

# DELL EMC SC SERIES EXPANSION ENCLOSURES

Versatile, high-performance storage

## SC All-Flash



## SC Hybrid



## Dell EMC SC Series Expansion Enclosures

### 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.<sup>1</sup>

### 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.**

12Gb SAS Expansion for	6Gb SAS Expansion for	12Gb Expansion for SCv3000 Series	6Gb Expansion for SCv2000 Series
SC9000	SC9000		
SC7020	SC8000		
SC5020	SC7020		
SC7020F	SC4020		
SC5020F			

## 12Gb SAS Expansion for SC9000, SC7020, SC5020, SC7020F, SC5020F

	SC400	SC420	SC420F	SC460
<b>SUPPORTED CONTROLLERS</b>	SC9000, SC7020, SC5020	SC9000, SC7020, SC5020	SC7020F, SC5020F	SC9000, SC5020, SC7020,
<b>CONTROLLER-ENCLOSURE CONNECTION (DUAL MODULES)</b>	12Gb SAS	12Gb SAS	12Gb SAS	12Gb SAS
<b>DRIVE SLOT SIZE</b>	3.5"²	2.5"	2.5"	3.5"
<b>MAX DRIVES PER ENCLOSURE</b>	12	24	24	60
<b>MAX RAW CAPACITY PER ENCLOSURE</b>	120TB	368.64TB	368.64TB	600TB
<b>FORM FACTOR</b>	2U	2U	2U	4U (5U with cable mgmt)
<b>INTERMIXED DRIVE TYPE SUPPORT</b>	Yes	Yes	Yes	7.2K HDD only
<b>SAS DRIVE SUPPORT</b> (Available on new enclosure purchases)	<b>3.5" HDD</b> 4TB, 7.2K 6TB, 7.2K 6TB, 7.2K SED 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED	<b>2.5" HDD</b> 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  <b>2.5" Write-intensive SSD</b> 800GB 1.6TB 1.6TB SED  <b>2.5" Read-intensive SSD</b> 960GB 1.92TB 1.92TB SED 3.84TB 7.68TB 15.36TB	<b>2.5" Write-intensive SSD</b> 800GB 1.6TB 1.6TB SED  <b>2.5" Read-intensive SSD</b> 960GB 1.92TB 1.92TB SED 3.84TB 7.68TB 15.36TB	<b>3.5" HDD</b> 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED

	SC400	SC420	SC420F	SC460
<b>CHASSIS</b>				
<b>HEIGHT X WIDTH X DEPTH</b>	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.
<b>WEIGHT AT MAXIMUM CONFIGURATION</b>	28.59 kg (63.03 lb)	24.2 kg (53.35 lb)	24.2 kg (53.35 lb)	102.05 kg (225 lb)
<b>WEIGHT AT EMPTY</b>	9.0 kg (19.84 lb)	8.8kg (19.4 lb)	8.8 kg (19.4 lb)	62 kg (136.68 lb)
<b>RACK SUPPORT</b>	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
<b>POWER</b>				
<b>POWER/WATTAGE</b>	Two 600W hot-swappable, redundant power supplies; 450W maximum draw			Two 1600W hot-swappable, redundant power supplies; 1600W maximum power
<b>HEAT DISSIPATION</b>	2,047 BTU/hr (at 600W) 1,621 BTU/hr			2177 BTU/hr (at 2184W) 6,144 BTU/hr
<b>VOLTAGE</b>	100-240 VAC, auto sensing			200 - 240 VAC± 10% auto sensing
<b>FREQUENCY</b>	50/60 Hz			
<b>AMPERAGE</b>	8.6 A at 100 V, 4.3 A at 240 V Maximum power draw: 74 amps			7.4 A at 241V Max
<b>ENVIRONMENTAL OPERATING CONDITIONS</b>				
<b>OPERATING TEMPERATURE</b>	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)
<b>NON-OPERATING TEMPERATURE</b>	-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)
<b>OPERATING HUMIDITY</b>	8% to 85% (noncondensing) with a maximum humidity gradation of 10% per hour 20 to 80%			
<b>NON-OPERATING HUMIDITY (NON-CONDENSING)</b>	5% to 95% (non-condensing)			10 to 90%
<b>OPERATING ALTITUDE</b>	-16 to 3048 m (-50 to 10,000 ft)			-16 to 2300 m (-50 to 7500ft)
<b>NON-OPERATING ALTITUDE</b>	-16 to 10,600 m (-50 to 35,000 ft)			-16 to 10,600 m (-50 to 35,000ft)

## 6Gb SAS Expansion for SC9000, SC8000, SC7020, SC4020

	SC200	SC220	SC280
<b>SUPPORTED CONTROLLERS</b>	SC9000, SC8000, SC7020, SC4020	SC9000, SC8000, SC7020, SC4020	SC9000, SC8000, SC7020, SC4020
<b>CONTROLLER-ENCLOSURE CONNECTION (DUAL MODULES)</b>	6Gb SAS	6Gb SAS	6Gb SAS
<b>DRIVE SLOT SIZE</b>	3.5"	2.5"	3.5"
<b>MAX DRIVES PER ENCLOSURE</b>	12	24	84
<b>MAX RAW CAPACITY PER ENCLOSURE</b>	120TB	92.16TB	840TB
<b>FORM FACTOR</b>	2U	2U	5U
<b>INTERMIXED DRIVE TYPE SUPPORT</b>	Yes	Yes	7.2K HDD only
<b>SAS DRIVE SUPPORT</b> (Available on new enclosure purchases)	<b>3.5" HDD</b> 4TB, 7.2K 6TB, 7.2K 6TB, 7.2K SED 8TB, 7.2K 10TB, 7.2K	<b>2.5" HDD</b> 600GB, 15K 600GB, 15K SED 900GB, 10K 900GB, 15K 900GB, 15K SED 1TB, 7.2K  1.2TB, 10K 1.2TB, 10K SED 1.8TB, 10K 1.8TB, 10K SED  <b>2.5" Write-intensive SSD</b> 400GB 800GB 1.6TB 1.6TB SED  <b>2.5" Read-intensive SSD</b> 480GB 960GB 1.92TB 1.92TB SED 3.84TB	<b>3.5" HDD</b> 4TB, 7.2K 6TB, 7.2K 6TB, 7.2K SED 10TB, 7.2K

	SC200	SC220	SC280
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### CHASSIS

<b>HEIGHT X WIDTH X DEPTH</b>	8.7 cm (3.43 in) x 48.2cm (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)	22.23 cm (8.8 in) x 48.26 cm (19 in) x 91.44 cm (36 in)
<b>WEIGHT AT MAXIMUM CONFIGURATION</b>	28.39 kg (62.6 lb)	23.31 kg (51 lb)	130.7 kg (287.5 lb)
<b>WEIGHT AT EMPTY</b>	8.84 kg (19.5 lb)	8.61 kg (19 lb)	62 kg (136.68 lb)
<b>RACK SUPPORT</b>	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

<b>POWER/WATTAGE</b>	Two 700W hot-swappable, redundant power supplies; 450W maximum draw	Two 2184W hot-swappable, redundant power supplies; 1800W maximum power
<b>HEAT DISSIPATION</b>	2,389 BTU/hr (at 700W) 1,621 BTU/hr	7,455 BTU/hr (at 2184W) 6,144 BTU/hr
<b>VOLTAGE</b>	100-240 VAC, auto sensing	208 - 240 VAC, auto sensing
<b>FREQUENCY</b>	50/60 Hz	
<b>AMPERAGE</b>	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

<b>OPERATING TEMPERATURE</b>	10° to 35°C (50° to 95°F) with no direct sunlight on the equipment. Maximum temperature gradation of 20°C per hour	5°C to 35°C (41°F to 95°F)
<b>NON-OPERATING TEMPERATURE</b>	-40 to 65°C (-40 to 149°F) at a maximum altitude of 12,000 m (39,370 ft)	-40°C to 70°C (-40°F to 158°F)
<b>OPERATING HUMIDITY</b>	10% to 80% (non-condensing) with 29°C (84.2°F) maximum dew point	
<b>NON-OPERATING HUMIDITY</b>	5% to 95% (non-condensing) with 33°C (91°F) maximum dew point	
<b>OPERATING ALTITUDE</b>	-16 to 3048 m (-50 to 10,000 ft)	-16 to 2300 m (-50 to 7500ft)
<b>NON-OPERATING ALTITUDE</b>	-16 to 10,600 m (-50 to 35,000 ft)	-16 to 10,600 m (-50 to 35,000ft)

## 12Gb Expansion for SCv3000 Series

	SCv300	SCv320	SCv360
<b>SUPPORTED CONTROLLERS</b>	SCv3000, SCv3020	SCv3000, SCv3020	SCv3000, SCv3020

	SCv300	SCv320	SCv360
<b>CONTROLLER-ENCLOSURE CONNECTION (DUAL MODULES)</b>	12Gb SAS		
<b>DRIVE SLOT SIZE</b>	3.5"	2.5"	3.5"
<b>MAX DRIVES PER ENCLOSURE</b>	12	24	60
<b>MAX RAW CAPACITY PER ENCLOSURE</b>	120TB	92.16TB	600TB
<b>FORM FACTOR</b>	2U	2U	4U (5U with cable mgmt. tray)
<b>INTERMIXED DRIVE TYPE SUPPORT</b>	Yes	Yes	Yes
<b>SAS DRIVE SUPPORT</b> (Available on new enclosure purchases)	<b>3.5" HDD</b> 1.8TB, 10K 4TB, 7.2K 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED	<b>2.5" HDD</b> 600GB, 15K 900GB, 15K 900GB, 15K SED 900GB, 10K 900GB, 10K 1TB, 7.2K 1.2TB, 10K 1.8TB, 10K 1.8TB, 10K SED  <b>2.5" Write-intensive SSD</b> 800GB 1.6TB 1.6TB SED  <b>2.5" Read-intensive SSD</b> 480GB 960GB 1.92TB 1.92TB SED 3.84TB	<b>3.5" HDD</b> 4TB, 7.2K 6TB, 7.2K 8TB, 7.2K 10TB, 7.2K 10TB, 7.2K SED
<b>CHASSIS</b>			
<b>HEIGHT X WIDTH X DEPTH</b>	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.
<b>WEIGHT AT MAXIMUM CONFIGURATION</b>	28.59 kg (63.03 lb)	24 kg (53 lb)	102.05 kg (225 lb)

	SCv300	SCv320	SCv360
<b>WEIGHT AT EMPTY</b>	9 kg (19.84 lb) minus drives	8.8 kg (19.4 lb) minus drives	62 kg (136.68 lb) minus drives
<b>RACK SUPPORT</b>	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

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

## ENVIRONMENTAL OPERATING CONDITIONS

<b>OPERATING TEMPERATURE</b>	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)
<b>NON-OPERATING TEMPERATURE</b>	-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)
<b>OPERATING HUMIDITY</b>	8% to 85% (noncondensing) with a maximum humidity gradation of 10% per hour 20 to 80%	
<b>NON-OPERATING HUMIDITY</b>	5% to 95% (non-condensing)	10 to 90%
<b>OPERATING ALTITUDE</b>	-16 to 3048 m (-50 to 10,000 ft)	-16 to 2300 m (-50 to 7500ft)
<b>NON-OPERATING ALTITUDE</b>	16 to 10,600 m (-50 to 35,000 ft)	-16 to 10,600 m (-50 to 35,000ft)

## 6Gb Expansion for SCv2000 Series

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

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

## CHASSIS

<b>HEIGHT X WIDTH X DEPTH</b>	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)
<b>WEIGHT AT MAXIMUM CONFIGURATION</b>	28.9 kg (63.9 lb)	24 kg (53 lb)	130.1 kg (287 lb)
<b>WEIGHT AT EMPTY</b>	20.6 kg (45.4 lb) minus drives	18.7 kg (41 lb) minus drives	62.1kg (137 lb) minus drives
<b>RACK SUPPORT</b>	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

<b>POWER/WATTAGE</b>	580W	580W	2800W
<b>HEAT DISSIPATION</b>	1980 BTU	1980 BTU	9554 BTU
<b>VOLTAGE</b>	100-240 VAC	100-240 VAC	200-240 VAC



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

#### ENVIRONMENTAL OPERATING CONDITIONS

<b>OPERATING TEMPERATURE</b>	10° to 35°C (50° to 95°F) with no direct sunlight on the equipment; maximum temperature gradation of 20°C per hour
<b>NON-OPERATING TEMPERATURE</b>	-40 to 65°C (-40 to 149°F) at a maximum altitude of 12,000 m (39,370 ft)
<b>NON-OPERATING TEMPERATURE</b>	10% to 80% (non-condensing) with 29°C (84.2°F) maximum dew point
<b>NON-OPERATING HUMIDITY (NON-CONDENSING)</b>	5% to 95% (non-condensing) with 33°C (91°F) maximum dew point
<b>INLET TYPE</b>	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)

### End-to-end technology solutions

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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](http://Dell.com/OEM).

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## CONTACT US

To learn more, contact your local representative or authorized reseller.



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