DELL EMC
POWERPROTECT DD SERIES APPLIANCES

Dell EMC PowerProtect DD Series Appliances is the ultimate protection storage appliance that is the next generation of the existing Dell EMC Data Domain appliances. PowerProtect DD is the #1 customer choice of data protection and is now setting the bar for data management from edge to core to cloud.

PowerProtect DD appliances deliver a fast, secure and an efficient solution that is optimized for multi-cloud data protection and meets future demands via a multi-dimensional appliance portfolio.

PowerProtect DD Series Appliances comprises of PowerProtect DD9900, PowerProtect DD9400, PowerProtect DD6900, PowerProtect DD3300 and a software-defined appliance with PowerProtect DD Virtual Edition (DDVE).

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Throughput</th>
<th>Max Throughput (DD Boost)</th>
<th>Logical Capacity¹</th>
<th>Logical Capacity with Cloud Tier</th>
<th>Usable Capacity</th>
<th>Usable Capacity with Cloud Tier</th>
<th>ES40 Shelf</th>
<th>DS60 Shelf</th>
<th>FS25 Shelf</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD3300</td>
<td>Up to 4.2 TB/hr</td>
<td>Up to 7.0 TB/hr</td>
<td>Up to 1.6PB</td>
<td>Up to 4.8PB</td>
<td>4TB – 32TB</td>
<td>Up to 96TB</td>
<td>N/A</td>
<td>4TB 7.2K SAS</td>
<td>3.84TB SSD²</td>
</tr>
<tr>
<td>DD6900</td>
<td>Up to 15 TB/hr</td>
<td>Up to 33 TB/hr</td>
<td>Up to 18.7PB</td>
<td>Up to 56.1PB</td>
<td>24TB – 288TB</td>
<td>Up to 864TB</td>
<td>4TB 7.2K SAS</td>
<td>8TB 7.2K SAS³</td>
<td>3.84TB SSD²</td>
</tr>
<tr>
<td>DD9400</td>
<td>Up to 26 TB/hr</td>
<td>Up to 57 TB/hr</td>
<td>Up to 49.9PB</td>
<td>Up to 149.8PB</td>
<td>192TB – 768TB</td>
<td>Up to 2.3PB</td>
<td>8TB 7.2K SAS</td>
<td>8TB 7.2K SAS</td>
<td>3.84TB SSD²</td>
</tr>
<tr>
<td>DD9900</td>
<td>Up to 41 TB/hr</td>
<td>Up to 94 TB/hr</td>
<td>Up to 97.5PB</td>
<td>Up to 228PB</td>
<td>576TB – 1.5PB</td>
<td>Up to 3.5PB</td>
<td>8TB 7.2K SAS³</td>
<td>8TB 7.2K SAS</td>
<td>3.84TB SSD²</td>
</tr>
</tbody>
</table>

¹Logical 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.

²High 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

³Supported but not for factory racked orders

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<table>
<thead>
<tr>
<th></th>
<th>DD3300</th>
<th>DD6900</th>
<th>DD9400</th>
<th>DD9900</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Built-In Networking</strong></td>
<td>1x Mgmt port</td>
<td>1x Mgmt port</td>
<td>1x Mgmt port</td>
<td>1x Mgmt port</td>
</tr>
<tr>
<td></td>
<td>4x 10G Base-T</td>
<td>4x 10G BASE-T or 4x 10G SFP+</td>
<td>4x 10G BASE-T or 4x 10G SFP+</td>
<td>4x 10G BASE-T or 4x 10G SFP+</td>
</tr>
<tr>
<td><strong>Optional Networking with I/O Cards</strong></td>
<td>The 10GBase-T card can auto-negotiate down to support 1GbE</td>
<td>Up to four quad port 10G Base-T, which can auto-negotiate down to support 1GbE</td>
<td>Up to four quad port 10G Base-T, which can auto-negotiate down to support 1GbE</td>
<td>Up to four quad port 10G Base-T (including built-in), which can auto-negotiate down to support 1GbE</td>
</tr>
<tr>
<td></td>
<td>Up to single dual-port 10GbE SLICs: Optical</td>
<td>Up to four quad port 10G SFP+ (including built-in)</td>
<td>Up to four quad port 25G SFP+</td>
<td>Up to four dual port 100G</td>
</tr>
<tr>
<td></td>
<td>Single quad-port 16Gbps FC HBA</td>
<td>Up to three dual port 25G SFP+</td>
<td>Up to 3 quad port 16Gb FC HBA</td>
<td>Up to four quad port 16Gb FC HBA</td>
</tr>
</tbody>
</table>

|                        |                        |                        |                        |                        |
| **Weight (Lbs)**       | 16 HDDs: 73 lbs        | 6 SSDs: 73 lbs         | 9 SSDs: 73 lbs         | 4 SSDs: 110 lbs        |
| **Dimensions**         | 17.1” x 29.6” x 3.5”   | 17.1” x 29.6” x 3.5”   | 17.1” x 29.6” x 3.5”   | 17.1” x 32.0” x 5.2”   |
| **Power**              | 16 HDDs: 429 VA        | 6 SSDs: 364 VA         | 9 SSDs: 647 VA         | 4 SSDs: 1117 VA        |
| **Thermal Rating (Watts)** | 16HDDs: 425 Watts      | 6 SSDs: 352 Watts      | 9 SSDs: 635 Watts      | 4 SSDs: 1111 Watts     |
| **Thermal Rating (BTU/Hr)** | 16HDDs: 1450 Watts  | 6 SSDs: 1201 btu/h     | 9 SSDs: 2167 btu/h     | 4 SSDs: 3791 btu/h     |
| **Operating Temperature/Altitude** | 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 |
| **Non-Operating (Transportation) Temperature** | -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) |
| **Operating Humidity** | 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. |
| **Operation Acoustic Noise (Sound Power)** | LWAd: 7.8 bels        | 7.2 bels               | 7.6 bels               | 8.6 bels               |
| **Operation Acoustic Noise (Sound Pressure)** | 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 12 Gb/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 (8.64 cm)
- **Width**: 17.5 in (44.45 cm)
- **Depth**: 3.40 in (8.64 cm)
- **Weight**: 22.0 lbs (10.0 kg)

**Operational**

- **Power (VA)**: 187 VA or 136 W, (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)

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**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)
- **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

**Operational**

- **Power (VA)**: 785 VA or 770 W (200-240V ~, 47 to 63 Hz)
- **Thermal Rating**: 2627 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**: 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)

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**ES40 Expansion shelf**

- **External interface (host/expansion)**
- Dual 4 lane 12 Gb/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)**: 272 VA or 232 W, (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)
PowerProtect DD 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