

# Vertiv<sup>™</sup> Geist<sup>™</sup> Rack PDUs

Power Perfectly Configured for Your IT Application

### **Enhanced Performance and Management of Dynamic IT Spaces**

#### Enhance Business Agility, Efficiency and Availability with Vertiv<sup>™</sup> Geist<sup>™</sup> Rack PDUs

Data centre investments are sizable, and each component of the power chain from the facility entrance to the rack power distribution is crucial to enabling equipment availability. Enable your IT investment and your business to stay protected with the Vertiv<sup>™</sup> Geist<sup>™</sup> family of Rack PDU (rPDU) offerings. The next generation of rPDUs provides the industry's highest availability and most intelligent power monitoring and distribution — complete with simplified energy management, a future-proof design, and cost savings that ensure your data centre and your business can operate at peak efficiency. Our complete portfolio of rPDUs offer value beyond power distribution. They easily integrate with your data centre infrastructure management systems to make your organization more resilient, enhance your business and provide the technological support you need to grow your company.



## **Basic rPDUs**

Vertiv<sup>™</sup> Geist<sup>™</sup> Basic Rack PDUs (rPDUs) offer reliable, space saving, and cost-effective power distribution at the rack. Our Basic rPDUs meet a broad range of power distribution requirements for all IT applications.

## Intelligent rPDUs

Vertiv<sup>™</sup> Geist<sup>™</sup> offers a wide range of monitored and switched rPDUs equipped with a network interface to allow for remote monitoring, management, and automated alerts. Vertiv<sup>™</sup> Geist<sup>™</sup> rPDUs offer important insights on how to improve data centre energy efficiency while enabling you to prevent downtime, providing notifications when user-specified thresholds for power and environmental conditions are breached.

### At a Glance

#### Color

Black powder coat finish.

Red, Orange, Yellow, Green, Blue, White available on Built-to-Order units.

#### Warranty

5-Year limited warranty if registered within 120 days of purchase, otherwise warranty defaults to 3 years.

#### Certifications\*

- RoHS
- Assessed to EN 60950 for CE
- Assessed to EN 55032 and EN 55024 for CE
  - UL & c-UL Listed 60950
  - FCC Part 15 Class A Conformance

#### **Configure-to-Order and Engineer-to-Order Capabilities**

Built-to-Order units provide additional features, colored chassis options, and varying power and receptacle configurations. Contact your Vertiv sales team for more information.

\*Certifications vary by model. Refer to the product data sheet for specific regulatory information.





#### **Outlet Control**

Address unresponsive equipment or increase runtime of critical equipment upon power failure with outlet-level control.



# **Upgradable & Hot-Swappable**

Easily update your rPDU's monitoring capabilities to adapt to latest technologies and changing business needs.



# **Environmental Monitoring**

Proactively monitor environmental conditions within the cabinet to ensure optimal operating conditions. A variety of sensors are available to meet your needs including temperature, humidity, airflow, door position, flood detection and more.



#### **Combination C13/C19 Outlet**

C13 and C19 in one. Provides the flexibility to connect C14 and C20 plugs in the same outlet. High retention color coded outlets are P-Lock cable compatible.



#### U-Lock

Secure power cords and avoid accidental disconnections. Receptacles are color-coded by circuit for instant identification.



#### Vertiv<sup>™</sup> Intelligence Director Daisy-chain up to 50 devices on a

single IP address. Reduce deployment time with self-configuration of downstream devices.

# **High Temperature Grade**

Up to 60°C working ambient variants for high temperature environments.



### **Remote Connectivity**

Access the rPDU remotely via the network interface or serial connection to monitor power consumption and configure user-defined alert notifications to prevent downtime.



# **Fault-Tolerant Daisy Chaining**

Simplifies intelligent rPDU connectivity and ensures data is reported even when a break in the network chain occurs.

#### Visible Light Communication (VLC) Optically transmit data from the rPDU display to your mobile device using VLC for quick and secure access to unit and power consumption data.



Small Footprint and Low Profile Breakers



Compact size to install in tight spaces.



 Power Monitoring 1% accuracy Allows data centre managers to accurately monitor input and outlet level power usage with 1% monitoring accuracy tested to ANSI and IEC standards.



A universal input with a pivoting connector simplifies IT power infrastructure deployments by enabling users to standardize on a single rPDU globally.



3

# Vertiv<sup>™</sup> Geist<sup>™</sup> Rack PDUs

### **Rack PDU**

Model	rPDU Type	rPDU Sub-Type	Horizontal / Vertical	Volts	Amps	Max kVA	Plug Type	Socket QTY/ Type	Max Operating Temp*	VI Director
VP9559	Basic	Standard	н	230V	16A	3.6kVA	C20 Inlet	(10) C13 / (2) C19	45°C	N/A
VP7552	Basic	Standard	V	230V	16A	3.6kVA	C20 Inlet	(20) C13 / (4) C19	45°C	N/A
VP7553	Basic	Standard	V	230V	32A	7.3kVA	1P+N+E(IP44)	(20) C13 / (4) C19	45°C	N/A
VP7557	Basic	Standard	V	230/400V	16A	11kVA	3P+N+E (IP44)	(36) C13 / (6) C19	45°C	N/A
VP8858	Monitored	Unit Level	V	230V	16A	3.6kVA	C20 Inlet	(18) C13 / (2) C19	60°C	YES
VP8853	Monitored	Unit Level	V	230V	32A	7.3kVA	1P+N+E(IP44)	(36) C13 / (6) C19	60°C	YES
VP43903	Monitored	Unit Level	V	230V	32A	7.3kW	1P+N+E(IP44)	(36) Combination C13/C19	60°C	YES
VP8881	Monitored	Unit Level	V	230/400V	16A	11kVA	3P+N+E (IP44)	(36) C13 / (6) C19	60°C	YES
VP8886	Monitored	Unit Level	V	230/400V	32A	22kVA	3P+N+E (IP44)	(30) C13 / (12) C19	60°C	YES
GI30146	Monitored	Unit Level	V	230/400V	32A	22kVA	3P+N+E(IP44)	(36) Combination C13/C19	60°C	YES
VP8959EU3	Switched	Unit Level	v	230V	16A	3.6kVA	C20 Inlet	(21) U-Lock C13 / (3) U-Lock C19	50°C	YES
VP52101	Switched	Unit Level	н	230V	16A	3.6kVA	C20 Inlet	(12) Combination C13/C19	60°C	YES
VP8953	Switched	Unit Level	v	230V	32A	7.3kVA	1P+N+E(IP44)	(20) U-Lock C13 / (4) U-Lock C19	50°C	YES
VP59100	Switched	Unit Level	н	230V	32A	7.3kVA	1P+N+E	(12) Combination C13/C19	60°C	YES
GU30007L	Switched	Outlet Level	v	230V	16A	3.6kVA	1P+N+E(IP44)	(21)U-Lock C13 / (3) U-Lock C19	50°C	YES
GU30017L	Switched	Outlet Level	V	230V	32A	7.3kVA	1P+N+E(IP44)	(20) U-Lock C13 / (4) U-Lock C19	50°C	YES
GU30004L	Switched	Outlet Level	٧	230/400V	16A	11kVA	3P+N+E (IP44)	(30) U-Lock C13 / (6) U-Lock C19	50°C	YES
GU30010L	Switched	Outlet Level	V	230/400V	32A	22kVA	3P+N+E (IP44)	(30) U-Lock C13 / (6) U-Lock C19	50°C	YES

### **Device Director**

Device Director is a comprehensive, Windows-based utility that is used to install, configure and maintain multiple Vertiv<sup>™</sup> Geist<sup>™</sup> devices within a single interface.

Device Director helps you set the IP addresses of multiple devices, configure user accounts, modify network settings, update firmware, export/import configuration settings and validate device connectivity.

Device Director gives you a powerful and easy way to mass configure Vertiv Geist devices, and effectively reduces setup time and maintenance cost.

- Automatic discovery of Vertiv Geist devices on the network
- Mass configuration of device and network settings
- Bulk firmware updates



### Vertiv<sup>™</sup> Geist<sup>™</sup> Mobile

The Vertiv<sup>™</sup> rPDU Scanner provides full visibility of the power distribution unit and its power consumption at your fingertips.

Using Visible Light Communication (VLC) technology, the Upgradeable line of rPDUs optically transmit information to your handheld device providing easy, secure, and instant access to power usage data at the cabinet or rack.

- Real-time capture of comprehensive rPDU data
- Automation of rPDU inventory management
- Secure & interference-free wireless data transmission
- Available on networked and non-networked rPDUs





# **Universal Power Distribution Unit (UPDU)**

The Vertiv<sup>™</sup> Geist<sup>™</sup> UPDU is the most versatile and robust rack power distribution unit on the market with a universal power input and pivoting connector that can mate to any geographically specific Facility Side Cable, simplifying management and enabling rapid IT infrastructure deployments.

The Vertiv Geist UPDU features a universal input and a detachable power cable meeting AC power specs that are common worldwide ranging from 16A to 63A, 120V to 415V with single and three phase power configurations.

Models available in 11kW and 22kW max power load capacities in both vertical and horizontal form factors with various receptacle combinations, monitoring and outlet control options.



# The universal design enables a single unit to be purchased, installed and shipped to any location around the world, regardless of the regional power infrastructure.

The Vertiv Geist UPDU power configuration is determined by the connected Facility Side Cable. Change the cable to adjust the input power configuration.

# How does it work?

- 1. Select a Vertiv Geist UPDU model based on anticipated maximum rack power usage.
- 2. Choose between a 2U Horizontal or OU Vertical with a variety of monitoring, management, and outlet configuration options.
- 3. Install the same model in all racks and cabinets. The pivoting input adjusts from 0 to 90 degrees to simplify power cable routing.
- 4. Identify the facility power available for each location and select the Facility Side Cable with the appropriate power configuration needed.
- 5. Simply swap out the Facility Side Cable as power requirements increase or decrease to adapt to changing power needs.

# **Benefits**

- Supply chain agility
- Global data centre interoperability
- Improve power efficiency with input and outlet level power monitoring
- Lower inventory management costs



FSC3U002

30/32A, 3P+N+E (IP44)



30/32A, 2P+E (IP44)

FSC1U001

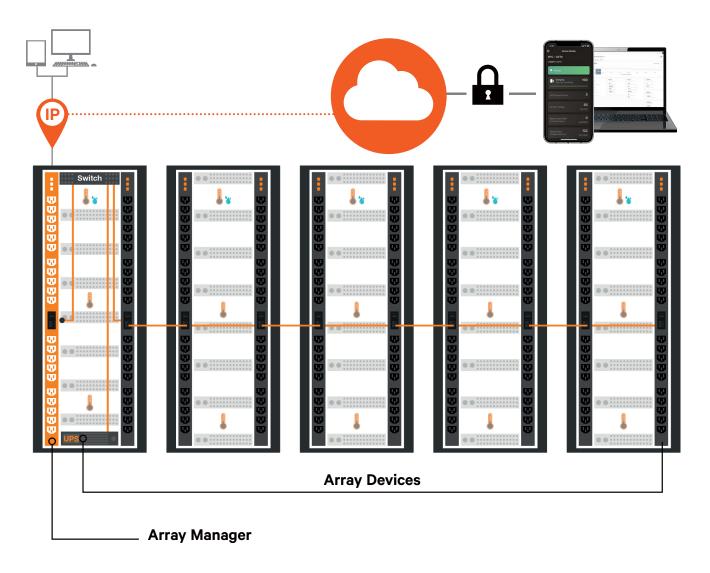




16/20A, 3P+N+E (IP44) FSC3U001

#### Vertiv<sup>™</sup> Intelligence Director

#### PLUG-N-PLAY DATA CENTRE INFRASTRUCTURE ENABLING LIGHTNING FAST DEPLOYMENTS



The next generation of Vertiv<sup>™</sup> Geist<sup>™</sup> rPDUs offer enhanced monitoring and simplified networking with the introduction of Vertiv<sup>™</sup> Intelligence Director.

\*One unit per group is required to have an IMD-03E, IMD-03E-S, IMD-3E or IMD-3E-S, installed. An IMD-03E-S can be purchased separately to upgrade a Monitored - Unit Level unit.

\*\*Vertiv<sup>™</sup> Intelligence Director compatible with Vertiv<sup>™</sup> Liebert<sup>®</sup> GXT4, GXT5, and VRC products.

- On Monitored\* and Switched units, users have the ability to daisy chain up to 50 devices with a single IP address.
- Access data from all downstream rPDU and UPS\*\* devices from one rPDU.
- Users are able to aggregate data by grouping devices by rack or row.
- Downstream devices self-configure, significantly reducing deployment time.
- Securely transmit device data to the Vertiv<sup>™</sup> Intelligence cloud for anytime access to critical infrastructure information.

#### How it works

- Designate a Switched or Monitored unit as the array manager.
- Connect up to 50 array devices through a network switch or by daisy chaining the rPDUs to the array manager.
- Securely access array device data via SNMP or the array manager user interface through a single IP address and bring the consolidated data in your private cloud.
- Bring your infrastructure data together with the option to connect to the Vertiv Intelligence cloud platform.



### **rPDU Models**

Visit the rPDU Finder on Vertiv.com for a complete list of available models.

### **Universal PDU**

Model	rPDU Type	rPDU Sub-Type	Horizontal / Vertical	PDU Ratings	Breaker Qty	Max kVA	Socket QTY/ Type	Max Operating Temp*	VI Director
UI30006L	Monitored	Unit Level	Vertical	16A 3~ WYE 230/415V max, 24A 3~ Delta 208V max, 48A 1~ 240V max	3	11kVA	(24) U-Lock C13, (12) U-Lock C19	60°C	YES
UI30007L	Monitored	Unit Level	Vertical	32A 3~ WYE 230/415V max, 48A 3~ Delta 208V max, 63A 1~ 240V max	6	22kVA	(24) U-Lock C13, (6) U-Lock C19	60°C	YES
UU30009L	Switched	Outlet Level	Vertical	16A 3~ WYE 230/415V max, 24A 3~ Delta 208V max, 48A 1~ 240V max	3	11kVA	(30) U-Lock C13, (6) U-Lock C19	60°C	YES
UU30010L	Switched	Outlet Level	Vertical	32A 3~ WYE 230/415V max, 48A 3~ Delta 208V max, 63A 1~ 240V max	6	22kVA	(18) U-Lock C13, (12) U-Lock C19	60°C	YES

### **Facility Side Cable**

Model	Plug Type	Rating	kVA (max)	kVA (max)	
	Facility Side	Cable (FSC)	3 Breaker UPDU	6 Breaker UPDU	
FSC3U002	30/32A, 3P+N+E (IP44)	30/32A, 230/400V WYE	11.0kVA**	22.0kVA	
FSC3U001	16/20A, 3P+N+E (IP44)	16A, 230/400V WYE	11.0kVA	11.0kVA	
FSC1U001	30/32A, 2P+E (IP44)	30/32A, 208/230V	7.3kVA	7.3kVA	

Product chart shows limited spec information. For complete product details visit Vertiv.com.

\*See data sheet for maximum operating temperature requirements. \*\*Max kVA limited by internal UPDU circuit breakers

# Combination Outlet C13 / C19



#### Simplify rPDU specification, purchase, and deployment.

The Combination Outlet C13/C19 provides the highest level of rack power versatility. The 2-in-1 design allows you to connect both IEC C14 and C20 plugs into the same outlet.

- High retention outlets reduce the risk of costly downtime from accidental disconnections of the power cord. The Combination Outlet C13 / C19 is also P-Lock compatible for additional protection
- Easily identify circuits with color-coded P-Lock tabs
- Streamline circuit and phase balancing with alternating outlets



### How You Benefit from Vertiv<sup>™</sup> Rack PDUs

# **Designed for High Availability**



- High operating temperature rating to accommodate increased rack densities.
- Secure cords with U-Lock outlets to prevent accidental dislodging.
- Hot-swappable and upgradeable monitoring device allows users to upgrade as technology advances and business needs change.

# **Optimized Energy and Capacity Management**



- Metering of key electrical parameters with +/-1% accuracy provides highly accurate comprehensive power monitoring.
- Lowest idle power consumption in the industry.
- Power and environmental trend reports through several Vertiv DCIM solutions to provide visibility and control of energy usage by IT equipment.

# **Simplified Integration with Management Tools**



- Integration with Vertiv<sup>™</sup> software stack to simplify implementation and change management translating to real cost savings.
- IPv4 and IPv6 support.
- Support for all major management, authentication and encryption standards and protocols to fully
  integrate with higher level data centre management software provided by Vertiv or third parties.

# **Compatibility with Racks and Power Chain**



- Compatible with all industry racks and can be preinstalled in Vertiv<sup>™</sup> racks to reduce installation costs and implementation time.
- Available in all major global voltage and amperage combinations typically used in data centre or remote sites.
- Easily integrate with Vertiv's full line of power products. A Vertiv<sup>™</sup> expert can assist in selecting the right rPDU for your power chain needs.

# **Enhanced Security Features**



- Visible Light Communication (VLC) for quick and secure access to unit and power consumption with the Vertiv<sup>™</sup> rPDU Scanner mobile app.
- Together with Avocent<sup>®</sup> ACS VPN and Out-of-Band communication supports highest security communication for Edge applications.
- SNMPv3, ssh, HTTP(S) and IPv6 support.



## Integrate Environmental Sensors to Pro-actively Monitor Critical Infrastructure



#### Temperature — SRT

The SRT is an easy-to-install external temperature sensor great for monitoring a variety of areas, such as; A/C inlet, A/C outlet, ambient room temperature, hot spots, and internal cabinet temperature. The SRT is available in a variety of cable lengths. Contact a Vertiv sales representative for a full list of temperature sensor options.



#### Temperature/ Humidity/ Dew Point/ Airflow — RTAFHD3

The RTAFHD3 temperature, relative humidity, dew point, and airflow sensor provides critical information to ensure equipment is receiving adequate airflow within the optimal parameters to prevent premature equipment failure due to out-of-range operating conditions.



#### Temperature/ Humidity/ Dew Point — GTHD

The GTHD sensor collects and transmits real-time temperature and relative humidity data to protect critical data centre and Edge infrastructure from heat and moisture. The sensors can be daisy chained together to simplify installation.



#### Temperature x 3/ Humidity/ Dew Point Kit — GT3HD

The GT3HD provides real-time temperature and relative humidity monitoring with additional 3ft/.9m and 6ft/1.8m temperature sensors. The GT3HD is ideal for monitoring temperature at the top, middle, and bottom of a server cabinet. A supplementary input provides the ability to daisy-chain additional sensors together making it a perfect solution for monitoring a row of racks or cabinets.



#### Analog-to-Digital Converter — A2D

The A2D allows users to connect a dry contact, 0-10V, or 4-20mA sensor to an RJ12/ Plug-n-Play sensor port. It provides users with the flexibility to utilize a Plug-n-Play sensor port for a Dry Contact / 0-5V sensor.



#### Door Position — RDPS

The RDPS detects when a door or cabinet is open or closed. The door position sensor has four components: magnet, switch with screw-terminal, cover and connection wires. The wired switch is mounted to the door frame or cabinet and the magnet on the door, opposite the switch. When the door is opened, the switch separates and the sensor trips an alarm.



#### Flood Sensor — FS

The Flood Sensor detects the presence of water. The sensor measures conductivity and indicates whether the sensor is dry, wet, or completely immersed in water. Flood Sensors are commonly installed near or under plumbing fixtures, A/C drip pans, pipes and water sprinklers.



#### Power Failure Sensor — PFS

The power failure sensor provides real-time notifications of power outages. It is commonly used to monitor utility, UPS, and 3-phase power. The PFS connects to an analog input port and comes complete with its own power adapter that plugs directly into the power source being monitored. Status LEDs provide immediate indications of system state.

## A worry-free time-saving solution for rapid deployment

Time is an invaluable resource when working to get an IT site up and running. Vertiv has answered the call by making its flagship line of premium server racks, Vertiv<sup>™</sup> VR Rack, "available pre-integrated with Vertiv<sup>™</sup> Geist<sup>™</sup> Rack PDUs" prior to shipment. Save time, money and resources on the integration process, while having peace of mind knowing that the parts you ordered will be set up correctly from the beginning.

#### **Benefits:**

- No Hassle Installation We will install your PDUs for you, and make sure everything is set up correctly before shipment. Less waste and packaging to discard or deal with.
- Worry-free Compatibility There is no question about compatibility with us integrating them before being sent to you.
- **Quick Shipment** Adding this feature does not cause any delays. Your rack(s) with pre-integrated rPDUs will be shipped within days of Vertiv receiving the order.
- **5-Year Warranty** Vertiv offers a 5-year warranty on the Vertiv<sup>™</sup> VR Rack and a 5-year warranty on the rPDU (with registration).



#### How it Works:



#### Select Your Rack

Choose from our standard 8 Vertiv<sup>™</sup> VR Rack SKUs designed to support high density weight loads.



#### Add Your Power Distribution Unit(s)

Select from a range of basic, monitored and switched PDUs. Choose your installation location(s) and cord placement location(s).



#### **Deliver in a Single Shipment**

We will install the PDU for you and ship the products as one pre-integreated assembly (versus separate parts).

### How to Purchase:

Contact your local Vertiv office to get started.



### **Distribution Assurance Package**

#### Optional Startup and Rack-Mount Installation

Factory-authorized Vertiv<sup>™</sup> technicians handle rack-mount PDU installation and startup at your location. You'll enjoy the convenience and peace of mind that come from having the experts do the job, and IT staff is free to attend to other tasks.

#### **Five-Year Protection Plan**

The Distribution Assurance Package provides 100 percent parts coverage for replacement for a full five years. With this level of protection, you avoid unexpected downtime costs and gain network availability.

#### **Optional Removal**

If ordered with the Distribution Assurance Package, our technicians will remove old rack PDUs. This optional task is handled when visiting to rackmount and startup your new rack PDUs.

#### **Emergency Response**

Vertiv's experienced team of technicians offers the industry's premier service capability for supporting all Vertiv<sup>™</sup> rack PDUs. Should a problem ever arise with the units, you'll have 24x7 access to Vertiv's Customer Resolution Center. You can count on quick recognition by support personnel as well as priority status during emergencies including guaranteed emergency response.



#### Summary

Even when your IT staff is working at capacity, there's no need to leave business-critical power unmanaged.

The Distribution Assurance Package from Vertiv<sup>™</sup> Services gives you a trusted OEM service partner with an unmatched level of rack PDU service expertise. We'll be at your side from order to deployment, and ensure consistent service across all your sites. You'll have a complete, worry-free solution to assure critical power to your IT loads for maximum availability.

By combining leading rack PDU technology, expert service and support, and a five-year protection plan, you'll know your data center has the power it needs to support business-critical applications.

#### **Ordering Information**

To learn more about this service and other Vertiv<sup>™</sup> solutions, visit Vertiv.com

Compreh	ensive 5-year Protection Service	Installation Service	Startup Service	<b>Distribution Emergency</b>
Φ	Installation	$\checkmark$		
n ;kage	Startup		$\checkmark$	
Distribution ssurance Pack	Technical Support Hotline			24/7
	Parts Included			$\checkmark$
	Response Time			✓ 8 working hours*
Ä	Contract Duration			5 YEARS

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



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