



# DELL EMC POWERPROTECT DD SERIES APPLIANCES

DD series is the ultimate protection storage appliance that is the next generation of Dell EMC Data Domain appliances.

DD series delivers a fast, secure and an efficient solution that is optimized for multi-cloud data protection and future demands.

DD series consists of the DD9900, DD9400, DD6900, DD3300 and a software-defined appliance with PowerProtect DD Virtual Edition (DDVE).

	DD3300	DD6900	DD9400	DD9900
<b>Max Throughput</b>	Up to 4.2 TB/hr	Up to 15 TB/hr	Up to 26 TB/hr	Up to 41 TB/hr
<b>Max Throughput (DD Boost)</b>	Up to 7.0 TB/hr	Up to 33 TB/hr	Up to 57 TB/hr	Up to 94 TB/hr
<b>Logical Capacity<sup>1</sup></b>	Up to 1.6PB	Up to 18.7PB	Up to 49.9PB	Up to 97.5PB
<b>Logical Capacity with Cloud Tier</b>	Up to 4.8PB	Up to 56.1PB	Up to 149.8PB	Up to 228PB
<b>Usable Capacity</b>	4TB – 32TB	24TB – 288TB	192TB – 768TB	576TB – 1.5PB
<b>Usable Capacity with Cloud Tier</b>	Up to 96TB	Up to 864TB	Up to 2.3PB	Up to 3.5PB
<b>ES40 Shelf</b>	N/A	4TB 7.2K SAS	8TB 7.2K SAS <sup>3</sup>	8TB 7.2K SAS <sup>3</sup>
<b>DS60 Shelf</b>	N/A	4TB 7.2K SAS <sup>3</sup>	8TB 7.2K SAS	8TB 7.2K SAS
<b>FS25 Shelf</b>	N/A	3.8TB SSD <sup>2</sup>	3.8TB SSD <sup>2</sup>	3.8TB SSD <sup>2</sup>

<sup>1</sup>Logical capacity based on up to 50x deduplication (DD3300) and up to 65x deduplication (DD6900, DD9400, DD9900) based on additional hardware-assisted data compression of up to 30% better than previous generation. Actual capacity & throughput depends on application workload, deduplication, and other settings.

<sup>2</sup>High Availability configuration only, in a standard configuration SSDs are in the controller. The following systems support a high availability active/standby configuration: DD9900, DD9400 and DD6900

<sup>3</sup>Supported but not for factory racked orders

	<b>DD3300</b>	<b>DD6900</b>	<b>DD9400</b>	<b>DD9900</b>
<b>Built-In Networking</b>	1x Mgm't port 4x 10G Base-T	1x Mgm't port 4x 10G BASE-T or 4x 10G SFP+	1x Mgm't port 4x 10G BASE-T or 4x 10G SFP+	1x Mgm't port 4x 10G BASE-T or 4x 10G SFP+
<b>Optional Networking with I/O Cards</b>	The 10GBase-T card can auto-negotiate down to support 1GbE  Up to single dual-port 10GbE SLICs: Optical  Single quad-port 16Gbps FC HBA	Up to four quad port 10G Base-T, which can auto-negotiate down to support 1GbE  Up to four quad port 10G SFP+ (including built-in)  Up to three dual port 25G SFP+  Up to 3 quad port 16Gb FC HBA	Up to four quad port 10G Base-T, which can auto-negotiate down to support 1GbE  Up to four quad port 10G SFP+ (including built-in)  Up to three dual port 25G SFP+  Up to 3 quad port 16Gb FC HBA	Up to four quad port 10G Base-T (including built-in), which can auto-negotiate down to support 1GbE  Up to four quad port 10G SFP+  Up to four dual port 25G SFP+  Up to four dual port 100G  Up to 4 quad port 16Gb FC HBA
	<b>DD3300</b>	<b>DD6900</b>	<b>DD9400</b>	<b>DD9900</b>
<b>Weight (Lbs)</b>	16 HDDs: 73 lbs	6 SSDs: 73 lbs	9 SSDs: 73 lbs	4 SSDs: 110 lbs
<b>Dimensions</b>	17.1" x 29.6" x 3.5" 2U EIA rack units	17.1" x 29.6" x 3.5" 2U EIA rack units	17.1" x 29.6" x 3.5" 2U EIA rack units	17.1" x 32.0" x 5.2" 3U EIA rack units
<b>Power 100-120/200-240v~, 50/60 Hz</b>	16 HDDs: 429 VA	6 SSDs: 364 VA	9 SSDs: 647 VA	4 SSDs: 1117 VA
<b>Thermal Rating (Watts)</b>	16HDDs: 425 Watts	6 SSDs: 352 Watts	9 SSDs: 635 Watts	4 SSDs: 1111 Watts
<b>Thermal Rating (BTU/Hr)</b>	16HDDs: 1450	6 SSDs: 1201 btu/h	9 SSDs: 2167 btu/h	4 SSDs: 3791 btu/h
<b>Operating Temperature/ Altitude<sup>3</sup></b>	10°C to 35°C, 35°C at 3,117 ft	10°C to 35°C, 35°C at 3,117 ft	10°C to 35°C, 35°C at 3,117 ft	10°C to 35°C, 35°C at 3,117 ft
<b>Non-Operating (Transportation) Temperature</b>	-40°C to +65°C (-40°F to +149°F)	-40°C to +65°C (-40°F to +149°F)	-40°C to +65°C (-40°F to +149°F)	-40°C to +65°C (-40°F to +149°F)
<b>Operating Humidity</b>	10% to 80% with 29°C (84.2°F) maximum dew point.	10% to 80% with 29°C (84.2°F) maximum dew point.	10% to 80% with 29°C (84.2°F) maximum dew point.	10% to 80% with 29°C (84.2°F) maximum dew point.
<b>Operation Acoustic Noise (Sound Power)</b>	LWAd: 7.8 bels	7.2 bels	7.6 bels	8.6 bls
<b>Operation Acoustic Noise (Sound Pressure)</b>	LpAm: 67 db	52 db	58 db	70 db

## Statement of Compliance

Dell EMC Information Technology Equipment is compliant with all currently applicable regulatory requirements for Electromagnetic Compatibility, Product Safety, and Environmental Regulations where placed on market.

Detailed regulatory information and verification of compliance is available at the Dell Regulatory Compliance website. [http://dell.com/regulatory\\_compliance](http://dell.com/regulatory_compliance)

## Software

### Software features

Global Compression™, Data Invulnerability Architecture, including inline verification and integrated dual disk parity RAID 6, snapshots, telnet, FTP, SSH, email alerts, scheduled capacity reclamation, Ethernet failover and aggregation, Link Aggregation Control Protocol (LACP), VLAN tagging, IP aliasing, DD Boost, DD Encryption, DD Extended Retention, DD Retention Lock, DD Virtual Tape Library (VTL) (for open systems and IBMi operating environments). Available add-ons include: DD Boost, Cloud Tier for long-term retention, Cloud Disaster Recovery, and DD Replicator.

### System management

PowerProtect DD Management Center, DD System Manager, SNMP, and command line management interface.

### Data management

NFS v3 over TCP, CIFS and DD Boost over 1GbE or 10GbE or Fibre Channel, tape library emulation (VTL) over Fibre Channel, and NDMP Tape Server.

## FS25 SSD shelf

### External interface (host/expansion)

Dual 4 lane 12Gb/s serial attached SCSI II (SAS) ports per Link Control Card (LCC)—one for host and one for expansion

### Connector type

SFF-8088 connectors (mini-SAS)

### SAS cable length

Up to 5 meter

### Disk drives

25-drive bays, supports, 2.5-inch form factor 3.84 TB SSD drives

### Dimensions

Height: 3.40 in (8.46 cm)

Width: 17.5 in (44.45 cm)

Depth: 13.0 in (33.02 cm)

Weight: 22.0 lbs (10.0 kg)

### Operational

Power (VA): 187VA or 136W, (100-240V ~, 47 to 63 Hz)

Thermal Rating: 464 BTU/hr

### Environmental

Ambient temperature: 50° F to 95° F (10° C to 35° C)

Temperature gradient: 36° F/hr (20°C/hr)

Relative humidity extremes: 20% to 80% noncondensing

Elevation: -50 to 10000 ft (-16 to 3050 m)

Non-Operating (Transportation)

Temperature:

Ambient temperature: -40° F to 149° F (-40° C to 65° F)

Temperature gradient: 36° F/hr (20°C/hr)

Relative humidity: 10% to 90% noncondensing

Elevation: -50 to 35,000 ft (-16 to 10,600 m)

## DS60 Expansion shelf

### External interface (host/expansion)

Quad 8 lane 12 Gb/s serial attached SCSI II (SAS) ports per Link Control Card (LCC)—Half of each port is blocked allowing the use of standard mini-SAS-HD connectors – one port is used for the host connection and the other is used for expansion.

### Connector type

SFF-8088 connectors (mini-SAS)

### SAS cable length

Up to 5 meter

### Disk drives

60-drive bays per DS60 expansion shelf, support low profile, one inch high, 3.5-inch form factor drives

Drive Choices: SAS (12 Gb/s), 4 TB or 8 TB

### Dimensions

Height: 8.75 in (22.23 cm) 5U (4U plus 1U cable management tray)

Width including rails: 17.50 in (44.45 cm)

Depth (chassis only): 34.5 in (87.63 cm)

Maximum depth (fully configured): 36.4 in (92.46 cm)

Weight: 225.0 lbs (90.7 kg) (with FRUs installed)

### Operational

Power (VA): 785 VA or 770W (200-240V ~, 47 to 63 Hz)

Thermal Rating: 2627 BTU/hr

### Environmental

Ambient temperature: 41° F to 104° F (5° C to 40° C)

Temperature gradient: 18° F/hr (10° C/hr)

Relative humidity extremes: 20% to 80% noncondensing

Elevation: -50 to 7500 ft (-16 to 2300 m)

Non-Operating (Transportation) Temperature:

Ambient temperature: -40° F to 149° F (-40° C to 65° F)

Temperature gradient: 45° F/hr (25°C/hr)

Relative humidity: 10% to 90% noncondensing

Elevation: -50 to 35,000 ft (-16 to 10,600 m)

## ES40 Expansion shelf

### External interface (host/expansion)

Dual 4 lane 12Gb/s serial attached SCSI II (SAS) ports per Link Control Card (LCC)—one for host and one for expansion

### Connector type

SFF-8088 connectors (mini-SAS)

### SAS cable length

Up to 5 meter

### Disk drives

15-drive bays, supports, 3.5-inch form factor 4 TB 7.2K SAS drives

### Dimensions

Height: 5.25 in (13.33 cm)

Width: 17.5 in (44.45 cm)

Depth: 14 in (35.56 cm)

Weight: 68 lbs (30.8 kg)

### Operational

Power (VA): 272VA or 232W, (100-240V ~, 47 to 63 Hz)

Thermal Rating: 792 BTU/hr

### Environmental

Ambient temperature: 50° F to 95° F (10° C to 35° C)

Temperature gradient: 36° F/hr (20°C/hr)

Relative humidity extremes: 20% to 80% noncondensing

Elevation: -50 to 10000 ft (-16 to 3050 m)

Non-Operating (Transportation) Temperature:

Ambient temperature: -40° F to 149° F (-40° C to 65° F)

Temperature gradient: 36° F/hr (20°C/hr)

Relative humidity: 10% to 90% noncondensing

Elevation: -50 to 35,000 ft (-16 to 10,600 m)

## DD series rack

### Power configuration

Single phase is standard, optional 3-phase.

Two power domains (base and extended), each redundant.

### Power inlet count

Either two or four (Single Phase DD9900 HA with 4x DS60 or DD9900/DD9900 HA with 5x DS60)

### Plug types

L6-30P, 56PA322, 332P6W, 3750DP, L7-30, 60309, CS-8365C, 9P54U2T, 3P-Wye, or 3P-Wye Flying Leads

### PDU Power capacity

single-phase, 24A, 200-240 V~, 50/60 Hz

three-phase 3W+G, 40A, 200-240 V~, 50/60 Hz

three-phase 3W+N+PE, 24A, 200-240 V~, 50/60 Hz

### Dimensions

40U available rack capacity

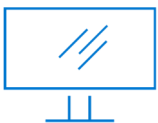
Height: 75 in (190.8 cm)

Width: 24.0 in (61.1 cm)

Depth: 39.0 in (99.2 cm)

Weight: 380 lbs (173 kg) when empty

A 60cmx120cm 42 U rack will be available in Q1 2020



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