Vertiv™ Geist™

Product Overview

Vertiv™ designs and manufactures industry-leading hardware and software to power, cool, monitor and manage critical data center infrastructure.

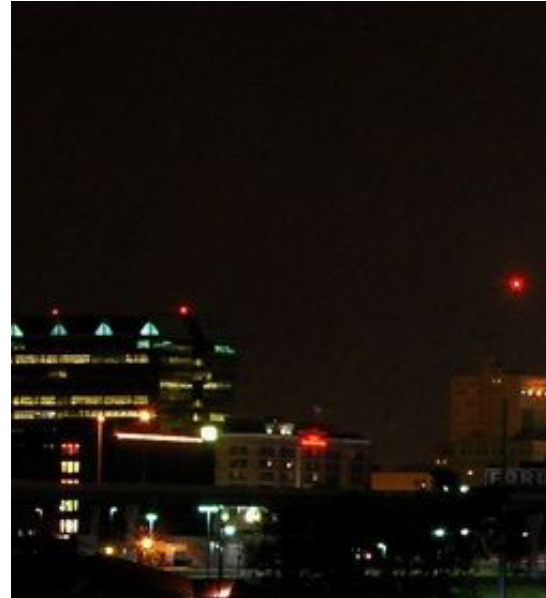**Vertiv™ Geist™ solutions include:**

Rack Power
Distribution

Network Switch
Cooling

Environmental
Monitoring

We produce high quality products while providing you with superior service and value. Whether it is providing excellent customer service or implementing new technologies, Vertiv™ Geist™ promotes innovation, quality and satisfaction in all aspects of business.

Design, Assembly and Testing

On-site engineering, reliability, conformance and compliance labs allow us to design, manufacture and ship rPDUs so they arrive when you need them.

Each new unit is built and approved in our labs before being released to production.

Every unit is 100% tested for reliability and functionality.

Fully Compliant — Worldwide Approvals

Conformance labs with a dedicated compliance and reliability engineering team ensure conformance to global standards for safety, reliability and accuracy.

Largest rPDU Selection in the Industry

rPDUs stocked in the channel for immediate availability.

Standard units are built-to-order and shipped in as little as 3 to 5 business days.

Quick Turn Around on Configure-to-Order and Engineer-to-Order rPDUs

Cord length and chassis color changes can be shipped in as little as 5 to 7 business days.

Engineer-to-Order units designed to meet your unique specifications shipped in as little as 2 to 3 weeks.

The Broadest Range of rPDU Options Available

Vertiv™ Geist™ 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.
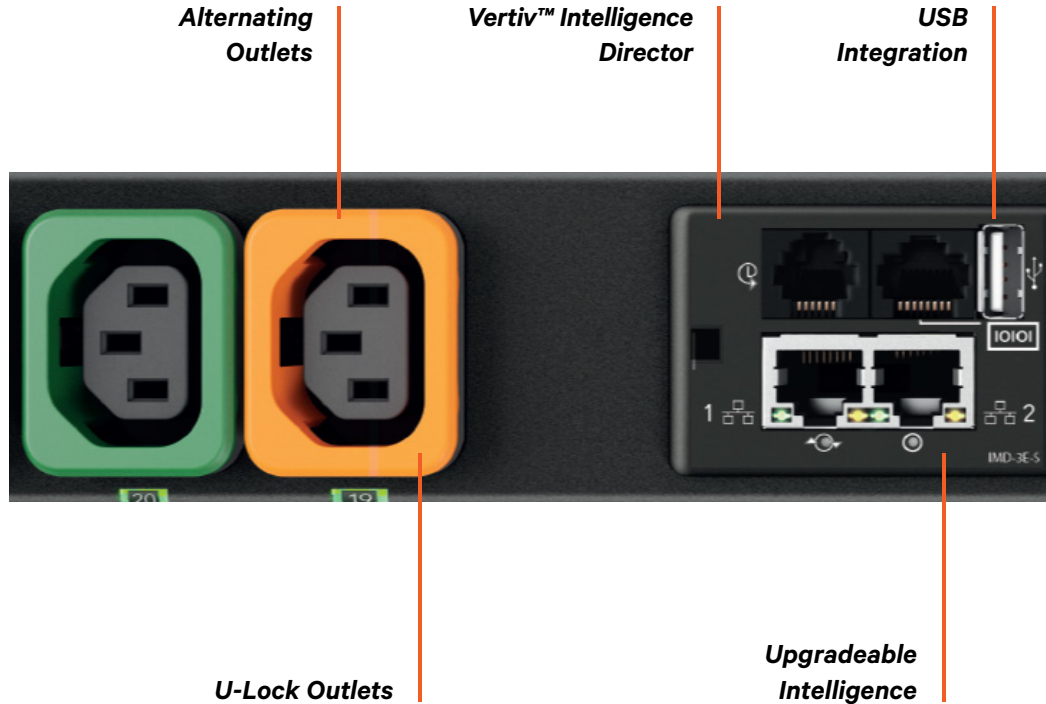
Basic and Metered rPDUs

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.
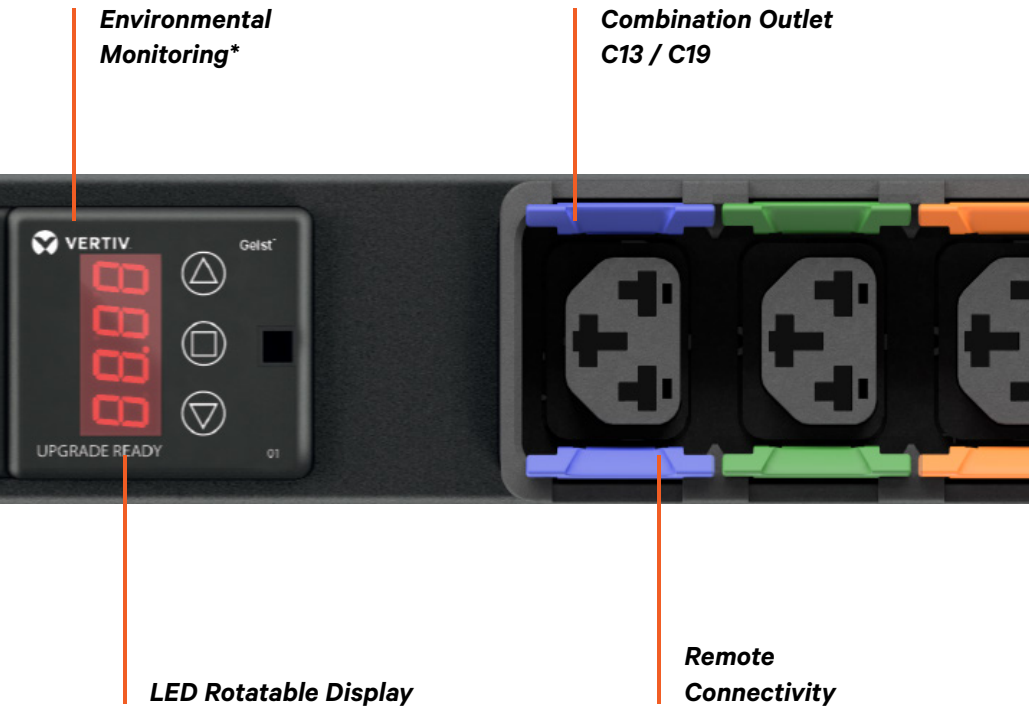
Metered

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

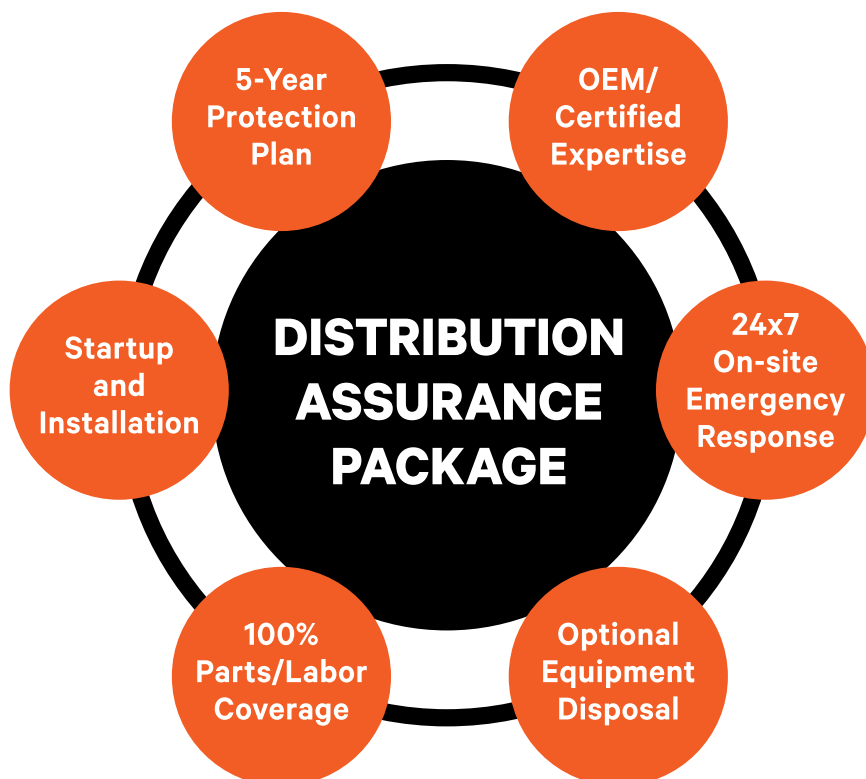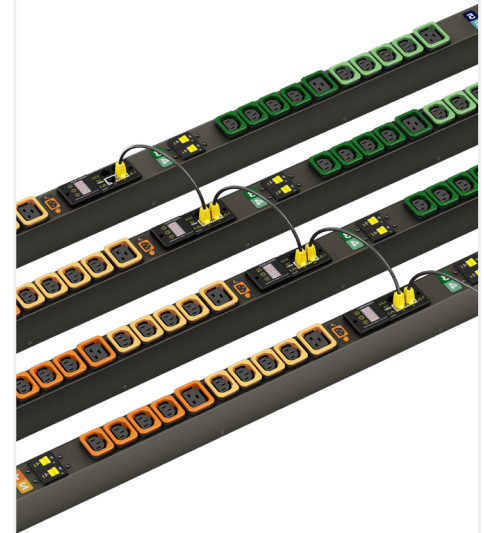*Environmental Sensors compatible with the Intelligent rPDUs are located on page 11.*

Alternating Outlets · **Vertiv™ Intelligence Director** · **USB Integration**

U-Lock Outlets · **Upgradeable Intelligence**

Finding the Right rPDU

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	✓	✓	✓	✓
Combination Outlet C13 / C19	✓	✓	✓	
Horizontal and Vertical Configurations	✓	✓	✓	✓
Color Chassis Options	✓	✓	✓	✓

Environmental Monitoring*

Combination Outlet C13 / C19

LED Rotatable Display

Remote Connectivity

VERTIV. Geist
UPGRADE READY   01

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.

Distribution Assurance Package for Vertiv™ Geist™ rPDUs

- 5-Year Protection Plan
- OEM/ Certified Expertise
- Startup and Installation
- 24x7 On-site Emergency Response
- 100% Parts/Labor Coverage
- Optional Equipment Disposal

DISTRIBUTION ASSURANCE PACKAGE

Ordering Information

To learn more about services and other Vertiv™ solutions, visit

Vertiv.com or call **1-800-543-2378.**

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 worldwide.

The universal design enables a single unit to be purchased, installed, and shipped to any location regardless of power requirements.

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.

Utilities

Device Director

Device Director is a comprehensive, Windows-based utility that is used to install, configure and maintain multiple Vertiv™ Geist™ 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
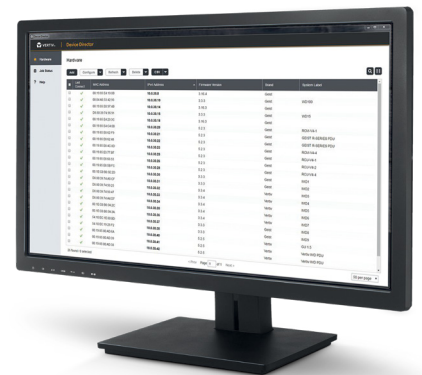
Vertiv™ Intelligence Director

PLUG-N-PLAY DATA CENTER INFRASTRUCTURE ENABLING LIGHTNING FAST DEPLOYMENTS

Array Devices

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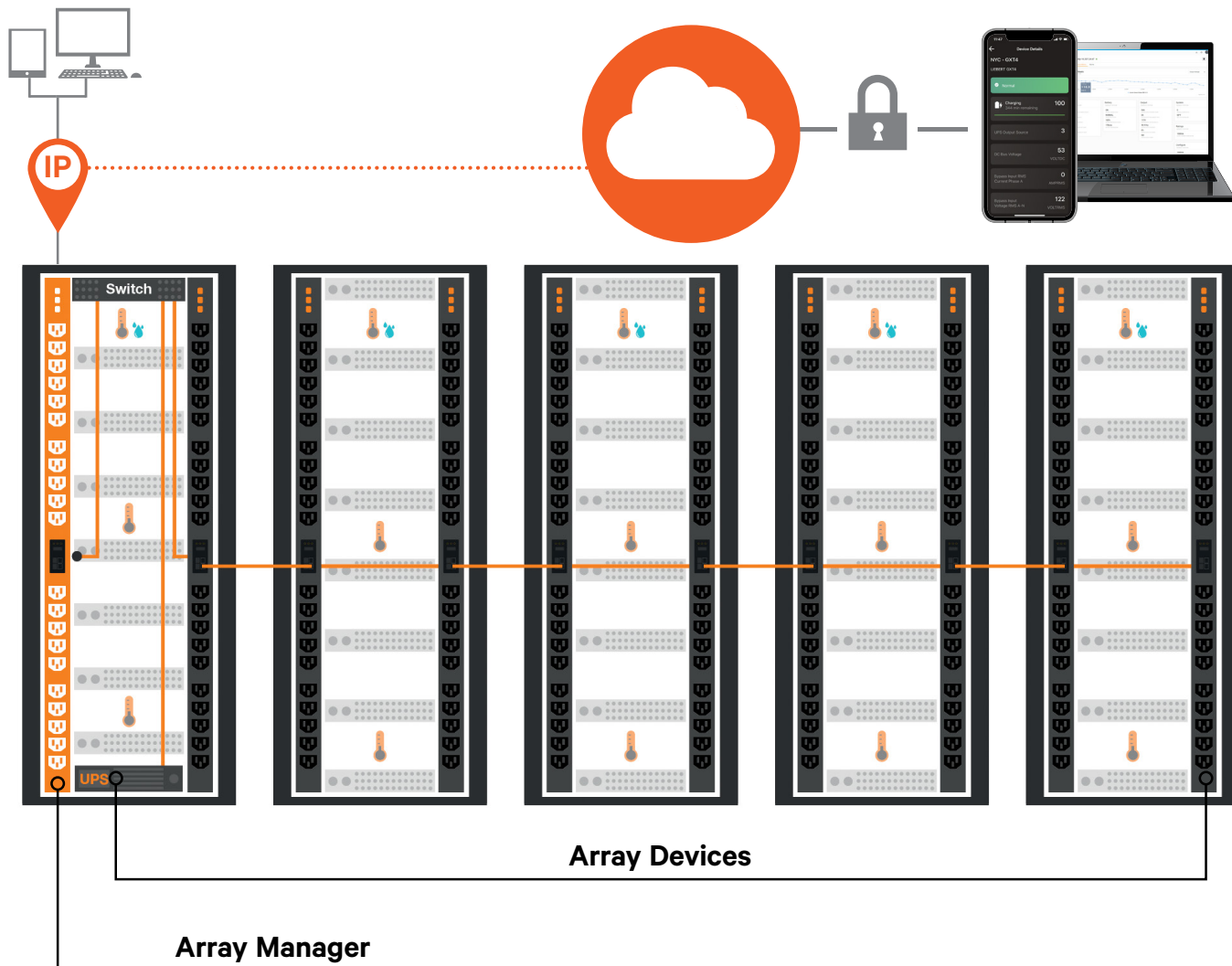
The next generation of Vertiv™ Geist™ rPDUs offer enhanced monitoring and simplified networking with the introduction of Vertiv™ Intelligence Director.

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

**Vertiv Intelligence Director compatible with Vertiv™ Liebert® GXT4, GXT5, PSI5, 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™ 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 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.*

Product Overview

Overview

Product Types

Passive SwitchAir™

Passive SwitchAir™ provide a dedicated path for cool air to travel to the air intake of the network switch.

Active SwitchAir™

Active SwitchAir™ utilize internal fans to pull cool air from the front of the cabinet to the air intake of the network switch.

Product Features

Targeted Airflow

- Provides a path for cool air to travel to the intake of network switch equipment.

Airflow Management

- Create a barrier to effectively prevent hot exhaust air from entering switch intakes.

Fast Installation

- Easily install the SwitchAir into the front of the cabinet in the same U space as the network switch equipment.

Easy Selection

- Utilize the SwitchAir Finder to identify the SwitchAir with the airflow pattern needed for installed network equipment.

Say Goodbye to Overheated Switches

SwitchAir™ Cooling

Network switches, load balancers and routers typically sit at the top and back portion of the rack. In a traditional Hot Aisle / Cold Aisle data center design, this placement makes it difficult for cold air to travel from the front of the rack to the air intakes of network switch equipment increasing chances of failure over time. If network equipment begins to overheat, blanking panels are commonly removed from the front of the rack in an effort to provide cool air to the device. This ultimately results in recirculation of hot air into the cold aisle potentially increasing the intake temperature of other devices in the rack.

The SwitchAir replaces the blanking panel and provides a path for cool air to travel from the front of the rack to the air intakes regardless of where the equipment is mounted.
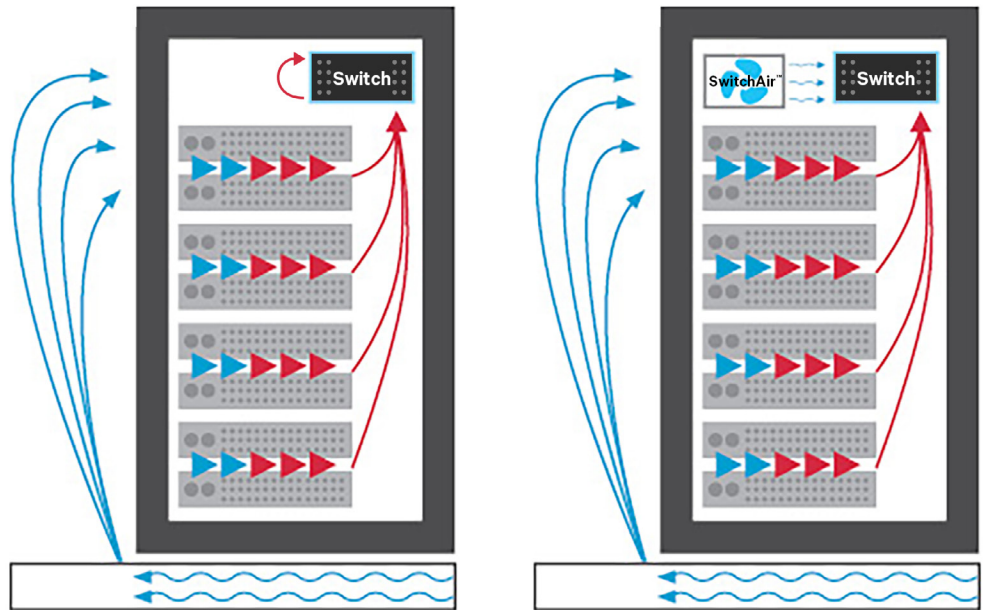
Network switches mounted at the top and rear of the rack are susceptible to heated air from the servers. This hot air is recirculated, putting stress on the device.

SwitchAir™ products direct cool air to the network switches, significantly lowering operating temperatures.

SwitchAir™ for Every Switch

Model #	Category	Switch Airflow Path	Profile	Availability
SA1-01001NB	Passive	Side Intakes to Rear	1U	Built-to-Order
SA1-01001SS	Passive	Single Side Intake	1U	Built-to-Order
SA1-01002	Passive	Rear intake - Front Exhaust	1U	Stocked
SA1-01002L	Passive	Rear intake - Front Exhaust	1U	Stocked
SA1-01002S	Passive	Rear intake - Front Exhaust	1U	Stocked
SA1-01002XS	Passive	Rear intake - Front Exhaust	1U	Built-to-Order
SA1-01002XLNB	Passive	Rear intake - Front Exhaust	1U	Stocked
SA1-02003	Passive	Rear intake - Front Exhaust	2U	Built-to-Order
SA1-02003XS	Passive	Rear intake - Front Exhaust	2U	Built-to-Order
SA1-09001	Passive	Side Exhaust Deflector	9U	Built-to-Order
SA2-002	Active	Side Intake or Rear Intake	2U	Built-to-Order
SA2-003	Active	Single Side Intake	2U	Built-to-Order
SA2-004	Active	Front Intake	2U	Built-to-Order
SA2-006	Active	Side Intake Core Switch	2U	Built-to-Order

Which SwitchAir™ is right for your switch?

The SwitchAir provides cooling solutions for a wide range of switches and airflow configurations. To determine the SwitchAir that is right for your device, visit the SwitchAir Finder at www.vertivco.com.

If you are unable to find your specific switch model, contact a sales representative at 1-800-432-3219 for assistance.

How it Works

REAR

NETWORK SWITCH

INSERT

SWITCHAIR™

BRUSHES FOR CABLES

FRONT
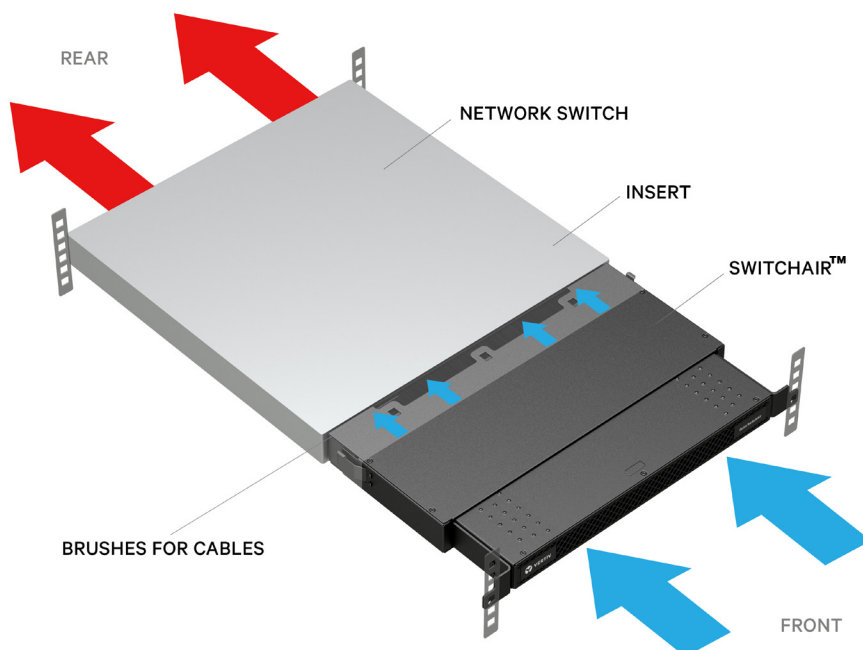
Availability

Stocked

The most popular SwitchAir models are stocked by a variety of distribution partners for immediate availability.

Built-to-Order

If your switch airflow path requires a Built-to-Order unit, please contact your preferred distribution partner for purchase.

Proactively Monitor Your Data Center

Vertiv™ Geist™ Watchdog Environmental Monitors enable you to remotely monitor a variety of environmental parameters in critical areas. Get alerts when user-specified thresholds are breached. Proactively resolve issues to prevent downtime and equipment failure.

Watchdog 100/100P

The Watchdog 100 combines environmental monitoring with remote relay control. The unit comes equipped with on-board sensors. The unit may be ordered with built-in Power-over-Ethernet (PoE).

Watchdog 15/15P

The Watchdog 15 is a self-contained environmental monitor with on-board sensors. The unit may be ordered with built-in Power-over-Ethernet (PoE).
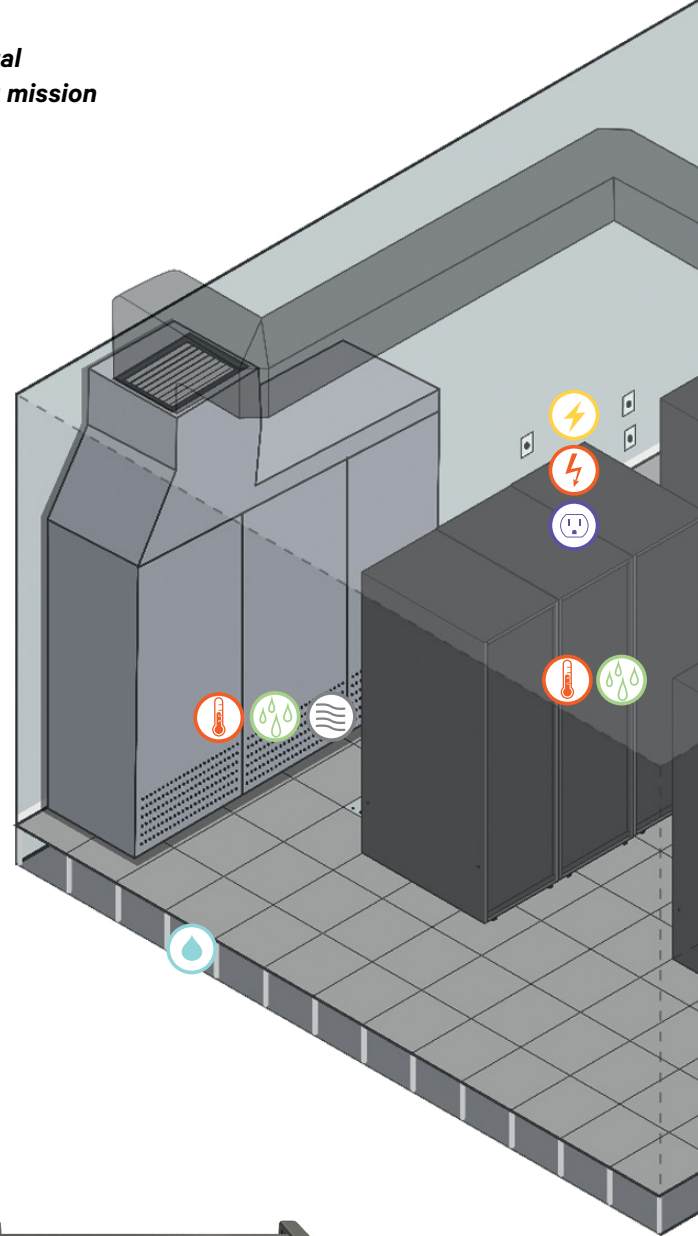
GTHD/GT3HD

Temperature, Humidity, Dew Point Sensor Kit

The GTHD & GT3HD sensors collect and transmit real-time data to protect critical data center and Edge equipment from heat and moisture. The sensors can be daisy chained together to simplify installation.

The GT3HD comes equipped with two additional inputs for temperature sensors to monitor the top, middle, and bottom of a server cabinet.

Keep an eye on environmental conditions surrounding your mission critical infrastructure.

- Temperature
- Airflow
- Power Failure
- Smoke
- Amperage
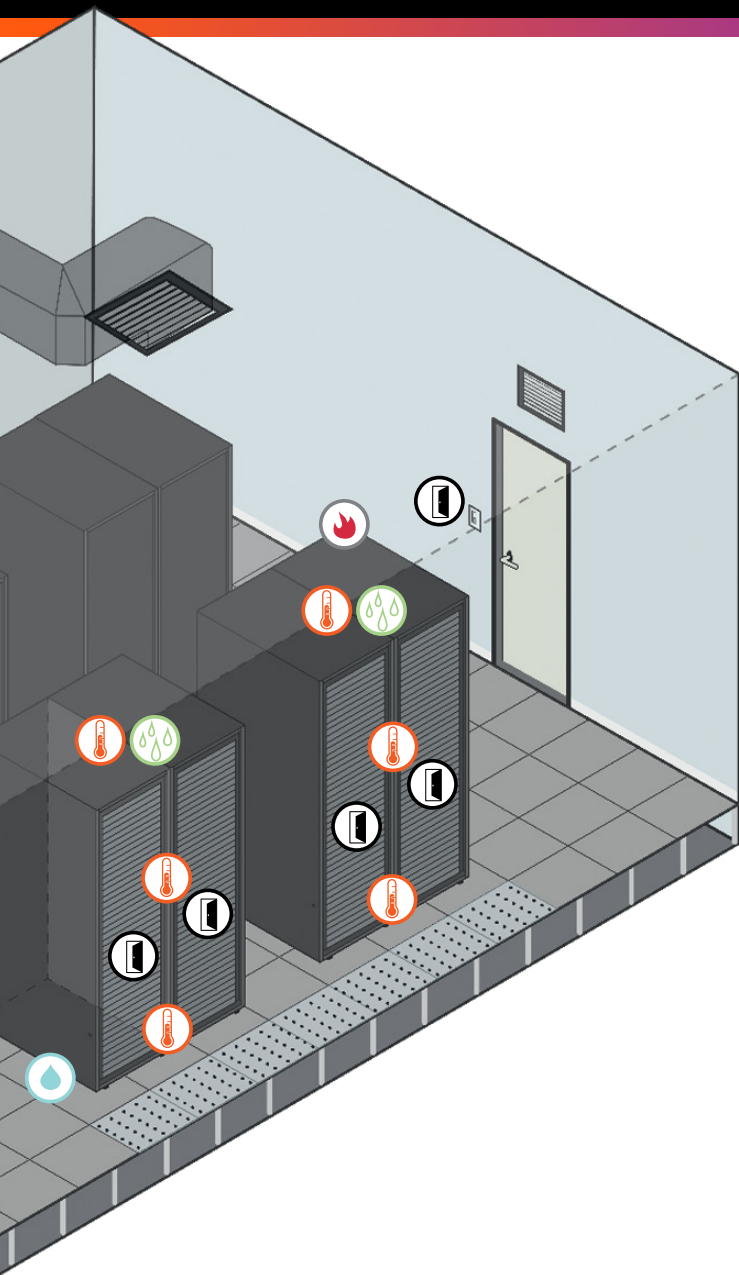- Humidity/Dew Point
- Door Position
- Voltage
- Water Leaks

Watchdog 100/100P

GTHD/GT3HD

Watchdog 15/15P

Environmental Monitor Product Overview

	Feature	Watchdog 15	Watchdog 100
On Board Sensors	Temperature	•	•
	Humidity / Dew Point	•	•
External Sensor	# Plug-n-Play Sensor Ports	2	2
	Max Plug-n-Play Sensor Capacity	4	4
	# Dry-Contact / 0-5V Sensor Ports	0	4
Hardware	Built-in PoE	Optional	Optional
	Dry-Contact Relay Outputs	0	1
	Rackmount 19" 1U		•
	Ethernet	10/100	10/100
Web Server	USB		
	IPv6	•	•
	HTTP / HTTPs	•	•
	DHCP	•	•
Firmware	JSON API	•	•
	Real Time Sensor Data Feeds	•	•
	Sensor Data Logging & Graphing	•	•
	Data Logs	CSV, JSON	CSV, JSON
	SNMP (v1, v2c, v3)	•	•
	Email & Email-to-SMS Alerts	•	•
	Alarm Escalations	•	•
	Alarm Repeat	•	•
	Alarm Delay	•	•
	Alarm Valid Hours	•	•
	Encryption via TLS	•	•
	Login Security	3 Admin, Control, View Only	
	Compatible with Device Director	•	•
Benefits	Free Firmware Updates	•	•
	Free Technical Support	•	•
	Warranty	5 Years**	
Reg	Regulatory Compliance	UL, FCC, CE, RoHS	

**Standard 3 year warranty incresed to 5 years with product warranty registration within 120 days of purchase.

Plug-n-Play Sensors:

Temperature (SRT)
Temperature/Humidity/Dew Point (GTHD)
Temperature/Humidity/Dew Point (GT3HD)
Temperature/Humidity/Dew Point/Airflow (RTAFHD3)
Analog-to-Digital Converter (A2D)

Analog/Dry Contact Sensors

Door Position (NO/NC)
Smoke Detector (NO/NC)
Flood Sensor (Conductivity)
Water Sensing Cable Kit (NO/NC)
Power Failure Sensor (0-5V)
Current Transducer 30/60/120A (0-5V)
Isolated Coltage Sensor (0-5V)

The above list of Environmental Sensors are compatible with Vertiv™ Geist™ Intelligent rPDUs.

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