

Model overview

SmartCabinet network – passive cooling



- IP20 rack – 42 U
- W 800 – D 1,000 – H 2,100 mm
- Glass doors on the front and rear
- Castor base, raised cover
- For 1 kVA nominal IT load
- UPS 1.5 kVA
- Free cooling, vertical flow

SmartCabinet server – passive cooling



- IP20 rack – 24 or 42 U
- W 600 – D 1,000 – H 1,300 mm or W 800 – D 1,200 – H 2,100 mm
- Perforated door, front and rear
- Castor base
- For 2 or 3.5 kVA nominal IT load
- UPS 3 or 6 kVA
- Free cooling, horizontal flow

SmartCabinet server – active cooling



- IP54 rack – 24 U
- W 800 – D 1,200 – H 1,910 mm
- Front door glass, rear door sheet steel
- Castor base
- For 3.5 kVA nominal IT load
- UPS 6 kVA
- Roof compact cooling device 0.8 – 3.8 kW

SmartCabinet server – active cooling



- IP54 rack – 24 and 42 U
- W 800 – D 1,200 – H 1,300 or 2,100mm
- Front door glass, rear door sheet steel
- Castor base
- For 3.5 or 6.0 kVA nominal IT load
- UPS 6 or 10 kVA
- 19" split cooling device 0.8 – 3.8 or 1.5 – 6.0 kW

Three pre-defined configurations

basic for uncritical network applications requiring uninterrupted power supply

(mechanical closure/1 rack PDU, measuring at input, 1 UPS, passive cooling, simple sensors)

eco for critical network and computer applications with higher need for availability and security

(mechanical closure/2 rack PDU, measuring depending on output, 1 UPS, active cooling with backup fan, comprehensive sensors)

top for critical computer applications with the utmost need for availability and security





(electronic closure/2 rack PDU, measuring and switching depending on output, 2 UPS, active cooling with backup fan, comprehensive sensors)

Components

Physical protection



Component	Description
19" network rack/IP20 passive cooling	Vertiv™ Knürr® MIR2 42 U, RAL 7035, aluminum frame, 800 kg load capacity, glass doors, 123 mm front stowing space, rear cable insertion through base and cover, raised roof, mechanical or electronic closure, 100 mm castor base
19" server rack/IP20 passive cooling	Vertiv™ Knürr® MIR2 24 or 42 U, RAL 7035, aluminum frame, 800 kg load capacity, perforated doors, side air partition, rear cable insertion through base and cover, mechanical or electronic closure, 100 mm castor base
19" server rack/IP54 active cooling	Vertiv™ Knürr® MIR 23 or 41 U, RAL 7035, aluminum frame, load capacity increased to 1,500 kg, glass front door, closed rear door, side air partition, rear cable insertion through base and cover, mechanical or electronic closure, 100 mm castor base
Electronic closure	Fath TANlock – electronic locking and closing system for IT racks; individual configuration of separate locks; local operation via keypad and status LEDs; status message or alarm via central control unit
Smoke point detector	Point smoke detector Hekatron ORS 142 S with 143 A base Smoke detection in accordance with EN 54, part 7, contamination compensation, communication port for RS bus, potential-free open contact
Fire extinguisher (recommendation)	Due to differing local regulations, standards and safety requirements, we recommend procuring devices and service locally from the manufacturer. (e.g. Minimax OneU or Wagner TITANUS® RACKSENS)

Highly available power supply/distribution






Component	Description	
UPS	Liebert® GXT4™ Double Conversion (VFI) UPS for devices which guarantee high availability. 1-phase 230 V input and output, 1.5, 3, 5 or 10 kVA, integrated battery for approx. 5 to 10 minutes backup time, 2 or 5-6 U; UPS monitoring via the Liebert® IntelliSlot™ Web Card. For devices that require a longer backup time, optional battery cabinets are available.	
Rack PDU – input metered	Vertiv™ MPH2® B intelligent rack PDU, measurement at input/group, highest possible availability and energy efficiency, for ambient temperature of up to 60°C, residual current recognition per phase	
Rack PDU – outlet metered	Vertiv™ MPH2® M intelligent Rack PDU, measurement depending on output, highest possible availability and energy efficiency, for ambient temperature of up to 60°C, residual current recognition depending on phase/output	
Rack PDU – outlet metered and switched	Vertiv™ MPH2® R intelligent rack PDU, measuring/switching depending on output, highest possible availability and energy efficiency, for ambient temperature of up to 60°C, residual current recognition depending on phase/output	

Components

Efficient cooling

Component	Description	
Roof cooling device, 3.8 kW	Vertiv™ rack roof cooling device 0.8 – 3.8 kW regulated cooling power, front cool air outlet in front of IT components, adjustable cool air temperature, hot air release in the front/upper area, electric condensation evaporator	
Split device 3.5 or 6.5 kW	Vertiv™ rack split cooling device 0.6 – 3.5 or 1.0 – 6.5 kW regulated nominal cooling power; 19" evaporator 740 mm plug-in unit, 6 U (3.5 kW) or 8 U (6.5 kW), front cool air outlet in front of IT components, adjustable cool air temperature; predominant sensible cooling through high evaporator temperature, electric condensation evaporator. The evaporator is installed in the upper area of the rack, the refrigerant lines are ideally laid towards the top. This ensures unimpeded installation of power distribution at the rear of the rack, and plenty of space for laying data cables. External device for attachment to the building facade or roof, power supply and regulation of the evaporator from noise emissions of 44 dB(A) for 3.5kW, 47 dB(A) for 6.5kW. Redundant version with 2 external devices possible.	
Backup fan	Vertiv™ backup fan in the rear doors of racks, air supply via filter cartridges in the front rack floor; automatically switched on when the cooling device fails.	

Remote monitoring & controlling, servicing

Component	Description	
Command Unit	Central control device for quick and simple installation and operation of the Smart Cabinet via a central IP address. Offers utmost security, as all integrated infrastructure devices are run in a separate (out-of-band) network. Any occurring alarms are directly processed and forwarded if necessary. Additionally, simple evaluations such as for e.g. consumption data trends can be quickly and efficiently programmed.	
Sensors	Network access via the control unit and integrated switch for GUIs and SNMP communication of components able to access the network (Rack PDU, UPS, closing system and fire extinguisher – depending on setup). Remote monitoring of cooling device function as well as temperature, moisture, door closure and alarm outputs by means of modular Liebert® SN 1-wire sensors connected to MPH2™.	
ACS Console Switch	Avocent ACS 800 enables secure in-band (Ethernet) and out-of-band (dial-up/cellular modem) remote network management. The model is available with 2, 4 or 8 ports with multiple protocol RS232/RS485/RS422 serial interface, USB, dual gigabyte Ethernet and environmental sensor support.	
19" LCD console	Avocent 19" LCD consoles for direct rack access with only 1 U. 18.5" HD LED-backlit monitor, standard keys (available in 11 languages), touchpad and dual USB 2.0 pass-thru. Also available with 8 or 16 port digital KVM bundle.	
KVM over IP Switch	Avocent MergePoint Unity Digital KVM Switch contains both KVM-over-IP as well as serial console management-technology for remote management of servers and network setups. 8, 16 & 32 port models, dual AC power supply with 1, 2, 4 or 8 remote digital KVM user access paths.	

Different components are installed depending on model and setup.

For details see the order table www.findmyMiDC.com

Technical data - order numbers

application & cooling design	item numbers 01.205.xxx.1													
	Netw. pass.				Server passive				Server active					
	42 U		24 U		42 U		24 U		24 U		42 U		42 U	
gross height	U		1		3.5		2.0		2.0		3.5		6.0	
nominal IT power	kVA		2		3.5		2.0		2.0		3.5		6.0	
redundancy configuration level	xxx		004		006		009		010		012		015	
model number	022 023		001 007		003 006		009 009		010 013		012 015		028 029	
cabinet														
width	800		600		800		800		800		800		800	
depth	1000		1000		1200		1200		1200		1200		1200	
height	2100		1300		2100		2100		1910		1300		2100	
usable space	U		22 U		37 U		32 U		22 U		14 U		28 U	
IP protection rating	IP40		IP20		IP20		IP20		IP54		IP54		IP54	
mechanical/electronic lock	mech.		mech.		mech.		electr.		mech.		mech.		electr.	
app. weight	kg		175		135		140		255		245		370	
power system														
IT power connections	no.		1		1		2		1		2		1	
IT power path rating (per feed A + B)	1 ph. 10A		1 ph. 10A		1 ph. 16A		1 ph. 16A		1 ph. 16A		1 ph. 16A		1 ph. 32A	
cooling power connections	no.								1		1		1	
cooling connection rating									1 ph. 16A		1 ph. 16A		1 ph. 16A	
UPS systems	no.		1		1		2		1		1		2	
UPS height per system	U		2 U		5 U		5 U		2 U		2 U		5 U	
UPS power rating	VA		3000		6000		6000		3000		3000		6000	
UPS power rating	W		2700		4800		4800		2700		2700		4800	
internal battery capacity	VAh		350		1200		1200		650		650		2160	
internal battery runtime @ nom. IT power	min.		10		10		10		6		6		7	
rack PDU input metered	no.		1		1									
rack PDU metered per outlet	no.		2		2									
rack PDU metered & switched per outlet	no.								2		2		2	
C13 outlets per PDU	no.		17		17		16		16		16		18	
C19 outlets per PDU	no.		2		2								6	
controlling														
cooling unit design														
auto-adapting cooling capacity range	kW								compact		compact		compact	
split evaporator size	U								0.8-3.8		0.8-3.8		0.8-3.8	
monitoring														
smoke detector			X		X		X		X		X		X	
temp + hum			X		X		X		X		X		X	
2 doors			X		X		X		X		X		X	
add. temp			X		X		X		X		X		X	
3 dry contacts			X		X		X		X		X		X	
options														
ext. battery cabinet (up to 4 per UPS)	VAh		580		860		860		860		860		2880	
Novect1230 VESD fire suppression	O		O		O		O		O		O		O	
Avocent ACS800 console server	O		O		O		O		O		O		O	
19" LCD Console with 16 Port KVM Switch	O		O		O		O		O		O		O	
KVM-over-IP MergePoint Unity: 16 Port	O		O		O		O		O		O		O	
Installation service	O		O		O		O		O		O		O	
putting into operation service	O		O		O		O		O		O		O	
maintenance contract	O		O		O		O		O		O		O	
remote preventive maintenance	O		O		O		O		O		O		O	