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#### **Features**

The Cisco Firepower Management Center (FMC) 1000, 2500, and 4500 management appliances support Cisco Firepower version 6.2 and later.



Note

The FMC 1000, 2500, and 4500 are certified for Common Criteria (CC) and Federal Information Processing Standards (FIPS) 140 beginning in Cisco Firepower version 6.2.2. See the "Security Certifications Compliance" topic in the "Appliance Platform Settings" chapter in the Firepower Management Center Configuration Guide for the instructions on how to enable security certifications compliance.

The following table lists the features of the FMC 1000, 2500, and 4500.

#### Table 1: FMC 1000, 2500, and 4500 Features

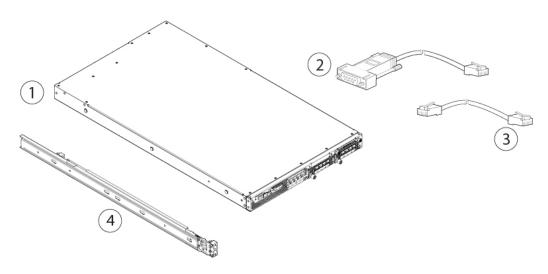
Feature	1000	2500	4500		
Form factor	1 RU				
Rack mount	Yes				
	Standard 19-in. (48.3 cm)	4-post EIA rack			

Feature	1000	2500 4500				
Airflow	Front to rear					
	Cold aisle to hot aisle					
Asset pullout card	Yes					
	Displays serial number					
Grounding hole	Yes					
	Use is optional. The suppo no additional chassis grou	orted AC power supplies handing is required.	ive internal grounding, so			
Locator beacon	Yes					
Power switch	Yes					
Processor	1 Intel E5-2620 V4 CPU	2 Intel E5-2620 V4 CPUs	2 Intel E5-2640 V4 CPUs			
Memory	32 GB	64 GB	128 GB			
RDIMMs	Four 8-GB DDR4-2400-MHz RDIMMs	Eight 8-GB DDR4-2400-MHz RDIMMs	Eight 16-GB DDR4-2400-MHz RDIMMs			
Management ports	1-GB BASE-T Ethernet port (eth0)	One 1-GB BASE-T Ether Two 10-GB SFP+ ports (e	• • •			
USB ports	2					
VGA port	One 3-row 15-pin DE-15	connector				
	Enabled by default.					
SFP ports	_	2 fixed SFP+ ports				
SFP+	_	FS2K-NIC-SFP				
		FS4K-NIC-SFP				
Serial console port	1-GB RJ-45 serial port running RS-232 (RS-232D TIA-561)					
System power	Two 770-W AC power supplies (hot-swappable and redundant as 1+1)					
Power consumption	2626 BTU/hr					
Fans	6 fans for front-to-rear cooling					
Storage	Two 900-GB SAS drives Four 600-GB SAS drives Six 800-GB SSDs					

### **Package Contents**

The following figure shows the package contents for the FMC 1000, 2500, and 4500. Note that the contents are subject to change and your exact contents might contain additional or fewer items.

Figure 1: Package Contents



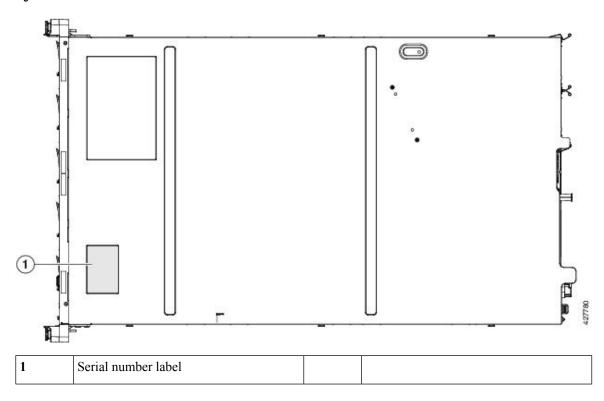
1	Chassis	2	RJ-45 to DP9-RS232 console cable (Cisco part number 72-3383-XX)
3	RJ-45 to RJ-45 Cat 5 Ethernet cable, yellow 6-feet long (Cisco part number 72-1482-XX)	4	Cisco 1-RU rail kit (Cisco part number 800-43376-XX)

### **Serial Number Location**

The serial number (SN) for the FMC 1000, 2500, and 4500 is printed on the asset pullout card located on the front panel. For the location of the asset pullout card, see Front Panel, on page 4.

The serial number is also on a label on the cover of the chassis as shown in the following figure.

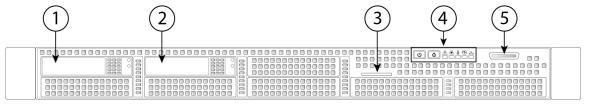
Figure 2: Serial Number Location on Cover



### **Front Panel**

The following figure shows the front panel features and disk-drive configuration for the FMC 1000. See Front Panel LEDs and Buttons, on page 5 for a description of the LEDs.

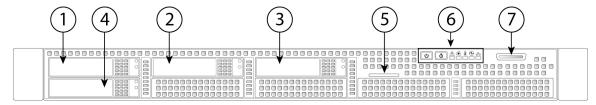
Figure 3: FMC 1000 Front Panel Features



1	SAS drive 1	2	SAS drive 2
3	Asset pullout card	4	Control panel LEDs
5	Keyboard, video, and mouse (KVM) port		
	This port is not supported. Use the VGA and USB keyboard ports instead.		

The following figure shows the front panel features and disk-drive configuration for the FMC 2500. See Front Panel LEDs and Buttons, on page 5 for a description of the LEDs.

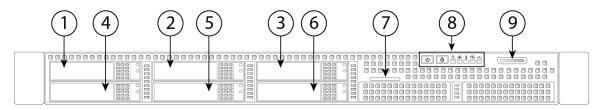
Figure 4: FMC 2500 Front Panel Features



1	SAS drive 1	2	SAS drive 2
3	SAS drive 3	4	SAS drive 4
5	Asset pullout card	6	Control panel LEDs
7	This port is not supported. Use the VGA and USB keyboard ports instead.		

The following figure shows the front panel features and disk-drive configuration for the FMC 4500. See Front Panel LEDs and Buttons, on page 5 for a description of the LEDs.

Figure 5: FMC 4500 Front Panel Features

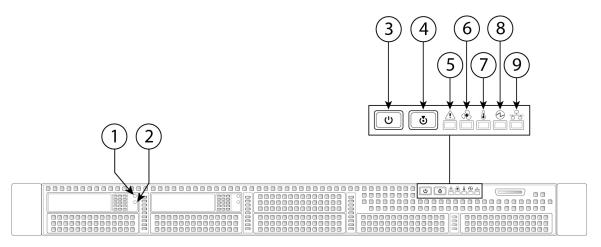


1	SSD drive 1	2	SSD drive 2
3	SSD drive 3	4	SSD drive 4
5	SSD drive 5	6	SSD drive 6
7	Asset pullout card	8	Control panel LEDs
9	This port is not supported. Use the VGA and USB keyboard ports instead.		

#### **Front Panel LEDs and Buttons**

The following figure shows the front panel LEDs, buttons, and their descriptions for the FMC 1000, 2500, and 4500.

Figure 6: Front Panel LEDs and Buttons



1	Disk-drive fault LED	2	Disk-drive activity LED
	Unlit—The hard drive is operating properly.		Unlit—There is no hard drive in the hard drive tray (no access, no fault).
	Amber—Drive fault detected.		Green—The hard drive is ready.
	Amber, flashing—The device is rebuilding.		Green, flashing—The hard drive is reading or writing data.
	Amber, flashing in 1-second intervals—Drive locate function activated.		
3	Power button/power status LED	4	Unit identification button/LED
	Unlit—There is no AC power to the appliance.		Unlit—The unit identification function is not in use.
	Amber—The appliance is in standby power mode.		Blue—The unit identification function is activated.
	Green—The appliance is in main power mode. Power is supplied to all appliance components.		

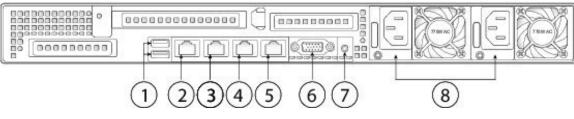
System status LED	6	Fan status LED
<ul> <li>Green—The appliance is running in normal operating condition.</li> <li>Green, flashing—The appliance is performing system initialization and memory check.</li> <li>Amber—The appliance is in a degraded operational state. For example: <ul> <li>Power supply redundancy is lost.</li> <li>CPUs are mismatched.</li> <li>At least one CPU is faulty.</li> <li>At least one DIMM is faulty.</li> <li>At least one drive in a RAID configuration failed.</li> </ul> </li> <li>Amber, flashing—The appliance is in a critical fault state. For example: <ul> <li>Boot failed.</li> <li>Fatal CPU and/or bus error is detected.</li> <li>The appliance is in an over-temperature condition.</li> </ul> </li> </ul>		<ul> <li>Green—All fans are operating properly.</li> <li>Amber—One or more fans breached the critical threshold.</li> <li>Amber, flashing—One or more fans breached the unrecoverable threshold.</li> </ul>
<ul> <li>Temperature status LED</li> <li>Green—The appliance is operating at normal temperature.</li> <li>Amber—One or more temperature sensors breached the critical threshold.</li> <li>Amber, flashing—One or more temperature sensors breached the unrecoverable threshold.</li> </ul>	8	<ul> <li>Power supply status LED</li> <li>Green—All power supplies are operating normally.</li> <li>Amber—One or more power supplies are in a degraded operational state.</li> <li>Amber, flashing—One or more power supplies are in a critical fault state.</li> </ul>
	<ul> <li>Green—The appliance is running in normal operating condition.</li> <li>Green, flashing—The appliance is performing system initialization and memory check.</li> <li>Amber—The appliance is in a degraded operational state. For example: <ul> <li>Power supply redundancy is lost.</li> <li>CPUs are mismatched.</li> <li>At least one CPU is faulty.</li> <li>At least one drive in a RAID configuration failed.</li> </ul> </li> <li>Amber, flashing—The appliance is in a critical fault state. For example: <ul> <li>Boot failed.</li> <li>Fatal CPU and/or bus error is detected.</li> <li>The appliance is in an over-temperature condition.</li> </ul> </li> <li>Temperature status LED <ul> <li>Green—The appliance is operating at normal temperature.</li> <li>Amber—One or more temperature sensors breached the critical threshold.</li> <li>Amber, flashing—One or more temperature sensors breached the</li> </ul> </li> </ul>	<ul> <li>Green—The appliance is running in normal operating condition.</li> <li>Green, flashing—The appliance is performing system initialization and memory check.</li> <li>Amber—The appliance is in a degraded operational state. For example: <ul> <li>Power supply redundancy is lost.</li> <li>CPUs are mismatched.</li> <li>At least one CPU is faulty.</li> <li>At least one drive in a RAID configuration failed.</li> </ul> </li> <li>Amber, flashing—The appliance is in a critical fault state. For example: <ul> <li>Boot failed.</li> <li>Fatal CPU and/or bus error is detected.</li> <li>The appliance is in an over-temperature condition.</li> </ul> </li> <li>Temperature status LED <ul> <li>Green—The appliance is operating at normal temperature.</li> </ul> </li> <li>Amber—One or more temperature sensors breached the critical threshold.</li> <li>Amber, flashing—One or more temperature sensors breached the</li> </ul>

9	)	Network link activity LED	
		• Unlit—The Ethernet link is idle.	
		• Green—One or more Ethernet ports are link-active, but there is no activity.	
		Green, flashing—One or more Ethernet ports are link-active with activity.	

#### **Rear Panel**

The following figure shows the rear panel of the FMC 1000.

Figure 7: FMC 1000 Rear Panel



1	2 USB keyboard ports	2	CIMC interface (labeled "M")
	You can connect a keyboard, and along with a monitor on the VGA port, you can access the console.		This interface is not supported.
3	Serial console port This port is disabled by default; use the VGA port and keyboard USB port instead.	4	eth0 management interface (labeled "1") Gigabit Ethernet 10/100/1000 Mbps interface, RJ-45 eth0 is the default management interface.
5	eth1 management interface (labeled "2") Gigabit Ethernet 10/100/1000 Mbps interface, RJ-45	6	VGA interface Enabled by default.
7	Unit identification button/LED	8	Two 770-W AC power supplies

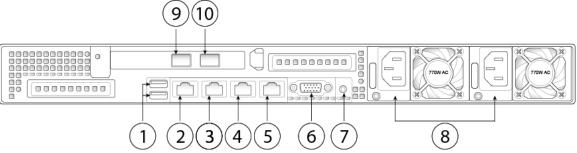


Note

Although the Cisco Integrated Management Controller (CIMC) is not supported on the FMC, you can use Lights-Out-Management (LOM) on the default management interface (eth0) on a Serial Over LAN (SOL) connection to remotely monitor or manage the FMC system. For information about using LOM and SOL, see the Firepower Management Center Getting Started Guide for your model.

The following figure shows the rear panel of the FMC 2500 and 4500.

Figure 8: FMC 2500 and 4500 Rear Panel

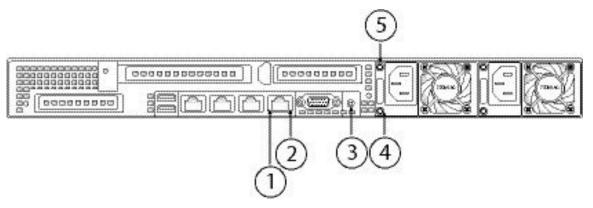


1	2 USB keyboard ports	2	CIMC interface (labeled "M")
	You can connect a keyboard, and along with a monitor on the VGA port, you can access the console.		This interface is not supported.
3	Serial console port	4	eth0 management interface (labeled "1")
	This port is disabled by default; use the VGA port and keyboard USB port instead.		Gigabit Ethernet 10/100/1000 Mbps interface, RJ-45
			eth0 is the default management interface.
5	eth1 management interface (labeled "2")	6	VGA interface
	Gigabit Ethernet 10/100/1000 Mbps interface, RJ-45		Enabled by default.
7	Unit identification button/LED	8	Two 770-W AC power supplies
9	eth2 management interface	10	eth3 management interface
	10-Gigabit Ethernet SFP+ support		10-Gigabit Ethernet SFP+ support
	Note Use only Cisco-supported SFP+ transceivers.		Note Use only Cisco-supported SFP+ transceivers.

### **Rear Panel LEDs and Buttons**

The following figure shows the rear panel LEDs and buttons:

Figure 9: Rear Panel LEDs and Buttons



1	Interface link speed LED	2	Interface link status LED
	Located to the left of each port.		Located to the right of each port.
	• Unlit—Link speed is 10 Mbps.		• Unlit—No link is present.
	• Amber—Link speed is 100 Mbps.		• Green—Link is active.
	• Green—Link speed is 1 Gbps.		Green, flashing—Traffic is present on the active link.
3	Unit identification button/LED	4	Power supply status LED
	• Unlit—The unit identification LED is not in use.		Unlit—No AC input (12-V main power off, 12-V standby power off).
	Blue—The unit identification LED is activated.		Green, flashing—12-V main power off; 12-V standby power on.
			• Green—12-V main power on; 12V standby power on.
			Amber, flashing—Warning detected but 12-V main power on.
			Amber—Critical error detected; 12-V main power off.

5	Power supply fault LED
	Unlit—The power supply is operating normally.
	Amber, flashing—An event warning threshold has been reached, but the power supply continues to operate.
	Amber—A critical fault threshold has been reached, causing the power supply to shut down (for example, a fan failure or an over-temperature condition).

## **Power Supply**

The following table lists the specifications for each 770-W AC power supply (Cisco part number FMC-PWR-AC-770W) used in the FMC 1000, 2500, and 4500.

**Table 2: Power Supply Specifications** 

Description	Specification
Power consumption	1313 BTU/hr
AC input voltage range	Nominal range: 100–120 V AC, 200–240 V AC
	Range: 90–132 V AC, 180–264 V AC
AC input frequency	Nominal range: 50–60 Hz
	Range: 47–63 Hz
Maximum AC input current	9.5 A peak at 100-V AC
	4.5 A peak at 208 V-AC
Maximum input volt amperes	950 VA at 100-V AC
Maximum output power for each power supply	770 W
Maximum inrush current	15 A (subcycle duration)
Maximum hold-up time	12 ms at 770 W
Power supply output voltage	12-V DC
Power supply standby voltage	12-V DC
Efficiency rating	Climate Savers Platinum Efficiency (80 Plus Platinum certified)
Form factor	RSP2

Description	Specification
Input connector	IEC320 C14

# **Hardware Specifications**

The following table lists the hardware specifications for the FMC Center 1000, 2500, and 4500.

Table 3: FMC 1000, 2500, and 4500 Hardware Specifications

Specification	1000	2500	4500				
Physical							
Form factor	1 RU	1 RU					
Rack mountable	Yes						
	Standard 19-in. (48.3 cm) 4-post EIA rack						
Dimensions (H x W x D)	1.7 x 16.9 x 29.8 in. (4.3 x	x 42.9 x 75.9 cm)					
Weight (fully loaded chassis)	32.2 lb (16.6 kg)	34.1 lb (16.8 kg)	36.0 lb (17.0 kg)				
Airflow	Front to rear (cold aisle to	hot aisle)	1				
Fans	6 fans for front-to-rear coo	oling					
Storage							
SAS	Two 900 GB	Four 600 GB	_				
	RAID 1, 2.5 in., 10-K RPM, 4Kn, hot-swappable	RAID 5, 2.5 in., 10-K RPM, 4Kn, hot-swappable					
SSD	_	_	Six 800 GB				
			RAID 6, 2.5 in., 10-K RPM, 4Kn, hot-swappable				
Memory							
RDIMMs	32 GB	64 GB	128 GB				
	Four 8-GB DDR4-2400-MHz	Eight 8-GB DDR4-2400-MHz	Eight 16-GB DDR4-2400-MHz				
Power		1					
System power	Two 770-W AC power su	pplies					
Power consumption	2626 BTU/hr						

Specification	1000	2500	4500			
Redundant power supplies	Yes					
	Hot-swappable and redundant as 1+1					
Environmental						
Temperature	Operating: 41 to 95°F (5 to every 305 meters of altitude)		um temperature by 1°C per			
	Nonoperating: –40 to 149°F (–40 to 65°C) when the appliance is stored or transported					
Humidity (RH)	10 to 90 % noncondensing					
Altitude	Operating: 0 to 10,000 ft					
	Nonoperating: 0 to 40,000 ft when the appliance is stored or transported					
Sound power level	5.4 Bels (Measure A-weighted per ISO7779 LwAd)					
	Operation at 73°F (23°C)					
Sound pressure level	d pressure level 37 Bels (Measure A-weighted per ISO7779 LwAd)					
	Operation at 73°F (23°C)					

#### **Product ID Numbers**

The following table lists all of the Product IDs (PIDs) spares associated with the FMC 1000, 2500, and 4500.

Table 4: FMC 1000, 2500, and 4500 PIDs

PID	Description
FMC-PWR-AC-770W=	Cisco AC power supply 770-W
FMC1K-HDD-900G=	Cisco FMC 900-GB 12-GGB 10-K 2.5-inch SAS
FMC2K-HDD-600G=	Cisco FMC 600-GB 12-GGB 10-K 2.5-inch SAS
FMC4K-SSD-800G=	Cisco 800-GB 12-Gbps SAS SSD
UCSC-RAILB-M4=	Ball bearing rail kit

## **Power Cord Specifications**

Each power supply has a separate power cord. Standard power cords or jumper power cords are available for connection to the appliance. The jumper power cords for use in racks are available as an optional alternative to the standard power cords.

If you do not order the optional power cord with the system, you are responsible for selecting the appropriate power cord for the product. Using a incompatible power cord with this product may result in electrical safety hazard. Orders delivered to Argentina, Brazil, and Japan must have the appropriate power cord ordered with the system.

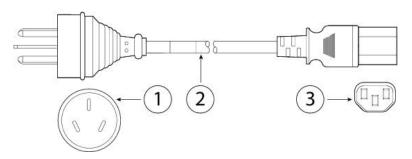


Note

Only the approved power cords or jumper power cords provided with the appliance are supported.

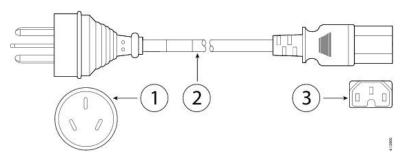
The following power cords are supported.

Figure 10: Argentina CAB-250V-10A-AR



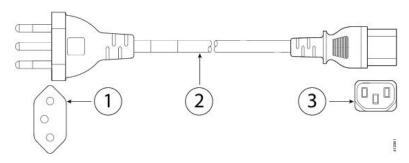
1	Plug: IRAM 2073	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		

Figure 11: Australia CAB-9K10A-AU



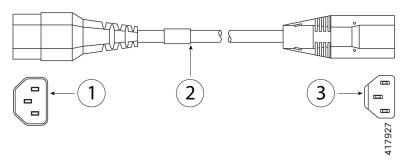
1	Plug: A.S. 3112-2000	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C15		

Figure 12: Brazil PWR-250V-10A-BZ



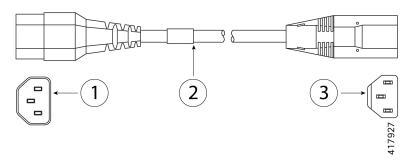
1	Plug: NBR 14136	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		

Figure 13: Cabinet Jumper CAB-C13-C14-2M



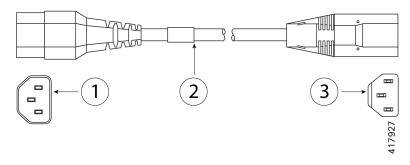
1	Plug: SS10A	2	Cord set rating: 10A, 250V
3	Connector: HS10S		

Figure 14: Cabinet Jumper CAB-C13-C14-AC



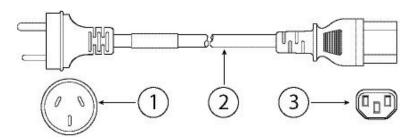
1	Plug: SS10A	2	Cord set rating: 10 A, 250 V
3	Connector: HS10S		

Figure 15: Cabinet Jumper CAB-C13-CBN



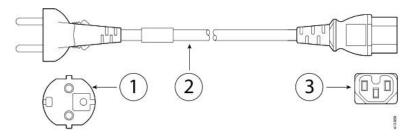
1	Plug: SS10A	2	Cord set rating: 10 A, 250 V	
3	Connector: HS10S			

Figure 16: China CAB-250V-10A-CH



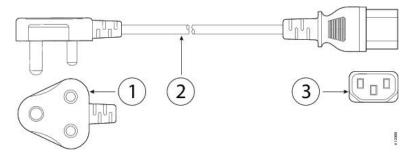
1	Plug: GB2099.1/2008	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		

Figure 17: Europe CAB-9K10A-EU



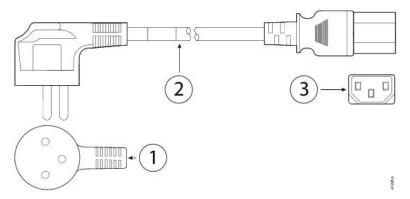
1	Plug: CEE 7/7 (M2511)	2	Cord set rating: 10 A/16 A, 250 V
3	Connector: IEC 60320/C15 (VSCC 15)		

Figure 18: India CAB-250V-10A-ID



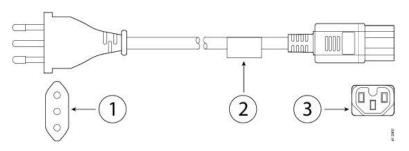
1	Plug: IS 6538-1971	2	Cord set rating: 16A, 250V	
3	Connector: IEC 60320-C13			

Figure 19: Israel CAB-250V-10A-IS



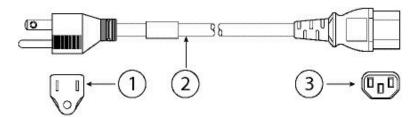
1	Plug: SI-32	2	Cord set rating: 10A, 250V
3	Connector: IEC 60320-C13		

Figure 20: Italy CAB-9K10A-IT



1	Plug: CEI 23-16/VII (I/3G)	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C15		
	(EN 60320/C15M)		

Figure 21: Japan CAB-JPN-3PIN



1	Plug: JIS 8303	2	Cord set rating: 12 A, 125 V
3	Connector: IEC 60320/C13		

Figure 22: Japan CAB-C13-C14-2M-JP

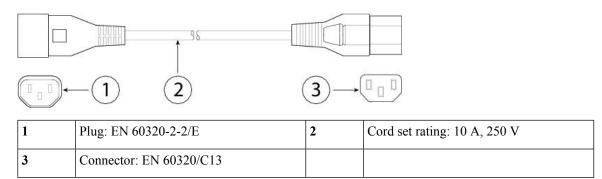
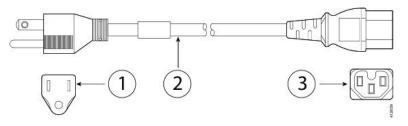
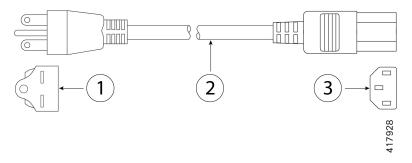


Figure 23: North America CAB-9K12A-NA



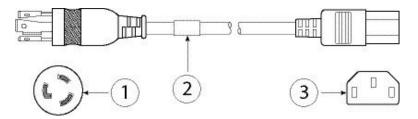
1	Plug: NEMA5-15P	2	Cord set rating: 13 A, 125 V
3	Connector: IEC 60320/C15		

Figure 24: North America CAB-N5K6A-NA



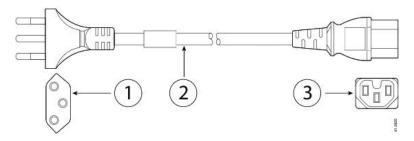
1	Plug: NEMA6-15P	2	Cord set rating: 10 A, 125 V
3	Connector: IEC 60320/C13		

Figure 25: North America CAB-AC-L620-C13



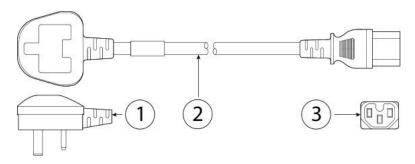
1	Plug: NEMA L6-20 (molded twist lock)	2	Cord set rating: 13 A, 250 V
3	Connector: IEC 60320/C13		

Figure 26: Switzerland CAB-9K10A-SW



1	Plug: SEV 1011 (MP232-R)	2	Cord set rating: 10 A, 250 V	
3	Connector: IEC 60320/C15			

Figure 27: United Kingdom CAB-9K10A-UK



1	Plug: BS1363A/SS145	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C15		

**Power Cord Specifications**