



Product brochure

Vertiv™ Liebert® EXS Three Phase UPS

10, 15 and 20kVA 208/220V tower

Online double conversion UPS offers the
highest level of power protection



Consider the Vertiv™ Liebert® EXS UPS for stand alone 3-phase applications including IT Edge



The Vertiv™ Liebert® EXS is an on-line, three-phase (in/out), 208/220V integrated UPS, optimized with a compact footprint. Standard configurations offer a reliable and economical power solution in 10, 15, and 20kVA capacities.

Key benefits

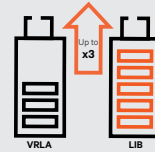
- Integrated solution supports faster deployments.
- Compact, high power density design offers a small footprint.
- Flexible UPS, power distribution and battery arrangements to meet capacity and runtime demands.
- Efficient operation saves energy.
- High power factor delivers more usable power.
- Easy to install.
- Integrated maintenance bypass option provides greater availability.
- Intelligent monitoring and management offers improved visibility and control.

High availability

Reliable performance and high availability are derived through a proven on-line, double conversion, transformer-free design.

- Integrated maintenance bypass is designed to keep critical loads operating even during service.
- Short circuit withstand rating up to 30kA.
- Temperature compensating battery charger prolongs battery life.

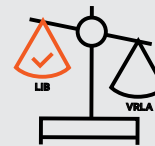
Flexible and optimized design



Highly efficient and lowest TCO UPS



Complete and integrated solution



Fast, easy installation and serviceability



Flexible monitoring & management options



What's included:

- UPS
- Quick installation guide
- IS-Unity DP communication card
- Vertiv™ Power Insight Management Software (free download from Vertiv.com)
- Safety instructions
- WEEE recycling sheet (ISO 14001 Compliance)



Features and performances

- Flexible integrated runtime solution.
- Double-conversion efficiency up to 96.2%.
- Unity output power factor.
- High energy density - Compact footprint.
- Integrated Maintenance Bypass.
- Suitable for multiple kinds of applications.
- Vertiv™ LIFE™ Services compatible.

Offers reliable, high-quality AC Power to a variety of IT systems:

- Small data rooms.
- IT closets, servers and storage.
- Branch, small-midsize IT systems.
- Medical/lab testing equipment.
- High Availability.
- VoIP.
- ISDN & frame relay applications.
- Storage systems.
- Security systems.

Key applications

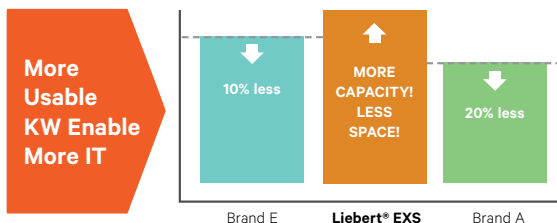


Vertiv™ Liebert® EXS 10 to 20kVA

Compact design and improved performances

The Vertiv™ Liebert® EXS is a transformer-free UPS offering exceptional features for mission-critical applications. With double-conversion efficiency of up to 96.2%, the Vertiv Liebert EXS supports remarkable operational cost savings, reducing Total Cost of Ownership (TCO) while providing confidence that the power source is being fully utilized and saving on energy bills.

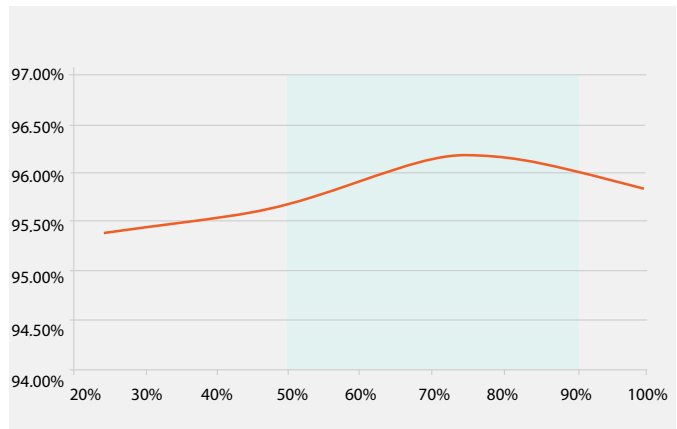
The Vertiv Liebert EXS has a unity output power factor and high-power density, which provides the highest possible active power in a compact design and standalone unit. This means critical devices have necessary reliable power and protection without sacrificing valuable space, making it perfect for installations where space is limited.



Save now. Save later.

Control costs by managing capital and operating expenses.

Vertiv™ Liebert® EXS UPS performance and costs control



With optimized internal runtime, the Vertiv Liebert EXS delivers continuous power protection, helping to keep critical devices powered in the event of an outage, supporting continuity of data and operations.

These benefits make the Vertiv Liebert EXS ideal for a wide range of mission-critical applications, including IT installations, transportation, emergency lighting, healthcare, retail, and government facilities.

Flexible, efficient integration

The Vertiv Liebert EXS utilizes an optimized tower design to deliver reliable power in an efficient, flexible and integrated platform. The solution is designed so the critical UPS, bypass, batteries, and distribution elements operate cohesively to power vital systems simply, efficiently and effectively.

Integrated autonomy

The Vertiv Liebert EXS comes equipped with internal battery, maintenance bypass, and optional receptacle distribution in one, simple package. Vertiv Liebert EXS provides an optimized integrated autonomy which results in backup times in a compact footprint. Its internal architecture is able to house up to four battery strings — virtually eliminating the need for an external battery cabinet.

Easy installation, serviceability

Pre-assembled, integrated system reduces field work. This furthermore reduces installation costs and minimizes the demand on physical space. A pallet ramp offers easy movement. Cable connections and wiring are easily accessible.



Vertiv™ Liebert® EXS 10 to 20kVA features

High power factor (1.0)

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

Factory installed network card

Vertiv™ Liebert® IS-UNITY DP card enables remote management.

Internal battery cabinets with auto-detection

Be confident the UPS is set up correctly to report available runtime when used with external battery cabinets.

Product warranty

Comprehensive coverage through a standard 1-year warranty, with a 3-year extended warranty option available.

Internal Maintenance Bypass Cabinet (MBC)

Facilitates UPS maintenance or replacement, if needed, without having to shutdown the connected equipment.

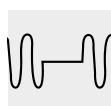
Efficiency (up to 96.2%) in online mode

ENERGY STAR® 2.0 certification. Higher efficiency means optimized energy management and lower heat dissipation, for energy savings and improved reliability.

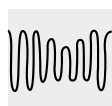
Compact design

Space-saving UPS footprint provides space optimization and flexible installation.

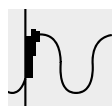
Protect critical IT systems from all key electrical threats



Outages



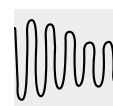
Sags



Transient



Frequency



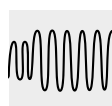
Surges



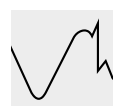
Spikes



Under



Over

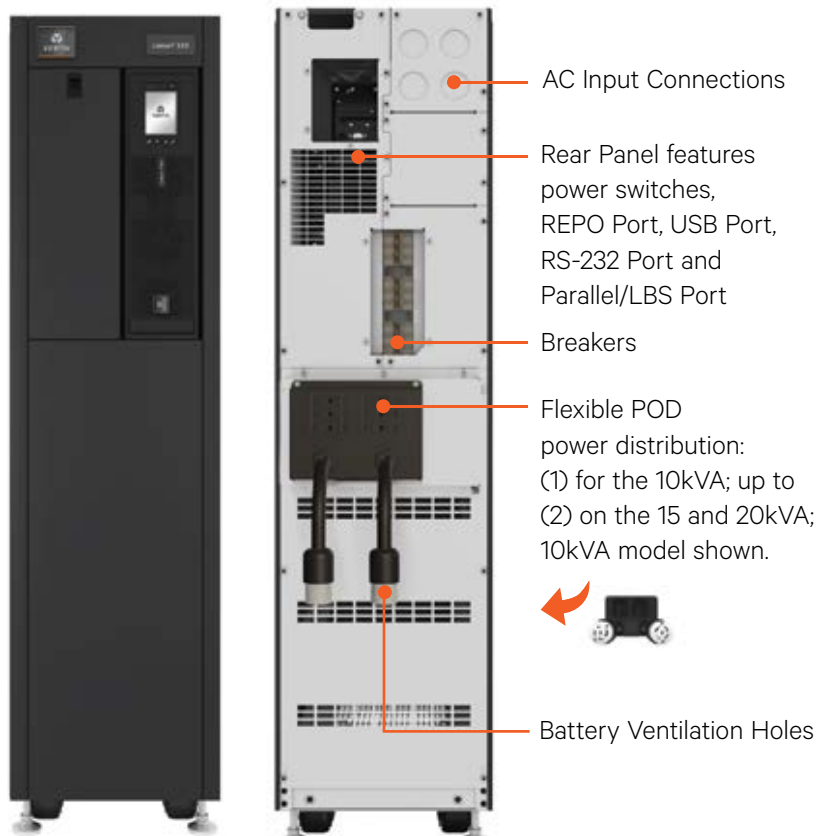


Noise



Harmonics

Vertiv™ Liebert® EXS 10 to 20kVA



Power distribution

Fast, simple and flexible power distribution is accomplished using either a straight hardwired approach or by applying various distribution PODs (power output distribution) for quick and easy receptacle deployments. In addition, users can mix and match power distribution assemblies.

Distribution options	Qty of receptacles	Part number
Hardwire	-	Does not apply
L21-30R	2	PD3-001
L21-20R	2	PD3-009
L6-30R	6	PD3-002
L6-20R	6	PD3-006
L5-30R	6	PD3-003
L5-20R	6	PD3-005
IEC60309 4W+G	1	PD3-011
IEC60309 3W+G	1	PD3-004

Vertiv™ Liebert® EXS cable kits

The following cable kits allow converting standard hardwired connections to cord-n-plug connections for ease of installation and servicing. These cable kits can only be used with the 10kVA UPS models.

Cable kit P/N: ITA2-10KMBCSL1

- (1) Main input cord, 10 feet in length, with IEC 60309 connector.
- (1) Main output cord, 1 foot in length, with IEC 60309 connector.
- Can be used with the 10kVA UPS only for a single input system.
- Both cords are 3-phase 4W+G.

Cable kit P/N: ITA2-10KMBCSL2

- (1) Main Input Cord 10 feet in length with IEC60309 connector.
- (1) Main Output Cord 1-foot in length with IEC309 connector.
- Can be used with the 10kVA UPS only for a single input system.
- The input cord is 3-phase 4W+G and the output is 3-phase 3W+G.

Cable kit P/N: ITA2-10KMBCSL3

- (2) Input Cords 10 feet in length with IEC60309 connector.
- (1) Main Output Cord 1-foot in length with IEC309 connector.
- Can be used with the 10kVA UPS only for a dual input system.
- All cords are 3-phase 4W+G.



10kVA with integrated
batteries and bypass



10kVA with integrated
extended runtime battery
cabinet and bypass



15, 20kVA with
integrated batteries
and bypass

Model numbers

EXS10KN

EXS10KXRN

EXS15KN
EXS15KXRN
EXS20KN
EXS20KXRN

Ratings

10kVA/10kW

10kVA/10kW

15kVA/15kW;
20kVA/20kW

Dimensions

335x650x1300 (mm)
13.1x25.6x 51.2 (in)

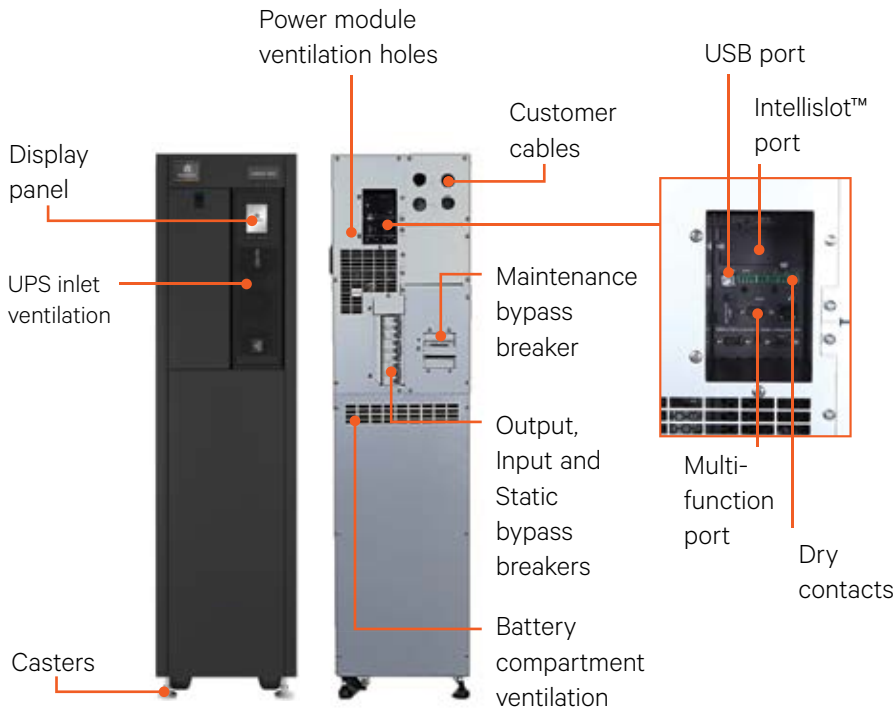
508x650.24x1300.48
22.7 x25.6x51.2 (in)

440x750x1600 (mm)
17.3x29.5x63 (in)

Pre configured SKU's	Rating	Input & output connections	Description	Runtime (mins.)		Recommended breaker size	Recommended wire size	Recommended lugs	Number of wires
				Full load	Half load				
EXS10KN	10kVA/10kW	3PH, 4W+G Hardwired Input/Output	EXS 10kVA UPS with internal VRLA battery and IS-UNITY-DP network communication card	6	18	50A	6AWG	McMaster-Carr: 7113K366 Thomas & Betts: RE6-14	5 (L1-L2-L3-N-G)
EXS10KXRN	10kVA/10kW	3PH, 4W+G Hardwired Input/Output	EXS 10kVA UPS with extended runtime internal VRLA battery and IS-UNITY-DP network communication card	30	66	50A	6AWG	McMaster-Carr: 7113K366 Thomas & Betts: RE6-14	5 (L1-L2-L3-N-G)
EXS15KN	15kVA/15kW	3PH, 4W+G Hardwired Input/Output	EXS 15kVA UPS with internal VRLA battery and IS-UNITY-DP network communication card	8	21	70A	3AWG	McMaster-Carr: 6926K54 Thomas & Betts: 54107NT	5 (L1-L2-L3-N-G)
EXS15KXRN	15kVA/15kW	3PH, 4W+G Hardwired Input/Output	EXS 15kVA UPS with internal VRLA extended runtime battery and IS-UNITY-DP network communication card	15	35	70A	3AWG	McMaster-Carr: 6926K54 Thomas & Betts: 54107NT	5 (L1-L2-L3-N-G)
EXS20KN	20kVA/20kW	3PH, 4W+G Hardwired Input/Output	EXS 20kVA UPS with internal VRLA battery and IS-UNITY-DP network communication card	5	15	90A	2AWG	McMaster-Carr: 6926K54 Thomas & Betts: 54107NT Tyco Electronics: 132331-1	5 (L1-L2-L3-N-G)
EXS20KXRN	20kVA/20kW	3PH, 4W+G Hardwired Input/Output	EXS 20kVA UPS with internal VRLA extended runtime battery and IS-UNITY-DP network communication card	15	35	90A	2AWG	McMaster-Carr: 6926K54 Thomas & Betts: 54107NT Tyco Electronics: 132331-1	5 (L1-L2-L3-N-G)

Vertiv™ Liebert® EXS 10kVA models display and connections

EXS10KN



EXS10KXRN



Benefits

Display panel:

Full color graphic LCD, status and control. Control UPS operation: Power On, Power Off, Bypass Transfers UPS Status:

- Battery capacity.
- UPS load.
- Input/output voltages, current.
- Event logs.
- Battery operation.
- UPS fault condition.

Static bypass circuit:

Maintain load during abnormal UPS operations with uninterrupted automatic transfer.

Internal to maintenance bypass:

- Electrically isolate UPS power electronics modules from power.
- Integrated interlock designed to support proper bypass transfer sequence.

Vertiv™ Liebert® Intellislot™ port:

Optional cards provide visibility and control via SNMP to network and building management systems.

USB port:

Local USB port allows for direct hardware connection to utilize Vertiv™ Power Insight shutdown management software.



Vertiv™ Liebert® EXS 15/20 kVA models display and connections



Programmable dry contacts:

2 input
2 output

USB port

Cables conduit



Vertiv™ Liebert® IntelliSlot™ ports

Two Vertiv™ Liebert® IntelliSlot™ ports as standard, for simultaneous use of Unity and Relay card.

- EXS15KN
- EXS15KXRN
- EXS20KN
- EXS20KXRN



Ventilation Holes

Flexible POD power distribution:
(1) for the 10kVA;
up to (2) on the 15 and 20kVA models, as shown



Software

Vertiv™ connects and protects your network with core-to-edge solutions and unmatched expertise. For maximum visibility and effective monitoring in one view, pair your Vertiv™ UPS with a software solution.



Vertiv™ Environet™ Alert

Environet™ Alert provides companies across industries with critical facility monitoring software that is affordable and easy to use. This solution delivers superior monitoring, alerting, trending and data organization. Get monitoring, alerting and trending at a price that's right for your business.



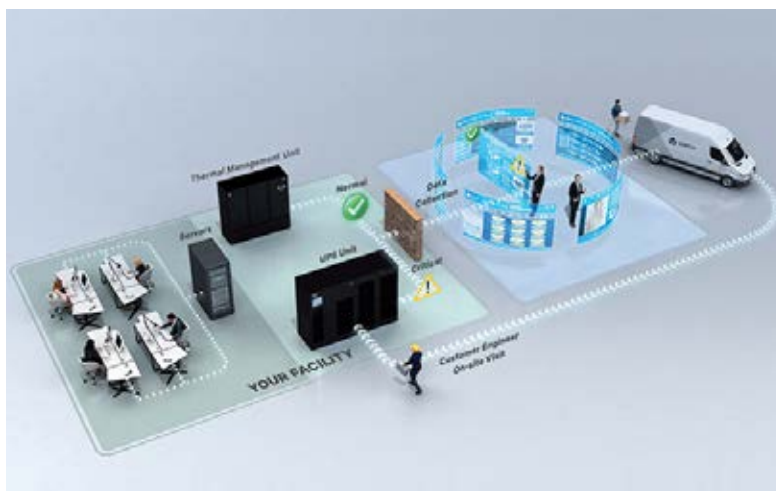
Vertiv™ Power Insight

Vertiv Power Insight is a complementary web-based software solution designed for users with a distributed infrastructure that need a way to manage multiple devices. It is a simple-to-install, easy-to-use solution that provides a single interface for up to 100 UPSs or rPDUs. Visit the [product page](#)  to download.

Service and support

We get you started and keep you going. Only Vertiv™ Services can provide the level of support required to help maintain the availability needed for critical systems. Several programs are available to meet the needs of your operation.

Vertiv™ LIFE™ Remote Diagnostic Services for rapid response



This UPS can monitor:



Capacity



Temperature



Humidity



Access



Leaks

IS-Unity card - Supports remote and local environmental monitoring. Compatible with Vertiv™ Environet™ Alert and Vertiv™ Power Insight. Connect to IT networks and building management systems (BACNET/MODBUS).

Uptime assurance

- Continuous monitoring for early detection of trends and operating anomalies.
- Analysis and interpretation of alarm and status messages.

Rapid incident response

- Automatic transmission of data for analysis.
- Concurrent diagnosis and dispatch of engineer to site.
- Shipment of parts for corrective maintenance.

Increased insight and ease of management

- Notification of operating conditions that may impact system health.
- Periodic trend and analysis reports.
- Integration of remote and on-site services to support business continuity.



Vertiv™ Liebert® EXS 10-20 kVA services and extended warranties

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.

Startup SKUs required

Equipment model / type	Part number	Description
Vertiv™ Liebert® EXS 10kVA and 20kVA	SUEXS10-40U7	Startup 7x24 EXS 10-40kVA
	SUEXS10U-40UM	Startup M-F EXS 10-40kVA

Extended warranties for EXS

Parts and labor warranty	Warranty premier	Warranty premier+
 Parts included All parts included except EOL components and consumables.	 Parts included All parts included except EOL components and consumables.	 Parts included All parts included except EOL components and consumables.
 Labor included The cost of labor is included.	 Labor included The cost of labor is included.	 Labor included The cost of labor is included.
	 Preventive maintenance PM (8x5) Visit(s) within Warranty Extension to help maintain continuous and optimal equipment performance.	 Preventive maintenance PM (7x24) Visit(s) within Warranty Extension to help maintain continuous and optimal equipment performance.
		 Response time If an anomaly occurs, CE visit is granted within known and established amount of time.

Extended warranties for Vertiv™ Liebert® EXS UPS Model

Extended warranties	Parts and labor warranty	Warranty premier	Warranty premier+
Equipment model / type	Part number	Part number	Part number
Vertiv™ Liebert® EXS 10kVA			
12 Months	12MWPLEXSC10	1YWP1PMEXSC10	1YWPP1PMEXSC10
18 Months	18MWPLEXSC10		
24 Months		2YWP1PMEXSC10	2YWPP1PMEXSC10
Vertiv™ Liebert® EXS 15 and 20kVA			
12 Months	12MWPLEXSC20	1YWP1PMEXSC20	1YWPP1PMEXSC20
18 Months	18MWPLEXSC20		
24 Months		2YWP1PMEXSC20	2YWPP1PMEXSC20

Vertiv™ Liebert® EXS 10-20 kVA service contracts

Service contracts	PM only 8x5	PM only 24x7	Basic 1PM24X7	Essential 1PM8X5	Preferred 1PM24X7
Equipment model / type	Part number	Part number	Part number	Part number	Part number
Vertiv™ Liebert® EXS 10kVA	MU53C-10PF1	MU53C-10P71	MU53C-10BA0	MU53C-10ES1	MU53C-10PR1
Vertiv™ Liebert® EXS 15 and 20kVA	MU53C-20PF1	MU53C-20P71	MU53C-20BA0	MU53C-20ES1	MU53C-20PR1

Labor warranty supplement (AC power equipment labor warranty)

1WARACPLAB-B

Service contracts	PM Only 8x5	PM Only 24x7	Basic	Essential	Preferred
On-site service:					
Includes 1 Preventive Maintenance Service, scheduled by the customer between 8am-5pm, Monday-Friday (excluding national holidays).	✓			✓	✓
Includes 1 Preventive Maintenance Service, scheduled by the customer at the customer's convenience 24x7 (excluding national holidays).		✓			
Includes a Performance Evaluation inspection performed immediately after the completion of an emergency visit.			✓		
Customer support:					
Includes access to the Customer Resolution Center (1-800-543-2378) and the Vertiv™ Customer Services Network Online Internet portal.	✓	✓	✓	✓	✓
Service professional:					
Performed by Vertiv™ factory-trained and authorized technician equipped with Vertiv™ Proprietary tools and software. Vertiv™ CE's and Vertiv™ Partners are the only approved OEM service providers for Vertiv™ products.	✓	✓	✓	✓	✓
Response time:					
Guaranteed 4-hour on-site emergency response, 7 days/week, 24 hours/day, within 150 miles of a Vertiv's Service City.			✓	✓	✓
Parts:					
Includes parts coverage.			✓	✓	✓
Labor & travel:					
Includes 100% labor and travel coverage 7 days/week, 24 hours/day, within the 48 contiguous states and Hawaii.			✓	✓	✓
Internal battery coverage:					
Includes parts, labor, disposal and battery jars as required - up to 1 string of battery jars per year, not accumulated over contract term.				✓	✓
Battery recycling:					
Includes battery recycling as required, with documentation meeting EPA requirements.				✓	✓

UPS specifications

Power rating kVA/kW (PF=1)

		10	15, 20
General specifications	UPS technology	On-line double conversion	
	Input AC specification	208/120, 220/127VAC, 60Hz 3-phase, 4-wire plus ground	
Input AC specification	Frequency range	40-70Hz	
	Voltage	208/120, 220/127VAC, 60Hz 3-phase, 3- or 4-wire plus ground	
Output AC specifications	Power output distribution ports	1	2
	Battery specifications	Valve-regulated lead acid battery	
Communications	Options	(2) IntelliSlot™ ports	
	Card compatibility	IS-UNITY-DP, IS-UNITY-SNMP, IS-UNITY-LIFE, IS-485EXI, IS-RELAY	
	Protocols available	MODBUS-IP, MODBUS-485, BACNET-IP, BACNET-MSTP, SNMP, HTTP, LIFE™ Services, Relay contacts	
Environmental sensors options	Vertiv™ Liebert® SN series	Temperature, Humidity, Temperature/Humidity combination, Contact closure	
	Dimensions, w x d x h in (mm)*	Standard runtime: 13x25.6x51.2 (335x650x1300) Extended runtime: 22.7x25.6x51.2 (576x650x1300)	17.3x29.5x63 (440x750x1600)
Physical data UPS	Unit weight lb (kg)	Standard runtime: 437-627 (198.2-284.4) Extended runtime: 893-1,093 (405.1-495.8)	734-1042 (333-477)
	Operating temperature	32-122°F (0-50°C), with 2% per 1°C derating required above 40°C	32-104°F (0-40°C)
Environmental	Relative humidity	0% to 95%	
	Operating altitude	0-3,000 m (~10,000 ft), no derating	0-1,500 m (~4,920 ft), no derating; 1% per 100 m derating up to 3,000 m
	Acoustical noise	<55 dB	
Agency/Certification/Conformance		Listed to UL 1778 and CSA certified. Meets current requirements for safe high performance UPS operation. ENERGY STAR® 2.0 certification	
Standard warranty		1 year	

* Note: Power Distribution option adds 6.2 in (157mm) to the cabinet depth (D)

