Technical Specifications

Physical Disks	
Physical disks	Up to sixty 3.5 inch or 2.5 inch SAS or nearline SAS physical disks or 2.5 inch SAS SSDs

RAID Controller Modules	
RAID controller modules	Two hot-swappable modules with temperature sensors 2 GB of cache per controller
Dell PowerVault MD3260 storage arrays	Provides host-to-controller 6 Gbps SAS connection
Dell PowerVault MD3260i storage arrays	Provides host-to-controller iSCSI 1 Gbps Ethernet connection
Dell PowerVault MD3660i storage arrays	Provides host-to-controller iSCSI 10 Gbps Ethernet connection
Dell PowerVault MD3660f storage arrays	Provides host-to-controller FC connection

Expansion Modules	
Dell PowerVault MD3060e expansion enclosures	Supports 120 physical disks, in addition to 60 physical disks in the RAID enclosure Redundant path connectivity provides redundant data paths to each hard drive **NOTE:** Support for 180 physical disks is a premium feature and requires activation. The maximum number of physical disks supported without using the premium feature key is 120.
SAS connectors	Two SAS IN ports to connect hosts One SAS OUT port for expansion to an additional PowerVault MD3060e expansion enclosure **NOTE:** SAS connectors are SFF-8088 compliant.
Serial connector (debug port)	One 6-pin mini-DIN connector **NOTE:** For technical support use only.

Back-Panel Connectors (Per RAID Controller Module)	
MD3260	
SAS connectors	Four SAS IN ports to connect hosts

Back-Panel Connectors (Per RAID Controller Module)	
	One SAS OUT port for expansion to an additional PowerVault MD3060e expansion enclosure
	NOTE: SAS connectors are SFF-8088 compliant.
Serial connector (debug port)	One 6-pin mini-DIN connector
	NOTE: For technical support use only.
Management Ethernet connector	One 100/1000 Mbps Ethernet connection for out-of-band management of the enclosure
MD3260i	
SAS connector	One SAS OUT port for expansion to an additional PowerVault MD3060e expansion enclosure
	NOTE: SAS connectors are SFF-8088 compliant.
iSCSI connectors	Four 1 Gbps iSCSI IN connectors to connect hosts
Serial connector (debug port)	One 6-pin mini-DIN connector
	NOTE: For technical support use only.
Management Ethernet connector	One 100/1000 Mbps Ethernet connection for out-of-band management of the enclosure
MD3660i	
SAS connector	One SAS OUT port for expansion to an additional PowerVault MD3060e expansion enclosure
	NOTE: SAS connectors are SFF-8088 compliant.
iSCSI connectors	Two 10 Gbps iSCSI IN connectors to connect hosts
Serial connector (debug port)	One 6-pin mini-DIN connector
	NOTE: For technical support use only.
Management Ethernet connector	One 100/1000 Mbps Ethernet connection for out-of-band management of the enclosure
MD3660f	
SAS connector	One SAS OUT port for expansion to an additional PowerVault MD3060e expansion enclosure
	NOTE: SAS connectors are SFF-8088 compliant.
FC connectors	Four FC IN ports to connect hosts
Serial connector (debug port)	One 6-pin mini-DIN connector
	NOTE: For technical support use only.

Back-Panel Connectors (Per RAID Controller Module)	
Management Ethernet connector	One 100/1000 Mbps Ethernet connection for out-of-band management of the enclosure

Power	
AC power supply (per power supply)	
Wattage	1755 W
Heat dissipation (maximum)	5988 BTU/hr
NOTE: Heat dissipation is calculated using the power supply wattage rating. The heat dissipation values are for the entire system which includes chassis and two controllers.	
Voltage	220 V AC, autoranging, 50 Hz/60 Hz
NOTE: This system is also designed to be connected to IT power systems with a phase to phase voltage not exceeding 230 V.	
Battery	6.6 V DC, 1100 mAh, 7.26 W Lithium ion battery

Environmental	
NOTE: For additional information about environmental measurements for specific system configurations, see **dell.com/environmental_datasheets**.	
Temperature	
Operating	Continuous operation: 10 °C to 35 °C (50 °F to 95 °F) at 20% to 80% relative humidity (RH), with 26 °C maximum dew point. De-rate maximum allowable dry bulb temperature at 1 °C/300 m (1 °F per 550 ft) above 900 m (2952.75 ft). **NOTE:** For information on supported expanded operating temperature range and configurations, see the Owner's Manual at **support.dell.com/manuals**.
Storage	–40 °C to 65 °C (–40 °F to 149 °F) with a maximum temperature gradation of 20 °C per hour
Relative humidity	
Operating	20% to 80% (noncondensing) with maximum humidity gradation of 10% per hour
Storage	5% to 95% at a maximum wet bulb temperature of 38 °C (100.4 °F)
Maximum vibration	
Operating	0.26 G_{rms} at 5 Hz to 350 Hz in operational orientation
Storage	1.88 G_{rms} at 10 Hz to 500 Hz for 15 minutes (all six sides tested)

Environmental	
Maximum shock	
Operating	One shock pulse in the positive z axis of the system at 31 G for 2.6 ms in the operational orientation
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) at 71 G for up to 2 ms Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 22 G faired square wave pulse with velocity change at 200 inches/second (508 centimeters/second)
Altitude	
Operating	–30.5 m to 3000 m (–100 ft to 9,842 ft) **NOTE:** For altitudes above 2950 ft, the maximum operating temperature is derated 1.8 °F/1000 ft.
Storage	–30.5 m to 12192 m (–100 ft to 40,000 ft)
Airborne contaminant level	
Class	G1 as defined by ISA-S71.04-1985