Technical Specifications

- Switch Specifications, on page 1
- Power Specifications, on page 2

Switch Specifications

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

Table 1: Environmental Specifications for the Cisco MDS 9396T switch

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	10 to 90%
Humidity (RH), ambient (noncondensing) nonoperating and storage	5 to 95%
Altitude, operating	-197 to 6500 ft (-60 to 2000 m)
Noise levels	60 dB

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

Table 2: Cisco MDS 9396T Switch Specifications

Description	Specification
Cisco MDS 9396T Switch Dimensions	HxWxD: 3.39 x 17.42 x 22.28 in. (8.61 x 44.25 x 56.59 cm)
Rack Unit (RU)	Chassis requires 2 RU (1.75 in. or 4.45 cm)
Weight	41.62 lb (18.88 kg)

Description	Specification
Power Supply	1200W AC/ HVAC/ HVDC Bidirectional airflow (2 per switch) Part Number: DS-CAC-1200W AC input: 90V to 305V DC input: 192V to 400V 50 to 60 Hz (nominal)
Airflow	Back to front (toward ports) using port-side exhaust fans Front to back (into ports) using port-side intake fans 100 CFM (0.04 m3/s) nominal 240 CFM (0.11 m3/s) maximum 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.

Power Specifications

General Power Supply Specifications

The following table lists the specifications for the Cisco MDS 9396T switch AC power supply.

AC Input Power	Specification
AC input voltage	90V to 305V
Power consumption (typical)	437W for an idle 96-port switch with (1+1) PSU redundancy without optics modules 497W for a 96-port switch with 48 32G optics modules under typical conditions 555W for a 96-port switch with 96 32G optics modules under typical conditions
AC input frequency	Nominal = 50 to 60 Hz
Power supply output capacity	1200 W

Power Supply Requirements Specifications

The following table provides a sample calculation of power for the Cisco MDS 9396T switch AC power supply.

Table 3: Power Dissipation for AC Power Supply

Power Mode	PSU	Traffic Rate	Temperature	Voltage	Optics Speed	Optics Number	Fan Trays	Power at 110V/60HZ (Watts)	Power at 220V/50HZ (Watts)
Typical	2	50%	25°C	Nominal	32G-SW	48	2	437	497
						96		570	555
Max	2	100%	25°C	Nominal	32G-SW	96	2	610	595
					32G-LW			627	618
			40°C		32G-SW			673	655

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.

Table 4: Power Supply Fuse Information

Part Number	PID	Type	Fuse Rated AMP	I2T	Fuse Melting Time
341-100315-02	DS-CAC-1200W	Fast acting	16 A	260	2.77 hrs@17 A, 0.1 s@55 A

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 9396T 32-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 9396T 32-Gbps 96-Port Fibre Channel Switch.

Table 5: Power Requirements and Heat Dissipation for the Cisco MDS 9396T 32-Gbps 96-Port FC Switch

Module Type/Product Number	Power Required (watts)	Heat Dissipation (BTU/hr)	Input Current		
			85VAC(amps)	110VAC(amps)	220VAC(amps)
Cisco MDS 9396T 32-Gbps 96-Port FC Switch	585 maximum	1996	6.89	5.33	2.67

Connection Guidelines for AC-Powered Systems

For connecting the Cisco MDS 9396T switch AC 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.