

Vertiv™ Open Rack for OCP

Redefining how AI workloads are powered, cooled, and scaled open, efficient, and ready for tomorrow.



Highlights

As an active member of the Open Compute Project (OCP), Vertiv collaborates with industry leaders to advance open standards and innovative designs that enhance the efficiency, scalability, and sustainability of modern data centers.

Benefits

- Vertiv™ Open Rack for OCP streamline designs by removing unnecessary components and standardizing parts like power shelves. This simplified, open-source approach improves CapEx and long-term operational costs (OpEx) associated with power consumption and maintenance.
- The wider design of Vertiv™ Open Rack for OCP allows for better airflow and more effective thermal management. Combined with innovative power distribution, this reduces the energy required for cooling, leading to a improved Power Usage Effectiveness (PUE) and significant energy savings.
- Vertiv™ Open Rack for OCP are engineered to meet the extreme power and cooling needs of modern high-density workloads. Their design readily accommodates liquid cooling manifolds and in-rack CDUs power infrastructure necessary to support high-density clusters of GPUs and other accelerators for demanding AI and HPC applications.
- The minimalist design uses less material and promotes greater serviceability with features like tool-less maintenance. The emphasis on energy efficiency reduces a data centre's carbon footprint, while the simplified component access shortens maintenance times and improves operational uptime.



Vertiv™ Open Rack for OCP

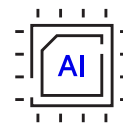


Built on open standards, Vertiv™ Open Rack for OCP eliminate vendor lock-in and provide a modular "plug-and-play" ecosystem. This allows data centers to rapidly scale their infrastructure and easily integrate best-of-breed compute, storage, and networking hardware from a wide range of suppliers.

Product description

Vertiv expertly enables the intense computational demands of artificial intelligence by engineering and delivering OCP-inspired rack that can be pre-integrated with resilient power distribution and advanced thermal management.

This enables that high-performance AI gear operates with optimal reliability and efficiency within a standardized, future-ready framework. Recognizing that AI and HPC applications require extreme power densities, Vertiv provides scalable and highly efficient power distribution systems that form the backbone of the rack environment. Advanced cooling technologies, from direct-to-chip liquid cooling to rear-door heat exchangers, can be easily integrated to dissipate the heat generated by GPUs and other accelerators. By delivering power and thermal systems within a single, pre-configured and validated OCP rack, Vertiv simplifies deployment, enhances performance, and enables the efficient scalability.



Optimized design:

Vertiv™ Open Rack for OCP are engineered to meet the extreme power and cooling needs of modern high-density workloads. Their design readily accommodates advanced cooling solutions like liquid cooling and provides the robust power infrastructure necessary to support clusters of GPUs and other accelerators for demanding AI and HPC applications.

Specifications

Model	Vertiv™ Open Rack for OCP ORV3-CV-101F	Vertiv™ Open Rack for OCP ORV3-CV-101W	Vertiv™ Open Rack for OCP ORV3-CV-401F	Vertiv™ Open Rack for OCP ORV3-CV-401W
General Description				
OCP Specs	ORv3	ORv3	ORv3	ORv3
Compliance Level	OCP Inspired	OCP Inspired	OCP Inspired	OCP Inspired
Description	44OU 1068D Black Flatpack	44OU 1068D Black Welded	44OU 1200D Black Flatpack	44OU 1200D Black Welded
Mechanical Specifications				
Height (mm/inches)	2,286 mm (90")	2,286 mm (90")	2,286 mm (90")	2,286 mm (90")
Width (mm/inches)	600 mm (23.6")	600 mm (23.6")	600 mm (23.6")	600 mm (23.6")
Depth (mm/inches)	1068 mm (42")	1068 mm (42")	1068 mm (42")	1068 mm (42")
IT Gear Width	21" (533 mm)	21" (533 mm)	21" (533 mm)	21" (533 mm)
OCP Rack Units (OU)	44OU	44OU	44OU	44OU
Net Weight (kg/lbs.)	150 kg (330 lbs.)	150 kg (330 lbs.)	180 kg (396 lbs.)	180 kg (396 lbs.)
Transport Weight (kg/lbs.)	200 kg (440 lbs.)	200 kg (440 lbs.)	230 kg (507 lbs.)	230 kg (507 lbs.)
Static Load Rating (kg/lbs.)	1,600 kg (3,527 lbs.)	1,600 kg (3,527 lbs.)	1,600 kg (3,527 lbs.)	1,600 kg (3,527 lbs.)
Dynamic Load Rating (kg/lbs.)	1,400 kg (3,086 lbs.)	1,400 kg (3,086 lbs.)	1,400 kg (3,086 lbs.)	1,400 kg (3,086 lbs.)
Frame Material	steel	steel	steel	steel
Finish	powder coat	powder coat	powder coat	powder coat
Color	black	black	black	black
Casters & levelling feet	Included	Included	Included	Included
Busbar Options				
Current Rating (A)	300	600	1400	1900
Power Capacity (kW) at 50V DC	30	60	140	190
Max Power Capacity (kW)	30.6 kW	61.2 kW	142.8 kW	193.8 kW
Busbar Material	copper	copper	copper	copper
Busbar Plating	nickel plating	nickel plating	nickel plating	nickel plating
Liquid Cooling Options				
Model	RM124B	CDU100	CDU150	
Compliance Level	OCP Inspired	OCP Inspired	OCP Inspired	
Number of quick connects	44			
Material	Stainless Steel	Stainless Steel	Stainless Steel	
Nominal Cooling Capacity (kW)		100 kW	150 kW	
Height (U)		4 RU	4 OU	
Width (inches)		19"	21"	
PFN Connectors (inches)	1" or 1.5" Sanitary flanges	1" or 1.5" Sanitary flanges	1" or 1.5" Sanitary flanges	
SFN Connectors (inches)	1" or 1.5" Sanitary flanges	1" or 1.5" Sanitary flanges	1" or 1.5" Sanitary flanges	



Rack Accessories

ORV3-CV-FRSTBK	OCP ORV3 F-R STABILIZER KIT (FRONT/REAR)
ORV3-CV-LRSTBK	OCP ORV3 S STABILIZER KIT (SIDES L/R)
ORV3-CV-FDOORV	OCP ORV3 SINGLE DOOR PERFORATE ASSY VERTIV
MGX-CV-FDOORV	OCP MGX SINGLE DOOR PERFORATE ASSY VERTIV
ORV3-CV-FDOOR	OCP ORV3 SINGLE DOOR PERFORATE ASSY
ORV3-CV-RDOOR	OCP ORV3 SPLIT DOOR PERFORATE ASSY
ORV3-CV-SPANEL	OCP ORV3 SIDE PANEL (B) KIT SMALL (SET OF 2)
ORV3-CV-ITRAIL	OCP ORV3 IT RAIL KIT LH-RH 10U (SET OF 2)
ORV3-CV-PSRAIL	OCP ORV3 POWER SHELF RAIL KIT10U (SET OF 2)
ORV3-CV-10UBP	OCP ORV3 FILLER PANEL 10U RAIL MOUNTED
ORV3-CV-20UBP	OCP ORV3 FILLER PANEL 20U RAIL MOUNTED
ORV3-CV-10UBPS	OCP ORV3 FILLER PANEL 10U_S FRAME MOUNTED
ORV3-CV-20UBPS	OCP ORV3 FILLER PANEL 20U_S FRAME MOUNTED
ORV3-CV-EIA1UA	EIA 19 INCH ADAPTER 1U (SET OF 2)
ORV3-CV-TRAYA	OCP ORV3 ADAPTER 21" TO 19" TRAY 10U SET
ORV3-CV-EIA2UA	EIA 19 INCH ADAPTER 2U (SET OF 2)
ORV3-CV-RAILA	ORV3 10U 21 IN TO 19 IN ADAPTER RAILS KIT (L/R)
ORV3-CV-ANCHK	ORV3 RACK ANCHORING KIT (SET OF 2)
ORV3-CV-RAKIT	OCP ORV3 EXT.FRAME 132DEEP 44OU 600WIDE WITH PDU BRKTS
MGX-CVI-B300A	OCP ORV3 BUSBAR 300 A
MGX-CVI-B600A	OCP ORV3 BUSBAR 44OU 600A
MGX-CVI-B1400A	OCP ORV3 BUSBAR 44OU 1400A
ORV3-CVI-B1900A	OCP ORV3 BUSBAR 44OU 1900A