Specifications

This appendix contains the following topics:

Rack Specifications

Observe the following rack specifications for the Cisco UCS 6600 Series Fabric Interconnect.

Overview of Racks

Install the fabric interconnect in these types of cabinets and racks, assuming an external ambient air temperature range of 0 to 104°F (0 to 40°C):

- Standard perforated cabinets
- Solid-walled cabinets with a roof fan tray (bottom to top cooling)
- Standard open racks

Note

- If you are using an enclosed cabinet, we recommend one of the thermally validated types, either standard perforated or solid-walled with a fan tray.
- We do not recommend using racks that have obstructions (such as power strips). The obstructions could impair access to field-replaceable units (FRUs).

General Requirements for Cabinets and Racks

The cabinet or rack must also meet the following requirements:

- Standard 19-inch (48.3 cm) (two- or four-post EIA cabinet or rack, with mounting rails that conform to English universal hole spacing per section 1 of ANSI/EIA-310-D-1992). For more information, see Requirements Specific to Perforated Cabinets, on page 2.
- The minimum vertical rack space requirement for the fabric interconnect is 1.75 inches (4.4 cm) per chassis.
- The width between the rack-mounting rails must be at least 17.75 inches (45.0 cm) if the rear of the device is not attached to the rack. For four-post EIA racks, this measurement is the distance between the two front rails.

Four-post EIA cabinets (perforated or solid-walled) must meet the following requirements:

- The minimum spacing for the bend radius for fiber-optic cables should have the front-mounting rails of the cabinet offset from the front door by a minimum of 3 inches (7.6 cm).
- The distance between the outside face of the front mounting rail and the outside face of the back mounting rail should be 23.0 to 30.0 inches (58.4 to 76.2 cm) to allow for rear-bracket installation.

Requirements Specific to Standard Open Racks

If you are mounting the chassis in an open rack (no side panels or doors), ensure that the rack meets these requirements:

- The minimum vertical rack space per chassis must be equal to the rack unit (RU) of the chassis. One rack unit is equal to 1.75 inches (4.4 cm).
- The distance between the chassis air vents and any walls should be 2.5 inches (6.4 cm).

Requirements Specific to Perforated Cabinets

A perforated cabinet has perforations in its front and rear doors and side walls. Perforated cabinets must meet these requirements:

- The front and rear doors must have at least a 60 percent open area perforation pattern, with at least 15 square inches (96.8 square cm) of open area per rack unit of door height.
- The roof should be perforated with at least a 20 percent open area.
- The cabinet floor should be open or perforated to enhance cooling.

Your equipment rack must conform to these requirements.

Cable Management Guidelines

To help with cable management, allow additional space in the rack above and below the chassis to make it easier to route all of the fiber optic or copper cables through the rack.

System Specifications

Observe the following system specifications when installing and operating the Cisco UCS 6500 Series Fabric Interconnect.

Environmental Specifications

Environment		Specification
Temperature	Ambient operating temperature	32 to 104°F (0 to 40°C)
	Ambient nonoperating	–40 to 158°F (–40 to 70°C)
Humidity	Ambient operating humidity	8 to 80%
	Ambient nonoperating	5 to 95%
Altitude	Ambient operating altitude	0 to 10,000 feet (0 to 3,048 meters)
	Ambient nonoperating	-1000 to 30,000 feet (-304 to 15,150 meters)

Chassis Dimensions

Fabric Interconnect	Width	Depth	Height
Cisco UCS 6664 Fabric Interconnect	17.41 inches (44.23 cm)	22.27 inches (56.58 cm)	3.4 inches (8.6 cm) (2 RU)

Fabric Interconnect and Module Weights and Quantities

Component	Weight per Unit	Quantity
Cisco UCS 6664 Fabric Interconnect (UCS-6664-FI)	44 lb (20 kg)	1
Fan Module – 2 Port-side exhaust (blue) (UCS-FAN-6664)	— 1.3 lb (0.59 kg)	4
Power Supply module – 1400-W AC port-side exhaust (blue) (UCS-PSU-6600-AC)	— 2.64 lb (1.2 kg)	2 (1 for operation and 1 for redundancy)

Power Specifications

Power specifications include the specifications for each type of power supply module.

1400-W AC Power Supply Specifications

These specifications apply to the UCS-PSU-6600-AC power supplies.

Property	Specification
Power	1400 W
Input Voltage Range	90 VAC to 140 VAC 180 VAC to 264 VAC
Output Power	1,000W/36W 1,450W/36W
Output 1	Main: 12V/84A Main: 12V/121A
Output 2	Standby: 12V/3A
Redundancy Modes	Combined, *n*+1, and *n*+*n*
RoHS Compliance	Yes
Hot Swappable	Yes

Power Cable Specifications

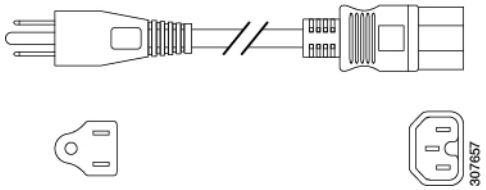
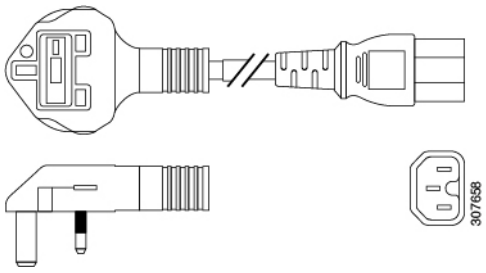
These sections show the power cables that you can order and use with this fabric interconnect.

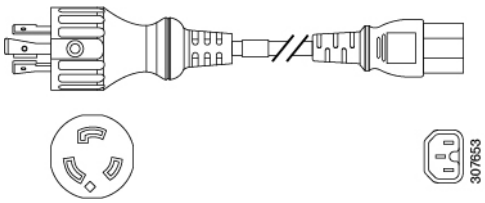
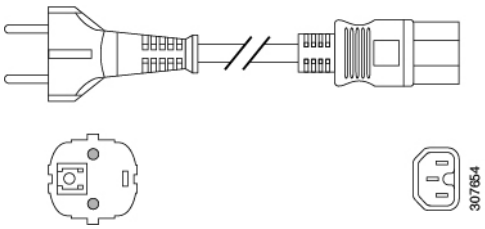
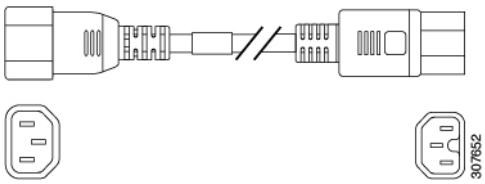
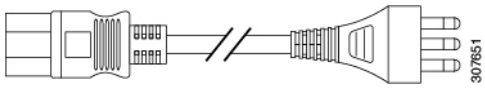
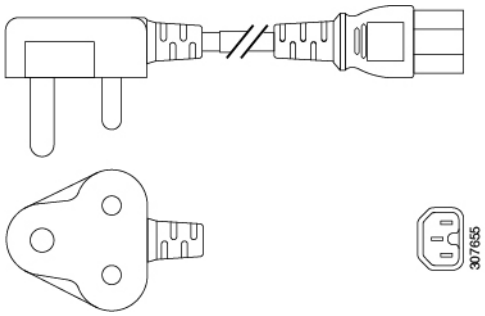
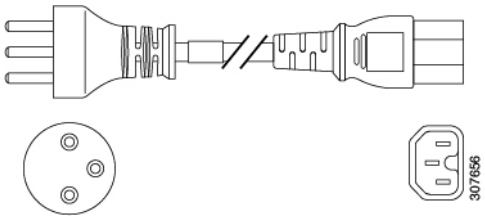
Power Cable Specifications for AC Power Supplies

Power Type	Power Cord Part Number	Cord Set Description
	CAB-C13-C14-2M	Power Cord Jumper, C13-C14 Connectors, 6.6 feet (2.0 m)
	CAB-C13-CBN	Cabinet jumper power cord, 250 VAC, 10 A, C14-C13 connectors, 2.3 feet (0.7 m)
Argentina	CAB-250V-10A-AR	250 V, 10 A, 8.2 feet (2.5 m)
Australia	CAB-9K10A-AU	250 VAC, 10 A, 3112 plug, 8.2 feet (2.5 m)
Brazil	CAB-250V-10A-BR	250 V, 10 A, 6.9 feet (2.1 m)
European Union	CAB-9K10A-EU	250 VAC, 10 A, CEE 7/7 plug, 8.2 feet (2.5 m)
India	CAB-IND-10A	10 A, 8.2 feet (2.5 m)

Power Type	Power Cord Part Number	Cord Set Description
India	CAB-C13-C14-2M-IN	Power Cord Jumper, C13-C14 Connectors, 6.6 feet (2.0 m)
India	CAB-C13-C14-3M-IN	Power Cord Jumper, C13-C14 Connectors, 9.8 feet (3.0 m)
Israel	CAB-250V-10A-IS	250 V, 10 A, 8.2 feet (2.5 m)
Italy	CAB-9K10A-IT	250 VAC, 10 A, CEI 23-16/VII plug, 8.2 feet (2.5 m)
Japan	CAB-C13-C14-2M-JP	Power Cord Jumper, C13-C14 Connectors, 6.6 feet (2.0 m)
North America	CAB-AC-L620-C13	NEMA L6-20-C13, 6.6 feet (2.0 m)
North America	CAB-N5K6A-NA	200/240V, 6A, 8.2 feet (2.5 m)
Peoples Republic of China	CAB-250V-10A-CN	250 V, 10 A, 8.2 feet (2.5 m)
South Africa	CAB-250V-10A-ID	250 V, 10 A, 8.2 feet (2.5 m)
Switzerland	CAB-9K10A-SW	250 VAC, 10 A, MP232 plug, 8.2 feet (2.5 m)
United Kingdom	CAB-9K10A-UK	250 VAC, 10 A, BS1363 plug (13 A fuse), 8.2 (2.5 m)
All except Argentina, Brazil, and Japan	NO-POWER-CORD	No power cord included with fabric interconnect

Power Cables for UCS-PSU-6600-AC Power Supplies

Cable	Description	Illustration
CAB-TA-NA	North America AC Type A Power Cable	
CAB-TA-UK	United Kingdom AC Type A Power Cable	

Cable	Description	Illustration
CAB-TA-250V-JP	Japan 250V AC Type A Power Cable	
CAB-TA-EU	Europe AC Type A Power Cable	
CAB-C15-CBN	Cabinet Jumper Power Cord, 250 VAC 13A, C14-C15 Connectors	
CAB-ACBZ-12A	AC Power Cord (Brazil) 12A/125V BR-3-20 plug up to 12A	
CAB-TA-IN	India AC Type A Power Cable	
CAB-TA-IS	Israel AC Type A Power Cable	

Regulatory Standards Compliance Specifications

This table lists the regulatory standards compliance for the fabric interconnect.

Table 1: Regulatory Standards Compliance: Safety and EMC

Specification	Description
Regulatory compliance	Products should comply with CE Markings according to directives 2004/108/EC and 2006/95/EC.
Safety	• CAN/CSA-C22.2 No. 60950-1 Second Edition • CAN/CSA-C22.2 No. 62368-1-19 Third Edition • ANZI/UL 60950-1 Second edition • IEC 62368-1 • EN 62368-1 • AS/NZS 62368-1 • GB4943 • UL 62368-1
EMC: Emissions	• 47CFR Part 15 (CFR 47) Class A • AS/NZS CISPR22 Class A • CISPR22 Class A • EN55022 Class A • ICES003 Class A • VCCI Class A • EN61000-3-2 • EN61000-3-3 • KN22 Class A • CNS13438 Class A **Note** The Cisco UCS 6600 Series Fabric Interconnect passes EMC Radiated Emissions standards in all configurations except when you use more than 40 pluggable optics of Cisco part number 10-3142-01 or 10-3142-02.
EMC: Immunity	• EN55024 • CISPR24 • EN300386 • KN 61000-4 series
RoHS	The product is RoH-6 compliant with exceptions for leaded-ball grid-array (BGA) balls and lead press-fit connectors.

Specifications