



# DELL POWERPROTECT DP SERIES APPLIANCES

SIMPLE, EFFICIENT AND AGILE DATA PROTECTION AT A LOW COST-TO-PROTECT.

The DP series, the next generation of the Integrated Data Protection Appliance, simplifies deployment and management, while delivering powerful, enterprise-class data protection capabilities for mid-size and enterprise organizations at a low cost-to-protect than competing solutions.

It is an integrated solution that offers complete backup, replication, recovery, deduplication, instant access and restore, search & analytics, seamless VMware integration—plus, cloud readiness with disaster recovery and long-term retention to the cloud—all in a single appliance.

The DP series delivers a low cost-to-protect and is part of the Dell Technologies APEX program. Dell is committed to improving energy efficiency in our storage portfolio with each generation.

## Specifications

Table 1. DP series Performance and Capacity

Features	DP4400	DP5900
<b>MAXIMUM THROUGHPUT<sup>1</sup></b>	Up to 9 TB/hr	Up to 33 TB/hr
<b>MAXIMUM LOGICAL CAPACITY<sup>1,2</sup></b>	4.8 PB	18.7 PB
<b>W/ CLOUD TIER</b>	14.4 PB <sup>2</sup>	56.1 PB
<b>MAXIMUM USABLE CAPACITY</b>	8 to 96 TB <sup>3</sup>	96 to 288 TB
<b>W/ CLOUD TIER</b>	Up to 288 TB <sup>2</sup>	Up to 864 TB
<b>PROCESSOR</b>	Intel Xeon	Intel Xeon
<b>DRIVE TYPE</b>	SAS 12 TB	SAS 4 TB
<b>BUILT- IN NETWORKING</b>	8x RJ45 or 8x SFP Optical links (only two req'd) <sup>4</sup>	4x40GbE Customer uplinks; Each Quad SFP port can be split to 4x10GbE uplinks; Only two required

## Specifications

Table 1. DP series Performance and Capacity

Features	DP4400	DP5900
<b>WEIGHT (LBS)</b>	72.8 lbs. <sup>5</sup>	450 lbs.
<b>DIMENSIONS</b>	17.09 x 28.17 x 3.42 (inches WDH) 434 x 715.5 x 86.8 (mm WDH)	40U rack Height: 75 in (190.8 cm); Width: 24.0 in (61.1 cm); Depth: 39.0 in (99.2 cm)
<b>POWER (100-120 / 200-240 V ≈ 50/60HZ)</b>	475 VA (MAX @ 35°C)	Up to 2,830 VA (200-240 V only)
<b>THERMAL RATING (BTU/HR)</b>	1,620	9,300
<b>OPERATING TEMPERATURE / ALTITUDE</b>	10°C to 35°C, 35°C at 7,500 ft.	10°C to 35°C, 35°C at 7,500 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)
<b>OPERATING HUMIDITY</b>	10% to 80% relative humidity with 29°C (84.2°F), maximum dew point	20% to 80% non-condensing

### DP series Rack

#### Power configuration

DP4400: Two single-phase inlet connections. All power connections redundant.

All other systems: Single phase is standard, optional 3-phase. For rack 1, four power inlet connections for single phase. Two power inlet connections for 3-phase. For rack 2, if required, two power inlet connections. All power connections redundant.

#### Plug types

Single phase: NEMA L6-30p or IEC 60309 332P6

3-phase: Consult your local Dell representative

#### Power requirements

Refer to table above

#### AC protection

30A site circuit breaker on each power domain

#### 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

## 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. The host controller runs at 12 Gb/s to the DS60.

### SAS cable length

Up to 5 meters

### Disk drives

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

SAS (12 Gb/s), 4 TB, 7200 RPM

### 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 60 HDD installed)

### Operational (included in information above)

Power: 980 VA or 931W (200-240V ~, 47 to 63 Hz)

Thermal Rating: 3177 BTU/hr.

### Operating:

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):

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

### SAS cable length

Up to 5 meter

### Disk drives

15-drive bays per ES30 expansion shelf, support low profile, one inch high, 3.5-inch form factor drives

SAS (12 Gb/s), 3TB, 7200 RPM

### Dimensions

Height: 5.25 in (13.34 cm)

Width: 19.0 in (48.3 cm)

Depth: 14.0 in (35.56 cm)

Weight: 68 lbs (30.8 kg)

### Operational (included in information above)

Power (VA): 280VA or 235W, (100-240V ~, 47 to 63 Hz)

Thermal Rating: 800 BTU/hr

### Operating Temperature:

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)



[Learn More](#) about DP series appliances



[Contact](#) a Dell Technologies Expert

<sup>1</sup> Top-end values are maximums – actual capacity & throughput depends on application workload, deduplication, and other settings.

<sup>2</sup> Mix of typical enterprise backup data (file systems, databases, email, developer files). The low end of capacity range represents a full backup weekly or monthly, incremental backup daily or weekly, to system capacity. The top end of the range represents full backup daily, to system capacity. All capacity values are calculated using Base10 (i.e., 1 TB = 1,000,000,000,000 bytes).

<sup>3</sup> If starting at less than 24TB, hardware upgrade kit is required to bridge from 24TB to larger capacities. The upgrade is expected to take up to 90 minutes to complete.

<sup>4</sup> RJ45 or SFP retrofit option will provide flexibility for existing DP4400 customers to better accommodate to their lab networking requirements. These network cards are customer installable and configurable.

<sup>5</sup> Weight is of a fully populated DP4400

<sup>6</sup> Dell Information Technology Equipment is compliant with all currently applicable regulatory requirements for Electromagnetic Compatibility, Product Safety, and Environmental Regulations where placed on market. Regulatory information and verification of compliance is available at Dell Regulatory Compliance site. [http://dell.com/regulatory\\_compliance](http://dell.com/regulatory_compliance)