# Vertiv<sup>™</sup> Reference Design

Knowledge to Build Optimized Infrastructure Solutions

# Vertiv<sup>™</sup> Integrated Rack Solution

## **Reference Design #5**

ERTIV

## Enhanced Conditioned and Controlled 42U Rack 2200VA Capacity

# Solution Requirements

#### **Physical Protection:**

 Safeguard network gear from environmental threats and unauthorized access.

#### **Power Protection:**

 Prevent business interruption caused by power loss or power fluctuations with battery backup technology.

#### **On-Site Management:**

 Simplify deployment and support future growth with infrastructure designed for total compatibility and scalability.

#### **Remote Management**

 Maintain peace of mind one or more remote sites are up and running with real-time notifications.

## Form Factor: Rack

**Objective**: Support critical IT applications in environments designed specifically for IT equipment.

### **Recommended Environment**

Climate-controlled physically secure environment with power, air conditioning and airflow management in place providing temperature and humidity optimization specifically designed for IT equipment.

- Network Closet
- Server Closet
- Converted Closet



#### **Integrated Solution Summary**

Capacity	2200 VA / 1920 W	
Rack(s)	42U x 600mm x 1100mm (HxWxD)	
Power Protection	n Line Interactive UPS	
Redundancy	Ν	
Power Distribution	tion Monitored Unit Level EC, 20A, 120V, Vertical, (24) NEMA 5-20R, 10ft power cord with L5-20P	
Cooling	Optional Upgrade	
Containment	Blanking Panels	
Monitoring	Included	
Services	Included	
Warranty	3 years	
Software	Optional Upgrade	

Explore all Conditioned and Controlled form factors and power configurations available, Rack, Row, and Site by visiting the Solution Builder on Vertiv.com or by contacting a Vertiv Sales Representative.



# **Integrated Solution Includes:**

Qty:	Product Summary	SKU	Description:
1	Rack	VR3100	VR3100 - 42U x 600mm x 1100mm (HxWxD) Vertiv™ VR Rack.
1	Cable and Airflow Management	VRA1000 VRA1008 VRA2000	Vertiv™ VR Rack Accessories utilized to seamlessly integrate communications and power cables in to the cabinet while maintaining proper airflow separation of equipment intake and exhaust.
1	UPS	PSI5-2200RT120	Vertiv <sup>™</sup> Liebert <sup>®</sup> PSI5 UPS model PSI5-2200RT120; 2200VA/1920W; 120VAC compact, Automatic Voltage Regulation (AVR) line-interactive UPS system designed especially for IT applications such as network closets and small data centers. Supports advanced pure sine wave output on battery to safeguard critical IT equipment and electronics. Provides reliable power protection for servers, critical nodes, network workstations, large network peripherals, network routers, bridges, and others.
1	UPS COMM Card	IS-UNITY-SNMP	The interface card delivers SNMP, Telnet and web-management capability for enhanced communications and control of Liebert® UPS. The card manages a wide range of operating parameters, alarms and notifications, transmitting data over the network. Visit Vertiv.com for a free Vertiv™ Power Assist software download to gracefully shutdown an IT device when the UPS battery backup experiences a threatening condition.
1	Rack PDU	VP8830	Vertiv™ Geist™ rPDU, Monitored Unit Level EC, 20A, 120V, 1.9kW, Vertical, (24) NEMA 5-20R, 10ft power cord with L5-20P, Black Powder Coat.

\*Additional accessories and components are required and included in the integrated solution. Contact a Vertiv Partner for the complete bill of materials, to receive pricing, and to purchase.

## **Recommended Upgrades**

Qty:	Product Summary	Model #:	Description:
1	UPS	MP2-120C	Micro POD - Maintenance bypass and output distribution 5-20P and 8 x 5-15/20R for UPS.
1	Row Based Air Cooling	VRC100-Kit-NA	Vertiv <sup>™</sup> VRC Rack Cooling is designed to satisfy cooling requirements for small server room, network closet, and edge applications up to 3500 watts per cabinet, the Vertiv <sup>™</sup> VRC IT rack cooling unit packs powerful, scalable and energy-efficient cooling into a compact unit. It fits into most standard 19-inch network racks, freeing up valuable floor space. It is available in Self- contained or Split version to fit different building architectures.
1	IT Management	AV3108-001 ACS8008SAC-400	Vertiv™ Avocent® AV3000 Rackmount KVM Over IP Switch   CAC   8 Port KVM switches   Local and Remote Access (AV3108-001). Vertiv™ Avocent ACS 8000 8-port Serial Console Server, Single AC Power (ACS8008SAC-400).
1	IT Management	AC8008-LN-DAC	The Vertiv <sup>™</sup> Avocent <sup>®</sup> ACS8000 Serial Console System delivers secure in-band and out-of-band visibility and control to downstream equipment in enterprise data centers, as well as cloud and colocation facilities. This serial console system serves as a secure management gateway and single point of entry keeping you connected to critical IT equipment even in the event of partial or total data center outages. Includes the upgraded Cellular capability.
1	Warranty and Service	1WEPSI5-2200	1-year Extended Warranty - This extends standard warranty by one year. Covers electronic parts and batteries.
1	Warranty and Service	RUPS-PE5-005	Power Emergency Package provides 5 years of coverage for electronic parts and batteries, advanced replacement.
1	Warranty and Service	PEPPSI-22005Y	Guaranteed 4-hour on-site emergency response, 7 days/week, 24 hours/day, within 150 miles of a Vertiv™ Service City. Includes parts coverage of internal batteries, communications card, TDU, and POD if selected.

Vertiv.com | Vertiv Headquarters, 1050 Dearborn Drive, Columbus, OH, 43085, USA

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