</b>		
Safety	UL 1778, c-UL, NOM	UL 1778, c-UL, NOM
Emissions	FCC Part 15, Class B	FCC Part 15, Class B
Network Surge	ANSI C62.41, Category A, Level 3	ANSI C62.41, Category A, Level 3
Transportation	ISTA Procedure 2A Certification	ISTA Procedure 2A Certification
<b>Warranty</b>	5 year standard warranty	5 year standard warranty

\* PSI5 2U Rack/Tower UPS + IS-UNITY-SNMP card bundles available - Add an "N" to the end of the model number. Available through select distributors.

## UPS Battery Runtime Tables

PSI5-1500RT120LI			
Load%	VA	Watts	Runtime (min)
100	1500	1350	7.5
90	1350	1215	8.9
80	1200	1080	10.3
70	1050	945	12.1
60	900	810	14.6
50	750	675	17.7
40	600	540	22.8
30	450	405	30.6
20	300	270	45.3
10	150	135	89.0

PSI5-3000RT120LI			
Load%	VA	Watts	Runtime (min)
100	3000	2700	8.9
90	2700	2430	10.5
80	2400	2160	11.9
70	2100	1890	13.9
60	1800	1620	16.5
50	1500	1350	20.0
40	1200	1080	25.5
30	900	810	34.2
20	600	540	49.1
10	300	270	96.6

## Accessories and Options

### Mounting Kit Options

These mounting kits are only applicable to 2U Rack/Tower Products

Application	Model Supported	Style	Part Number	Description
2 Post-Telecom rack	PSI5 2U UPS family up to 5kVA	Bracket	2POSTRMKIT	Flexible installation capability on typical 2 post network equipment racks. Securely mount the UPS into a typical 3-6" rail width solution
		Shelf	RS500	Flush-mount shelf for 19" rack wide
		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

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



PSI5 with 2POSTRMKIT

### Intellislot Communication Cards

Model Number	Description
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	Intellislot Interface Kit for Relay Contacts



### Internal Battery Replacement Kits

Model Number	Applicable To	Shipping Weight (lbs)
PSI5-1500LIBATKIT	PSI5-1500RT120LI	14.0
PSI5-3000LIBATKIT	PSI5-3000RT120LI	42.0

## 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.

### MicroPOD – Maintenance Bypass and Output Distribution

UPS Model Number	MicroPOD Model Number	Plug to Utility	Output Receptacles
PSI5-1500RT120LI	MP2-115HW	Hardwired	Hardwired
	MP2-115A	5-15P	8 x 5-15R
	MP2-130HW	Hardwired	Hardwired
PSI5-3000RT120LI	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



## Liebert® PSI5 UPS Lithium-Ion - 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-1K3K	PAPPSI-1K3KLF	PAPPSI-1K3KRMV	PAPPSI-1K3KRLF

### 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-15005Y	PEPPSI-15005YLF
Liebert PSI5 Lithium-Ion 3000VA	PEPPSI-30005Y	PEPPSI-30005YLF

### Power Assurance Package - Summary



- 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

### 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

### LIFE™ Services includes above plus:

- Continuous Monitoring, Expert Analysis, and Proactive Response

Note: LIFE Services requires an UNITY card.

Please refer to the appropriate Scope of Work for additional details.



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