

PowerVault ME5 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 8PB¹ 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 8PB¹. 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 	ME5012: 12 x 3.5" drive bays (2.5" drive carriers supported) ME5024: 24 x 2.5" drive bays ME5084: 84x 3.5" drive bays (2.5" drive carriers supported)
System memory (per controller)	8GB for controller and 16GB for cache (24GB total)

Expansion Capacity

Expansion enclosures	ME412: 12 x 3.5" drive bays (12Gb SAS) ME424: 24 x 2.5" drive bays (12Gb SAS) ME484: 84 x 3.5" drive bays (12Gb SAS)
Min/Max drive count	ME5012: 2/264 ME5024: 2/276 ME5084: 28/336
Max raw capacity ¹	ME5012: Up to 2.64PB (total with 9 ME412) ME5012: Up to 1.92PB (total with 9 ME424) ME5012: Up to 5.80PB (total with 3 ME484) ME5024: Up to 2.56PB (total with 9 ME412) ME5024: Up to 1.83PB (total with 9 ME424) ME5024: Up to 5.72PB (total with 3 ME484) ME5084: Up to 7.39PB (total with 3 ME484) ME5084: 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"> NLSAS 7.2K 3.5" – 4TB, 8TB, 12TB, 16TB, 16TB FIPS, 20TB, 22TB SAS 10K 2.5" – 1.2TB, 2.4TB, 2.4TB FIPS SSD – 1.6TB MU, 1.92TB, 3.84TB, 3.84TB FIPS, 7.68TB RI

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
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Functional

Array configurations	All-flash, hybrid flash, HDD only arrays
Storage format	Native block-level SAN or DAS

Data Optimization

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

Data Mobility and Migration

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

Data Protection, Disaster Recovery, Security

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	ME5012: 8.79 cm (3.46 inches) ME5024: 8.79 cm (3.46 inches) ME5084: 22.23 cm (8.75 inches)
Base system width	ME5012: 48.30 cm (19.01 inches) ME5024: 48.30 cm (19.01 inches) ME5084: 48.30 cm (19.01 inches)
Base system depth	ME5012: 61.87mm (24.36 inches) ME5024: 54.78mm (21.56 inches) ME5084: 981mm (38.62 inches)
Weight (max configuration)	ME5012: 32.00 kg (71.00 lbs) ME5024: 30.00 kg (66.00 lbs) ME5084: 135.00 kg (298.00 lbs)
Weight (empty)	ME5012: 4.80 kg (10.56 lbs) without drives ME5024: 4.80 kg (10.56 lbs) without drives ME5084: 64.00 kg (141.00 lbs) without drives
Physical Expansion Enclosure	
Rack size	ME412 (2U), ME424 (2U), ME484 (5U)
Expansion height	ME412: 8.79 cm (3.46 inches) ME424: 8.79 cm (3.46 inches) ME484: 22.23 cm (8.75 inches)
Expansion width	ME412: 48.30 cm (19.01 inches) ME424: 48.30 cm (19.01 inches) ME484: 48.30 cm (19.01 inches)
Expansion depth	ME412: 60.29 cm (23.74 inches) ME424: 60.29 cm (23.74 inches) ME484: 97.47 cm (38.31 inches)
Weight (max configuration)	ME412: 28.00 kg (62.00 lbs) ME424: 25.00 kg (55.00 lbs) ME484: 130.00 kg (287.00 lbs)
Weight (empty)	ME412: 4.80 kg (10.56 lbs) without drives ME424: 4.80 kg (10.56 lbs) without drives ME484: 64.00 kg (141.00 lbs) without drives
Base System Power	
Power/wattage	ME5012: 580W ME5024: 580W ME5084: 2200W
Heat dissipation	ME5012: 1980 BTU ME5024: 1980 BTU ME5084: 7507 BTU

Voltage	ME5012: 100-240 VAC ME5024: 100-240 VAC ME5084: 200-240 VAC
Frequency	50/60 Hz
Amperage	ME5012: 7.6-3.0A (x2) ME5024: 7.6-3.0A (x2) ME5084: 11.07-9.23A (x2)
Expansion Power	
Power/wattage	ME412: 580W ME424: 580W ME484: 2200W
Heat dissipation	ME412: 1980 BTU ME424: 1980 BTU ME484: 7507 BTU
Voltage	ME412: 100-240 VAC ME424: 100-240 VAC ME484: 200-240 VAC
Frequency	50/60 Hz
Amperage	ME412: 7.6-3.0A (x2) ME424: 7.6-3.0A (x2) ME484: 11.07-9.23A(x2)
Environmental Operating Conditions	
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
Service & Warranty	
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 (https://powersizer.dell.com)
OEM-Ready	
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 Dell.com/OEM	

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