



Vertiv™ VRC-S

## Edge-Ready Micro Data Center System

Self-Contained Rack Solution with Integrated Power Distribution and up to 3.5 kW Cooling Capacity



# Vertiv™ VRC-S Edge-Ready Micro Data Center System

## Vertiv™ VRC-S

### Deploy a Comprehensive Data Center Solution in Days

*The Vertiv™ VRC-S is a pre-integrated, enclosed micro data center solution designed to be up and running at an edge or other small site in a matter of days. Available in eight pre-built standard sizes with two voltage options (120V or 208V), the solution incorporates a rack power distribution unit (PDU), monitoring software, and the new Vertiv™ VRC self-contained rack cooling unit in an enclosed standard IT rack.*

Just add the UPS of your choice, and you have everything you need to rapidly deploy a comprehensive IT solution in your edge or other small applications. With space to support your sensitive IT equipment and up to 3.5kW of integrated IT cooling, the Vertiv VRC-S lets you quickly, easily, and confidently put IT wherever you need it.

Piecing together the various components of an IT solution for your edge applications can be a major challenge for today's busy IT managers. From specifying the right components, to waiting for a custom solution to be built, to integrating the appropriate cooling, the process consumes time and resources that you don't always have to spare.

The new Vertiv VRC-S takes the legwork and wait time out of the equation, offering a pre-integrated, prefabricated data center solution that ships in days and can be installed in hours. You get a plug-and-play IT solution that reliably and efficiently satisfies your edge IT requirements and comes with the added peace of mind of a three-year warranty covering every component of the system.

## What's In The Box?

- VRC100KIT or VRC101KIT, including:
  - Rack-mounted cooling unit offering 3.5kW of IT cooling
  - Power cord and plug
  - Integrated heat rejection system
  - Condensate pump
  - Complete installation kit
- Enclosed Vertiv™ VR rack
- Vertiv™ GU2 rPDU with sensors
- Vertiv™ Intelligence Director monitoring software
- Backup fan system connected to intelligent sensors and pre-programmed outlets

## Ideally Suited For:

- IT Closets
- Open office space
- Remote locations
- Unconditioned areas
- Light industrial areas

## Vertiv™ VRC-S Key Features and Benefits

Features	Benefits
A complete prefabricated micro data center in one of eight standard models	All components are guaranteed to work seamlessly to meet your requirements and the system is ready to ship in days
Durable, self-contained IT rack available in a range of sizes (600mm/800mm wide and 42U/48U tall) and power options (120V and 208V)	Choose the size and voltage you need to optimally support your IT equipment; enclosed system enhances security and cooling efficiency
Standard Vertiv™ VR rack	Standardize your deployments on a single style of rack and enjoy access to the wide range of standard Vertiv™ rack accessories
Intelligent Vertiv™ Geist™ Switched Rack PDU with sensors	Monitor your IT equipment's environment via pre-integrated sensors and outlet level monitoring for improved visibility, reliability, and availability at the individual rack environment and outlet level
Vertiv™ VRC Self-Contained Rack Cooling Unit Kit	Up to 3.5kW of integrated, highly efficient IT cooling to protect your sensitive electronics with no need to install an outdoor condenser
Vertiv™ Intelligence Director Monitoring software	Gain remote control over the entire system—including cooling, power, sensors, and power distribution—with Web/SNMP monitoring from a single IP address for greater peace of mind
Backup fan system connected to intelligent sensors/ preprogrammed outlets	Enjoy additional protection with emergency airflow provided during outages, extending your time for a graceful shutdown and further ensuring IT equipment availability
Plug-and-play components with installation accessories and optional on-site installation service	Save time and money and simplify your edge IT challenges with rapid, cost-effective deployment and easy installation with no contractor required
3-Year standard warranty with optional 5-year protection for the rack and rPDU	Protect your entire system for complete peace of mind

## Customize Your Vertiv™ VRC-S

The Vertiv VRC-S rack cooling unit includes all the components of a state-of-the-art micro data center, pre-integrated to work seamlessly to meet your requirements and simplify IT management for your edge applications. Simply add a compatible UPS and your choice of accessories, and your complete edge IT solution is ready to power your business. Below are several recommendations for customizing your micro data center.

### UPS Recommendations:

- Vertiv VRC-S 120V System: GXT5-3000LVRT2UXL
- Vertiv VRC-S 208V System: GXT5-6KL630RT5UXLN
- Additional battery cabinets are recommended to increase run time

### Additional rPDU:

For UPS units with an available power source, consider adding a second rPDU for redundancy. Ideally, the second rPDU should feature the same intelligence switching outlet monitored capabilities for full monitoring and control capabilities.

### Recommended Vertiv™ VR Rack Accessories:

- Blanking panels to improve isolation of the cool air in the front of the rack are highly recommended
- Cable management accessories to keep cables organized and prevent cables from restricting airflow or causing safety hazards
- Vertiv™ Geist™ SwitchAir® airflow management solution for network equipment that is not front-breathing

# Vertiv™ VRC-S Edge-Ready Micro Data Center System

## Vertiv™ VRC-S Features

### Self-contained Vertiv™ VR IT rack

**system** available in eight standard sizes offers the security and convenience of a complete, self-contained micro data center solution while allowing you to standard your rack style across all Vertiv racks and utilize standard VR rack accessories.

**Vertiv™ VRC-S enclosure** provides a unique pseudo hot/cold aisle inside the rack for efficient airflow and prevention of hot spots where your equipment breathes.

### Pre-integrated, pre-programmed Vertiv™ Geist™ GU2 rack power

**distribution unit** with sensors provides intelligent outlet level monitoring across the rack, enables visibility to the entire system from a single IP address, and automatically engages the backup fan system as needed to afford greater protection during outages.

**Sensor system** provides temperature and door open/closed status to monitor the status of your rack and increase security and safety at the rack level.

### Pre-programmed rack PDU outlets

ensure compatibility and simplistic harmonization across the system with one outlet programmed to operate the emergency backup fan when user-configured critical temperatures are reached (between 80F-104F) and a second outlet programmed to power and protect the condensate pump.

### Vertiv™ VRC self-contained rack

**cooling kit** comes pre-charged with refrigerant in a space-saving, plug-and-play kit that mounts easily in the bottom of the enclosed rack, offering up to 3.5kW of cooling directly where your IT equipment breathes to ensure longevity of equipment.

### Scalable capacity and variable speed

**components** match loads and reduce energy consumption.

### Integrated heat rejection system

that contains hot air in the rear of the self-contained rack and rejects it into a drop ceiling\*.

*\*Heat may also be rejected into the room, where it can be handled by a conventional building HVAC system while the enclosed cooled rack prevents warm air from recirculating to the IT equipment, eliminating any hot spots.*

### Easy-to-install flexible duct system

that connects the cooling unit to the ceiling plenum and integrates into any standard 2'x2' drop ceiling.

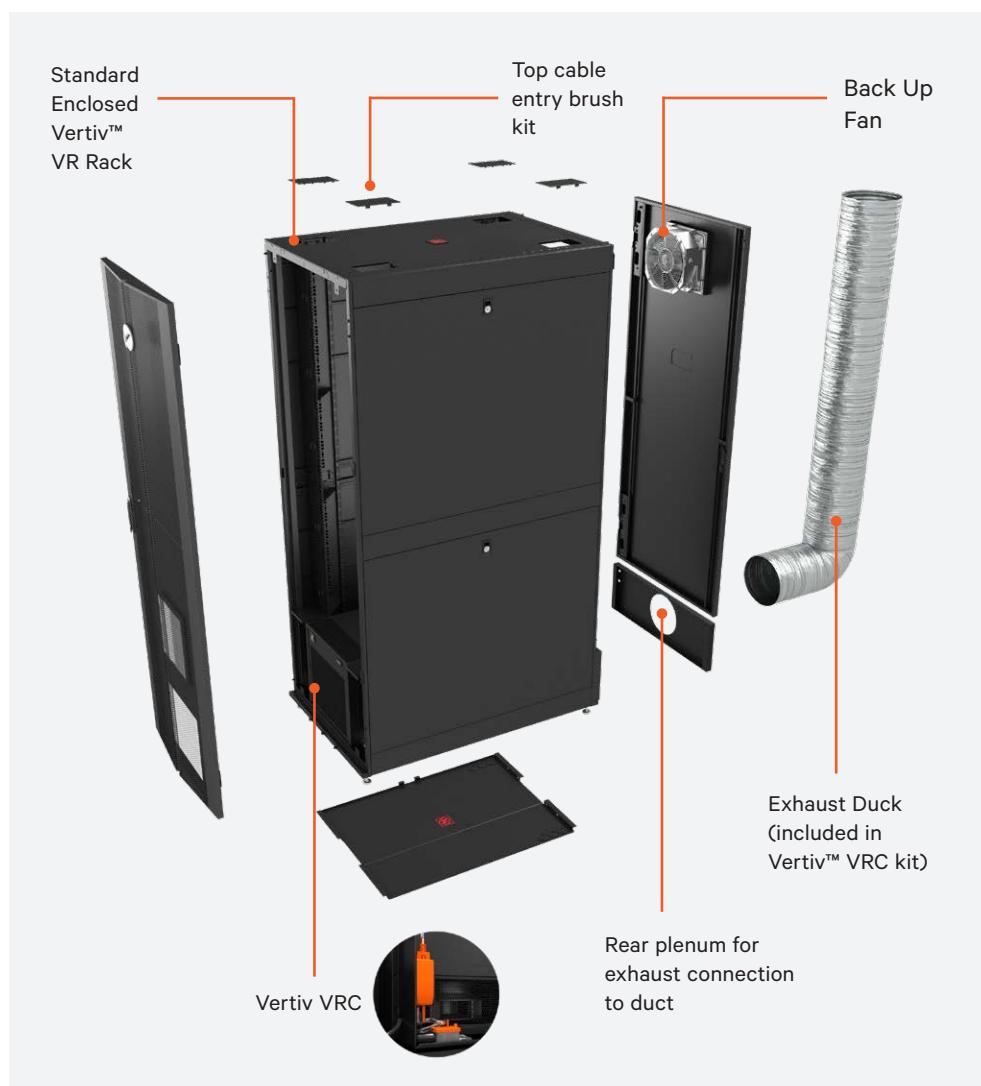
### Preinstalled emergency backup fan

**system** programmed to increase airflow through the rack during a power outage, extending your time for a graceful shutdown.

**Local access to the cooling control module** integrated in the rear door.

**Vertiv™ Intelligence Director** software for remote monitoring and management of cooling and power distribution components.

**Installation services available** through Vertiv's nationwide network of pre-certified, factory-trained technicians.



## Vertiv™ VRC-S Services: Complete Installation and On-Site Service and Support

### White Glove Installation Service: Get your system off to the best possible start

Factory-trained Vertiv Services technicians can provide professional installation and startup of your Vertiv VRC-S, simplifying the process and eliminating any concerns you may have about correctly, safely, and efficiently installing your equipment, which can be especially valuable for multisystem installations and multi-site rollouts. Two technicians work together to perform the complete startup checklist and ensure your rack cooling unit is operating flawlessly from the get-go. As experts in the Vertiv VRC-S and all of its components, no one knows the equipment and installation process more intimately than Vertiv™ Services. You can trust your knowledgeable installation team to get the job done right, on time, and to answer any questions you and your on-site personnel may have, ensuring you're prepared to fully enjoy the many benefits of your new micro data center system out of the box. At Vertiv Services, we stand by our equipment and strive to leave you completely satisfied with your purchase and installation process.

#### SVC-VRCS-INSU-M

SVC-VRCS-INSU-M installation, startup, and mobilization.

#### SVC-VRCS-INSU

Installation and startup of a 2nd Vertiv VRC-S on the same site as a VRC-S that was purchased with SVC-VRCS-INSU.

*Note: Does not include mobilization.*

#### Installation service includes:

- Coordinating the install and any prerequisites directly with you to streamline the installation process
- Reviewing all work to be performed and all safety requirements with your onsite team
- Uncrating and unpackaging all components and safely moving them to the designated location
- Leveling and labeling the network cabinet
- Mounting and securing the rack cooling unit
- Installing the heat rejection duct including connections to the Vertiv™ VRC and ceiling grid
- Installing the condensate pump
- Running the drain line to an existing drain
- Plugging in the PDUs
- Extending, connecting, and grooming power and network cables
- Preforming status check of all alarm circuits
- Completing system startup
- Providing debris clean up and removal to customer-provided receptacle

#### Preventative Maintenance : Optimize performance and extend the life of your micro data center

With an optional preventive maintenance service package, factory-trained Vertiv Service technicians care for your Vertiv VRC-S and all of its components. The experts take the work off your plate while giving you complete peace of mind that your system is doing its job to protect your valuable IT equipment and keep your business running. Vertiv boasts one of the largest global service teams in the business, making it easy to access our high-quality service, wherever your systems exist. Choose from three preventative maintenance services to best meet your needs.

Preferred	Essential	Year3 + PM Only
1 PM per year	1 PM per year	1 PM in year three
100% parts covered	100% parts covered	100% parts covered
100% labor covered	100% labor covered	100% labor covered
Covers year 2-3 full exchange with labor	Covers year 2-3 full exchange	

# Vertiv™ VRC-S Edge-Ready Micro Data Center System

## Technical Data

### Site Requirements:

- Drain within 20' of location to accommodate the included condensate pump
- Floor must support a minimum of 1,000 lbs.
- All windows in the environment should be closed
- 3' of clearance in front and rear of rack
- Building duct access/drop ceiling for exhaust at installation location
- Utility power depending on model purchased

Vertiv™ VRC-S SKUs:	VRCS3350-120V	VRCS3350-208V	VRCS3300-120V	VRCS3300-208V
Configured system weight	319 kg (704 lbs)	319 kg (704 lbs)	274 kg (605 lbs)	274 kg (605 lbs)
Shipping Weight	419 kg (924 lbs)	419 kg (924 lbs)	361 kg (796 lbs)	361 kg (796 lbs)
Sound****	52.5 dBA @ 1m	52.5 dBA @ 1m	52.5 dBA @ 1m	52.5 dBA @ 1m
Rack dimensions U; HxWxD	42U; 2000 mm, 800 mm, 1200 mm (78.6", 32.5", 47.8") <sup>4</sup>	42U; 2000 mm, 800 mm, 1200 mm (78.6", 32.5", 47.8") <sup>4</sup>	42U; 2000 mm, 600 mm, 1200 mm (78.6", 23.6", 47.8") <sup>4</sup>	42U; 2000 mm, 600 mm, 1200 mm (78.6", 23.6", 47.8") <sup>4</sup>
Cooling Kit Type:	VRC100KIT	VRC101KIT	VRC100KIT	VRC101KIT
Cooling capacity	0.9 - 3.5 kW	0.9 - 3.5 kW	0.9 - 3.5 kW	0.9 - 3.5 kW
Air Volume	750 m <sup>3</sup> /h	750 m <sup>3</sup> /h	750 m <sup>3</sup> /h	750 m <sup>3</sup> /h
VRC Input plug	NEMA 5-20P	NEMA L6-20P	NEMA 5-20P	NEMA L6-20P
Cord length	10ft (3.2 m)	10ft (3.2 m)	10ft (3.2 m)	10ft (3.2 m)
Voltage / Frequency	120 Vac, 60 Hz	208 Vac, 60 Hz	120 Vac, 60 Hz	208 Vac, 60 Hz
Full Load Amperage (FLA)	16.5 A	13.0 A	16.5 A	13.0 A
Refrigerant type (pre-charged)	R410A, 720 g	R410A, 720 g	R410A, 720 g	R410A, 720 g
VRC Form Factor	10U <sup>1</sup>	10U <sup>1</sup>	10U <sup>1</sup>	10U <sup>1</sup>
Vertiv VRC-S Operating Temperature	18 °C - 30 °C (65 °F - 86 °F)	18 °C - 30 °C (65 °F - 86 °F)	18 °C - 30 °C (65 °F - 86 °F)	18 °C - 30 °C (65 °F - 86 °F)
Vertiv VRC-S Operating Humidity	8 - 80 % (non-condensing)	8 - 80 % (non-condensing)	8 - 80 % (non-condensing)	8 - 80 % (non-condensing)
LCD Screen Included	YES	YES	YES	YES
Condensate Pump integrated	YES, powered via rPDU	YES, powered via rPDU	YES, powered via rPDU	YES, powered via rPDU
Condensate Pump tube length	7.5 m (24 ft)	7.5 m (24 ft)	7.5 m (24 ft)	7.5 m (24 ft)
Duct Length	3.8 m (12.4 ft)	3.8 m (12.4 ft)	3.8 m (12.4 ft)	3.8 m (12.4 ft)
Certifications	UL 484	UL 484	UL 484	UL 484
rPDU (Pre-installed in rack):	NU30021	VP8641	NU30021	VP8641
rPDU sub-type	Switched	Switched	Switched	Switched
rPDU type	Outlet Level Monitoring	Outlet Level Monitoring	Outlet Level Monitoring	Outlet Level Monitoring
Voltage	120 V	208 V	120 V	208 V
Full Load Amperage (FLA)	30 A	30 A	30 A	30 A
rPDU rated Max	2.7 kW	4.9 kW	2.7 kW	4.9 kW
Horizontal/Vertical	Vertical	Vertical	Vertical	Vertical
rPDU Input plug	NEMA L5-30P	NEMA L6-30P	NEMA L5-30P	NEMA L6-30P
Cord length	3 m (10ft)	3 m (10ft)	3 m (10ft)	3 m (10ft)
Outlets	(24) NEMA 5-20R <sup>(2)</sup>	(20) U-Lock IEC C13 <sup>(3)</sup> (4) U-Lock IEC C19	(24) NEMA 5-20R <sup>(2)</sup>	(20) U-Lock IEC C13 <sup>(3)</sup> (4) U-Lock IEC C19
Vertiv™ Intelligence Director enabled	YES	YES	YES	YES
Geist™ Upgradable 2.0 protocols supported	ARP, IPv4, IPv6, ICMP, ICMPv6, NDP, TCP, UDP, RSTP, STP, DNS, HTTP, HTTPS (TLSv1.2), SMTP, SMTPS, DHCP, SNMP (v1/v2c/v3), LDAP, NTP, SSH, and Syslog			
Certifications/Agency Approvals	UL & c-UL Listed 60950, RoHS Compliant, FCC Part 15 Class A Conformance			

Vertiv™ VRC-S SKUs:	VRCS3307-120V	VRCS3307-208V	VRCS3357-120V	VRCS3357-208V
Configured system weight	310 kg (684 lbs)	310 kg (684 lbs)	337 kg (743 lbs)	337 kg (743 lbs)
Shipping Weight	397 kg (876 lbs)	397 kg (876 lbs)	437 kg (964 lbs)	437 kg (964 lbs)
Sound <sup>4</sup>	52.5 dBA @ 1m	52.5 dBA @ 1m	52.5 dBA @ 1m	52.5 dBA @ 1m
Rack dimensions U; HxWxD	48U; 2265 mm, 600 mm, 1200 mm (89.2", 23.6", 47.8")	48U; 2265 mm, 600 mm, 1200 mm (89.2", 23.6", 47.8")	48U; 2265 mm, 800 mm, 1200 mm (89.2", 32.5", 47.8")	48U; 2265 mm, 800 mm, 1200 mm (89.2", 32.5", 47.8")
Cooling Kit Type:	VRC100KIT	VRC101KIT	VRC100KIT	VRC101KIT
Cooling capacity	0.9 - 3.5 kW	0.9 - 3.5 kW	0.9 - 3.5 kW	0.9 - 3.5 kW
Air Volume	750 m³/h	750 m³/h	750 m³/h	750 m³/h
VRC Input plug	NEMA 5-20P	NEMA L6-20P	NEMA 5-20P	NEMA L6-20P
Cord length	10ft (3.2 m)	10ft (3.2 m)	10ft (3.2 m)	10ft (3.2 m)
Voltage / Frequency	120 Vac, 60 Hz	208 Vac, 60 Hz	120 Vac, 60 Hz	208 Vac, 60 Hz
Full Load Amperage (FLA)	16.5 A	13.0 A	16.5 A	13.0 A
Refrigerant type (pre-charged)	R410A, 720 g	R410A, 720 g	R410A, 720 g	R410A, 720 g
VRC Form Factor	10U <sup>1</sup>	10U <sup>1</sup>	10U <sup>1</sup>	10U <sup>1</sup>
Vertiv VRC-S Operating Temperature	18 °C - 30 °C (65 °F - 86 °F)	18 °C - 30 °C (65 °F - 86 °F)	18 °C - 30 °C (65 °F - 86 °F)	18 °C - 30 °C (65 °F - 86 °F)
Vertiv VRC-S Operating Humidity	8 - 80 % (non-condensing)	8 - 80 % (non-condensing)	8 - 80 % (non-condensing)	8 - 80 % (non-condensing)
LCD Screen Included	YES	YES	YES	YES
Condensate Pump integrated	YES, powered via rPDU	YES, powered via rPDU	YES, powered via rPDU	YES, powered via rPDU
Condensate Pump tube length	7.5 m (24 ft)	7.5 m (24 ft)	7.5 m (24 ft)	7.5 m (24 ft)
Duct Length	3.8 m (12.4 ft)	3.8 m (12.4 ft)	3.8 m (12.4 ft)	3.8 m (12.4 ft)
Certifications	UL 484	UL 484	UL 484	UL 484
rPDU (Pre-installed in rack):	NU30021	VP5870V	NU30021	VP5870V
rPDU sub-type	Switched	Switched	Switched	Switched
rPDU type	Outlet Level Monitoring	Outlet Level Monitoring	Outlet Level Monitoring	Outlet Level Monitoring
Voltage	120 V	208 V	120 V	208 V
Full Load Amperage (FLA)	30 A	30 A	30 A	30 A
rPDU rated Max	2.7 kW	4.9 kW	2.7 kW	4.9 kW
Horizontal/Vertical	Vertical	Vertical	Vertical	Vertical
rPDU Input plug	NEMA L5-30P	NEMA L6-30P	NEMA L5-30P	NEMA L6-30P
Cord length	3 m (10ft)	3 m (10ft)	3 m (10ft)	3 m (10ft)
Outlets	(24) NEMA 5-20R <sup>(2)</sup> (6) U-Lock IEC C19	(30) U-Lock IEC C13 <sup>(3)</sup> (6) U-Lock IEC C19	(24) NEMA 5-20R <sup>(2)</sup>	(30) U-Lock IEC C13 <sup>(3)</sup> (6) U-Lock IEC C19
Vertiv™ Intelligence Director enabled	YES	YES	YES	YES
Geist™ Upgradable 2.0 protocols supported	ARP, IPv4, IPv6, ICMP, ICMPv6, NDP, TCP, UDP, RSTP, STP, DNS, HTTP, HTTPS (TLSv1.2), SMTP, SMTPS, DHCP, SNMP (v1/v2c/v3), LDAP, NTP, SSH, and Syslog			
Certifications/Agency Approvals	UL & c-UL Listed 60950, RoHS Compliant, FCC Part 15 Class A Conformance			

<sup>1</sup>Do not block any U spaces with equipment past the rear EIA mounting rails

<sup>2</sup>(2) NEMA 5-20R outlets will be required and preprogrammed for the backup fan and condensate pump

<sup>3</sup>(2) U-Lock IEC C13 outlets will be required and preprogrammed for the backup fan and condensate pump

<sup>4</sup>At 60% fan speed and 40% compressor speed

**Looking for just a cooling solution?**

Checkout the Vertiv™ VRC Kits that can be installed in any 2 or 4 post rack!





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