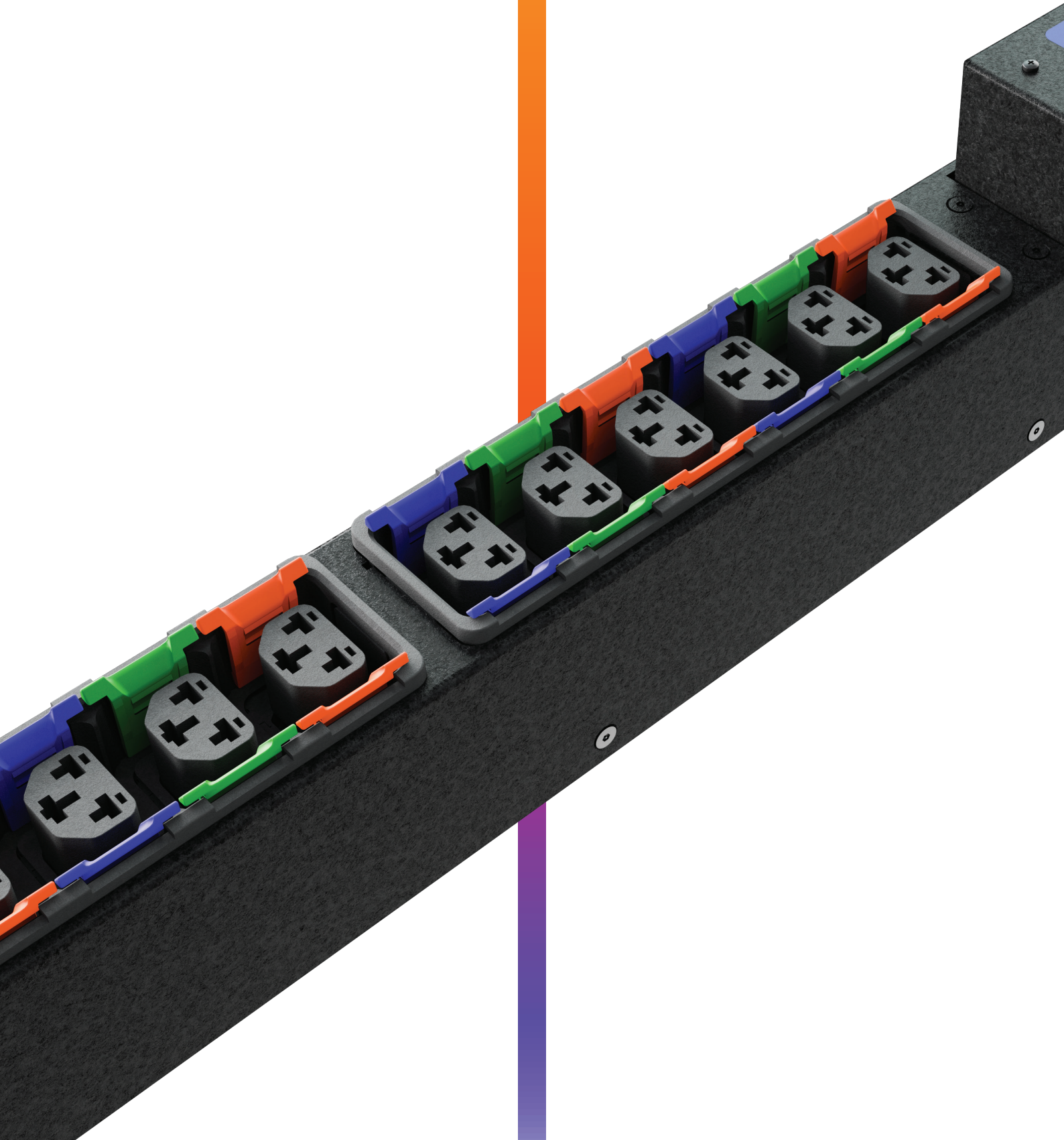




Vertiv™ Geist™ Rack PDUs

Power Perfectly Configured
for Your IT Application



Enhanced Performance and Management of Dynamic IT Spaces

Enhance Business Agility, Efficiency and Availability with Vertiv™ Geist™ Rack PDUs

Data center 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™ Geist™ 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.



Power

Monitor

Integrate

Basic rPDUs

Vertiv™ Geist™ 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™ Geist™ series product offers a wide range of monitored and switched rPDUs equipped with a network interface to allow for remote monitoring, management, and automated alerts. Vertiv™ Geist™ 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 Configure-to-Order units.

Warranty

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

Certifications*

- RoHS/China RoHS
- UL & c-UL Listed 62368
- Assessed to EN 62368 for CE
- Meti Denan (Japan)

Configure-to-Order and Engineer-to-Order Capabilities

Engineered-to-order units allow further customization, including colored chassis options, alongside varying power and receptacle configurations. Contact your Vertiv sales team for more information.

*Certifications vary by model. Refer to 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.



Alternating Outlets

Simplify circuit/phase balancing and cable management with color coded alternating outlets.



Combination Outlet C13 / C19

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™ 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.



Small Footprint and Low Profile Breakers

Compact size to install in tight spaces.



Power Monitoring 1% accuracy

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



Universal Input

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



The Broadest Range of rPDU Options Available

Vertiv™ Geist™ series product offers a wide range of Monitored and Switched rPDUs equipped with a network interface to allow for remote monitoring, management, and automated alerts. These units offer important insights on how to improve data center energy efficiency while enabling you to prevent downtime, providing notifications when user-specified thresholds for power and environmental conditions are breached.

Intelligent rPDUs

Monitored

Monitored rPDUs provide power usage remotely with access to the rPDU current, voltage, real power, apparent power, power factor and kilowatt hours. Available in Unit Level and Outlet Level monitoring configurations.

Switched

Switched rPDUs provide all the benefits of a Monitored rPDU plus the ability to remotely turn on, turn off, or reboot power at each outlet. Available in Unit Level and Outlet Level monitoring configurations.

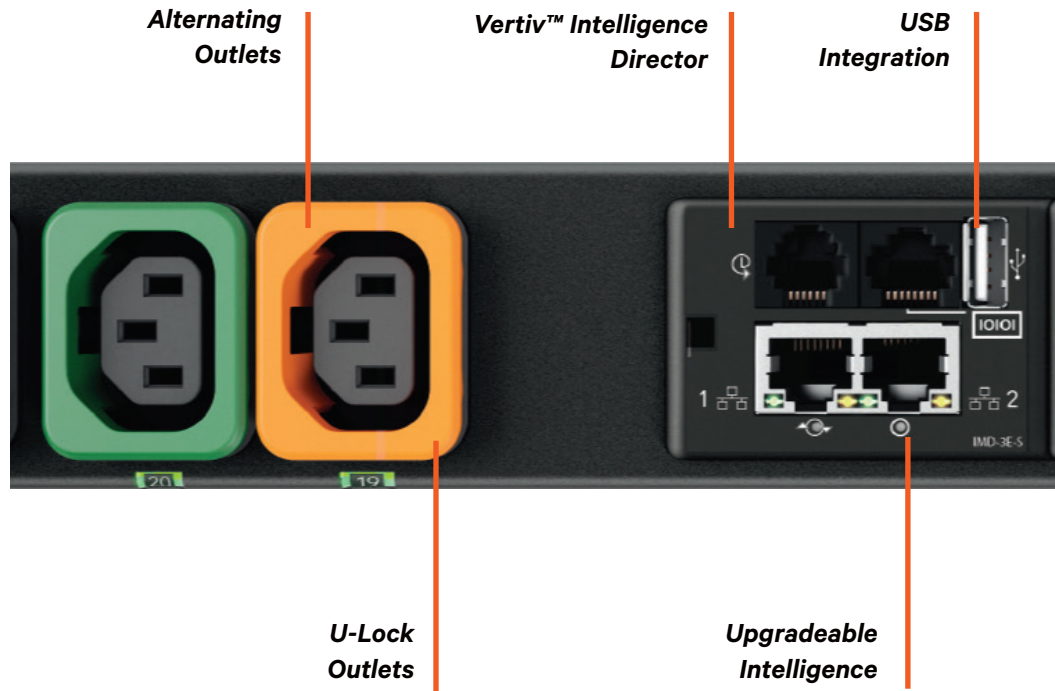
Basic and Metered rPDUs

Basic

Basic rPDUs offer reliable, space saving and cost-effective power distribution at the rack while meeting a broad range of power distribution requirements for all IT applications.

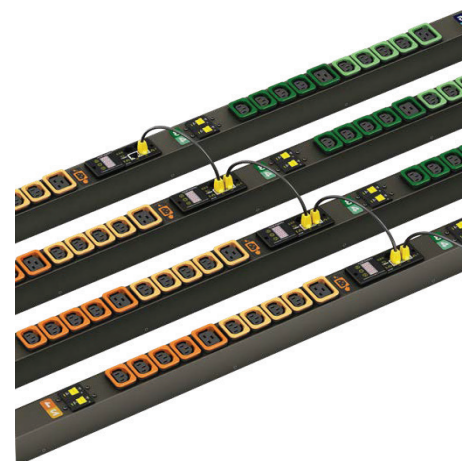
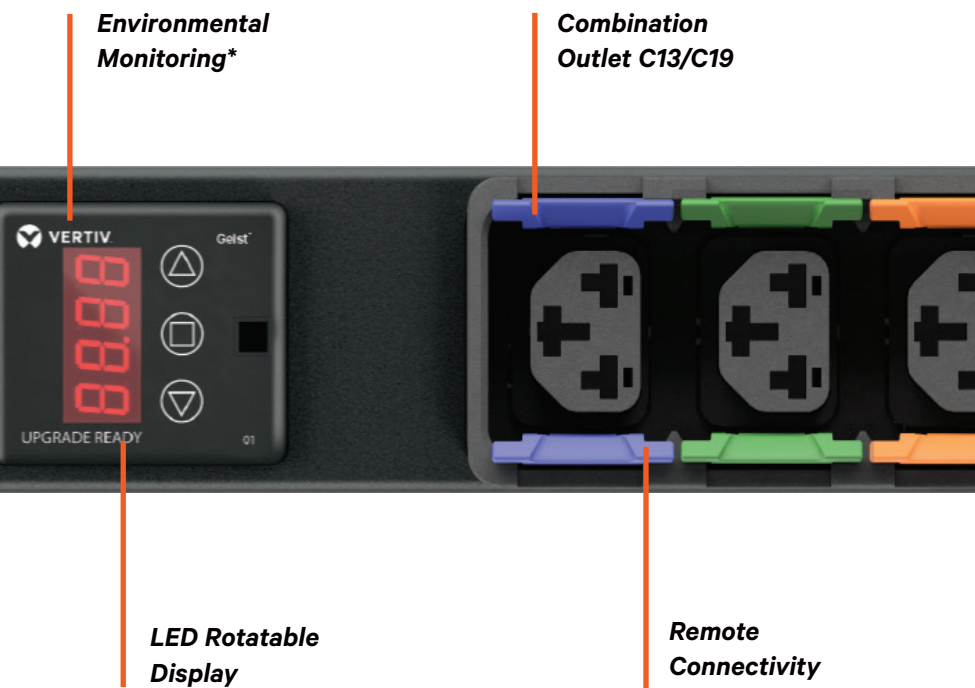
Metered

Metered rPDUs come equipped with a digital display providing power consumption data helpful in preventing overloads.



Feature	rPDU Type			
	Basic	Metered	Monitored	Switched
Power Distribution	✓	✓	✓	✓
Current Meter		✓	✓	✓
Network Interface			✓	✓
USB			✓	✓
Environmental Monitoring			✓	✓
Outlet-Level Monitoring			Optional	Optional
Outlet-Level Switching				✓
Upgradeable & Hot-Swappable	✓	✓	✓	✓
U-Lock Outlets	✓	✓	✓	✓
Horizontal and Vertical Configurations	✓	✓	✓	✓
Color Chassis Options	✓	✓	✓	✓

*Environmental Sensors compatible with the Intelligent rPDUs are located on page 11.



Overview

- Fault-Tolerant Daisy Chaining**
Simplifies intelligent rPDU connectivity and ensures data is reported, even if a break in the communication chain occurs.
- High Temperature Grade**
60°C temperature rating ensures reliable operation in high temperature environments.
- Input Power Monitoring**
1% Accuracy (ANSI and IEC) allows data center managers to accurately reconcile power usage.
- Low-Profile Breakers**
Compact profile to install in tight spaces for units requiring breakers.

Combination Outlet C13/C19



Simplify rPDU specification, purchase, and deployment.

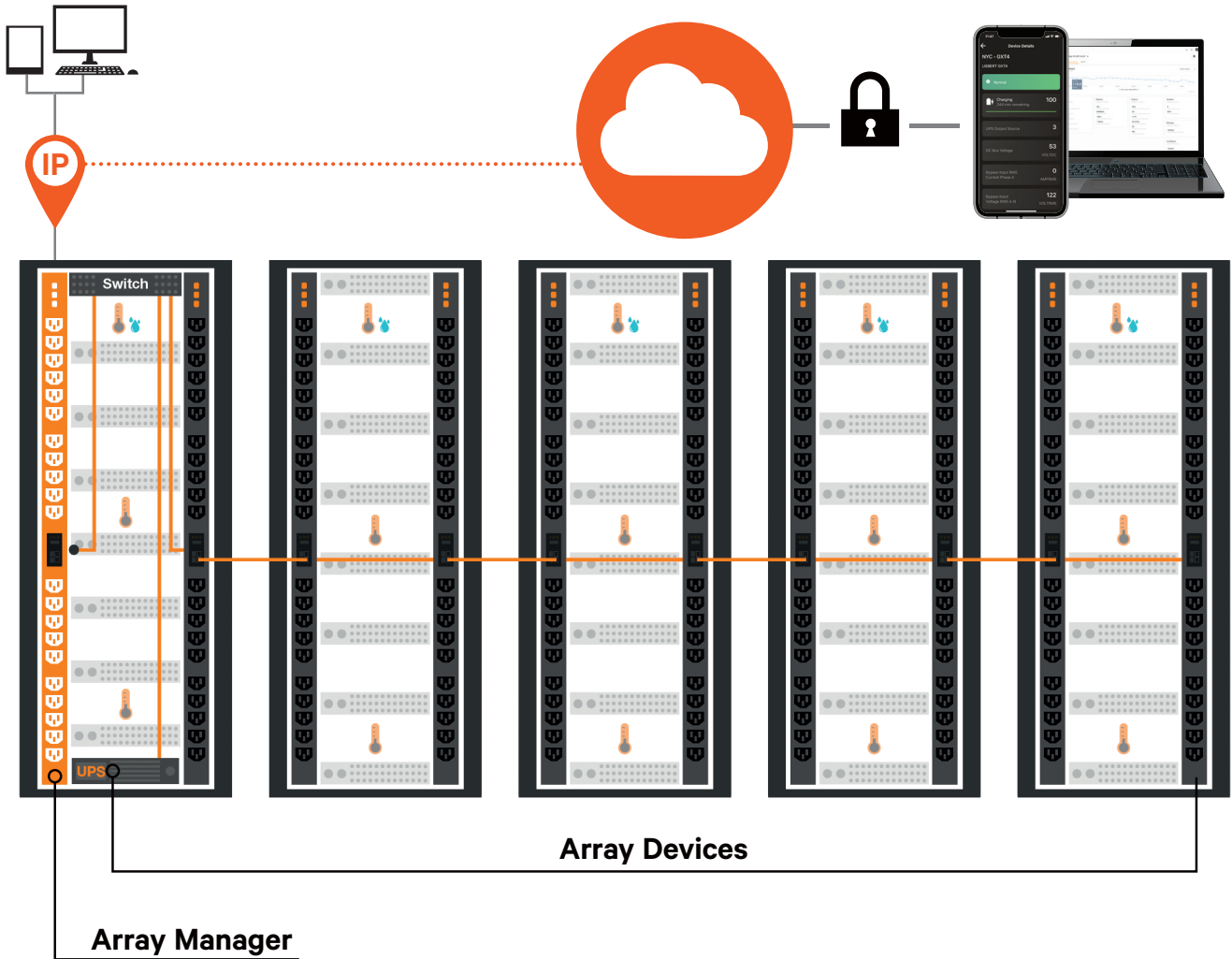
The combination Outlet C13/C19 provides the highest level of rack power versatility. The 2-in-1 design allows you to connect both IEC C14 and C20 plugs into the same outlet.

- 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.



Vertiv™ Intelligence Director

Plug-N-Play Data Center Infrastructure Enabling Lightning Fast Deployment



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

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

**Vertiv™ Intelligence Director compatible with Vertiv™ MPH2 and MPX rack Vertiv™ GXT4, GXT5, PS15, EXM, APM and ITA2 UPS, Vertiv™ CRV row cooling and USB-connected Vertiv™ VRC cooling.

- 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 Intelligence cloud for anytime access to critical infrastructure information.

How it works

1. Designate a Switched or Monitored unit as the array manager.
2. Connect up to 50 array devices through a network switch or by daisy chaining the rPDUs to the array manager.
3. 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.
4. Bring your infrastructure data together with the option to connect to the Vertiv Intelligence cloud platform.

Universal Power Distribution Unit (UPDU)

The Vertiv™ Geist™ 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.



30/32A, 3P+N+E (IP44)
FSC3U002



30/32A, 2P+E (IP44)
FSC1U001



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

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 0U 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

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.

How You Benefit from Vertiv™ 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 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 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 expert can assist in selecting the right rPDU for your power chain needs.

Enhanced Security Features



- Together with Avocent® ACS VPN and Out-of-Band communication supports highest security communication for Edge applications.
- SNMPv3, ssh, HTTP(S) and IPv6 support.

Stocked Models

Item Number	Model	Type	Mounting	Nominal Voltage	Amps	Input Plug Type	Input Cord Length	Receptacles Quantity	Receptacles Type	Chassis Color
F0126849	-	Basic Standard	1U	230V	16A	C20	3.0m	8 x C13 2 x C19	Non-Locking	Black
F0126851	-	Basic Standard	Vertical	230V	16A	C20	3.0m	20 x C13 4 x C19	U-Lock	Black
14240246	C1650L	Basic Standard	Vertical	230V	32A	IEC60309 1P+N+E	3.0m	20 x C13 4 x C19	U-Lock	Black
F0127977	-	Basic Standard	Vertical	230V	32A	IEC60309 1P+N+E	3.0 m	20 x C13 6 x C19	Non-Locking	Black
14240231	CI10038L	Metered with Upgradeable IMD	Vertical	230V	32A	IEC60309 1P+N+E	3.0m	20 x C13 4 x C19	U-Lock	Black
F0133224	CP8881	Monitored Unit Level	Vertical	230/400V	16A	IEC60309 1P+N+E	3.0 m	36 x C13 6 x C19	Non-Locking	Black
14240241	CI30000L	Monitored Unit Level	Vertical	230V	32A	IEC60309 1P+N+E	3.0 m	20 x C13 4 x C19	U-Lock	Black
14240242	CP8853	Monitored Unit Level	Vertical	230V	32A	IEC60309 1P+N+E	3.0 m	36 x C13 6 x C19	Non-Locking	Black
F0134879	CI39711L-B	Monitored Unit Level	Vertical	230V	32A	IEC60309 1P+N+E	3.0m	24 x C13 6 x C19 2 x BS1363	U-Lock C13 C19	Blue
F0134880	CI39711L-R	Monitored Unit Level	Vertical	230V	32A	IEC60309 1P+N+E	3.0m	24 x C13 6 x C19 2 x BS1363	U-Lock C13 C19	Red
02246289	VP4G9100	Monitored Unit Level	1U	230V	32A	IEC60309 1P+N+E	3.0m	12 x Combination C13/C19	High Retention & P-Lock *	Black
02241532	VP43903	Monitored Unit Level	Vertical	230V	32A	IEC60309 1P+N+E	3.0m	36 x Combination C13/C19	High Retention & P-Lock *	Black
02241533	GI30146	Monitored Unit Level	Vertical	230/400V	32A	IEC60309 3P+N+E	3.0m	36 x Combination C13/C19	High Retention & P-Lock *	Black
14240342	CP8953	Switched Unit Level Monitoring	Vertical	230V	32A	IEC60309 1P+N+E	3.0m	20 x C13 4 x C19	U-Lock	Black

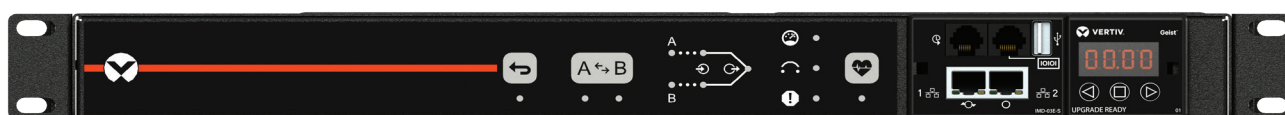
*Combination Outlet C13/C19 is P-Lock compatible for locking

*Refer to page 6 for Socket Type descriptions.

Safeguard Your Critical IT Infrastructure in the Event of a Power Failure

The Vertiv™ Geist™ Rack Transfer Switch delivers redundant power to single corded devices. Two independent power inputs enables users to connect to a primary and secondary power source. The Geist™ Rack Transfer Switch automatically detects the loss of power and switches the power load to the alternative power source in less than 4-8 milliseconds without the need for human intervention. This ensures equipment remains powered until the primary power source returns providing ultimate mission-critical power reliability.

The Rack Transfer Switch is an open transition switch utilizing a break-before-make process for transferring between the primary and secondary power source. This method of switching does not require phase synchronization between the two power feeds making it suitable for use in both data center and edge locations. It also includes enhanced redundant switches and fail-safe fused thermistors to mitigate current surge during transfers ensuring critical equipment is protected during fail-over.



Front view



Rear view

The Vertiv Geist Rack Transfer Switch provides the widest range of configuration options to support redundancy strategies in most data center and edge applications.

Upgradeable Technology

The Rack Transfer Switch utilizes the evolutionary upgradeable technology used in the Vertiv™ rack PDUs. It provides users with the flexibility to install the intelligence they require today, with the option to upgrade technology as needs evolve. From basic power to power monitoring, the Geist™ Upgradeable product line adapts to your business well into the future.

Enhanced Intelligence

Intelligent models provide a comprehensive view of critical IT equipment power usage at the rack or via remote access. Set user-defined thresholds to receive notifications when power and environmental conditions fall outside the desired range. Outlet level monitored units provide a granular view of equipment power usage, and Switched models enable users to turn-on, turn-off, or reboot individual outlets.

Vertiv™ Geist™ Rack PDUs

Available in a variety of single phase electrical and receptacle configurations with different intelligence options.

At A Glance

Intelligence Type

- Basic Upgradable
- Unit Level Monitored
- Outlet Level Monitored
- Switched Unit Level Monitored
- Switched Outlet Level Monitored

Rack Mount Configuration

- 1U and 2U Horizontal

Global Compliance

- UL Listed and CE Marked

Voltage Range

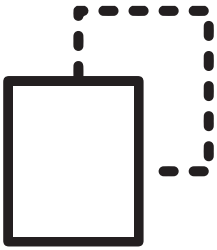
- 100-240V

Amperage Range

- 10A, 15A, 16A, 20A, 30A, and 32A

Receptacle Type

- Combination C13/C19, U-Lock C13, NEMA 5-15R and NEMA 5-20R
- L6-30C and IEC 2P+E IP44



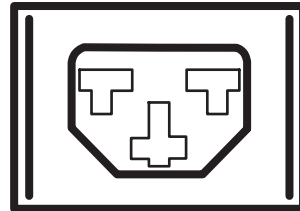
Easy to Use Front Panel Interface

The front panel interface provides visual identification of the active power source and allows users to do a manual transfer to the secondary power source remotely or with the touch of a button to perform equipment maintenance.



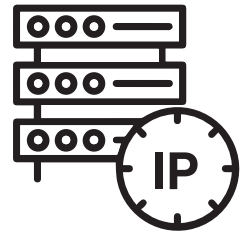
<4-8ms Transfer Speed

When power is lost on the primary source, the Geist™ Rack Transfer Switch transfers to the backup or secondary source in under 4-8 milliseconds to ensure critical IT equipment continues to receive power during a power outage.



Combination Outlet C13/C19

Select models come equipped with the Combination Outlet C13/C19 accommodating either a C14 or C20 power cable in the same outlet without the need for an adapter. The 2-in-1 outlet simplifies the buying process and offers greater flexibility to accommodate ever-changing rack power requirements.



Vertiv™ Intelligence Director

Streamline deployment with IP aggregation of up to 50 supported Vertiv devices on a single IP address with self-configuration of downstream devices.

Technical Specification

Model	Type	Mounting U-Space	Nominal Voltage	Amps	Input Plug Type	Input Cord Length	Receptacles Quantity/Type	Max Operating Temp
VA1U1100	Basic Upgradeable	1U	100-240V	10A	(2) C14	N.A	10 x U-Lock C13	60°C
VA1U2100	Basic Upgradeable	1U	100-240V	16A	(2) C20	N.A	12 x Combination C13/C19	60°C
VA1G8100	Basic Upgradeable	1U	200-240V	16A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C
VA1G9100	Basic Upgradeable	1U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C
VA1G9200	Basic Upgradeable	2U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	24 x Combination C13/C19	60°C
VA4U1100	Monitored Unit Level	1U	100-240V	10A	(2) C14	N.A	10 x U-Lock C13	60°C
VA4U2100	Monitored Unit Level	1U	100-240V	16A	(2) C20	N.A	12 x Combination C13/C19	60°C
VA4G8100	Monitored Unit Level	1U	200-240V	16A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C
VA4G9101	Monitored Unit Level	1U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	1 x IEC60309 1P+N+E	60°C
VA4G9100	Monitored Unit Level	1U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C
VA4G9200	Monitored Unit Level	2U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	24 x Combination C13/C19	60°C
VA6U1100	Monitored Outlet Level	1U	100-240V	10A	(2) C14	NA	6 x U-Lock C13	60°C
VA6U2100	Monitored Outlet Level	1U	100-240V	16A	(2) C20	NA	6 x Combination C13/C19	60°C
VA6G8100	Monitored Outlet Level	1U	200-240V	16A	(2) IEC60309 1P+N+E	3.0 m	6 x Combination C13/C19	60°C
VA6G9200	Monitored Outlet Level	2U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C
VA5U1100	Switched Unit Level Monitoring	1U	100-240V	10A	(2) C14	NA	6 x U-Lock C13	60°C
VA5U2100	Switched Unit Level Monitoring	1U	100-240V	16A	(2) C20	NA	6 x Combination C13/C19	60°C
VA5G8100	Switched Unit Level Monitoring	1U	200-240V	16A	(2) IEC60309 1P+N+E	3.0 m	6 x Combination C13/C19	60°C
VA5G9200	Switched Unit Level Monitoring	2U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C
VA7U1100	Switched Outlet Level Monitoring	1U	100-240V	10A	(2) C14	NA	6 x U-Lock C13	60°C
VA7U2100	Switched Outlet Level Monitoring	1U	100-240V	16A	(2) C20	NA	6 x Combination C13/C19	60°C
VA7G8100	Switched Outlet Level Monitoring	1U	200-240V	16A	(2) IEC60309 1P+N+E	3.0 m	6 x Combination C13/C19	60°C
VA7G9201	Switched Outlet Level Monitoring	2U	200-240V	32A	(2) IEC60309 1P+N+E	3.0 m	12 x Combination C13/C19	60°C



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