



Technical Specifications

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Switch Specifications

The following table lists the specifications for the Cisco MDS 9396V switch.

Environmental Specifications

Description	Specification
Temperature, ambient operating	32 to 104°F (0 to 40°C)
Temperature, ambient nonoperating and storage	-40 to 158°F (-40 to 70°C)
Humidity (RH), ambient (noncondensing) operating	5 to 90%
Humidity (RH), ambient (noncondensing) nonoperating and storage	5 to 95%
Altitude, operating	-197 to 6500 ft (-60 to 2000 m)
Noise levels	75 dB

Physical Specifications

Description	Specification
Switch Dimensions	HxWxD: 3.4 x 17.4 x 23.9 in (8.64 x 44.23 x 60.73cm)
Rack size	Chassis requires 2 RU (1.75 in. or 4.45 cm)
Weight (fully loaded)	44 lb (20 kg)

Description	Specification
Power Supply	<ul style="list-style-type: none"> • 1400W PSU AC Low Line Input: 90V to 140 V • 1400W PSU AC High Line input: 180V to 264V • 2000W PSU AC Low Line input: 90V to 140V • 2000W PSU AC High Line input: 180V to 305V • 2000W PSU DC input: 192V to 400V <p>Frequency: 50 to 60 Hz (nominal)</p>
Airflow	<p>Back to front (toward ports) using port-side exhaust fans</p> <p>Front to back (into ports) using port-side intake fans</p> <p>192 CFM (nominal speed)</p> <p>480 CFM (maximum speed)</p> <p>Cisco recommends that you maintain a minimum air space of 2.5 in. (6.4 cm) between walls and chassis air vents and a minimum horizontal separation of 6 in. (15.2 cm) between two chassis to prevent overheating.</p>

Power Specifications

General Power Supply Specifications – HVAC

HVAC Input Power	Specification
HVAC input voltage	90V to 140V, 180V to 305V
Power consumption (typical)	<ul style="list-style-type: none"> • 421W for 96-Port switch in idle status with no optics modules • 542W for 96-Port switch with 48 64G SW optics modules at 50%-line rate • 655W for 96-Port switch with 96 64G SW optics modules at 50%-line rate
AC input frequency	Nominal = 50 Hz to 60 Hz (nominal)
Power supply output capacity	2000 W (DS-CHV-2000W-I)

General Power Supply Specifications – HVDC

HVDC Input Power	Specification
HVDC input voltage	192V to 400V

HVDC Input Power	Specification
Power consumption (typical)	<ul style="list-style-type: none"> • 421W for 96-Port switch in idle status with no optics modules • 542W for 96-Port switch with 48 64G SW optics modules at 50%-line rate • 655W for 96-Port switch with 96 64G SW optics modules at 50%-line rate
Power supply output capacity	2000 W (DS-CHV-2000W-I)

Power Supply Requirements Specifications

Power Mode	PSU	Traffic Rate	Temperature	Voltage	Optics Speed	Optics Number	Fan Trays	Power	Power	Power
								110V/60HZ (Watts)	220V/50HZ (Watts)	380V DC(Watts)
Typical	2	50%	25C	Normal	64G SW	48	3	545	540	542
Typical	2	50%	25C	Normal	64G SW	96	3	660	650	655
Max	2	100%	40C	Normal	64G SW	96	3	890	880	885



Note To prevent a loss of input power, ensure that the total maximum load on each circuit supplying the power supply is within the current ratings of the wiring and breakers.

Power Supply Fuse Information

Part Number	PID	Type	Fuse Rated AMP	I2T	Fuse Melting Time
341-101444-01	DS-CAC-1400W-I	Fast acting	16A	384	0.09S@100A
341-101445-01	DS-CAC-1400W-E	Fast acting	16A	384	0.09S@100A
341-101446-01	DS-CHV-2000W-I	Fast acting	16A	1331	0.1s@125A
341-101447-01	DS-CHV-2000W-E	Fast acting	16A	1331	0.1s@125A

Component Power Requirements and Heat Dissipation

Consider heat dissipation when sizing the air-conditioning requirements for an installation. The power and heat associated with a Cisco MDS 9396V 64 Gbps 96-Port Fibre Channel (FC) Switch varies based upon the following considerations:

- The environment (temperature) outside the chassis
- Internal chassis temperature

- Any hardware component failure in the chassis
- Average switching traffic levels

The following table lists the power requirements and heat dissipation for the components of the Cisco MDS 9396V 64 Gbps 96-Port Fibre Channel Switch.

Power Requirements and Heat Dissipation Specifications

Module Type/Product Number	Power Required (watts)	Heat Dissipation (BTU/hr)	Input Current		
			110VAC(amps)	220VAC(amps)	380VDC(amps)
DS-C9396V-K9	880 maximum	3003	8.1	4	2.3

Connection Guidelines for Powered Systems

For connecting the Cisco MDS 9396V switch power supplies to the site power source, follow these basic guidelines:

- Each power supply should have its own dedicated branch circuit.
- For international, circuits should be sized according to local and national codes.
- The AC power receptacles used to plug in the chassis must be the grounding type. The grounding conductors that connect to the receptacles should connect to protective earth ground at the service equipment.