



Dell PowerVault MD1200

The Dell™ PowerVault™ MD1200 direct-attached storage is the second generation low-cost, high-capacity expansion enclosure that improves density, versatility and performance to enhance support for mainstream and capacity-intensive applications.

Simple and versatile server expansion

The PowerVault MD1200 offers seamless expansion for Dell PowerEdge™ servers with the PERC H810 HostRAID adapter, and provides expansion storage for Dell Compellent™, EqualLogic™ and PowerVault arrays. The MD1200 provides versatile storage expansion as your business grows.

- Easily expand your server capacity: This expansion array supports twelve 2.5-inch or 3.5-inch SAS hard disk drives (HDDs) and SAS solid-state drives (SSDs) in a 2U array, and expands up to eight arrays behind a single PERC H810 HostRAID adapter.
- Versatility and flexibility to meet most business needs: With the ability to mix 2.5-inch and 3.5-inch enclosures behind a single PERC H810 HostRAID adapter and support for 2.5-inch drives, the MD1200 delivers capacity and performance to support most customer deployments.

Keeping up with business needs

The PowerVault MD1200 provides the ability to support mainstream, capacity-intensive and performance-intensive applications in a single storage solution. This flexibility makes it easy to tier your data by matching your data requirements and drive characteristics. The following features can maximize the efficiency of your storage solution:

- Support for 2.5-inch and 3.5-inch drives.
- Ability to mix 2.5-inch and 3.5-inch enclosures behind a single PERC H800 HostRAID adapter.
- Ability to mix and match 7.2K (nearline), 10K and 15K RPM SAS HDDs with SSDs including SAS HDDs that support self-encrypting drive (SED) technology.

Keeping your data safe

Access and accuracy of data is key to success for any business. The MD1200 maximizes the uptime and security of your data.

- Redundant path with I/O load balancing: Even if a single cable path fails from one port of the PERC H810, you will continue to have access to your data through the second port.
- Self-encrypting drives (SED): With drive-level encryption, if a drive is removed from its storage system or the server it is housed in, the data on that drive is encrypted and useless to anyone who attempts to access it without the appropriate security authorization. Additionally, SED supports Instant Secure Erase of drives which permanently removes data when repurposing or decommissioning drives.

- Hot-swappable drives: With hot-swappable drives, you can remove and replace drives even when your system is operating; no need to turn it off and no need to reboot — new drives are available right away.

Affinity with PowerEdge

The MD1200 storage enclosure is engineered to work optimally with Dell PowerEdge servers using the PERC H810 HostRAID adapter, Dell OpenManage™ Storage Manager as well as the shared components:

- Configuration of the PERC H810 enables the software to recognize all storage as a single unit, helping to increase reliability and fault tolerance.
- Dell OpenManage Storage Manager software can manage both the external array and internal storage, streamlining storage management through a single, common interface, which helps reduce resource load on the system and enables easier user navigation.
- MD1200 uses the same 2.5-inch and 3.5-inch drives as PowerEdge servers.
- MD1200 uses the same hot-swappable power supply units, enclosure management modules (EMM), hard disk drives and solid-state drives.

Direct-attached
storage expansion
enclosure

Improves density, versatility and
performance

Feature	Dell PowerVault MD1200				
PERC H810	PCI-E 2.0 HostRAID adapter with two external x4 SAS ports, standard 512MB cache and TBBU				
Drives and capacity					
Drives	Up to twelve (12) hot-pluggable SAS HDDs at 7.2K, 10K, and 15K RPM and SAS SSDs; mix and match 3.5" and 2.5" drives (2.5" requires 3.5" carriers)				
Drive performance and capacities	<table border="0"> <tr> <td>3.5" 6Gbps SAS: HDD 15K – 300GB, 450GB, 600GB HDD 7.2K – 1TB, 2TB, 3TB, 4TB, 6TB</td> <td>2.5" 12Gbps SAS with 3.5" carrier: 7.2K HDD NL-SAS 512e – 2TB SSD – 200GB, 400GB, 800GB, 1.6TB MU MLC SSD – 200GB, 400GB, 800GB WI MLC SSD – 800GB, 1.6TB RI MLC</td> </tr> <tr> <td>3.5" 12Gbps NL-SAS:¹ HDD 7.2K SAS 512e – 6TB, 8TB, 10TB</td> <td>2.5" 6Gbps SAS with 3.5" carrier: HDD 10K – 300GB, 600GB, 900GB, 1.2TB HDD 10K 512e – 1.8TB SSD – 400GB mainstream SLC; 200GB, 800GB value SLC; 800GB RI MLC; 200GB, 400GB WI SLC</td> </tr> </table>	3.5" 6Gbps SAS: HDD 15K – 300GB, 450GB, 600GB HDD 7.2K – 1TB, 2TB, 3TB, 4TB, 6TB	2.5" 12Gbps SAS with 3.5" carrier: 7.2K HDD NL-SAS 512e – 2TB SSD – 200GB, 400GB, 800GB, 1.6TB MU MLC SSD – 200GB, 400GB, 800GB WI MLC SSD – 800GB, 1.6TB RI MLC	3.5" 12Gbps NL-SAS: ¹ HDD 7.2K SAS 512e – 6TB, 8TB, 10TB	2.5" 6Gbps SAS with 3.5" carrier: HDD 10K – 300GB, 600GB, 900GB, 1.2TB HDD 10K 512e – 1.8TB SSD – 400GB mainstream SLC; 200GB, 800GB value SLC; 800GB RI MLC; 200GB, 400GB WI SLC
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Maximum capacity (per enclosure)	Up to 120TB when using 12 x 10TB NL-SAS 3.5" HDDs				
Expansion capabilities	PERC H810 HostRAID adapter enables expansion to 8 enclosures (4 enclosures per port)				
Host connectivity					
Unified mode	Unified mode (single path) for daisy chaining of up to 8 enclosures per PERC H810 (4 enclosures per port, single path) Unified mode (recommended redundant path) for daisy chaining up to 4 enclosures per PERC H810 (4 enclosures connected to both ports via redundant path cabling)				
Split-mode/dual-host access	Split mode with dual EMM providing direct connectivity to drives 0 through 5 and a separate connectivity to drives 6 through 11				
Enclosure Management Modules (EMM) and RAID					
EMM	2 EMMs provide redundant enclosure management capability; hot-swappable				
RAID	PERC H810 supports RAID levels 0, 1, 5, 6, 10, 50, and 60				
Back-panel connectors (per EMM)					
Host connectivity	1 SAS (SFF 8088) IN connector for connection to the host				
Expansion connectivity	1 SAS (SFF 8088) OUT connector for expansion to an additional enclosure				
Service management	1 6-pin UART mini-DIN connector (for factory use only)				
Power supplies (per PSU)					
Wattage: also supports DC power	AC - 600 W; DC - 700 W				
Host heat dissipation	AC - 2047 BTU/hr; DC - 2388 BTU/hr				
Input voltage range	100-240 VAC, auto-sensing; 48 V DC				
Frequency range	50/60 Hz				
Amperage	8.6 A at 100 V, 4.3 A at 240 V				
Available hard drive power (per slot)					
Supported continuous consumption	Up to 1.16 A at +5V; up to 1.6 A at +12V				
Physical					
Rack support	Dell ReadyRails™ static rails for toolless mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded-hole racks				
Height x width x depth	8.7cm (3.39 inches) x 48.2cm (18.8 inches) x 59.4cm (23.17 inches)				
Weight	28.39 kg (62.6 lb) (maximum configuration); 8.84 kg (19.5 lb) (empty)				
Environmental					
Temperature	Operating: 10° to 35°C (50° to 95°F) with maximum temperature gradation of 10°C per hour Storage: -40° to 65°C (-40° to 149°F) with temperature gradation of 20°C per hour Supports Fresh Air Cooling, up to 35°C				
Relative humidity	Operating: 8% to 85% (non-condensing) with maximum humidity gradation of 10% per hour Storage: 5% to 95% (non-condensing)				
Altitude	Operating: -16 to 3048 m (-50 to 10,000 ft) Storage: -16 to 10,600 m (-50 to 35,000 ft)				

¹MD1200 can use 12Gbps HDD or SSD, but will negotiate to a speed of 6Gbps.

Simplify your storage at Dell.com/PowerVault

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