

# PowerVault ME5000 Series Specification Sheet

Simple. Fast. Affordable.

## Entry storage purpose-built and optimized for SAN/DAS

The simple, fast and affordable Dell PowerVault ME5 storage platforms are optimized to run a variety of mixed workload applications – physical and virtual – for small to medium size businesses. Whether you need to consolidate your block storage, support applications without the need for low latency flash and NVMe, take advantage of intelligent data management or scale capacity to keep pace with data growth, then PowerVault ME5 is ready to meet your growing business needs. The flexibility of PowerVault ME5 offers multiple protocols, supports a wide range of drive types and capacities, scales up to 8PB<sup>1</sup> capacity, validated with Dell PowerEdge Servers (16G ready) and is delivered to you with all-inclusive software – so you'll have the needed data services to store, manage, and protect your data.

Using fast Intel Xeon processors, Dell PowerVault ME5 storage implements a dual-active controller architecture, 12GB/sec read, and 10GB/sec write throughput and uses a 12Gb SAS backend protocol for rapid capacity expansion.

## Dell PowerVault ME5 base system and expansion models

The two non-dense ME5 base arrays start at 2U and the dense ME5 array starts at 5U. The base models all support dual-active controllers with each controller including 16GB of memory.



**ME5012**  
12 drive / 2U



**ME5024**  
24 drive / 2U



**ME5084**  
84 drive / 5U

Optional ME5 expansion enclosures let you scale up to 336 drives or 8PB<sup>1</sup>. PowerVault ME412 and ME424 expansion enclosures can only be used with either ME5012 or ME5024 base arrays. The ME484 dense expansion enclosure is supported behind any of the ME5 base arrays. A variety of SSD, 10K and NLSAS drives (including FIPS SEDs) are available.



**ME412 Expansion Enclosure**  
12 drive / 2U




**ME424 Expansion Enclosure**  
24 drive / 2U



**ME484 Expansion Enclosure**  
84 drive / 5U

## PowerVault ME5 Specifications

### Chassis Overview

Chassis format	All-in-one: dual controllers, internal drive bays, networking and with expansion options
Rack size	2U or 5U
Controllers	2 hot-swappable per chassis (dual-active) Single/dual controller support for 2U models Dual controller support only for 5U model
Processor	Intel® Xeon Processor
Internal storage 	<b>ME5012:</b> 12 x 3.5" drive bays (2.5" drive carriers supported) <b>ME5024:</b> 24 x 2.5" drive bays <b>ME5084:</b> 84x 3.5" drive bays (2.5" drive carriers supported)
System memory	8GB per controller and 16GB for Cache (24GB total)

### Expansion Capacity

Expansion enclosures	<b>ME412:</b> 12 x 3.5" drive bays (12Gb SAS) <b>ME424:</b> 24 x 2.5" drive bays (12Gb SAS) <b>ME484:</b> 84 x 3.5" drive bays (12Gb SAS)
Min/Max drive count	<b>ME5012:</b> 2/264 <b>ME5024:</b> 2/276 <b>ME5084:</b> 28/336
Max raw capacity <sup>1</sup>	<b>ME5012:</b> Up to 2.64PB (total with 9 ME412) <b>ME5012:</b> Up to 1.92PB (total with 9 ME424) <b>ME5012:</b> Up to 5.80PB (total with 3 ME484) <b>ME5024:</b> Up to 2.56PB (total with 9 ME412) <b>ME5024:</b> Up to 1.83PB (total with 9 ME424) <b>ME5024:</b> Up to 5.72PB (total with 3 ME484) <b>ME5084:</b> Up to 7.39PB (total with 3 ME484) <b>ME5084:</b> Up to 5.54PB (total with 2 ME484)
NAS Support	Supported with NX Series Windows NAS appliance
Storage media	SAS and NL-SAS drives; different drive types, transfer rates, rotational speeds can be mixed in the same system: <ul style="list-style-type: none"> <li>NLSAS 7.2K 3.5" – 4TB, 8TB, 12TB, 16TB, 16TB FIPS, 20TB, 22TB</li> <li>SAS 10K 2.5" – 1.2TB, 2.4TB, 2.4TB FIPS</li> <li>SSD – 1.6TB MU, 1.92TB, 3.84TB, 3.84TB FIPS, 7.68TB RI</li> </ul>

### Network, Expansion Enclosure and I/O

Host interface	FC, iSCSI (optical or BaseT), SAS
Max 32Gb FC ports	8 per array (support auto-negotiate to 16Gb)
Max 25Gb iSCSI ports	8 SFP+ or SFP28 ports per array
Max 10Gb iSCSI ports	8 BaseT ports per array (only support auto negotiate to 1Gb)
Max 12Gb SAS ports	8 12Gb SAS ports
Max management ports	2 per array (1Gb BASE-T)
Disk expansion protocol	12Gb SAS

Disk interface expansion ports	2 x 12Gb SAS (wide-Port) per array (1 port per controller) Up to 9 2U expansion enclosures per 2U base array Up to 3 5U expansion enclosures per 2U base array Up to 3 5U expansion enclosures per 5U base array
<b>Functional</b>	
Array configurations	All-flash, hybrid flash, HDD only arrays
Storage format	Native block-level SAN or DAS

<b>Data Optimization</b>	
Auto-tiering	Up to 3 primary (media-based) tiers
RAID support	RAID 1, 5, 6, 10, or ADAPT RAID; any combination of RAID levels can exist in single array
ADAPT RAID	Distributed erasure coding that reduces rebuild times when drive failures occur
Thin provisioning	Active by default on all volumes, operates at full performance across all features
Snapshots	1024 maximum re-direct-on-write snapshots per array
<b>Data Mobility and Migration</b>	
Replication	Asynchronous replication via FC or iSCSI – ME4 to ME5; ME5 to ME4; ME5 to ME5 Target/source relationships may be one-to-many or many-to-one
Volume copy	Copy complete standalone volumes
<b>Data Protection, Disaster Recovery, Security</b>	
Business continuity	VMware Site Recovery Manager
Data-at-rest encryption	Self-encrypting drives (SEDs) in SSD or HDD formats Full Disk Encryption (FDE) based on AES-256 Drives certified to FIPS 140-2 Level 2
Key manager	Internal controller key management

Management	
Management support	PowerVault Manager HTML5 GUI element manager, CLI, OpenManage Enterprise 3.9
VMware vCenter	VMware vCenter plugin to manage ME5 arrays through vCenter.
Scripting	CLI API Redfish/Swordfish REST API
Supported host OS	Windows 2022, 2019 and 2016 RHEL 8.2 and 7.8 SLES 15.2 and 12.5 VMware 7.0 and 6.7 Citrix XenServer 8.x and 7.x
Virtualization integration	VMware vSphere (ESXi) vCenter; SRM Microsoft Hyper-V
Physical Base System	
Rack size	ME5012 (2U), ME5024 (2U), ME5084 (5U)
Base system height	<b>ME5012:</b> 8.79 cm (3.46 inches) <b>ME5024:</b> 8.79 cm (3.46 inches) <b>ME5084:</b> 22.23 cm (8.75 inches)
Base system width	<b>ME5012:</b> 48.30 cm (19.01 inches) <b>ME5024:</b> 48.30 cm (19.01 inches) <b>ME5084:</b> 48.30 cm (19.01 inches)
Base system depth	<b>ME5012:</b> 61.87mm (24.36 inches) <b>ME5024:</b> 54.78mm (21.56 inches) <b>ME5084:</b> 981mm (38.62 inches)
Weight (max configuration)	<b>ME5012:</b> 32.00 kg (71.00 lbs) <b>ME5024:</b> 30.00 kg (66.00 lbs) <b>ME5084:</b> 135.00 kg (298.00 lbs)
Weight (empty)	<b>ME5012:</b> 4.80 kg (10.56 lbs) without drives <b>ME5024:</b> 4.80 kg (10.56 lbs) without drives <b>ME5084:</b> 64.00 kg (141.00 lbs) without drives
Physical Expansion Enclosure	
Rack size	<b>ME412</b> (2U), <b>ME424</b> (2U), <b>ME484</b> (5U)
Expansion height	<b>ME412:</b> 8.79 cm (3.46 inches) <b>ME424:</b> 8.79 cm (3.46 inches) <b>ME484:</b> 22.23 cm (8.75 inches)
Expansion width	<b>ME412:</b> 48.30 cm (19.01 inches) <b>ME424:</b> 48.30 cm (19.01 inches) <b>ME484:</b> 48.30 cm (19.01 inches)
Expansion depth	<b>ME412:</b> 60.29 cm (23.74 inches) <b>ME424:</b> 60.29 cm (23.74 inches) <b>ME484:</b> 97.47 cm (38.31 inches)
Weight (max configuration)	<b>ME412:</b> 28.00 kg (62.00 lbs) <b>ME424:</b> 25.00 kg (55.00 lbs) <b>ME484:</b> 130.00 kg (287.00 lbs)
Weight (empty)	<b>ME412:</b> 4.80 kg (10.56 lbs) without drives <b>ME424:</b> 4.80 kg (10.56 lbs) without drives <b>ME484:</b> 64.00 kg (141.00 lbs) without drives
Base System Power	
Power/wattage	<b>ME5012:</b> 580W <b>ME5024:</b> 580W <b>ME5084:</b> 2200W
Heat dissipation	<b>ME5012:</b> 1980 BTU <b>ME5024:</b> 1980 BTU <b>ME5084:</b> 7507 BTU

Voltage	<b>ME5012:</b> 100-240 VAC <b>ME5024:</b> 100-240 VAC <b>ME5084:</b> 200-240 VAC
Frequency	50/60 Hz
Amperage	<b>ME5012:</b> 7.6-3.0A (x2) <b>ME5024:</b> 7.6-3.0A (x2) <b>ME5084:</b> 11.07-9.23A (x2)
<b>Expansion Power</b>	
Power/wattage	<b>ME412:</b> 580W <b>ME424:</b> 580W <b>ME484:</b> 2200W
Heat dissipation	<b>ME412:</b> 1980 BTU <b>ME424:</b> 1980 BTU <b>ME484:</b> 7507 BTU
Voltage	<b>ME412:</b> 100-240 VAC <b>ME424:</b> 100-240 VAC <b>ME484:</b> 200-240 VAC
Frequency	50/60 Hz
Amperage	<b>ME412:</b> 7.6-3.0A (x2) <b>ME424:</b> 7.6-3.0A (x2) <b>ME484:</b> 11.07-9.23A(x2)
<b>Environmental Operating Conditions</b>	
Operating temperature	5°C - 35°C (41°F - 95°F, derated by 1°C per 300mm above 900m)
Non-operating temperature	-40°C to 70°C (-40 to 158°F) Maximum temperature changes in an hour: 20°C
Operating humidity ranges (non-condensing)	-12C dew point minimum, 8% to 85% maximum, non-condensing
Non-operating humidity (non-condensing)	21°C dew point maximum, 5% to 100% maximum, non-condensing
<b>Service &amp; Warranty</b>	
Services	Dell ProSupport Enterprise Suite and Dell ProDeploy Enterprise Suite. Optional ProSupport Plus is available offering pro-active and preventative services to improve performance and stability.
System sizing	Dell Power Sizer ( <a href="https://powersizer.dell.com">https://powersizer.dell.com</a> )
<b>OEM-Ready</b>	
From bezel to BIOS to packaging, your storage arrays can look and feel as if they were designed and built by you. For more information, visit <a href="https://Dell.com/OEM">Dell.com/OEM</a>	

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