

## Benefits

### Efficient

- Reduce energy consumption up to 27% via Cold Aisle Containment, Vertiv™ Liebert® thermal management systems, and Liebert® advanced controls.
- Increase availability by using high-efficiency power systems.
- Optimize energy consumption based on workload.
- Flexibly distribute power to the rack via either Vertiv Power Bar or Distribution Cabinet

### Simple

- Simplify design, implementation and reconfiguration using standardized, integrated systems
- Assist continuity of business operations with single system startup, warranty, preventive maintenance and repair
- Utilize industry-leading service and support provided by local data center design experts

### Cost effective

- Achieve equipment cost savings and extend your existing infrastructure investment by using more efficient designs and technologies

*The Vertiv™ SmartAisle™ is a Pre-Engineered Edge Data Center complete with power, cooling, and all the critical pieces required to assist data center availability.*



### Complete Containment

Fully contained hot and cold aisles enable more efficient cooling. EIA310 19-inch IT racks included for IT equipment.



### Centralized Management & Monitoring

Equipped with revolutionary integrated communications module and touch screen control panel to provide unmatched access to the entire system including remote monitoring & control.



### Smart Security & Safety

Front and rear smart rack handles increase security and mitigates risks of unauthorized access. Four IP cameras record operations inside the aisle and in proximity of the sliding doors.



### Precision Cooling

In-row cooling units are included with N+1 Redundancy. They work in tandem with temperature sensors at the rack and supply air to optimize cooling capacity and increase energy efficiency.



### Power Management & Distribution

Pre-integrated power distribution across the entire system to the IT racks including N+1 redundancy.



### Environmental Sensors

Reporting critical environmental information and alarm notifications means IT equipment is always kept at the desired conditions.



## UPS

The Vertiv™ Liebert® APM2 is a cutting-edge, modular UPS that delivers exceptional efficiency, reliability, and performance for mission-critical applications. Its innovative design, featuring advanced IGBT and SiC technology, assists maximum uptime and operational cost savings, making it the ideal choice for businesses seeking to optimize their data center infrastructure.



## Power Distribution

The Vertiv™ Liebert® RXA is a compact, easy-to-install power distribution system that delivers reliable power to your small to large data center, server room, or network closet, assisting optimal performance of your critical IT equipment while meeting high power density demands, even in limited space environments.



## Racks

The Vertiv™ Knurr™ DCM Server Rack is a robust, modular aluminum frame rack designed to support heavy equipment weighing up to 1500 kg. Its versatile T-slot design allows for flexible customization and easy integration of various IT components, assisting optimal performance and reliability in demanding data center environments.



## rPDU

The Vertiv™ Geist™ Monitored Rack Power Distribution Unit (rPDU) offer reliable power distribution, comprehensive remote monitoring through an Interchangeable Monitoring Device (IMD), fault-tolerant daisy chaining, and environmental sensing capabilities, ensuring optimal performance and uptime for your critical IT equipment.



## Cooling

The Vertiv™ Liebert® CRV is a highly efficient, space-saving precision cooling solution designed to meet the demanding requirements of high-density data centers. With its flexible row-based design, adjustable airflow controls, and advanced monitoring capabilities, the CRV delivers precise cooling where it's needed, assisting optimal performance and reliability of your IT equipment while minimizing energy consumption and operational costs.



## Aisle Containment

The Vertiv™ Knurr™ DCC containment solutions enhance airflow management and maintain a stable temperature and humidity environment, improving energy efficiency, reducing operating costs, and ultimately optimizing the performance and reliability of the IT equipment within the facility.



## Power Management Cabinet

The Vertiv™ Liebert® RDU501 is a comprehensive infrastructure management solution that empowers data center administrators with real-time monitoring, automated control, and remote management of critical equipment, assisting optimal performance, energy efficiency, and uptime of your IT infrastructure. Data are available via secure web interface or via local HDMI display mounted on the side panel.



## Power Distribution

The Vertiv™ PowerBar iMPB is a modular, intelligent power distribution system that offers exceptional flexibility, scalability, and reliability for data centers of all sizes. With its user-friendly design and hot-swappable components, the iMPB allows businesses to optimize their power infrastructure, assist continuous power delivery to critical loads, and minimize downtime, even in dynamic data center environments.

## Technical Specifications

Model	SA1E08060MFBO	SA1E08090MFBO	SA1E11120MFBO	SA1E11175HFBO
<b>General Description</b>				
Designed IT Load (kVA)	60	90	120	175
Number of IT racks	8		11	
Average IT load per rack (240V)	7.4	11.04	10.9	15.9
Nominal Input Voltage	380/400/415 V (3P/N/PE)			
Nominal input frequency	50/60 Hz			
Redundancy Level	N+1	N+1	N+1	N+1
Dimension (WxHxD), mm	5400x2150x3600	6000x2150x3600	5900x2150x3600 (aisle) 2200x2000x1000 (ups)	6900x2150x3000 (aisle) 3000x2000x1000 (ups)
Dimension (WxHxD), mm (including service passages)	7800x2150x5200	8400x2150x5200	8300x2150x5200 (aisle) 2800x2000x2000 (ups)	9300x2150x5200 (aisle) 3000x2000x2000 (ups)
Finish/Colour	Visible surface of covers RAL 7021 dark-grey			
Weight (Kg)	4,858.22	5,447.22	7,262.18	9,472.91

UPS Model	Vertiv™ Liebert® APM2 30-120 kW		Vertiv™ Liebert® APM2 60-300 kW	
Module Capacity	30 kVA		60 kVA	
Number of modules	3	4	3	4
Deployed Capacity	90 kVA	120 kVA	180 kVA	240 kVA
Dimension (WxHxD), mm	600x1600x800 mm		600x2000x900 mm	
Weight (Kg)	455	480	399	437

<b>Battery Cabinet</b>				
Battery Runtime (EOL)	15 min	11 min	15 min	15 min
Battery Type	VRLA	VRLA	VRLA	VRLA
Battery Configuration	1x40x82Ah	1x40x82Ah	2x40x82Ah	3x40x82Ah
Number of cabinets	1	1	2	3
Dimension (WxHxD), mm	800x2000x900 mm		800x2000x900 mm	
Weight (Kg)	1285		2570	3855

## General Description

Rack type	Vertiv™ Knurr™ DCM		
Dimension (WxHxD), mm	800x2000x1200 mm		
Number of racks	8		11
Available U-slots	42U		
Protection rating	IP 20, according to IEC 60529		
Static load rating	15000 N		
rPDU model	Vertiv™ Geist™ VP4G20A6		Vertiv™ Geist™ VP4G30AF
rPDU type	metered		
rPDU capacity (A)	16		32
rPDU phases	3		
Access control	e-handles on front and rear door		
How supplied	Pre-assembled		
Weight (Kg)	146.52		149.24

## Power Management Rack

Rack type	Vertiv™ Knurr™ DCM		
Dimension (WxHxD), mm	800x2000x1200 mm		
Management Station	RDU 501		
Power Consumption (W)	250		
HMI	15" touchscreen display, positioned on the left side panel for easy access from outside the SmartAisle™		
Power Consumption (W)	70		
Video Surveillance	Network Video Recorder complemented with 4x IP cameras supplied loose		
Network switches	2x network switches 24 ports POE		
Power Consumption (W)	120		
Environmental monitoring	6x Temperature and 2 Humidity sensors mounted on the front and rear door		
Access control	2x e-handles on front and rear door		
Power Consumption (W)	55.08	55.08	73.44
Power Distribution Box	4 (supplied loose)		6 (supplied loose)
How supplied	Pre-assembled		
rPDU model	Vertiv™ Geist™ VP4G30A0		
rPDU type	metered		
rPDU capacity (A)	32		
rPDU phases	1		
Weight (Kg)	139.26		

## Power Distribution

From customer' switchgear	Power Cords		
Number of cords	2 (UPS) + 4 (PDB)		2 (UPS) + 6 (PDB)
From UPS to IT load	LV modular switchboard with hot-plug breakers		LV modular busbar system with hot-plug tap-off boxes
Weight (Kg), w/o cords *	166.8	166.8	112.2
			124.01

\* Busbar weight doesn't include the distance between the UPS and the SmartAisle

## Indoor Cooling Units

Indoor Unit Model	Vertiv™ Liebert® CRD25	Vertiv™ Liebert® CRD35	Vertiv™ Liebert® CRD25	Vertiv™ Liebert® CRD35
Number of indoor units	4		6	
Net Sensible Cooling Capacity* (kW)	25 kW	36 kW	25 kW	36 kW
Capacity Modulation Range	20-100%			
Refrigerant/Coolant	410A			
Max piping length, m	120			
Dimensions (WxHxD), mm	300x2000x1132	600x2000x1132	300x2000x1132	600x2000x1132
Weight (Kg)	272	358	272	358

## Outdoor Cooling Units

Outdoor Unit Model	Vertiv™ Liebert® CCD25	Vertiv™ Liebert® CCD35	Vertiv™ Liebert® CCD25	Vertiv™ Liebert® CCD35
Number of outdoor units	4		6	
Operating Temperatures **	-35 to 48 °C			
Dimensions (WxHxD), mm	1562x1272x830	2362x1272x830	1562x1272x830	2362x1272x830
Weight (Kg)	120	175	120	175

\*Test conditions: 37°C, 24% Return Air, 35°C outdoor

\*\* with low ambient kit

## Aisle Containment System

Containment Model	Vertiv™ SmartAisle™ Containment			
Door elements	Sliding doors with no locking system			
Roof elements	Roof panels for aisle containment in Polycarbonate, UL 94-VO/DIN 4102 B2			
Weight (Kg)	72	72	78	78