

Overview

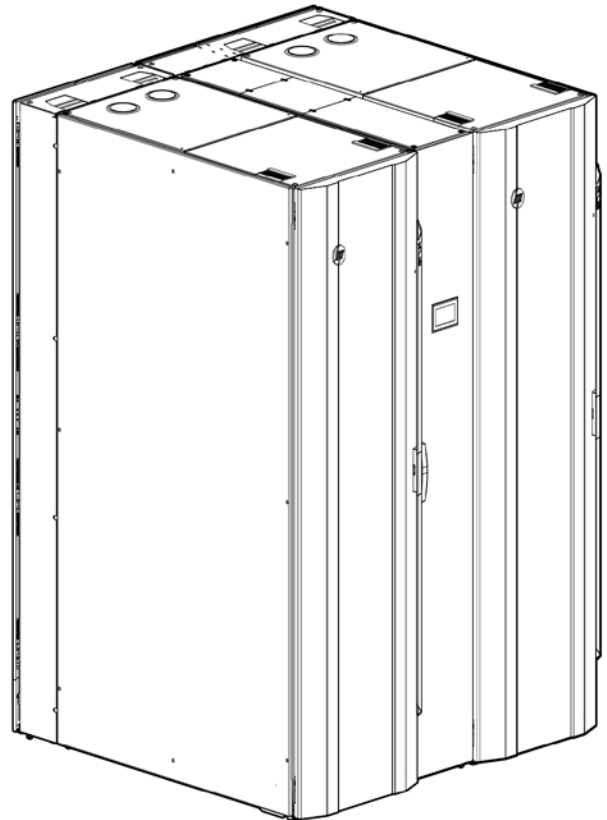
HPE Modular Cooling System 200

The HPE Modular Cooling System (MCS) 200 is a modular, rack-based cooling solution that removes high levels of heat generated by high-density servers, mass storage and core networking systems. Equipped with rack infrastructure, cooling, and IT power distribution, the HPE MCS 200 provides a standardized high performance cooling approach for servers and other IT equipment installed in server racks. The HPE bi-directional cooling technology allows simultaneous cooling of two racks when the HPE MCS Expansion Rack is utilized. The HPE MCS 200 can cool as little as 15kW, depending on configuration, and as high as 55kW of server capacity, either all on one rack or split between two racks.

HPE MCS 200 is designed to complement any new or existing datacenter by allowing the scale of computing power without adding to the heat load in the current datacenter. In addition, by packing up to 10 times the kW capacity of a standard rack, the HPE MCS 200 will extend, considerably, the life of your datacenter. The horizontal air flow of the HPE MCS 200 fully supports industry-standard front-to-back cooling designs and with the variable speed fan system all devices receive adequate and evenly distributed cool air, regardless of the mounting position or workload.



HPE MCS Unit without Expansion Rack



HPE MCS Unit with Expansion Rack

Standard Features

Key Features

- Self-contained, water-cooled rack solution that supports a full rack of density-optimized servers
- Up to 55kW cooling capacity
- Up to 4,500 CFM for a single rack configuration or 4,800 CFM in a dual rack configuration
- Standard 19" 42U HPE rack design
- Supports up to 2,000 lbs. of IT equipment
- Maintains datacenter 2' tiling floor plan
- Closed-coupled cooling ensures uniform horizontal airflow
- Includes four front, swappable fans, with the option to upgrade to six per MCS High efficiency heat exchanger, resulting in apPUE as low as 1.05
- Warm water cooling ready: support IT loads up to 50 kW at 25°C inlet water with 44 gallons per minute (GPM) and a server supply air temperature of 35°C. 277V support, with support ranging from 208-277VAC input
- Extend cooling to a second rack with an optional MCS expansion rack
- Integrated automatic door opening system HPE MCS system and environmental monitor with SNMP integration
- Integrated automatic transfer switch for power input redundancy
- Condensate evacuation system for simplified maintenance
- Full services offering available, including planning, deployment and maintenance

HPE MCS 200 Cooling Unit

BW974A

- HPE MCS 200 Cooling Unit (BW974A) includes:
 - MCS 200 Cooling Unit, 30kW Capacity, Expandable to 55kW or N+X redundancy with additional fan modules (BW978A)
 - 1200 mm. (HPE 10k Rack) 19" Rack, Expandable with MCS Expansion Rack Option
 - 4 Fans (BW978A) Included Standard - 30kW Expandable to 55kW with additional fan modules (BW978A)
 - LCD Touchscreen
 - Automatic Transfer Switch
 - Condensate Pump
 - Automatic Door Opening Kit
 - 200 mm. Rack Extension Kit
 - Optional: Expansion Rack, 277V Input, Connection Kit

Options

HPE MCS Expansion Rack	Allows for the HPE MCS cooling unit cooling capacity to be shared between two IT racks. Includes all necessary hardware. HPE Modular Cooling System 200 Expansion Rack NOTE: Optional for the HPE MCS 200, ships separately	BW975A
HPE MCS Scalable Fans	Provides additional hot-pluggable capacity or redundancy for the HPE MCS 200 HPE Modular Cooling System Scalable Fan Unit NOTE: See "MCS Capacity Chart" for cooling and airflow reference	BW978A
HPE MCS Rear Rack Extension	200 mm. rear rack extension for the HPE MCS (IT Rack and Cooling System). Provides more room for rack mounted PDUs. Includes all necessary hardware. HPE 42U Rack 200mm Rear Extension Kit NOTE: Standard in the HPE MCS 200	AF036A
HPE MCS Touchscreen	LCD management display unit located on front of HPE MCS unit HPE Modular Cooling System 100 Touchscreen Display NOTE: Standard with the HPE MCS 200	BW981A
HPE MCS Condensation Pumps	Condensation pump is used in addition to the condensation evacuation system in the HPE MCS and provides additional fail-over redundancy HPE Modular Cooling System Condensation Pump NOTE: Standard with the HPE MCS 200	BW982A
HPE MCS 277 Volt Kit	Allows for the HPE MCS 200 to accept 208V to 277V AC power Input HPE Modular Cooling System 277 Volt Kit	BW983A
HPE MCS Auto Transfer Switch	Provides dual power input functionality of the HPE MCS. ATS module fits inside. HPE Modular Cooling System Auto Transfer Switch NOTE: Standard with the HPE MCS 200	BW979A
HPE MCS Grounding Kit	Electrical grounding for the HPE MCS 200 (IT rack and cooling unit) HPE Rack Grounding Kit	BW891A
HPE MCS Automatic Door Opening Kit	HPE Modular Cooling System Auto Door Release Kit NOTE: System Requires Auto Transfer Switch (BW979A) NOTE: Standard with the HPE MCS 200	BW980A
HPE Universal 1U Filler Panels	Blanking panels are made from high grade molded plastic, and designed to be installed without tools. Using blanking panels is recommended to ensure proper airflow in unused rack U space. HPE 1U 10-pack Black Universal Filler Panel NOTE: Pack of 10 HPE 1U 100-pack Black Universal Filler Panel NOTE: Pack of 100	BW928A BW929A

MCS Options

HPE MCS Hook-Up Kit	Kit provides easy connection of the HPE MCS to chilled water system. Includes hose assembly, elbow allows water connection from bottom (vertical) or from top (vertical) or from back (horizontal) HPE Modular Cooling System Hookup Kit	BW971A
HPE MCS Services	Installation Services HPE Install Modular Cooling-Series SL5042 Rack Service NOTE: Installation of MCS per the product user installation manual, BTO MCS units only.	UE005E
For More Information	Modular Cooling System (MCS) Website: http://www.hpe.com/servers/mcs	

Services

Number of Fans (BW978A)	MCS 200	MCS 200 w/Expansion Rack
1 Fan	N/A	N/A
2 Fans	N/A	N/A
3 Fans	N/A	N/A
4 Fans	30kW (3,000 CFM)	15kW (1,600 CFM)
5 Fans	40kW (3,750 CFM) 30kW N+1	20kW (2,000 CFM) 15kW N+1
6 Fans	50kW (4,500 CFM) 40kW N+1, 30kW N+2	25kW (2,400 CFM) 20kW N+1, 15kW N+2

HPE MCS 200 Expansion Rack Specifications

NOTE: The HPE MCS Expansion Rack ships separately and must be attached onsite.

MCS 200		
Dimensions	Height in U	42U
	Height	78.9 in. (2,004 mm.)
	Width	23.6 in. (600 mm.)
	Depth	55.1 in. (1,399 mm.)
	Shipping Height (on skid)	85 in. (2,159 mm.)
	Shipping Width (on skid)	36 in. (914.4 mm.)
	Shipping Depth (on skid)	68 in. (1,727 mm.)
	Ramp Length	107 in. (2,718 mm.)
	Offloading Ramp Clearance	20.6 ft. (6.28 m.)
Weight	Net	395 lbs. (179 kg.)
	Shipping	680 lbs. (308 kg.)
Load	Static	3,000 lbs. (1,364 kg.)
	Dynamic	2,300 lbs. (1,043 kg.)
Color	Doors	Black With Silver Extrusion
	Frame	Black
Warranty	MCS Expansion Rack	3-0-0

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Products and
Approach**
**End-of-life
Management and
Recycling**

Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

For more information, please visit

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or contact your Hewlett Packard Enterprise sales representative.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: <http://www.hpe.com/go/green> These instructions may be used by recyclers and other WEEE treatment facilities as well as HEWLETT PACKARD ENTERPRISE OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Services

<p>Protect your business beyond warranty with HPE Support Services</p>	<p>HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution. Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. HPE is ready to bring together all the pieces of the puzzle for you, with an eye on the future, and make the complex simple.</p>
<p>Parts and Materials</p>	<p>HPE will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.</p> <p>Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.</p> <p>The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.</p>
<p>More Information</p>	<p>http://www.hpe.com/services</p>

Summary of Changes

Date	Version History	Action	Description of Change
5-Jun-2017	From version 6 to 7	Removed	References to MCS 100
		Changes	Changes made throughout document; added Pointnext Service language
26-Oct-2016	From version 5 to 6	Updated	Update QuickSpecs for rebranding
12-Feb-2014	From Version 4 to 5	Changed	Models, MSC Options, and Technical Specifications sections were revised.
		Removed	Hardware services on-site was removed from HPE MSC services.
24-Apr-2014	From Version 3 to 4	Changed	Formatting changes were made.
18-Apr-2014	From Version 2 to 3	Changed	Formatting changes were made.
01-Apr-2014	From Version 1 to 2	Changed	Changes were made throughout the QuickSpecs.



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