Product brochure

Vertiv™ Liebert® GXT5 UPS

5 - 20 kVA 230V

Intelligent and Efficient UPS for Protection of Your Mission-Critical Applications

VERTIV.

Largest Rack Mount Capacity Available in an Intelligent, Efficient UPS for Protection of Mission-Critical Applications

The Vertiv™ Liebert® GXT5 UPS is an online double conversion UPS solution which offers premium power outage protection and continuous power conditioning in a compact and flexible rack/tower form factor.

The Vertiv Liebert GXT5 single-phase UPS operates with high power efficiency, making it ideally suited to protect critical infrastructure in both centralized and edge network applications.

Now available in higher capacity ratings of 16 and 20 kVA the Vertiv Liebert GXT5 UPS allows for highly reliable single UPS installations minimizing required rack space and supporting more IT equipment loads.

Scalable runtime options with matching external battery cabinets offer additional flexibility when extended uninterrupted power is required. Plus, the Vertiv Liebert GXT5 provides battery health status and replacement date prediction for intelligent battery health management.

The UPS system is easy to deploy and maintain due to its user-friendly LCD interface and remote management capabilities supported by the Vertiv™ Liebert® IntelliSlot™ RDU120 communications card which makes the Vertiv Liebert GXT5 compatible with Vertiv™ infrastructure management solutions such as Vertiv™ LIFE™ Services, environmental sensors, Vertiv™ Power Insight, and more.

What's in the box

- UPS (Including factory installed Network Card.) - Tower Stand and 4-Post Rack Fixed Rail Kit

- USB Cable

- Quick Start Guide

- Safety Manual

- Vertiv™ Power Insight management software (free download from Vertiv.com)

With market leading efficiency and unity power factor operation, the Vertiv Liebert GXT5 will meet your critical application needs. And you can rest assured that your business is protected with this Vertiv™ Solution that includes a standard, three-year advanced exchange product warranty.

Vertiv™ Liebert® GXT5 Features

Leading UPS Technology

- High output power factor up to 1.0
- Full-color graphic LCD with gravity sensing orientation
- External battery cabinets with auto-detection
- Parallel or redundant operation capability (10kVA to 20kVA Models)
- Battery health status and replacement date prediction
- Remote management, update, and configuration capabilities
- Optimized thermal management and variable speed fan for peak efficiency and noise reduction
- 1-Phase or 3-Phase Utility Input (16kVA to 20kVA Models)
- Automatic Internal Bypass

Efficient and Green Product

- High efficiency in online mode
- Energy Star 2.0 certified
- Even higher efficiency (up to 98%) in Active ECO mode
- Compliance with Restriction of Hazardous Substances (RoHS) directive and the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation

Solutions Wide

- Compact rack/tower design
- Broad range of services and extended warranty
- Easy to install, configure and operate
- Vertiv™ Liebert® IntelliSlot™ RDU120 network communications card with advanced features
- Compatibility with environmental sensors
- Integrated dry-contacts with selectable definition
- Free Vertiv™ Power Insight management software
- Serial port for out-of-band management with Vertiv™ Avocent® serial consoles
- Automatic internal bypass and external maintenance bypass options

Vertiv™ Liebert® GXT5 Features

High power factor (1.0)

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

Efficiency (up to 95%) in online mode

Energy Star 2.0 certification. Higher efficiency means an optimized energy management and lower heat dissipation, for energy savings and improved reliability.

Compact rack/ tower design

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

Parallel/redundant operation capability

For 10, 16 or 20 kVA models, configurations up to 2+1 redundancy support maximum availability and enables growth as load demand increases.

Colored graphic LCD with gravity sensitive orientation

User-friendly interface provides insight to UPS status for easy installation, configuration and operation.

Integrated Battery

With self-test and detection capability.

Efficiency (up to 98%) in Active ECO mode

Superior protection with maximum efficiency.

Product warranty

Comprehensive coverage through a standard three year warranty.

Battery Cabinets with auto-detection

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

![Vertiv logo]

How You Benefit from the Vertiv™ Liebert® GXT5 UPS
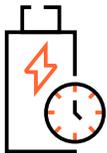
Designed for high availability

- Higher power factor (1.0) offers the connection of more loads and IT equipment
- Optional external tower/rack-mount maintenance bypass cabinet eliminates the need to power down connected equipment during system maintenance or replacement (16kVA to 20kVA Models)
- Integrated maintenance bypass POD eliminates the need to power down connected equipment during system maintenance or replacement (5kVA to 10kVA Models) Hot-swappable, user-replaceable battery modules minimize downtime
- Vertiv™ LIFE™ Services helps to enhance uptime, as well as operational efficiency with continuous remote monitoring, expert analysis, and proactive response
- Automatic programmable battery self-test

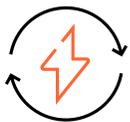### User-friendly installation and operation

- Easy-to-read, gravity-sensing graphical color display
- Intuitive user interface for local configuration and management
- Support for the Vertiv suite of remote management tools (Vertiv™ Power Insight, Vertiv™ Liebert® IntelliSlot™ RDU120 network interface card, and serial connectivity support)
- Auto-detection of external battery cabinets enables faster deployment and accurate runtime information
- Remote UPS firmware upgrade capability offers the UPS has the latest features and enhancements

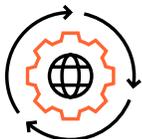### Longer service life and runtime of the batteries

- Extended runtimes provided by the addition of external battery cabinets (up to 10)
- Improved battery care by temperature-compensated battery charging
- Intelligent battery health management offers a longer service life (optimized battery maintenance and replacement when needed)

Optimized energy and capacity management

- Active ECO operating mode with up to 98% efficiency
- Efficiency in online double conversion mode up to 95%
- Energy Star 2.0 certified

Seamless connectivity

- Four onboard, user-definable dry contact I/O for integration of support management systems
- Supports SNMP, web, and environmental sensors with the optional Vertiv Liebert IntelliSlot RDU120 communications card
- Serial connection for integration of Vertiv™ Avocent® ACS product or direct serial management and control of the UPS

Power Assurance Package: Comprehensive Service Support for Critical Systems

Providing more than the standard warranty and extension program, this five-year protection program is valid for single-phase UPS units higher than 3 kVA. Purchased within six months from the equipment purchase date, the program includes:

- **Advance replacement or repair of faulty unit** within eight working hours of incident ticket acknowledgement meaning a maximum of two business days after claim.
- **100% coverage of electronic parts and failed batteries** excluding battery misuse and/or reduced autonomy.
- **Free shipping** from the following European countries: Austria, Belgium, Croatia, Czech Republic, France, Germany, Ireland, Italy, Luxemburg, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, The Netherlands, Turkey, and United Kingdom.
- **24x7 access** to professional helpline.
- **One Preventive Maintenance visit** after the third year performed by a Vertiv technician.
- **Preventive Monitoring and Diagnostic Service** purchasing the premier version of the package.

Key Benefits:

- Reduces the worry about critical equipment downtime.
- Offers rapid recovery in the event of failure (within 24-48 hours).

UPS Above 3 kVA

Power Assurance Package	Power Assurance	Power Assurance Premier
Start-Up	Optional	Optional
Technical Support Hotline	24/7	24/7
Parts Included	✓	✓
Labour Included	✓	✓
Response Time	✓8 working hours*	✓8 working hours*
Preventive Maintenance	✓**	✓**
Life Services		✓
Contract Duration	5 years (10 years with Renewal)	5 years (10 years with Renewal)

Vertiv™ Liebert® GXT5 5-20 KVA	Power Assurance	Power Assurance Premier	Warranty Extension +1 year	Warranty Extension +3 years
5/6 kVA	RUPS-PA5-007	RUPS-PAP5-007	RUPS-WE1-007	RUPS-WE3-007
8/10 kVA	RUPS-PA5-008	RUPS-PAP5-008	RUPS-WE1-008	RUPS-WE3-008
16/20 kVA	RUPS-PA5-009	RUPS-PAP5-009	RUPS-WE1-009	RUPS-WE3-009

* Customer engineer or shipment of the new unit within 8 working hours from ticket acknowledgement

** Includes 1 preventive maintenance after the third year

OUR PURPOSE

We believe there is a better way to meet the world's accelerating demand for data - one driven by passion and innovation.

OUR PRESENCE

GLOBAL PRESENCE

Manuf. and Assembly Locations **24**
Service Centers **220+**
Service Field Engineers **3,500+**
Technical Support/Response **220+**
Customer Experience Centers/Labs **19**

AMERICAS

Manuf. and Assembly Locations **10**
Service Centers **80+**
Service Field Engineers **1,600+**
Technical Support/Response **90+**
Customer Experience Centers/Labs **5**

ASIA PACIFIC

Manuf. and Assembly Locations **5**
Service Centers **60+**
Service Field Engineers **970+**
Technical Support/Response **80+**
Customer Experience Centers/Labs **5**

EUROPE, MIDDLE EAST AND AFRICA

Manuf. and Assembly Locations **10**
Service Centers **65+**
Service Field Engineers **650+**
Technical Support/Response **100+**
Customer Experience Centers/Labs **5**

Technical Specifications 5-10 kVA

	Vertiv™ Liebert® GXT5-5000IRT5UXLN	Vertiv™ Liebert® GXT5-6000IRT5UXLN	Vertiv™ Liebert® GXT5-8000IRT5UXLN	Vertiv™ Liebert® GXT5-10KIRT5UXLN
Ratings (VA/W)	5000 VA / 5000 W	6000 VA / 6000 W	8000 VA / 8000 W	10,000 VA / 10,000 W

Dimensions, mm (inches)

Unit W x D X H	430×630×217 (16.9×24.8×8.5)	430×630×217 (16.9×24.8×8.5)	430×630×217 (16.9×24.8×8.5)	430×630×217 (16.9×24.8×8.5)

Weight, kg (pounds)

Unit	70.8 (156)	70.8 (156)	74.5 (164.2)	74.5 (164.2)

Input AC Parameters

Operating Frequency, Nominal	50 or 60Hz (Factory Default is 50)	50 or 60Hz (Factory Default is 50)	50 or 60Hz (Factory Default is 50)	50 or 60 Hz (factory-default is 50 Hz)
Voltage Range	230 VAC	230 VAC	230 VAC	230 VAC
Input Wiring	Hardwire	Hardwire	Hardwire (common or split bypass)	Hardwire (common or split bypass)

Output AC Parameters

Output Receptacles	Hardwire 2 (C19), 6 (C13)	Hardwire 2 (C19), 6 (C13)	Hardwire 4 (C19), 4(C13)	Hardwire 4 (C19), 4(C13)
Factory-default VAC Frequency	230 VAC 50Hz or 60Hz, Nominal	230 VAC 50Hz or 60Hz, Nominal	230 VAC 50Hz or 60Hz, Nominal	230 VAC 50Hz or 60Hz, Nominal
Waveform (On Battery)	Sinewave	Sinewave	Sinewave	Sinewave
Utility (AC) Mode Overload	>150% for Minimum 200mS; 125 - 150% for 60 seconds; 105-125% 5 Minutes; ≤105 % Continuous	>150% for Minimum 200mS; 125 - 150% for 60 seconds; 105-125% 5 Minutes; ≤105 % Continuous	>150% for Minimum 200mS; 125 - 150% for 60 seconds; 105-125% 5 Minutes; ≤105 % Continuous	>150% for Minimum 200mS; 125 - 150% for 60 seconds; 105-125% 5 Minutes; ≤105 % Continuous

Battery

Type	Valve-regulated, non-spillable, lead acid	Valve-regulated, non-spillable, lead acid	Valve-regulated, non-spillable, lead acid	Valve-regulated, non-spillable, lead acid
Backup Time (100% Load)	7 Minutes	5.5 Minutes	3.5 Minutes	2 Minutes
Backup Time (50% Load)	18.5 Minutes	14.5 Minutes	9.5 Minutes	7 Minutes
+1 External Battery Cabinet (100% Load)	19 Minutes	14.5 Minutes	9.5 Minutes	7 Minutes
+1 External Battery Cabinet (50% Load)	48 Minutes	38.5 Minutes	26 Minutes	19 Minutes

Environmental Requirements

Operating Temperature, ℃ (°F)	0 to 40 (+32 to +104) (no derating)	0 to 40 (+32 to +104) (no derating)	0 to 40 (+32 to +104) (no derating)	0 to 40 (+32 to +104) (no derating)
Storage Temperature, ℃ (°F)	-15 to 50+ (5 to +122)	-15 to 50+ (5 to +122)	-15 to 50+ (5 to +122)	-15 to 50+ (5 to +122)
Relative Humidity	0% to 95%, non-condensing	0% to 95%, non-condensing	0% to 95%, non-condensing	0% to 95%, non-condensing
Operating Elevation	Up to 10,000 ft (3,000 m) at 77°F (25°C) without derating	Up to 10,000 ft (3,000 m) at 77°F (25°C) without derating	Up to 10,000 ft (3,000 m) at 77°F (25°C) without derating	Up to 10,000 ft (3,000 m) at 77°F (25°C) without derating
Audible Noise	<55 dBA, at 1 meter from the rear <50 dBA, at 1 meter from the front or sides	<55 dBA, at 1 meter from the rear <50 dBA, at 1 meter from the front or sides	<55 dBA, at 1 meter from the rear <50 dBA, at 1 meter from the front or sides	<55 dBA, at 1 meter from the rear <50 dBA, at 1 meter from the front or sides

Agency

Surge Immunity	IEC/EN EN61000-4-5, Level 3, Criteria A	IEC/EN EN61000-4-5, Level 3, Criteria A	IEC/EN EN61000-4-5, Level 3, Criteria A	IEC/EN EN61000-4-5, Level 3, Criteria A
Transportation	ISTA Procedure 1E	ISTA Procedure 1E	ISTA Procedure 1E	ISTA Procedure 1E
Safety	IEC62040-1:2008 version, GS mark	IEC62040-1:2008 version, GS mark	IEC62040-1:2008 version, GS mark	IEC62040-1:2008 version, GS mark
Emissions	IEC/EN/AS 62040-2 2nd Ed (Cat 2)	IEC/EN/AS 62040-2 2nd Ed (Cat 2)	IEC/EN/AS 62040-2 2nd Ed (Cat 2)	IEC/EN/AS 62040-2 2nd Ed (Cat 2)

Warranty

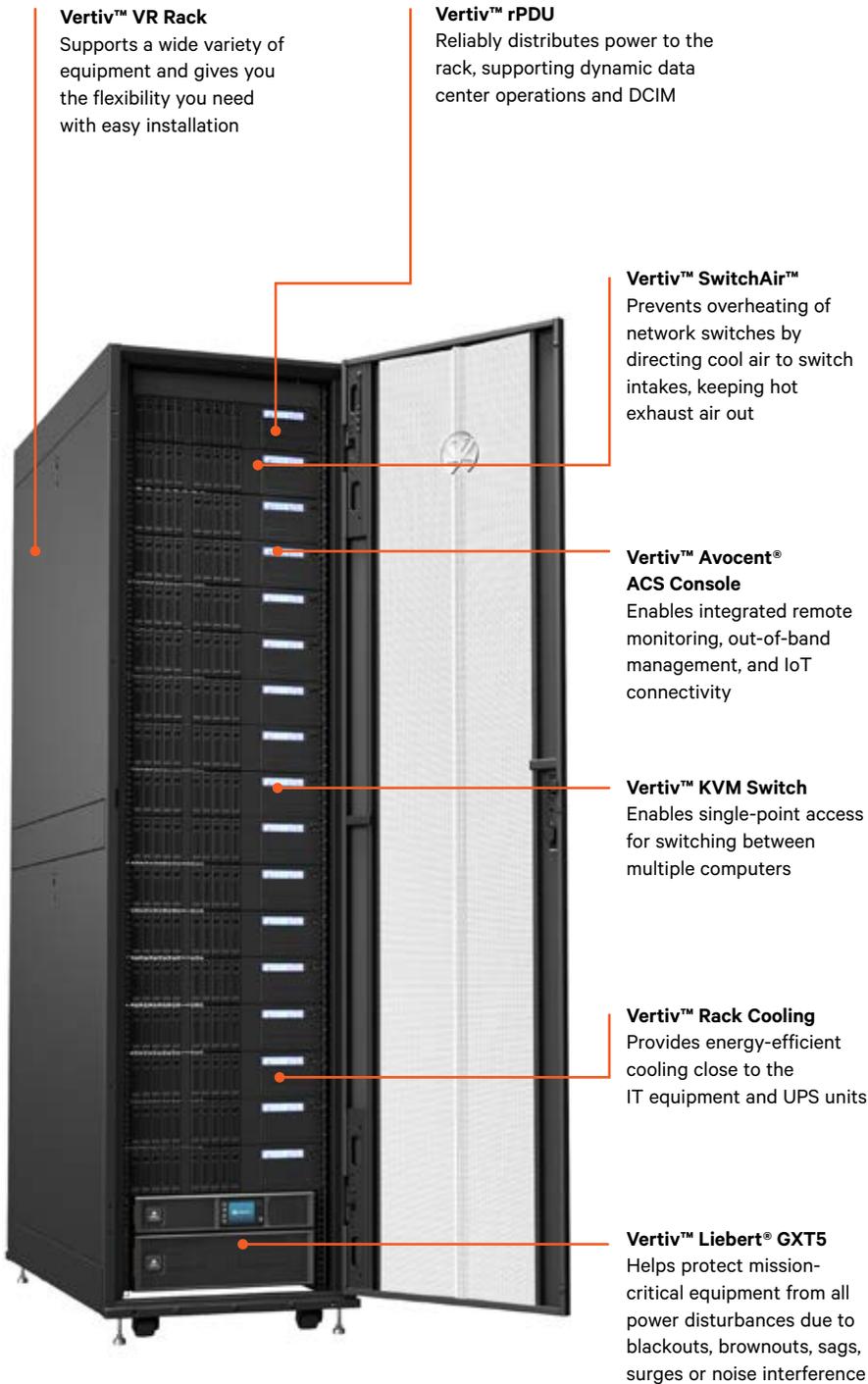|				
	Standard 3-Year Warranty (Including the Battery)	Standard 3-Year Warranty (Including the Battery)	Standard 3-Year Warranty (Including the Battery)	Standard 3-Year Warranty (Including the Battery)

Technical Specifications 16-20 kVA

	Vertiv™ Liebert® GXT5-16KIRT9UXLN	Vertiv™ Liebert® GXT5-20KIRT9UXLN
Ratings (VA/W)	16000 VA/16000 W	20000 VA/20000 W

Dimensions, mm (inches)

Unit W x D X H	430×630×394 (16.9×24.8×15.5)	430×630×394 (16.9×24.8×15.5)

Weight, kg (pounds)

Unit	135.2 (298)	135.2 (298)

Input AC Parameters

Operating Frequency, Nominal	50 or 60 Hz (factory-default is 50 Hz)	50 or 60 Hz (factory-default is 50 Hz)
Voltage Range	288 VAC	288 VAC
Input Wiring	Input terminal block	Input terminal block

Output AC Parameters

Output Receptacles	Output terminal block	Output terminal block
Factory-default VAC Frequency	230 VAC, 50 Hz	230 VAC, 50 Hz
Waveform (On Battery)	Sinewave	Sinewave
Utility (AC) Mode Overload	> 150% minimum 200 ms	> 150% minimum 200 ms

Battery

Type	Valve-regulated, non-spillable, lead acid	Valve-regulated, non-spillable, lead acid
Backup Time (100% Load)	3.5 Minutes	2.5 Minutes
Backup Time (50% Load)	9.5 Minutes	7 Minutes
+1 External Battery Cabinet (100% Load)	10 Minutes	7 Minutes
+1 External Battery Cabinet (50% Load)	26.5 Minutes	19.5 Minutes

Environmental Requirements

Operating Temperature, °C (°F)	0 to 40 (+32 to +104) (no derating)	0 to 40 (+32 to +104) (no derating)
Storage Temperature, °C (°F)	-15 to 40 (+5 to +104)	-15 to 40 (+5 to +104)
Relative Humidity	0% to 95%, non-condensing	0% to 95%, non-condensing
Operating Elevation	Up to 10,000 ft (3,000 m) at 77°F (25°C) without derating	Up to 10,000 ft (3,000 m) at 77°F (25°C) without derating
Audible Noise	<58 dBA, at 1 meter from the front	<58 dBA, at 1 meter from the front

Agency

Surge Immunity	IEC/EN EN61000-4-5, Level 4, Criteria A; ANSI C62 41 Category B	IEC/EN EN61000-4-5, Level 4, Criteria A; ANSI C62 41 Category B
Transportation	ISTA Procedure 1E	ISTA Procedure 1E
Safety	UL1778, c-UL listed	UL1778, c-UL listed
Emissions	FCC Part 15 (Class A)	FCC Part 15 (Class A)

Warranty

	Standard 3-Year Warranty (Including the Battery)	Standard 3-Year Warranty (Including the Battery)

![Vertiv logo]

Vertiv™ VR Rack
Supports a wide variety of equipment and gives you the flexibility you need with easy installation

Vertiv™ rPDU
Reliably distributes power to the rack, supporting dynamic data center operations and DCIM

Vertiv™ SwitchAir™
Prevents overheating of network switches by directing cool air to switch intakes, keeping hot exhaust air out

Vertiv™ Avocent® ACS Console
Enables integrated remote monitoring, out-of-band management, and IoT connectivity

Vertiv™ KVM Switch
Enables single-point access for switching between multiple computers

Vertiv™ Rack Cooling
Provides energy-efficient cooling close to the IT equipment and UPS units

Vertiv™ Liebert® GXT5
Helps protect mission-critical equipment from all power disturbances due to blackouts, brownouts, sags, surges or noise interference

Accessories

- **Racks and enclosures:** Support a wide variety of equipment with the Vertiv™ VR Rack including servers, storage, switches, routers, PDUs, UPS units, console port servers, and KVM switches.

- **Rails and mounting hardware:** Install equipment with a four-post rail kit and hardware for mounting in a 19- or 23-inch rack or choose a two-post telecom rack for front- or mid-chassis, wall, or Zero U configuration.

- **Rack mount PDUs:** For basic or intelligent power distribution that helps prevent overloaded circuits in the data center, choose from products such as upgradable PDUs, inline power meters, transfer switches, and monitoring sensors.

- **Extended battery modules:** Enable scalable runtime for support during extended power outage situations by adding reliable power and protection to new or existing deployments.

- **Environmental sensor:** Maintain knowledge of remote environments with temperature, humidity and leak detection, or monitor available dry-contact sensors for security access control or smoke detection.

Available Accessories for the Vertiv™ Liebert® GXT5 UPS

External battery cabinets and replacement battery kits

UPS	External battery cabinets	Replacement battery kits
GXT5-5000IRT5UXLN	GXT5-EBC192VRT3U	GXT5-192VBATKIT (x 1pcs)
GXT5-6000IRT5UXLN	GXT5-EBC192VRT3U	GXT5-192VBATKIT (x 1pcs)
GXT5-8000IRT5UXLN	GXT5-EBC192VRT3U	GXT5-192VBATKIT (x 1pcs)
GXT5-10KIRT5UXLN	GXT5-EBC192VRT3U	GXT5-192VBATKIT (x 1pcs)
GXT5-16KIRT9UXLN	GXT5-EBC384VRT6U	GXT5-384VBATKIT (x 1pcs)
GXT5-20KIRT9UXLN	GXT5-EBC384VRT6U	GXT5-384VBATKIT (x 1pcs)

Vertiv™ Liebert® IntelliSlot™ RDU101 RDU101 Network Card

Network Communication Cards and environmental sensors

Optional Intellislot cards are compatible with all Vertiv™ Liebert® PSI5 UPS systems

Network Communications	RDU120	Network Communication Card with 10/100/1000 Mbps Ethernet, web interface, MIB, configuration cable, and environmental sensor support, UL 2900 certified.
	RDU101	Vertiv™ Liebert® IntelliSlot™ web card for SNMP and web management. Supports environmental sensors.
	IS-RELAY	Vertiv™ Liebert® IntelliSlot™ Interface Kit for Relay Contacts
Vertiv™ Liebert® RDU101 Card Environmental Sensors*	SN-Z01	Integrated cable with single temperature sensor
	SN-Z02	Integrated cable with three temperature sensors
	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)
Vertiv™ Liebert® IntelliSlot™ RDU120 Card Environmental Sensors**	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.
	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

* Only compatible with Vertiv™ Liebert® IntelliSlot™ RDU101 Network Card
**Only compatible with Vertiv™ Liebert® IntelliSlot™ RDU120 Network Card

VMBC-20KIRT4U

Vertiv™ Maintenance Bypass Cabinet Option

Integrated lock out/tag out arm for maximum site and personnel safety

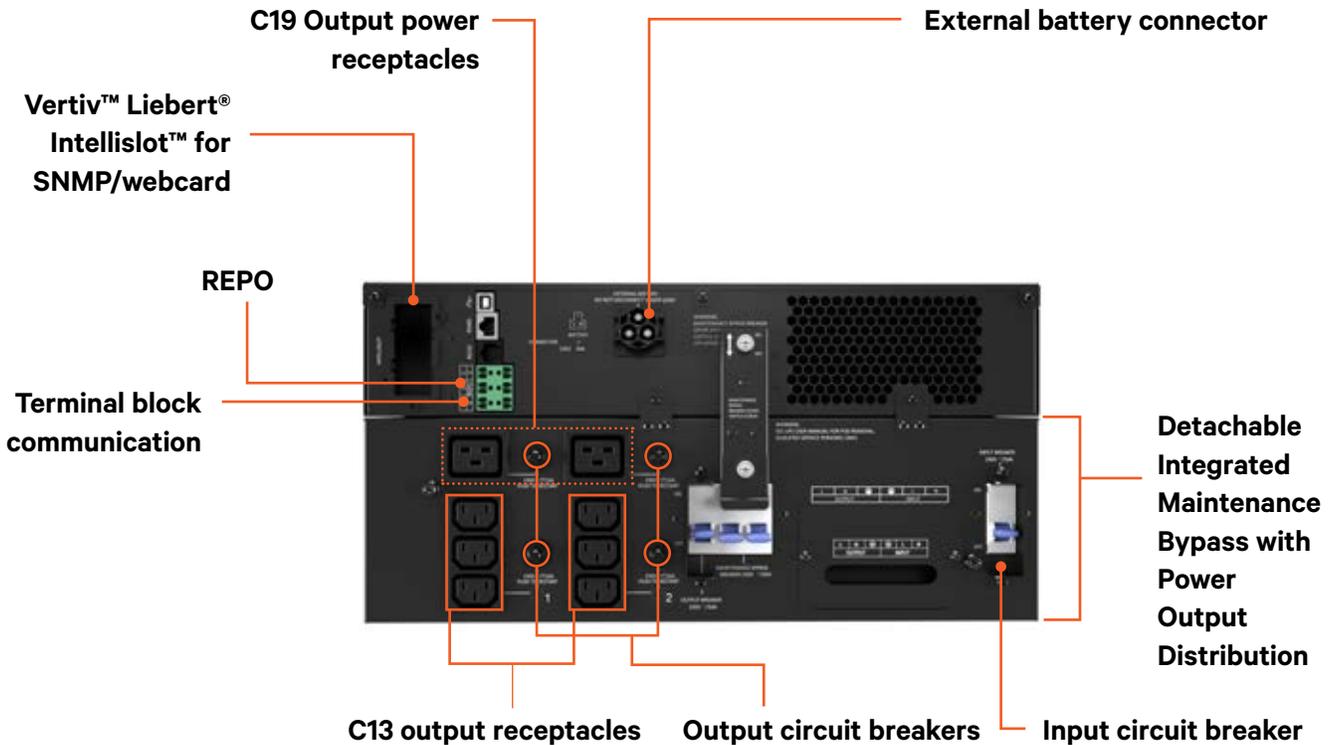| MBC Model Number	Dimensions	Input	Output	Compatible UPS
VMBC-20KIRT4U	430W x 550D x 173H (mm)	L-N-G	Hardwired / 3x IEC 309 32A & 12x IEC C13/C19 combo	GXT5-16KIRT9UXLN GXT5-16KIRT9UXLN

Power Output Distribution (POD) Options

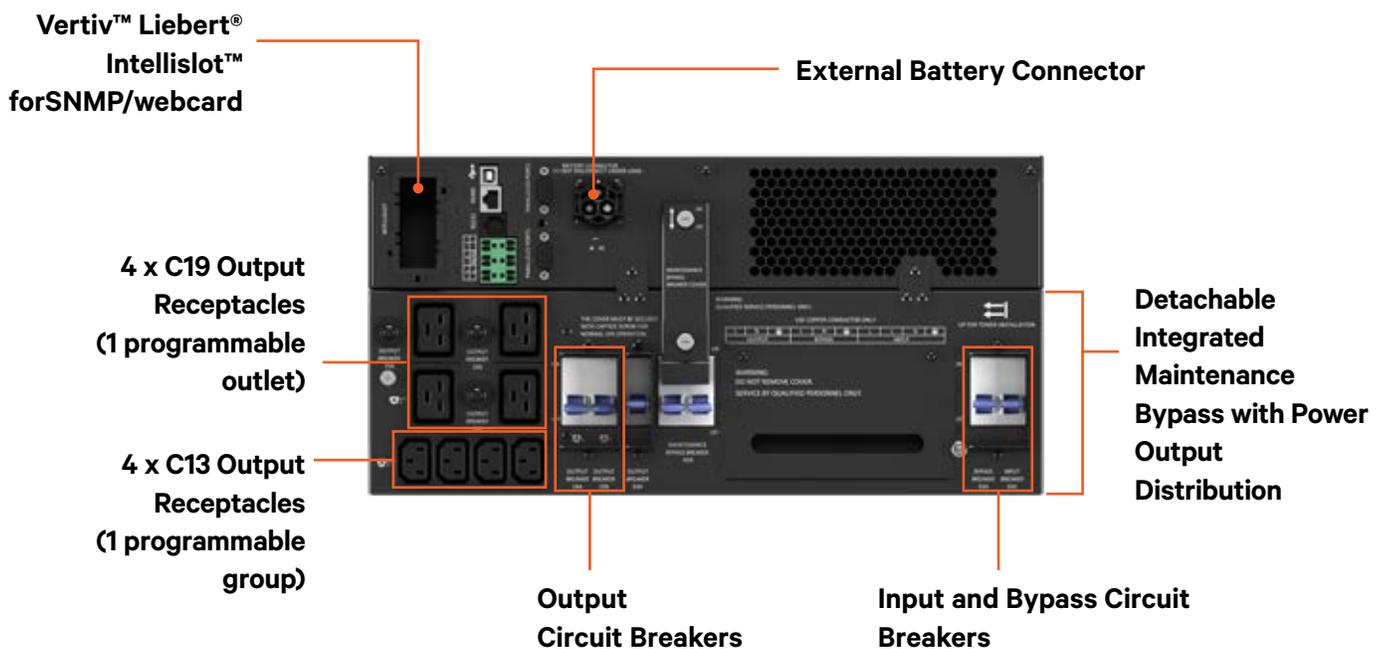| Part Number	Description	Compatible UPS Models
PD2-200	(4) IEC320-C19, (4) IEC320-C13	GXT5-16KIRT9UXLN, GXT5-20KIRT9UXLN
PD2-201	(2) IEC320-C19, (8) IEC320-C13	GXT5-16KIRT9UXLN, GXT5-20KIRT9UXLN
PD2-202	(12) IEC320-C13	GXT5-16KIRT9UXLN, GXT5-20KIRT9UXLN
PD2-203	(4) IEC309 32A, (2) IEC320 C13, (4) IEC320 C19	GXT5-16KIRT9UXLN, GXT5-20KIRT9UXLN
PD2-204	(2) IEC309-32A, (3) IEC320-C13	GXT5-16KIRT9UXLN, GXT5-20KIRT9UXLN

Vertiv™ UPS Software Benefits Ladder

Feature	Vertiv™ Power Assist	Vertiv™ Power Insight	Vertiv™ Environet™ Alert	Vertiv™ Avocent® DSView™ Solutions	Vertiv™ Environet™ Connect
Management					
Mass Device Provisioning					•
Mass Device Configuration					•
Mass Firmware Upgrade				•	•
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

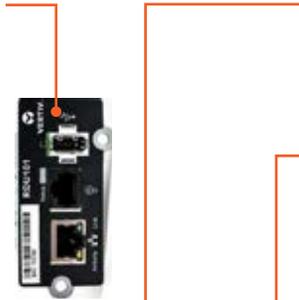## Vertiv™ Liebert® GXT5 Rear Panel (5-6 kVA)

C19 Output power receptacles

External battery connector

Vertiv™ Liebert® Intellislot™ for SNMP/webcard

REPO

Terminal block communication

Detachable Integrated Maintenance Bypass with Power Output Distribution

C13 output receptacles

Output circuit breakers

Input circuit breaker

Vertiv™ Liebert® GXT5 Rear Panel (8-10 kVA)

Vertiv™ Liebert® Intellislot™ forSNMP/webcard

External Battery Connector

4 x C19 Output Receptacles (1 programmable outlet)

4 x C13 Output Receptacles (1 programmable group)

Detachable Integrated Maintenance Bypass with Power Output Distribution

Output Circuit Breakers

Input and Bypass Circuit Breakers

Vertiv™ Liebert® GXT5 Rear Panel (16-20 kVA)

Vertiv™ Liebert® IntelliSlot™ RDU120 Network Communication

Local Web and SNMP interface.Management and notification across networks.

Communications

Multiple management options for local and remote setup configuration and control of the UPS any time.

POD Module

Multiple options for local receptacles C13/C19 options.

Input Protection

Prevent equipment damage from a short circuit of overload.

Output Protection

UPS and POD output circuit breaker protection.

External Battery Cabinet Connector

Scalable runtime in rack mount configurations. Longer runtimes for critical work completion, work load migration and critical equipment shutdown.

Hardwire Output Connection

Output to panel board distribution or rack PDU for management and control to rack level equipment.

Hardwire Input Connection

For easy installation and reach to available power source.

NetSure™ 5100 Series

DC Power System – 2 kW to 28.8 kW

VERTIV

Key Features

- High Efficiency – 96.2% efficient eSure™ rectifiers ensure optimized total cost of ownership

- Solar/Hybrid Capability (non-integrated version) – allows for connection of solar panels and facilitates hybrid site solutions to reduce grid dependency

- Wide Operating Temperature Range – rectifiers function at -40°C to +80°C, up to +65°C without derating, enabling CapEx and OpEx savings on climate systems in outdoor applications

- Modular Design – simple to install and operate; allows incremental cost effective system growth

- ECO Mode – an innovative function that enables energy savings, even at low load operation

- Remote Access – monitoring through web browsers, TCP/IP & SNMP as standard, 2nd Ethernet port option available

- Battery Management (582137100 only) – automatic battery tests in conjunction with battery midpoint or block voltage monitoring ensures early detection of battery problems

NetSure™ 5100 Series is designed for wireless access and fixed network applications offering unmatched temperature performance and high power density.

Description

The NetSure 5100 Series, a compact -48 volt DC power solution which can provide +24 volt DC power when equipped with converters, features an advanced control unit, a high efficiency rectifier, converter, solar converter and multiple distribution options to meet the demands of many different applications. The system is available in two types; an integrated version and an external distribution version.

The rack mountable 19" wide integrated version (582137200) provides up to 150A at -48 VDC and up to (9) positions available (with expansion rectifier shelf) for 2000 watt high efficiency eSure rectifiers and a distribution panel consisting of either (36) GMT fuse positions, (4) load breakers and (12) GMT fuse positions or (2) load breakers, (2) battery breakers and (12) GMT fuse positions. Optional battery or load low voltage disconnect contactors are available.

The external distribution version (582137100) provides up to 600A at -48 VDC and up to (29) positions available (23" version with five module shelves) for 2000 watt eSure rectifiers, 1500 watt -48V to +24V converters or 2000 watt solar converters, a single or dual row distribution cabinet, and hybrid and solar connectivity panels. The rack mountable 19" or 23" wide power system is available in a number of configurations and designed to work with a wide range of applications. The 23" wide distribution cabinet supports up to (52) 1A to 300A circuit breakers or 1A to 100A TPS/TLS fuses. Options for battery disconnect breaker positions and

dual voltage (-48V /+24V) breaker panels are available. Multiple LVD levels are supported in the dual row distribution configuration, allowing load prioritization in up to two steps.

Remote monitoring and control is supported by multiple web browsers including IE, Firefox, Chrome and Safari. Standard protocols include ModBus, SNMP V2 & V3. Encrypted security is provided by IPv6 and SNMPV3. Local access is provided through the controllers' keypad and TFT display.

NetSure™ DC Power systems from Vertiv™ offer extremely low failure rates, as well as low total cost of ownership. The 2000 watt eSure rectifier delivers peak system efficiency above 96%. Maximum value is achieved by an advanced energy optimization function known as ECO mode, enabling energy savings even at low loads.

Application

NetSure 5100 Series DC power systems are designed for deployment in telecom access network applications requiring a reliable and high power density supply up to 600 A at -48 VDC or up to 400 A at +24 VDC (external distribution version). The high operating temperature (+65°C) in conjunction with high operational efficiency has a positive impact on climate system dimensioning in outdoor enclosure applications. This DC power system is designed for insertion into EQ zone 4 compliant relay racks and cabinets.

NetSure™ 5100 System, Integrated 7.2 kW, 19" Rack (582137200)

NetSure™ 5100 System, External Distribution 18 kW, 19" Rack (582137100)

NetSure™ 5100 System, External Distribution 19.2 kW, 23" Rack (582137100)

Technical Specifications

Input	Integrated	Single Row	Two Row
Nominal	Rectifier: 120 VAC, 208 VAC, 240 VAC	Rectifier: 120 VAC, 208 VAC, 240 VAC Solar Converter: 140 VDC to 400 VDC	
Operational	Rectifier: (Single Phase) 85 VAC to 300 VAC	Rectifier: (Single Phase) 85 VAC to 300 VAC Solar Converter: 120 VDC to 420 VDC	
Frequency	45 Hz to 65 Hz	45 Hz to 65 Hz, DC (solar input)	
Input Connections	Molex	Molex, terminal strip or breaker (solar)	

Output			
Nominal	-48 VDC	-48 VDC / +24 VDC	
Adjustable Range	-42 VDC to -58 VDC	-42 VDC to -58 VDC, +24 VDC to +28 VDC	
Capacity (at 40 °C)	1 shelf: 150 A @ 208-240 VAC; 2 shelves: 150 A (N+1) @ 208-240 VAC or @ 120 VAC	400 amps at -48 VDC; 600 amps at -48 VDC with List 27	600 amps at -48 VDC, 400 amps at +24 VDC
Breakers	1A to 150 A E/M or E breakers	1A to 300 A E/M or E breakers	
Fuses	18/100 A to 15 A GMT	3 A to 100 A TPS/TLS and 18/100 A to 15 A GMT	

Physical Characteristics			
Mounting	Standard 19" rack mounting	Standard 19" and 23" rack mounting	
Distribution Shelf / Cabinet Dimensions (H x W x D)	1U x 19" x 15" shelf	4U x (19" or 23") x 15" cabinet (19" depth with AC/solar termination panel)	8U x (19" or 23") x 15" cabinet
Module Shelf Dimensions (H x W x D)	1U x 19" x 15"	1U x (19" or 23") x 15"	1U x (19" or 23") x 15"
System Dimensions (H x W x D)	(3.5" up to 5.25") x 19" x 15"	(8.75" to 7.5') x (19" or 23") x 23.14" (with batteries)	
AC Accessibility	Rear/front	Rear	Rear
DC Load Accessibility	Front	Top or rear cabled with front and top access	

Environmental	
Operating	-40°C to +65°C (-40°F to +149°F)
Storage	-40°C to +85°C (-40°F to +185°F)

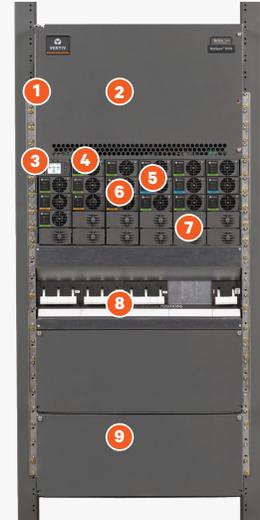| Standards Compliance			
Safety	UL 1801		
EMC	Conforms to FCC rules Part 15, Subpart B, Class B and EN55022 Class B, radiated and conducted		
NEBS	Level 3 (pending)	Level 3	Level 3

Ordering Information

Model Number	Part Number	Description
NetSure 5100	582137100*	-48V NetSure 5100 DC power system with external distribution
NetSure 5100	582137200*	-48V NetSure 5100 DC power system with integrated distribution
R48-2000E3	1R482000E3	Rectifier, 2 kW, high efficiency, refer to separate data sheet
C4824-1500	1C48241500**	Converter, 1.5 kW, high efficiency, refer to separate data sheet
S48-2000E3	1S482000E3**	Solar converter, 2 kW, high efficiency, refer to separate data sheet
M830B	1M830BNA*	NCU controller, refer to separate data sheet

* Overall base system or controller number.

** The converter and solar converter are only used on the NetSure™ 5100 with external distribution (582137100).

System Elements

Hybrid NetSure™ 5100 Series, 28.8 kW, 23" Rack with 2 Row Distribution

Integrated NetSure 5100 Series

1. Relay Rack
2. Distribution Panel
3. NetSure Control Unit, M830B
4. eSure™ Rectifier, R48-2000e3
5. -48 V to +24 V Converter, C4824-1500
6. Solar Converter, S48-2000e3
7. Blank Cover
8. Hybrid Panel
9. Solar Panel

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