

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 5 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 5 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

	item numbers 01.205.xxx.1															
	Netw. pass.				Server passive				Server active							
	42 U		24 U		42 U		24 U		24 U		42 U					
application & cooling design	U															
gross height	1		2		3.5		3.5		3.5		6.0					
nominal IT power	kVA															
redundancy configuration level	basic		eco		top		eco		top		eco					
model number	022	023	001	004	007	003	006	009	010	013	026	027	012	015	028	029
cabinet																
width	800		600		600		800		800		800		800		800	
depth	1000		1000		1000		1200		1200		1200		1200		1200	
height	2100		1300		1300		2100		2100		1300		2100		2100	
usable space	U		40 U		22 U		37 U		32 U		20 U		14 U		22 U	
IP protection rating	IP40		IP20		IP20		IP20		IP20		IP54		IP54		IP54	
mechanical/electronic lock	mech.		mech.		electr.		mech.		electr.		mech.		electr.		mech.	
app. weight	170		140		185		200		280		255		290		245	
power system																
IT power connections	no.		1		2		1		2		1		2		1	
IT power path rating (per feed A + B)	1 ph. 10A		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	no.		1		2		1		2		1		2		1	
UPS systems	U		2 U		2 U		5 U		5 U		5 U		5 U		6 U	
UPS height per system	VA		1500		3000		5000		5000		5000		5000		10000	
UPS power rating	W		1350		2700		4000		4000		4000		4000		9000	
UPS power rating	VAh		350		650		1200		1200		1200		1200		2160	
internal battery capacity	min.		10		6		10		10		10		10		7	
internal battery runtime @ nom. IT power	no.		1		2		1									
rack PDU input metered	no.						2									
rack PDU metered per outlet	no.															
rack PDU metered & switched per outlet	no.															
C13 outlets per PDU	no.		17		16		17		16		16		16		18	
C19 outlets per PDU	no.		2		2		2		2		2		2		6	
controlling																
cooling unit design											compact		compact		compact	
auto-adapting cooling capacity range	kW										0.8-3.8		0.8-3.8		0.6-3.5	
split evaporator size	U										0 U		0 U		8 U	
monitoring																
smoke detector	X		X		X		X		X		X		X		X	
temp + hum	X		X		X		X		X		X		X		X	
2 doors	X		X		X		X		X		X		X		X	
add. temp	X		X		X		X		X		X		X		X	
3 dry contacts	X		X		X		X		X		X		X		X	
options																
ext. battery cabinet (up to 4 per UPS)	VAh		580		860		860		860		2880		2880		2880	
Novect1230 VESD fire suppression	O		O		O		O		O		O		O		O	
Avocent ACS800 console server	O		O		O		O		O		O		O		O	
19" LCD Console with 16 Port KVM Switch	O		O		O		O		O		O		O		O	
KVM-over-IP MergePoint Unity: 16 Port	O		O		O		O		O		O		O		O	
Installation service	O		O		O		O		O		O		O		O	
putting into operation service	O		O		O		O		O		O		O		O	
maintenance contract	O		O		O		O		O		O		O		O	
remote preventive maintenance	O		O		O		O		O		O		O		O	