Vertiv[™] Reference Design

Knowledge to Build Optimized Infrastructure Solutions



Vertiv™ Integrated Rack Solution

Reference Design #15

Premier Commercial and Office 42U Rack 3kVA Capacity

Solution Requirements

Physical Protection

- Safeguard network gear from environmental threats and unauthorized access.
- Prevent dust, debris, and moisture from damaging equipment.

Power Protection

- Prevent business interruption caused by power loss or power fluctuations with battery backup technology.
- Achieve maximum uptime with redundant gear protecting critical application during an unexpected equipment failure.

On-Site Management

- Simplify deployment and support future growth with infrastructure designed for total compatibility and scalability.
- Recover business critical floor space with IT infrastructure designed with tight spaces in mind.
- Streamline deployment and get critical applications up and running faster with on-site services and support.

Remote Management

- Maintain peace of mind one or more remote sites are up and running with real-time notifications.
- Save time by remotely accessing and rebooting unresponsive network equipment without an on-site visit.

Site-Maintenance

- Ensure continuity of business with remote access and management of critical systems.
- Maximize your investment with on-site equipment maintenance and extended warranty protection.

Thermal Management

 Cool critical IT gear in high density or high temperature environments.

Form Factor: Rack

Objective: Support network connectivity in commercial and office environments.

Recommended Environment

Climate-controlled unsecure environment with air conditioning in place for human comfort where temperature, humidity, and air quality control challenges could put IT equipment at risk of damage from uncontrolled heat, dust, or moisture.

- Converted Closet
- Retail Stock Room

• General Access Area



Integrated Solution Summary

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Capacity	3000 VA / 2700 W				
Rack(s)	42U x 800mm x 1200mm (HxWxD)				
Power Protection	Line Interactive UPS				
Redundancy	N				
Power Distribution	Switched Outlet Level Monitored 30A, 120V OU vertical. 24 NEMA 5-20R receptacles and a NEMA L5-30P input plug				
Cooling	Included				
Containment	Included				
Monitoring	Included				
Services	Included				
Warranty	3 years				
Software	Included				



Integrated Solution Includes

Qty	Product Summary	SKU	Description
1	Rack System	VRCS3350-120V	Vertiv™ VRC-S is a Self-Contained Rack Solution with integrated power distribution, and cooling. It includes the following: The Vertiv™ VR Rack VR3350 is a 42U server rack built with reliable engineering and is designed for simple and easy configuration. It has dimensions of 2000mm x 800mm x 1200mm (height, width, and depth), and has a deep frame that provides users around 2.5 inches more useable depth than similar sized racks. It has load capacities of 3,000 pounds static and 2,500 pounds dynamic. Vertiv™ Geist™ Switched Outlet Level Monitored Rack PDU NU30021 is a 30A, 120V 0U vertical with outlet level power monitoring and outlet level switching. It has 24 NEMA 5-20R receptacles and a NEMA L5-30P providing 2.8kW of power capacity. The Vertiv™ VRC rack cooling system is designed specifically for fast, easy installation in small server rooms, network closets, and edge computing spaces. This self-contained IT rack unit saves valuable floor space and provides up to 3,500 watts of coolin
1	Cable and Airflow Management	VRA1000, VRA1008, VRA2000	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	PSI5-3000RT120LI	The Liebert® PSI5 3000VA/2700W Lithium-ion line-interactive UPS is ideally suited to protect critical infrastructure in edge or distributed IT applications. The life expectancy of lithium-ion batteries is two to three times that of VRLA batteries – up to 10 years. That delivers up to 50% or more in TCO savings vs. VRLA batteries, chiefly because the PSI5 requires fewer battery replacements over its lifespan.
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	IT Management	AV3216-001, ACS8016SAC-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	Warranty and Service	SVC-VRCS-INSU-M	Start-Up VRC-S with VRC Self-contained
1	Warranty and Service	PEPPSI-30005Y	Power Emergency Package provides 5 years of coverage for electronic parts and batteries, advanced replacement
1	Software	DSV4.5-BASEDSV4.5-100DEV1YR SLV-100DEV	DSView delivers secured web-browser enabled sessions of on-network infrastructure controls. As an IT integrated solution, DSView delivers secured web-browser enabled sessions to Virtual Machines

^{*}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	IT Management	ACS8016-LN-DAC	The Vertiv™ Avocent® 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	Software	ENVA-SERVERENVA-DEV-100EN VA-STUP-BSCENVA-SERVER-SA ENVA-SA-100	Vertiv™ Environet™ Alert provides industry companies with critical facility monitoring software that is affordable and easy to use. This solution delivers superior monitoring, alerting, trending and data organization capabilities for companies in such verticals as healthcare, financial services, government and more, helping them protect and grow their business. Customers get monitoring, alerting and trending at a price that's right for their business

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