DELLEMC

SC All-Flash

SC Hybrid

Dell EMC SC Series Expansion Enclosures

DELL EMC SC SERIES EXPANSION ENCLOSURES
Versatile, high-performance storage

SCALE ON DEMAND

Dell EMC SC Series expansion enclosures help you store more data and reduce overall TCO by seamlessly increasing the capacity of your SC arrays. Extend the value of each storage investment with enterprise-ready solutions designed to maintain great performance, even as your environment scales to multiple petabytes per array.[1]

FUTURE FLEXIBILITY

Intermix different drive types (SAS, NL-SAS and SSD) in the same enclosure, with a variety of expansion form factor options, including ultra-dense enclosures. Adding a new enclosure is simple — the new drives can be automatically assimilated into the existing virtualized pool or set up as their own standalone pool. Easily evolve from one configuration to another without having to replace drives.

ADVANCED EFFICIENCY

SC Series expansion enclosures also help lower power requirements and protect your data with high-efficiency, hot-swappable power supplies and advanced cooling. Each enclosure helps you leverage SC Series technology advantages, such as Federation, Intelligent Data Reduction and RAID tiering to lower costs and save storage space. Additionally, award-winning installation and support services ensure deployment goes smoothly and your SC environment continues to meet your needs over time.

Specifications below are arranged in the following sections, according to array model.

Expansion for	Expansion for	Expansion for
- SC9000 - SC8000 - SC7020 - SC5020 - SC4020 - SC7020F - SC5020F	- SCv3000 - SCv3020	- SCv2000 - SCv2020 - SCv2080

Expansion for SC9000, SC8000, SC7020, SC5020, SC4020, SC7020F, SC5020F

	SC400	SC420	SC420F	SC460
SUPPORTED CONTROLLERS	SC9000, SC8000*, SC7020, SC5020, SC4020* * Note this 12Gb SAS enclosure supports the legacy SC8000 and SC4020 arrays, but will run at 6Gb speed.	SC9000, SC8000*, SC7020, SC5020, SC4020* * Note this 12Gb SAS enclosure supports the legacy SC8000 and SC4020 arrays, but will run at 6Gb speed.	SC7020F, SC5020F	SC9000, SC8000*, SC7020, SC5020, SC4020* * Note this 12Gb SAS enclosure supports the legacy SC8000 and SC4020 arrays, but will run at 6Gb speed.
CONTROLLER-ENCLOSURE CONNECTION (DUAL MODULES)	12Gb SAS	12Gb SAS	12Gb SAS	12Gb SAS
DRIVE SLOT SIZE	3.5"^{2}	2.5"	2.5"	3.5"
MAX DRIVES PER ENCLOSURE	12	24	24	60
MAX RAW CAPACITY PER ENCLOSURE	120TB	368.64TB	368.64TB	600TB
FORM FACTOR	2U	2U	2U	4U (5U with cable mgmt)
INTERMIXED DRIVE TYPE SUPPORT	Yes	Yes	Yes	7.2K HDD only
SAS DRIVE SUPPORT (Available on new enclosure purchases)	3.5" HDD 4TB, 7.2K 6TB, 7.2K 6TB, 7.2K SED 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED	2.5" HDD 600GB, 15K 600GB, 15K SED 1.2TB, 10K 900GB, 15K SED 900GB, 15K 900GB, 10K 1TB, 7.2K 1.8TB, 10K 1.8TB, 10K SED 2.5" Write-intensive SSD 800GB 1.6TB 1.6TB SED 2.5" Read-intensive SSD 960GB 1.92TB 1.92TB SED 3.84TB 7.68TB 15.36TB	2.5" Write-intensive SSD 800GB 1.6TB 1.6TB SED 2.5" Read-intensive SSD 960GB 1.92TB 1.92TB SED 3.84TB 7.68TB 15.36TB	3.5" HDD 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED

	SC400	SC420	SC420F	SC460
CHASSIS				
HEIGHT X WIDTH X DEPTH	8.7 cm (3.43 in) x 48.2 cm (18.98 in) x 59.4 cm (23.39 in)	8.7 cm (3.43 in) x 48.2 cm (18.98 in) x 54.1 cm (21.30 in)	8.7 cm (3.43 in) x 48.2 cm (18.98 in) x 54.1 cm (21.30 in)	22.23 cm (8.75 in)w/cable mgmt tray 17.5 cm(6.89 in)w/o tray x 44.45 cm (17.5 in) x 92.46 cm (36.4 in) fully configured. 87.63 cm (34.5 in) chassis only.
WEIGHT AT MAXIMUM CONFIGURATION	28.59 kg (63.03 lb)	24.2 kg (53.35 lb)	24.2 kg (53.35 lb)	102.05 kg (225 lb)
WEIGHT AT EMPTY	9.0 kg (19.84 lb)	8.8kg (19.4 lb)	8.8 kg (19.4 lb)	62 kg (136.68 lb)
RACK SUPPORT	ReadyRails™ II static rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting			Titan 1M/Titan-D 1.2M
POWER				
POWER/WATTAGE	Two 600W hot-swappable, redundant power supplies; 450W maximum draw			Two 1600W hot-swappable, redundant power supplies; 1600W maximum power
HEAT DISSIPATION	2,047 BTU/hr (at 600W) 1,621 BTU/hr			2177 BTU/hr (at 2184W) 6,144 BTU/hr
VOLTAGE	100-240 VAC, auto sensing			200 - 240 VAC+ 10% auto sensing
FREQUENCY	50/60 Hz			
AMPERAGE	8.6 A at 100 V, 4.3 A at 240 V Maximum power draw: 74 amps			7.4 A at 241V Max
ENVIRONMENTAL OPERATING CONDITIONS				
OPERATING TEMPERATURE	SC400: 5° to 35°C (41° to 95) with a maximum temperature gradation of 10°C per hour SC420: 10° to 35°C (50° to 95) with a maximum temperature gradation of 10°C per hour For altitudes above 2950 ft (900 m), the maximum operating temperature is derated 1°F per 550 ft (168 m).			5˚ to 40˚C (41˚F to 104˚F)
NON-OPERATING TEMPERATURE	–40 to 65°C (–40 to 149°F) with a maximum temperature gradation of 20°C per hour			-40˚C to 65˚C (-40˚F to 149˚F)
OPERATING HUMIDITY	8% to 85% (noncondensing) with a maximum humidity gradation of 10% per hour 20 to 80%			
NON-OPERATING HUMIDITY (NON-CONDENSING)	5% to 95% (non-condensing)			10 to 90%
OPERATING ALTITUDE	–16 to 3048 m (–50 to 10,000 ft)			-16 to 2300 m (-50 to 7500ft)
NON-OPERATING ALTITUDE	–16 to 10,600 m (–50 to 35,000 ft)			-16 to 10,600 m (-50 to 35,000ft)

Expansion for SCv3000 Series

	SCv300	SCv320	SCv360
SUPPORTED CONTROLLERS	SCv3000, SCv3020	SCv3000, SCv3020	SCv3000, SCv3020
CONTROLLER-ENCLOSURE CONNECTION (DUAL MODULES)	12Gb SAS		
DRIVE SLOT SIZE	3.5"	2.5"	3.5"
MAX DRIVES PER ENCLOSURE	12	24	60
MAX RAW CAPACITY PER ENCLOSURE	120TB	92.16TB	600TB
FORM FACTOR	2U	2U	4U (5U with cable mgmt. tray)
INTERMIXED DRIVE TYPE SUPPORT	Yes	Yes	Yes
SAS DRIVE SUPPORT (Available on new enclosure purchases)	3.5" HDD 1.8TB, 10K 4TB, 7.2K 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED	2.5" HDD 600GB, 15K 900GB, 15K 900GB, 15K SED 900GB, 10K 900GB, 10K 1TB, 7.2K 1.2TB, 10K 1.8TB, 10K 1.8TB, 10K SED 2.5" Write-intensive SSD 800GB 1.6TB 1.6TB SED 2.5" Read-intensive SSD 480GB 960GB 1.92TB 1.92TB SED 3.84TB	3.5" HDD 4TB, 7.2K 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED
CHASSIS			
HEIGHT X WIDTH X DEPTH	8.79 cm (3.46 in) x 48.2 cm (18.98 in) x 59.4 cm (22.67 in)	8.79 cm (3.46 in) x 48.2 cm (18.98 in) x 54.1 cm (21.3 in)	22.23 cm (8.75 in) w/cable mgmt tray 17.5 cm(6.89 in) w/o tray x 44.45 cm (17.5 in) x 92.46 cm (36.4 in) fully configured. 87.63 cm (34.5 in) chassis only.

	SCv300	SCv320	SCv360
WEIGHT AT MAXIMUM CONFIGURATION	28.59 kg (63.03 lb)	24 kg (53 lb)	102.05 kg (225 lb)
WEIGHT AT EMPTY	9 kg (19.84 lb) minus drives	8.8 kg (19.4 lb) minus drives	62 kg (136.68 lb) minus drives
RACK SUPPORT	ReadyRails™ II static rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting		Titan 1M/Titan-D 1.2M

POWER

	SCv300	SCv320	SCv360
POWER/WATTAGE	580W	580W	1660W
HEAT DISSIPATION	1980 BTU	1980 BTU	2177 BTU
VOLTAGE	100-240 VAC	100-240 VAC	200-240 VAC
FREQUENCY	50/60 Hz	50/60 Hz	50/60 Hz
AMPERAGE	7.6-3.0A (x2)	7.6-3.0A (x2)	7.4 A at 241V Max

ENVIRONMENTAL OPERATING CONDITIONS

	SCv300	SCv320	SCv360
OPERATING TEMPERATURE	SC400: 5° to 35°C (41° to 95) with a maximum temperature Gradation of 10°C per hour. SC420: 10° to 35°C (50° to 95) with a maximum temperature Gradation of 10°C per hour. For altitudes above 2950 ft (900 m), the maximum operating temperature is derated 1°F per 550 ft (168 m).		5˚ to 40˚C (41˚F to 104˚F)
NON-OPERATING TEMPERATURE	–40 to 65°C (–40 to 149°F) with a maximum temperature gradation of 20°C per hour)		-40˚C to 65˚C (-40˚F to 149˚F)
OPERATING HUMIDITY	8% to 85% (noncondensing) with a maximum humidity gradation of 10% per hour 20 to 80%		
NON-OPERATING HUMIDITY	5% to 95% (non-condensing)		10 to 90%
OPERATING ALTITUDE	–16 to 3048 m (–50 to 10,000 ft		-16 to 2300 m (-50 to 7500ft)
NON-OPERATING ALTITUDE	16 to 10,600 m (–50 to 35,000 ft)		-16 to 10,600 m (-50 to 35,000ft)

Expansion for SCv2000 Series

	SC100	SC120	SC180
SUPPORTED CONTROLLERS	SCv2000, SCv2020	SCv2000, SCv2020	SCv2080
CONTROLLER-ENCLOSURE CONNECTION (DUAL MODULES)	6Gb SAS		

	SC100	SC120	SC180
DRIVE SLOT SIZE	3.5"	2.5"	2.5" or 3.5"
MAX DRIVES PER ENCLOSURE	12	24	84 (the minimum number HDDs or SSDs is 28; drives can be added in increments of 14 due to thermal consideration)
MAX RAW CAPACITY PER ENCLOSURE	72TB	92.16TB	504TB
FORM FACTOR	2U	2U	5U
INTERMIXED DRIVE TYPE SUPPORT	Yes	Yes	Yes
SAS DRIVE SUPPORT (Available on new enclosure purchases)	3.5" HDD 2TB, 7.2K 4TB, 7.2K 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K	2.5" HDD 600GB, 15K 900GB, 15K 600GB, 10K 900GB, 10K 1TB, 7.2K 1.2TB, 10K 1.8TB, 10K 2.5" Write-intensive SSD 400GB 800GB 1.6TB 2.5" Read-intensive SSD 480GB 960GB 1.92TB 3.84TB	3.5" HDD 2TB, 7.2K 4TB, 7.2K 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 2.5" HDD 1.2TB, 10K 1.8TB, 10K

CHASSIS

	SC100	SC120	SC180
HEIGHT X WIDTH X DEPTH	8.7 cm (3.43 in) x 48.2 cm (18.98 in) x 54.1 cm (21.3 in)	8.79 cm (3.46 in) x 48.2 cm (18.98 in) x 52.3 cm (20.59 in)	22.230 cm (8.8 in) x 48.26cm (19 in) x 91.44 cm (36 in)
WEIGHT AT MAXIMUM CONFIGURATION	28.9 kg (63.9 lb)	24 kg (53 lb)	130.1 kg (287 lb)
WEIGHT AT EMPTY	20.6 kg (45.4 lb) minus drives	18.7 kg (41 lb) minus drives	62.1kg (137 lb) minus drives
RACK SUPPORT	ReadyRails™ II static rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting		Built-in rack support

POWER

	SC100	SC120	SC180
POWER/WATTAGE	580W	580W	2800W
HEAT DISSIPATION	1980 BTU	1980 BTU	9554 BTU
VOLTAGE	100-240 VAC	100-240 VAC	200-240 VAC

	SC100	SC120	SC180
FREQUENCY	50/60 Hz	50/60 Hz	50/60 Hz
AMPERAGE	7.6-3.0A (x2)	7.6-3.0A (x2)	8.6-4.3A (x2)

ENVIRONMENTAL OPERATING CONDITIONS

OPERATING TEMPERATURE	10° to 35°C (50° to 95°F) with no direct sunlight on the equipment; maximum temperature gradation of 20°C per hour
NON-OPERATING TEMPERATURE	–40 to 65°C (–40 to 149°F) at a maximum altitude of 12,000 m (39,370 ft)
NON-OPERATING TEMPERATURE	10% to 80% (non-condensing) with 29°C (84.2°F) maximum dew point
NON-OPERATING HUMIDITY (NON-CONDENSING)	5% to 95% (non-condensing) with 33°C (91°F) maximum dew point
INLET TYPE	0 to 3,048 m (0 to 10,000 ft) NOTE: Up to 35°C maximum temperature is reduced by 1°C/300 m (1°F/547 ft) above 950 m (3,117 ft)

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OEM-ready version available

From bezel to BIOS to packaging, your storage arrays can look and feel as if they were designed and built by you. Available on specific models. For more information, visit Dell.com/OEM.

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