



## Vertiv™ Edge Lithium-Ion UPS

1500 – 3000VA 230V

High Performance  
Line-Interactive Power  
Protection for Servers and  
Networking Equipment



Lithium-ion  
Batteries

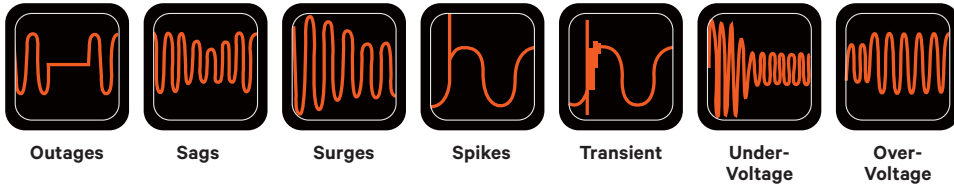
# Vertiv™ Edge Lithium Ion UPS

*The Vertiv™ Edge Lithium-Ion line-interactive UPS provides a high level of power protection to your business-critical applications.*

The Vertiv Edge Lithium-Ion line-interactive UPS provides both power conditioning and battery backup to critical IT equipment such as servers and network gear ensuring your business-critical applications are protected in the event of an unanticipated loss of power or an unprecedented power surge.

The Vertiv Edge Lithium-Ion UPS protects against a wide range of power fluctuations and automatically switches to battery backup when power loss is detected. With a 0.9 output power factor (PF) and less than 6 millisecond transfer time, you can ensure your most critical assets are protected.

## Protects Against



## High Performance Line-interactive Power Protection

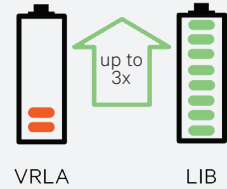
The rack-mount design of the Vertiv Edge Lithium-Ion UPS is ideal for server rooms, network closets, and other edge or distributed IT applications within small and medium businesses where floor space is at a premium. It is a true low-maintenance, set-it and forget-it solution ideal for remote locations with limited onsite technical resources.

## Vertiv Edge Lithium-Ion Overview

- 1500VA, 2200VA, & 3000VA UPSs in a rack/tower convertible form factor
- Standard 5-year warranty provides peace of mind your investment is protected against potentially costly equipment failures
- Achieve the lowest total cost of ownership over the lifetime of the UPS with fewer battery replacements and up to 10 years of useable life
- Hot-swappable, user-replaceable batteries increase the useable life of the UPS by allowing you to easily replace the batteries without disrupting power to connected equipment
- Internal batteries offer industry-leading runtime (up to 10 minutes at full load) to protect critical equipment during an unexpected power loss
- Lithium-Ion battery technology degrades slower in high temperature environments, supports up to 10 times more discharge cycles, and delivers faster recharge times compared to VRLA batteries

## Why should you choose Lithium-Ion Technology?

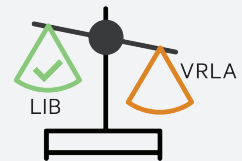
### LONGER LIFE



### LOWER TCO



### SMALLER & LIGHTER



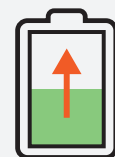
### LONGER RUNTIME



### ENVIRONMENTALLY FRIENDLY



### FAST BATTERY RECHARGE



*Lithium-Ion technology delivers up to 3 times the life expectancy of lead-acid batteries and lowers the total cost of ownership by nearly half*

**Lithium-Ion Outperforms VRLA when compared...**

Battery Feature	VRLA Battery	Li-ion 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
Battery recharge time (@ 90%)	3-6 hours	<2 hours	Fast recovery time safeguards your critical IT equipment in the event of multiple outages
Battery weight	10.9 kg	5.9 kg	45% lighter making it ideal for small spaces and wall-mount racks
Warranty	2 or 3 years	5 years	Worry free operation so you can set-it and forget-it

Visit the TCO calculator at [vertiv.com](http://vertiv.com) -> Products & Services -> UPS -> Edge Lithium -> Models to calculate the cost savings for your installation.

**Build Your Total Infrastructure Solution with Vertiv**

*Discover expert designed IT infrastructure solutions with proven success in diverse environments and countless applications.*



**Vertiv™ Geist™ rPDU**

Reliable power distribution with outlet level remote monitoring and management providing the highest level of power visibility and control.

**Vertiv™ VE Rack**

Self-contained 42U server rack designed to simplify equipment installation and provides an additional 6cm of useable depth.

**Cable and Air Flow Management**

Included accessories ensure proper cable management and airflow to keep your equipment cool.

**Vertiv™ Edge Lithium-Ion**

Protect mission critical equipment in the event of power loss or extreme power fluctuations.

**Software and IT Management**

Monitor the entire system either locally or remotely to ensure you are alerted of out-of-range conditions that could result in costly downtime.

Visit [Vertiv.com](http://Vertiv.com) or contact a Vertiv Sales Representative today to find out how Vertiv can help you configure an all-in-one infrastructure solution.

## High Performance



**0.9 Output Power Factor (PF):** Provides more useable power enabling you to connect more equipment saving you money and space.



**Increased Runtime:** Internal batteries offer up to 10 minutes of runtime at full load.

**Programmable Outlet Group:** Extend run time when on battery power by power-cycling connected equipment and shedding less critical loads.



**Battery Backed Outlets:** Up to 7 battery backed outlets ensuring critical equipment is protected.

**Advanced Warning Status:** Receive early audible and visual alarms warning you of system status to alert you to an input voltage fluctuation (buck/boost) output overload, low battery, or battery replacement condition.

**Wide Input Voltage Range:** Prolong battery life by allowing the UPS to maximize the use of the utility power before transferring to battery.

## Superior Battery Technology



**Fewer Battery Replacements:** Lithium-Ion batteries require fewer battery replacements and last on average up to 3 times as long as traditional VRLA batteries reducing maintenance, labor, and replacement costs (lower TCO).

**More Discharge Cycles:** Lithium-Ion batteries deliver up to 10 times more charge / discharge cycles than VRLA batteries.

**Fast Recharge:** Lithium-Ion batteries recharge twice as fast as traditional VRLA batteries getting you back to 90% in as little as 2 hours.

**Hot-Swappable User-Replaceable Batteries:** Increase product life and reliability with batteries that can be easily replaced without disrupting power to connected equipment.

**Environmentally Friendly:** Significantly reduce battery disposal and recycling with lower replacement rates.

## Enhanced Manageability



**LCD Display:** User-friendly full-color LCD interface with gravity sensing orientation simplified installation and configuration while also providing instant at-a-glance status and insights.

**USB Communications:** Manage the automatic orderly shutdown of attached equipment if the power outage duration exceeds the battery capacity.

**Remote Monitoring and Management:** Add an optional Liebert® IntelliSlot IS-UNITY communication card to enable remote monitoring / management (web based, SNMP, BACnet, MODBUS and relay contacts) and environmental monitoring via external sensors.

**Remote Emergency Power Off:** Remotely shutdown the UPS during an emergency.

**Power Management Software:** Add the Liebert IS-UNITY and download Vertiv™ [Power Insight](#) for remote UPS management at no additional cost.

## Comprehensive Services for Critical Systems

Note	Part Number	Description 1	Description 2	Description 3
Need to order both part numbers at the same time to get all scope for Power Emergency package (8x5). Please see SOW below.	88028173	Edge Lithium Ion 1-3kVA	Start-up/Installation	Power Emergency Bundle (8x5)
	88028183		Power Emergency Business Hour Contract (5 Years)	
Need to order both part numbers at the same time to get all scope for Power Emergency package (24x7). Please see SOW below.	88028176	Edge Lithium Ion 1-3kVA	Start-up/Installation	Power Emergency Bundle (24x7)
	88028184		Power Emergency After Hour Contract (5 Years)	

### Power Emergency Package (8X5)

The Power Emergency Package provides on-site emergency support with 100% parts and labor coverage and is available for single-phase UPS products up to 3kVA. Adding Vertiv services to your Vertiv Edge Lithium Ion UPS ensures you are protected during an emergency. Includes:

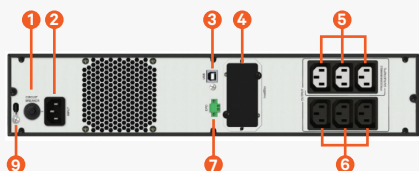
- Five-year service coverage
- Guaranteed 2-4hours on-site emergency response, 5 days/week, 8 hours/day, within 100 kms of a Vertiv's Service City.
- Includes 24x7 professional Helpline
- Advanced replacement of the faulty unit
- Shipping costs are covered by Vertiv
- Coverage for both electronic parts and battery failures
- Start-up / Installation services
  - Start-up Services provide on-site technical support for installation and start-up of your UPS for you get up and running as quickly as possible during business hours.
    - Installation includes mounting the new UPS and powering it up
    - Configuring the IS-Webcard and make sure that it is online in their network (optional item)
    - Services performed by a Vertiv factory trained technician

### Power Emergency Package (24X7)

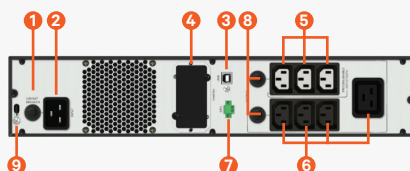
The Power Emergency Package provides on-site emergency support with 100% parts and labor coverage and is available for single-phase UPS products up to 3kVA. Adding Vertiv services to your Vertiv Edge Lithium Ion UPS ensures you are protected during an emergency. Includes:

- Five-year service coverage
- Guaranteed 2-4hours on-site emergency response, 7 days/week, 24 hours/day, within 100 kms of a Vertiv's Service City.
- Includes 24x7 professional Helpline
- Advanced replacement of the faulty unit
- Shipping costs are covered by Vertiv
- Coverage for both electronic parts and battery failures
- Start-up / Installation services
  - Start-up Services provide on-site technical support for installation and start-up of your UPS for you get up and running as quickly as possible 24x7.
    - Installation includes mounting the new UPS and powering it up
    - Configuring the IS-Webcard and make sure that it is online in their network (optional item)
    - Services performed by a Vertiv factory trained technician

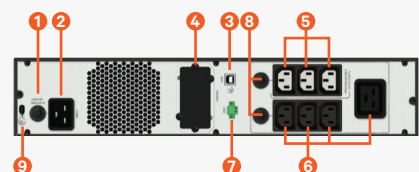
EDGELI-1500IRT2U



EDGELI-2200IRT2U



EDGELI-3000IRT2U



- 1 Input circuit breaker
- 2 AC Input
- 3 USB communication port
- 4 IntelliSlot port (optional communications card)
- 5 Programmable output receptacles (1 group)
- 6 Non-programmable output receptacles
- 7 Emergency Power Off (EPO) connector
- 8 Output circuit breakers
- 9 Earth terminal

### What's In The Box

- Vertiv™ Edge Lithium-Ion UPS
- USB type A to B cable
- 4-post rail kit
- Screws, ears and mounting hardware
- Tower feet
- 2 x IEC C13 to C14 output cables
- Input power cables (UK, AUS, Schuko)
- Vertiv™ Power Insight management software ([free download](#))
- Quick Installation Guide
- Safety Instructions

# Vertiv™ Edge Lithium Ion UPS

## Technical Specifications

	EDGELI-1500IRT2U	EDGELI-2200IRT2U	EDGELI-3000IRT2U
<b>Power Rating (VA/W)</b>	1500VA / 1350W	2200VA / 1980W	3000VA / 2700W
<b>Form Factor</b>	Rack / Tower (2U)	Rack / Tower (2U)	Rack / Tower (2U)
<b>Dimensions, mm</b>			
Unit (W x D x H)	438 x 410 x 86	438 x 510 x 86	438 x 630 x 86
Shipping (W x D x H)	550 x 620 x 240	565 x 700 x 240	600 x 800 x 240
<b>Weight, kg</b>			
Unit	12.8	17.5	24.3
Shipping	20.4	25.2	32.1
<b>Input AC Parameters</b>			
Voltage Range Without Battery Operation (230V default)	166 - 278V	166 - 278V	166 - 278V
Frequency Range	45 - 65Hz, autosensing	45 - 65Hz, autosensing	45 - 65Hz, autosensing
Input Power Connector	IEC60320 C14	IEC60320 C20	IEC60320 C20
Surge Protection	624J	624J	624J
<b>Output AC Parameters</b>			
Output Receptacles	3 + 3 IEC60320 C13	3 + 3 IEC60320 C13 + 1 IEC60320 C19	3 + 3 IEC60320 C13 + 1 IEC60320 C19
Output Receptacles - Controllable	Yes - 1 group (3 x IEC60320 C13)	Yes - 1 group (3 x IEC60320 C13)	Yes - 1 group (3 x IEC60320 C13)
Output Voltage	200/208/220/230 (default) /240	200/208/220/230 (default) /240	200/208/220/230 (default) /240
Waveform (Battery Operation)	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Transfer Time	4 - 6 ms Typical	4 - 6 ms Typical	4 - 6 ms Typical
Output Overload (AC Mode)	111% - 120% @ 10 s > 121% - Shutdown	111% - 120% @ 10 s > 121% - Shutdown	111% - 120% @ 10 s > 121% - Shutdown
Efficiency (full load, interactive mode)	97.5%	98.5%	98.5%
<b>Battery</b>			
Type	Li-ion (LiFePo4)	Li-ion (LiFePo4)	Li-ion (LiFePo4)
Quantity & Voltage & Capacity	1 x 48V x 5Ahr	2 x 72V x 2.5Ahr	3 x 72V x 2.5Ahr
Recharge Time (90% / 100%, from full discharge)	1.7 hrs / 1.9 hrs	1.7 hrs / 1.9 hrs	2.4 hrs / 2.7 hrs
Full-Load Runtime	8.7min	9.3min	10.5min
Half-Load Runtime	18.5min	20.2min	22.6min
<b>Environmental</b>			
Operating Temperature	0 to 40°C	0 to 40°C	0 to 40°C
Storage Temperature	-10°C to +45°C	-10°C to +45°C	-10°C to +45°C
Relative Humidity (Operation)	8% to 90%, non-condensing	8% to 90%, non-condensing	8% to 90%, non-condensing
Operating Altitude (without derating)	3000m	3000m	3000m
Audible Noise (line mode)	<45dBA AVR mode, >70% load < 55dBA Battery mode	<45dBA AVR mode, >70% load < 55dBA Battery mode	<45dBA AVR mode, >70% load < 55dBA Battery mode
<b>Agency</b>			
Compliance*	CE, CB Report, EAC, RCM, UKCA	CE, CB Report, EAC, RCM, UKCA	CE, CB Report, EAC, RCM, UKCA
Safety	EN62040-1:2008+A1:2013 CB - IEC62619 li-ion battery	EN62040-1:2008+A1:2013 CB - IEC62619 li-ion battery	EN62040-1:2008+A1:2013 CB - IEC62619 li-ion battery
Environmental	RoHS2 / REACH / WEEE	RoHS2 / REACH / WEEE	RoHS2 / REACH / WEEE
Transportation	ISTA 2A UPS UN38.3 (Lithium-Ion)	ISTA 2A UPS UN38.3 (Lithium-Ion)	ISTA 2A UPS UN38.3 (Lithium-Ion)
<b>Communications and Management</b>			
Slot for optional cards	Yes	Yes	Yes
Communication port	USB	USB	USB
Emergency Power Off (EPO)	Yes	Yes	Yes
<b>Warranty</b>			
Warranty	5 years on UPS and Battery	5 years on UPS and Battery	5 years on UPS and Battery

\*For a full list of compliance certificates please contact your local Vertiv representative.

## Vertiv Edge Lithium-Ion UPS Runtimes

**Vertiv Edge Lithium-Ion 1500VA  
EDGELI-1500IRT2U**

Load%	VA	Watts	Runtime (min)
100%	1500	1350	8.7
90%	1350	1215	9.7
80%	1200	1080	11.1
70%	1050	945	12.9
60%	900	810	15.3
50%	750	675	18.5
40%	600	540	23.5
30%	450	405	31.4
20%	300	270	43.7
10%	150	135	84.9

**Vertiv Edge Lithium-Ion 2200VA  
EDGELI-2200IRT2U**

Load%	VA	Watts	Runtime (min)
100%	2200	1980	9.3
90%	1980	1782	10.5
80%	1760	1584	12.0
70%	1540	1386	13.9
60%	1320	1188	16.6
50%	1100	990	20.2
40%	880	792	25.5
30%	660	594	34.3
20%	440	396	47.1
10%	220	198	90.7

**Vertiv Edge Lithium-Ion 3000VA  
EDGELI-3000IRT2U**

Load%	VA	Watts	Runtime (min)
100%	3000	2700	10.5
90%	2700	2430	11.8
80%	2400	2160	13.5
70%	2100	1890	15.6
60%	1800	1620	18.6
50%	1500	1350	22.6
40%	1200	1080	28.6
30%	900	810	38.5
20%	600	540	52.4
10%	300	270	102.6

## Vertiv Edge Lithium-Ion Accessories

### MicroPOD – Maintenance Bypass and Output Distribution

UPS Model Number	MicroPOD Model Number	Input Connection	Output Connection
EDGELI-1500IRT2U	MP2-210K	IEC60320-C14	4+4 IEC60320-C13
EDGELI-2200IRT2U	MP2-220L	IEC60320-C20	2+2+2 IEC60320-C13 & 1 IEC60320-C19
EDGELI-3000IRT2U	MP2-220L	IEC60320-C20	2+2+2 IEC60320-C13 & 1 IEC60320-C19



### Internal Battery Replacement Kits

Model Number	Applicable To	Description
PSI5-1500LIBATKIT	EDGELI-1500IRT2U	48V x 5Ahr (LiFe-485000 x 1)
PSI5-2200LIBATKIT	EDGELI-2200IRT2U	72V x 2.5Ahr (LiFe-722500 x 2 parallel)
PSI5-3000LIBATKIT	EDGELI-3000IRT2U	72V x 2.5Ahr (LiFe-722500 x 3 parallel)



### Intellislot Communication Cards

Model Number	Description
IS-UNITY-DP	Same as IS-UNITY-SNMP, plus SN Series environmental sensor support
IS-UNITY-SNMP	Intellislot Web and SNMP V3 management card
IS-RELAY	Intellislot Interface Kit for Relay Contacts



### Environmental sensors (for Unity cards)

Model Number	Description
SN-T	Modular with single temperature sensor
SN-TH	Modular with single temperature and humidity sensor
SN-Z01	Integrated cable with single temperature sensor
SN-Z02	Integrated cable with three temperature sensors
SN-Z03	Integrated cable with three temperature sensors & one humidity sensor





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