DELL Technologies

SPECIFICATION SHEET

PowerVault ME52xx Specifications

Simple. Fast. Affordable.

Optimized storage for SMBs to enterprise environments

PowerVault ME52xx storage platforms are purpose-built for small to medium-sized businesses (SMBs) that value simplicity, affordability, and speed. Designed to tackle a wide range of virtual workloads, the ME5 series provides a straightforward, cost-effective way to meet your business's growing data demands.

Ideal for SMBs looking to consolidate block storage or manage data growth without expensive, low-latency flash or NVMe, ME5 arrays offer intelligent data management and scalability. Its architecture supports up to 8PB of capacity, enabling you to expand as your needs evolve—all while keeping operations smooth and reliable.

Flexibility is at the core of the PowerVault ME52xx Series. With support for multiple protocols and a variety of drive types and capacities, it adapts to your specific requirements. Seamless integration with Dell PowerEdge Servers ensures a cohesive, stress-free experience. Plus, the all-inclusive software delivers the tools you need to store, organize, and protect your critical data—all in one easy-to-use package.

For SMBs seeking a storage solution that's both affordable and simple to manage, PowerVault ME52xx Series strikes the perfect balance. It's a scalable, flexible, and future-ready platform designed to help your business thrive in a data-driven world. Using fast Intel Xeon processors, PowerVault ME52xx storage arrays implement a dual-active controller architecture, 14GB/sec read, and 11GB/sec write throughput and uses a 12Gb SAS backend protocol for rapid capacity expansion.

PowerVault ME52xx base systems and expansion enclosures

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.

ME5212
12 drive / 2U

ME5224
24 drive / 2U

ME5284
84 drive / 5U

Optional ME5 expansion enclosures let you scale up to 336 drives or 8PB[1]. PowerVault ME512 and ME524 expansion enclosures can only be used with either ME5212 or ME5224 base arrays. The ME584 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.

ME512 Expansion Enclosure
12 drive / 2U

ME524 Expansion Enclosure
24 drive / 2U

ME584 Expansion Enclosure
84 drive / 5U

PowerVault ME52xx 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	**ME5212:** 12 x 3.5” drive bays (2.5” drive carriers supported) **ME5224:** 24 x 2.5” drive bays **ME5284:** 84x 3.5” drive bays (2.5” drive carriers supported)
System memory	16GB per controller (32GB total)

Expansion Capacity

Expansion enclosures	**ME512:** 12 x 3.5” drive bays (12Gb SAS) **ME524:** 24 x 2.5” drive bays (12Gb SAS) **ME584:** 84 x 3.5” drive bays (12Gb SAS)
Min/Max drive count	**ME5212:** 2/264 **ME5224:** 2/276 **ME5284:** 28/336
Max raw capacity[1]	**ME5212:** Up to 2.64PB (total with 9 ME512) **ME5212:** Up to 1.92PB (total with 9 ME524) **ME5212:** Up to 5.80PB (total with 3 ME584) **ME5224:** Up to 2.56PB (total with 9 ME512) **ME5224:** Up to 1.83PB (total with 9 ME524) **ME5224:** Up to 5.72PB (total with 3 ME584) **ME5284:** Up to 7.39PB (total with 3 ME584) **ME5284:** Up to 5.54PB (total with 2 ME584)
Storage media	SAS and NL-SAS drives; different drive types, transfer rates, rotational speeds can be mixed in the same system: • NLSAS 7.2K 3.5” – 4TB, 8TB, 8TB FIPS,12TB, 16TB, 16TB FIPS, 20TB, 24TB • SAS 10K 2.5” – 1.2TB, 2.4TB, 2.4TB FIPS • SSD – 1.6TB MU, 1.92TB RI, 3.84TB RI, 3.2TB FIPS MU, 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

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 Next Gen; ME5 to ME4; ME5 Next Gen 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 140-3 Level 2
Key manager	Internal controller key management Key Management Interoperability Protocol (KMIP)
Intelligent drive updates	Upgrade PowerVault ME52xx drives while in operation
Veeam interoperability	Veeam v12.3 certified

Management	
Management support	PowerVault Manager (HTML5), CLI, Dell AIOps (with ProSupport), OpenManage Enterprise (OME)
VMware vCenter	VMware vCenter plugin to manage ME5 arrays through vCenter.
Scripting	CLI API Redfish/Swordfish REST API
Supported host OS	Windows 2025, 2022, 2019 RHEL 9.x, 8.x SLES 15.x,12.3 VMware 8.x
Virtualization integration	VMware vSphere (ESXi) vCenter; SRM Microsoft Hyper-V
Physical Base System	
Rack size	ME5212 (2U), ME5224 (2U), ME5284 (5U)
Base system height	**ME5212:** 8.79 cm (3.46 inches) **ME5224:** 8.79 cm (3.46 inches) **ME5284:** 22.23 cm (8.75 inches)
Base system width	**ME5212:** 48.30 cm (19.01 inches) **ME5224:** 48.30 cm (19.01 inches) **ME5284:** 48.30 cm (19.01 inches)
Base system depth	**ME5212:** 61.87mm (24.36 inches) **ME5224:** 54.78mm (21.56 inches) **ME5284:** 981mm (38.62 inches)
Weight (max configuration)	**ME5212:** 32.00 kg (71.00 lbs) **ME5224:** 30.00 kg (66.00 lbs) **ME5284:** 135.00 kg (298.00 lbs)
Weight (empty)	**ME5212:** 4.80 kg (10.56 lbs) without drives **ME5224:** 4.80 kg (10.56 lbs) without drives **ME5284:** 64.00 kg (141.00 lbs) without drives
Physical Expansion Enclosure	
Rack size	**ME512** (2U)**, ME524** (2U), **ME584** (5U)
Expansion height	**ME512:** 8.79 cm (3.46 inches) **ME524:** 8.79 cm (3.46 inches) **ME584:** 22.23 cm (8.75 inches)
Expansion width	**ME512:** 48.30 cm (19.01 inches) **ME524:** 48.30 cm (19.01 inches) **ME584:** 48.30 cm (19.01 inches)
Expansion depth	**ME512:** 60.29 cm (23.74 inches) **ME524:** 60.29 cm (23.74 inches) **ME584:** 97.47 cm (38.31 inches)
Weight (max configuration)	**ME512:** 28.00 kg (62.00 lbs) **ME524:** 25.00 kg (55.00 lbs) **ME584:** 130.00 kg (287.00 lbs)
Weight (empty)	**ME512:** 4.80 kg (10.56 lbs) without drives **ME524:** 4.80 kg (10.56 lbs) without drives **ME584:** 64.00 kg (141.00 lbs) without drives
Base System Power	
Power/wattage	**ME5212**: 580W, 764W DC **ME5224**: 580W, 764W DC **ME5284:** 2200W
Heat dissipation	**ME5212:** 1980 BTU **ME5224:** 1980 BTU **ME5284:** 7507 BTU

Voltage	**ME5212:** 100-240 VAC **ME5224:** 100-240 VAC **ME5284:** 200-240 VAC
Frequency	50/60 Hz
Amperage	**ME5212:** 7.6-3.0A (x2) **ME5224:** 7.6-3.0A (x2) **ME5284:** 11.07-9.23A (x2)

Expansion Power

Power/wattage	**ME512:** 580W **ME524:** 580W **ME584:** 2200W
Heat dissipation	**ME512:** 1980 BTU **ME524:** 1980 BTU **ME584:** 7507 BTU
Voltage	**ME512:** 100-240 VAC **ME524:** 100-240 VAC **ME584:** 200-240 VAC
Frequency	50/60 Hz
Amperage	**ME512:** 7.6-3.0A (x2) **ME524:** 7.6-3.0A (x2) **ME584:** 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

DELL POWERVAULT ME52xx Series

Simple. Fast. Affordable.

Learn more about PowerVault ME5

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