

Vertiv[™] Edge UPS 500 - 3000 VA 230 V Superior Power Protection for Edge Applications





About Vertiv[™]

Vertiv brings together hardware, software, analytics and ongoing services to ensure its customers' vital applications run continuously, perform optimally and grow with their business needs. Vertiv solves the most important challenges facing today's data centers, communication networks and commercial and industrial facilities with a portfolio of power, cooling, and IT infrastructure solutions and services that extends from the cloud to the edge of the network. Headquartered in Columbus, Ohio, USA, Vertiv employs around 20,000 people and does business in more than 130 countries. For more information, and for the latest news and content from Vertiv, visit <u>Vertiv.com</u>.

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The Vertiv[™] Edge UPS: Best-in-class battery backup and power protection for server, networking and EDGE applications.

Vertiv[™] Edge is a family of highly reliable, efficient, manageable and flexible line interactive Pure sinewave UPSs, with models ranging from 500VA to 3000VA in mini-tower, rack/tower, Pure sinewave and rackmount form factors. With a 0.9 power factor, controllable outlets and extended runtime options, Vertiv Edge is the right choice for protecting server and networking equipment in distributed and EDGE IT applications. Available in 1U and 2U options as well as a short-depth 3U 3000VA model, it can provide optimum runtime at the right size and power density in a cost effective UPS solution.

Mini Tower (750 VA, 1000 VA, 1500 VA)



- Compact Mini Tower design for tower servers and/or applications with no available rack
- Plug and play solution requiring no installation
- Vertiv[™] Intellislot SNMP/ Webcards available for remote power management and OS's shutdown

1U Rack Mount (500 VA, 1000 VA, 1500 VA)



- Compact 1U Rack Mount design for Edge applications with limited rack space
- Comes with rack mounting hardware included
- Vertiv Intellislot SNMP/ Webcards available for remote power management and OS's shutdown

At a Glance

- Reliable and powerful: 0.9 output power factor, ensuring more active power to protect larger loads
- Up to 6 auto-discoverable extended run battery cabinets for longer runtime
- Highly efficient: up to 98% in normal operation mode, providing energy and cost savings
- Up to 10 power outlets, with 3 controllable in a group for optimum battery usage
- Color graphic LCD display
- Advanced AVR design for a more stable output voltage regulation
- Standard 3 years warranty for both electronics and batteries

2U - 3U Rack / Tower (1500 VA, 2200 VA 3000 VA 2U, 3000 VA 3Us)





- Convertible rack/tower design with LCD display provides flexible installation options
- Extended runtime capability with external battery cabinets with autodetection, for hours of back-up time
- 3000VA 3Us height with short depth (<500 mm) for compact racks that still require maximum power protection
- Vertiv Intellislot SNMP/Webcards available for remote power management and OS's shutdown

Vertiv[™] Edge Highlights



LCD display

Color and graphic LCD display for an intuitive user interface

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High output powerfactor (0.9)

It enables EDGE UPS to protect more loads and save space



External battery cabinets

The Rack/Tower models allow longer runtimes thanks to the battery cabinets with auto-detection

Efficiency up to 98%



High efficiency in normal operation mode means an optimized energy management, thus providing energy savings

Flexibility

Easy to install and a wide range of power ratings, from 500VA up to 3000VA, available in multiple form factors: minitower. 1U rack and rack/tower





Leading technology



Advanced AVR design (2 x boost / 1 buck taps) for a more stable output voltage regulations



Controllable outlets

The group of controllable outlets allows a power control of the load, helping to achieve longer runtime



Reliable UPS Protection At The All-Important Network Edge

The network edge is becoming increasingly important as companies seek to take advantage of Internet of Things, cloud computing and other applications that require localized compute power, networking services and data storage - all with low latency. Distributed and edge data centers are now no less important to business success than large centralized data centers, so must be afforded similar power protection.

The Vertiv[™] Edge line interactive UPS family is intended for distributed IT and edge applications that require reliable, efficient power protection for server and networking equipment. It comes in mini-tower, rack tower and rack-mount form factors, with capacities ranging from 500VA to 3000VA. Each model has a 0.9 output power factor (PF), enabling them to protect larger loads than competing models of the same capacity.

Vertiv Edge UPSs support up to 6 extended-run battery cabinets (EBCs), providing more runtime at full load than comparable competing UPSs. Auto-detect features make the EBCs easy to add and configure.

Vertiv Edge UPSs are also highly manageable, with a colorful, graphical LCD screen for easy, intuitive on-site management, as well as optional SNMP support. Vertiv Edge is compatible with the free Vertiv Power Assist software for local UPS status and shutdown of IT loads connected locally.

A standard 3 years warranty for both electronics and batteries protects your UPS investment.

- 1. USB Port
- 2. Output receptacles
- 3. Programmable output group
- 4. Input power socket
- 5. Input circuit breaker
- 6. Emergency Power Off (EPO) connector
- 7. Intellislot[®] Port for optional cards
- 8. Earth terminal
- 9. Extended runtime battery connection
- **10.** Automatic batterv detection terminal



What's in the box

- UPS Unit
- **USB** Cable
- Printed Quick Installation and
- Guide Safety instructions
- Adjustable 4-post rack mounting kit (not included with Mini Tower)
- Support base for tower configuration (Rack/Tower Models Only)
- Power Assist software (free download from Vertiv.com)
- Input and output power cables (depending on rating and model type)

Vertiv Edge 1000VA 1U Rack UPS

Vertiv Edge 3000VA 3Us Rack/Tower UPS

Vertiv Edge 1500VA Tower UPS

Efficient & Green



High efficiency: Vertiv[™] Edge UPSs operate at up to 98% efficiency in normal operation mode, saving on electricity costs throughout their lifetime.

Extended battery life: Deep discharge protection prevents the potential damage that can occur when a UPS battery fully drains.

Configurable "Green function": When in battery mode with only very small loads, the UPS will automatically shut itself down to protect batteries.

Programmable outlets: 3 of the 6 Vertiv Edge outlets are configurable (1 group), enabling users to shut down less-critical loads in the event of an outage to optimize battery runtime.

RoHS and REACH compliant: Ensures against the use of hazardous substances in UPSs.

Maximize Power Protection



High output PF: Each Vertiv Edge UPS operates at 0.9 output power factor (PF), which means that more active power can be used to protect IT equipment. That enables Vertiv Edge UPSs to protect larger loads compared to competing models of the same capacity with a lower PF.

Advanced AVR design: Automatic voltage regulation smooths out power spikes, swells and brownouts without the UPS switching to battery mode and help to extend battery life. The advanced design with 2 x boost / 1 x buck increases or decreases voltages as required to prevent the load from extreme supply voltages.

High temperature operation: Vertiv Edge UPSs can operate at up to 40°C at full power, and can handle operating at higher temperatures with de-rating.

Flexibility and Manageability

Easy to install, configure and operate: Auto-detect external battery modules and color LCD display help to make the UPS operation easier and the user interface more intuitive.

Optional SNMP/web card: For advanced remote monitoring of status and OS's shutdown.



Environmental monitoring: Optional web card also supports integration with environmental sensors, to detect excessive heat, moisture, motion and more.

External battery cabinets: Attach up to 6 external battery modules to gain additional runtime.

Remote Emergency Power Off: Allows the UPS to be remotely shut down during an emergency.

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 ensures continuous uptime.



Vertiv[™] Edge UPS Accessories



External Battery Modules:

Enable additional runtime to weather extended power outage situations. Modules are simple to install and auto-discoverable. GXT5-EBC48VRT2U and GXT5-EBC72VRT2U are compatible with Vertiv Edge UPS.



Liebert[®] MicroPOD Maintenance Bypass:

A 2U rack-mounted installation, available in several receptacle combinations, allows manual transfer of connected equipment to utility power ensuring network availability and business continuity during scheduled service or UPS replacement.

Micropod Maintenance Bypass Switch for 10A (MP2-210K)

Micropod Maintenance Bypass Switch for 16A (MP2-220L)



Optional Connectivity Cards:

Web and SNMP cards allow you to connect your Vertiv[™] Edge UPS to an Ethernet network and the Internet, to monitor and manage UPSs from a standard Web browser and, when needed, remotely provide graceful shutdown for multiple computer systems.

Intellislot Web & SNMP V3 management card (IS-UNITY-SNMP)

Liebert IS-UNITY-DP SNMP/Web Card (03020728

IS-RELAY Card (IS-RELAY)

Power Insight

(Download for free from Vertiv.com)



- **FREE** On Premise consolidated monitoring and notification
- Up to 100 connected devices
- Alarm notifications via email, SMS and on-screen icons
- Shutdown protection for individual and virtual servers
- Auto discovery of Libert UPS devices
- Direct access to each device from the web interface
- Alarm views with data that can be sorted or filtered
- Summarized data of individual devices
- **Dashboard views** of key data points such as capacity load percentage, output current, battery percentage charge and battery time remainning

Technical Specifications - Tower Models

Model Number	EDGE-750IMT	EDGE-1000IMT	EDGE-1500IMT
Rating (VA/W)	750VA/675W	1000VA/900W	1500VA/1350W
Dimensions, mm			
Unit (W x D x H)	145 x 3	70 x 220	145 x 480 x 220
Shipping (W \times D \times H)	230 x 4	⊧50 x 325	230 x 570 x 325
Weight, kg			
Unit	11	12	18
Shipping		13	20
Input AC Parameters			
Nominal Voltage Setting		230V	
Voltage Range Without Battery Operation (230V default)		166 to 278	
Frequency Range (Hz)		55 to 65	
Input Power Connector		IEC60320 C14	
Surge Protection (J)		624	
Output AC Parameters			
Output Receptacles	3 + 2 IE	C320 C13	3 + 3 IEC320 C13
Output Receptacles - Controllable		Yes - 1 group	
Output Voltage		200/208/220/230/240	
Waveform (Battery Operation)		Pure sine wave	
Transfer Time		4 to 6 ms Typical	
Output (AC Mode) Overload	106% - 125%	@ 60 s; 126% - 150% @ 50 s; 151%	‰ - 200% @ 2 s
Efficiency (full load, line mode, typ)	95%	96%	97%
Battery			
Туре	Va	alve-regulated, non-spillable, lead a	acid
Quantity & Voltage & Capacity	2 x 12V x 9Ahr	2 x 12V x 10Ahr	4 x 12V x 9Ahr
Recharge Time (internal batteries, typical)		3 hr @ 90%	
Environmental			
Operating Temperature (°C) *		0 to 40*	
Storage Temperature (°C)	-	25°C to +55°C without battery insi	ide
Relative Humidity (Operation)		20% to 90%	
Operating Altitude (m)		3000	
Audible Noise (line mode)		<40dB normal mode, <70% load; <45dB AVR mode, >70% load	
Form Factor		Tower	
Agency			
Compliance		CE, CB Report	
Safety		EN/IEC 62040-1	
Transportation		ISTA 2A	
Warranty			
Warranty		3 years	



Technical Specifications - 1U Rack Models

Model Number	EDGE-500IRM1U	EDGE-1000IRM1U	EDGE-1500IRM1U
Rating (VA/W)	500VA/450W	1000VA/900W	1500VA/1350W
Dimensions, mm			
Unit (W x D x H)	438 x380 x 44	438 x 480 x 44	438 × 600 × 44
Shipping (W x D x H)	550 × 620 × 200	570 x 700 x 200	570 x 780 x 200
Weight, kg			
Unit	11	17	23
Shipping	17	23	31
Input AC Parameters			
Nominal Voltage Setting		230V	
Voltage Range Without Battery Operation (230V default)		166 to 278	
Frequency Range (Hz)		55 to 65	
Input Power Connector		IEC60320 C14	
Surge Protection (J)		624	
Output AC Parameters			
Output Receptacles		3 + 3 IEC320 C13	
Output Receptacles - Controllable		Yes - 1 group	
Output Voltage		200/208/220/230/240	
Waveform (Battery Operation)		Pure sine wave	
Transfer Time		4 to 6 ms Typical	
Output (AC Mode) Overload	106% - 125%	@ 60 s; 126% - 150% @ 50 s; 151% ·	- 200% @ 2 s
Efficiency (full load, line mode, typ)	96%	97%	97%
Battery			
Туре	Vi	alve-regulated, non-spillable, lead ad	cid
Quantity & Voltage & Capacity	2 x 6V x 9Ahr	4 x 6V x 9Ahr	6 x 6V x 9Ahr
Recharge Time (internal batteries, typical)		3 hr @ 90%	
Environmental			
Operating Temperature (°C) *		0 to 40*	
Storage Temperature (°C)	-	25°C to +55°C without battery insid	le
Relative Humidity (Operation)		20% to 90%	
Operating Altitude (m)		3000	
Audible Noise (line mode)		<40dB normal mode, <70% load; <45dB AVR mode, >70% load"	
Form Factor		Rack (1U)	
Agency			
Compliance		CE, CB Report	
Safety		EN/IEC 62040-1	
Transportation		ISTA 2A	
Warranty			
Warranty		3 years	

(*) Note: operation at >40 $^{\rm o}{\rm C}$ power derating applies. Please check with technical support

Technical Specifications - 2-3Us Rack/Tower models

6 x 12V x 10Ahr	EDGE-1500IRT2UXL	EDGE-22000IRT2UXL	EDGE-3000IRT2UXL	EDGE-3000IRT3UX				
Rating (VA/W)	1500VA/1350W	2200VA/1980W	3000VA/2700W	3000VA/2700W				
Dimensions, mm								
Jnit (W x D x H)	438 x 510 x 88	438 x 6	438 × 630 × 88 438 >					
Shipping (W x D x H)	565 x 700 x 240	600 x 80	00 x 240	550 x 670 x 282				
Veight, kg								
Jnit	20	27	32	36				
Shipping	30	35	2	42				
nput AC Parameters								
Nominal Voltage Setting		23	OV					
/oltage Range Without Battery Dperation (230V default)		166 ti	o 278					
Frequency Range (Hz)		55 t	o 65					
nput Power Connector		IEC603	20 C20					
Surge Protection (J)		62	24					
Dutput AC Parameters								
Dutput Receptacles	3 + 3 IEC320 C13	3 + 3 IEC + 1 IEC3		6 + 3 IEC320 C13 + 1 IEC320 C19				
Output Receptacles - Controllable		Yes - 1	group					
Dutput Voltage		200/208/22	20/230/240					
Vaveform (Battery Operation)		Pure sir	ne wave					
Transfer Time		4 to 6 m	s Typical					
Output (AC Mode) Overload	1065	% - 125% @ 60 s; 126% - 15	0% @ 50 s; 151% - 200%	@ 2 s				
Efficiency (full load, line mode, typ)	97%	97%	98%	98%				
Battery								
Гуре		Valve-regulated, nor	n-spillable, lead acid					
Quantity & Voltage & Capacity	4 x 12V x 9Ahr	6 x 12V x 7Ahr	6 x 12V	′ x 10Ahr				
Recharge Time (internal batteries, typical)		3 hr @	90%					
Compatible External Battery Cabinet	GXT5- EBC48VRT2U(E)		GXT5-EBC72VRT2U(E)					
Environmental								
Operating Temperature (°C) *		0 to	40*					
Storage Temperature (°C)		-25°C to +55°C wit	hout battery inside					
Relative Humidity (Operation)		20% te	o 90%					
Operating Altitude (m)		30	00					
Audible Noise (line mode)	<400	dB normal mode, <70% load	d; <45dB AVR mode, >709	% load				
Form Factor		Rack / Tower (2U)		Rack / Tower (3U				
Agency								
Compliance		CE, CB	Report					
Safety		EN/IEC	62040-1					
Transportation		ISTA	A 2A					
Warranty								
Warranty		3 ye	ears					

(*) Note: operation at >40 $^{\rm o}{\rm C}$ power derating applies. Please check with technical support



Vertiv™ Edge Runtime Tables

Edge Tower models

Load			E-750IMT Batteries Only	Load			Load	In		E-1500IMT Batteries Only	
%	VA	w	Runtimes in minutes	%	VA	W	Runtimes in minutes	%	VA	W	Runtimes in minutes
100	750	675	5.9	100	1000	900	5.4	100	1500	1350	6.0
70	525	472.5	10.5	70	700	630	9.6	70	1050	945	10.9
50	375	337.5	17.0	50	500	450	15.5	50	750	675	17.3
20	150	135	47.1	20	200	180	43.9	20	300	270	49.6

Edge 1U Rack Models

Load	Load Internal Bat		EDGE-500IRM1U Internal Batteries Only			Load	Ir		1000IRM1U Batteries Only	Load	Ir		1500IRM1U Batteries Only
%	VA	w	Runtimes in minutes	[%] VA W	W	Runtimes in minutes	%	VA	W	Runtimes in minutes			
100	500	450	5.2	100	1000	900	5.2	100	1500	1350	5.4		
70	350	315	9.3	70	700	630	9.3	70	1050	945	9.6		
50	250	225	15.0	50	500	450	15.0	50	750	675	15.1		
20	100	90	42.7	20	200	180	42.7	20	300	270	42.4		

Edge 2U-3Us Rack/Tower models

Load %	VA	W	EDGE-1500IRT2UXL Internal Batteries Only	+1 EBC	+2 EBC	+3 EBC	+4 EBCs	+5 EBCs	+6 EBCs
100	1500	1350	6.0	27.8	55.9	85.7	116.1	148.7	177.6
70	1050	945	10.9	45.0	87.9	132.0	176.6	221.5	266.5
50	750	675	17.3	68.8	130.3	192.8	255.7	318.8	382.0
20	300	270	49.6	179.2	322.3	466.0	610.0	754.0	898.1

Load %	VA	w	EDGE-22000IRT2UXL Internal Batteries Only	+1 EBC	+2 EBC	+3 EBC	+4 EBCs	+5 EBCs	+6 EBCs
100	2200	1980	4.4	26.0	54.6	84.8	115.5	146.6	177.9
70	1540	1386	8.3	42.6	85.9	130.5	175.7	221.1	266.6
50	1100	990	14.1	65.9	128.6	192.4	256.6	321.0	385.5
20	440	396	39.7	170.8	315.6	461.0	606.7	752.5	898.3

Load %	VA	W	EDGE-3000IRT2UXL & EDGE-3000IRT3UXL Internal Batteries Only	+1 EBC	+2 EBC	+3 EBC	+4 EBCs	+5 EBCs	+6 EBCs
100	3000	2700	6.1	19.8	39.9	61.5	83.7	106.2	129.0
70	2100	1890	10.3	33.0	64.1	96.5	129.5	162.7	196.1
50	1500	1350	16.2	51.9	97.5	144.3	191.5	238.9	286.4
20	600	540	43.8	137.1	243.4	350.4	457.6	564.9	672.3



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