

Revised: September 19, 2025

Cisco C9610 Series Smart Switches - Technical Specifications

Cisco C9610R switch chassis specifications

This section provides information about the physical and environmental specifications of the Cisco C9610R chassis.

Table 1: Physical specifications of the chassis

Item	Specification
Dimensions (H x W x D)	31.47 x 17.4 x 26.1 inches (79.93 x 44.20 x 66.29 cms)
Rack units (RU ¹)	18 RU
Weight (Chassis with eight 3000W power supplies and four fan trays)	266.0 lbs 120.7 kg

¹ The chassis height is measured in rack units (RU or just U), where 1 RU or 1 U equals 1.75 in (44.45 mm).

Table 2: Environmental specifications of the chassis

Item	Specification
Ambient temperature and altitude for normal operations ²	23° to 104°F (-5 to +40°C), up to 6,000 feet (1,800 m). Maximum allowable operating temperature de-rated 1°C/1,000 feet from 6,000 to 10,000 feet.
Transportation and storage temperature and altitude	-40° to 158°F (-40° to 70°C), up to 10,000 feet (3,000 m)
Thermal transition	Hot to cold—at a maximum rate of 86°F (30°C) per hour Cold to hot—at maximum rate of 204.8°F (96°C) per hour
Humidity (RH), ambient (noncondensing)	Operating—10% to 90% non-condensing Nonoperating—10% to 95% non-condensing
Altitude (operating and nonoperating)	-197 to 10,000 feet (-60 to 3,000 m)
Sound power level (LwAD)	LwAD—82 dBA
Airflow	Chassis: front to back (when facing the front of the chassis) Power supply: front to back (forward air flow)
Shock	Operating—5G 11ms (half-sine) Nonoperating and storage—15G 11ms (half-sine)

Item	Specification		
Sine vibration	• Operating—0.2Grms (5Hz-500Hz) • Nonoperating and storage(FRUs)—0.8Grms (5Hz-500Hz) Grms is the root mean square (RMS) acceleration value derived from a sine vibration test. Sine vibration is a type of vibration testing where the test item is subjected to a controlled, single-frequency sinusoidal vibration.		
Random vibration for FRUs/system (operating—0.33Grms)	Spectral break point frequencies	Acceleration spectral density	Slope
	2.5–5 Hz	(0.001 g ² /Hz)	6 db/ octave
	5–100 Hz		-24 db/ octave
	100–200 Hz		
Random vibration for FRUs (nonoperating and transportation—1.05Grms)	Spectral break point frequencies	Acceleration spectral density	Slope
	2.5–5 Hz	(0.01 g ² /Hz)	6 db/ octave
	5–100 Hz		
	100–200 Hz		-24 db/ octave
Random vibration for system (nonoperating and transportation—1.04Grms)	Frequency (Hz)	PSD (G²/Hz)	-
	3	0.0005	
	4	0.008	
	100	0.008	
	300	0.0002	

² Minimum ambient temperature for cold startup is 32°F or 0°C

Power supply specifications

These sections describe the 2000W AC, 2000W DC, and 3000W AC power supply specifications and the supported AC power cords.

2000W AC-input power supply specifications

This section describes the specifications of C9600-PWR-2KWAC.

Table 3: 2000W AC-input power supply specifications

Specification	Description
AC-input type	Wide-ranging input with power factor correction.  Note Power factor correction is a standard feature on AC-input power supplies. Power factor correction reduces the reactive component in the source AC current, allowing higher power factors and lower harmonic current components.
AC-input voltage	Low-line (115 VAC nominal)—90 VAC (min) to 140 VAC (max) High-line (230 VAC nominal)—180 VAC (min) to 264 VAC (max)
AC-input current	12A at 115 VAC 10A at 230 VAC
AC-input frequency	50/60Hz nominal (47 to 63Hz full range)
Branch circuit requirement	Each chassis power supply should have its own dedicated, fused-branch circuit: • North America—15 A. • International—Circuits sized to local and national codes. • All AC power supply inputs are fully isolated. • Source AC can be out-of-phase between multiple power supplies in the same chassis, which means that PS1 can be operating from phase A and PS2 can be operating from phase B. • For high-line operation, the power supply operates with the line conductor wired to a source AC phase, and the neutral conductor wired either to a neutral, single-phase power system, or to another source AC phase as long as the net input voltage is in the range of 180 to 264 VAC.
Power supply output	• 100 to 120 VAC operation • 12V output—1050W • 200 to 240 VAC operation • 12V output—2000W
Output holdup time	20 ms minimum with 1200W output
kVA rating (kilovolt-amperes is the measure of apparent power in electrical systems, indicating the total power output.) ³	2 kVA maximum (total output power)
Heat dissipation (in British Thermal Units [BTU])	683 BTU per hour
Weight	2.60 lb (1.18 kg)

- ³ The kVA rating listed for the power supply should be used as the sizing criteria for both UPS outputs as well as standard circuits and transformers to power a switch

AC power cords for 2000W AC power supply units

This table lists the specifications for the AC power cords that are available for the 2000W AC-input power supply. The table also includes references to power cord illustrations.

Note

All 2000W AC power supply power cord:

- Lengths range from 9.84 to 14 feet (3.0 to 4.293 meters); with most cord lengths between 13 and 14 feet (4.013 and 4.293 meters)
- Have an IEC60320/C15 appliance connector at one end.

Figure 1: IEC60320/C15 appliance connector

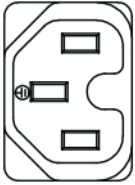
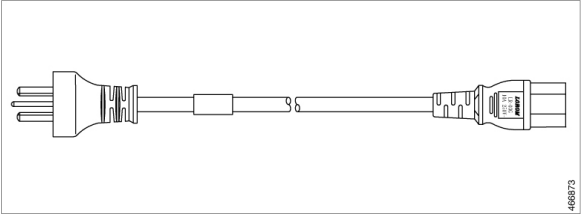
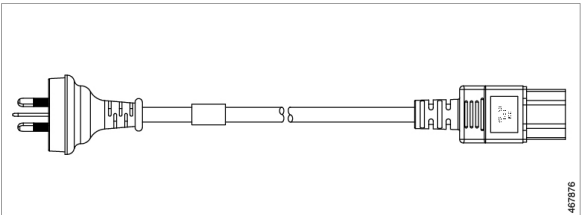
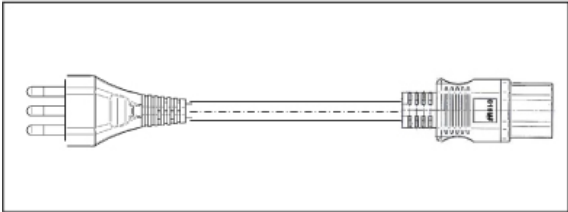
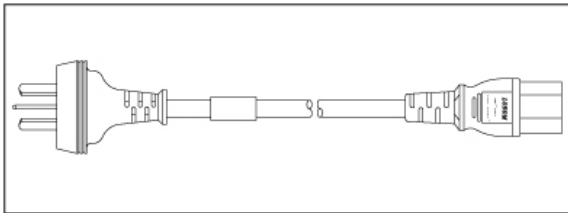
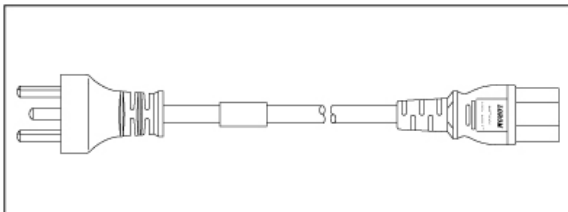
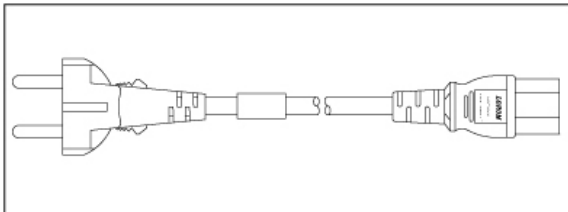
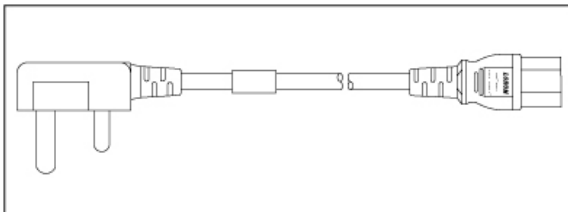
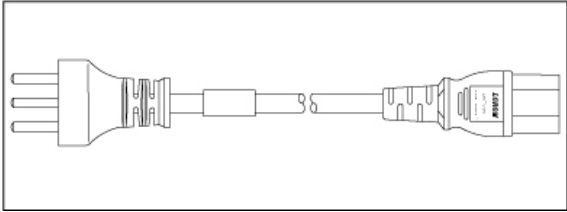
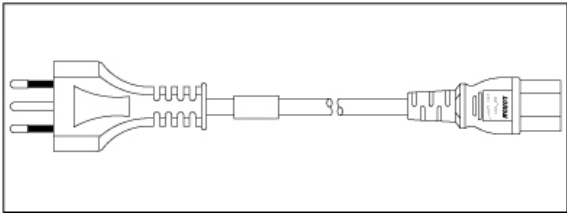
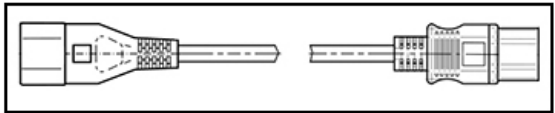
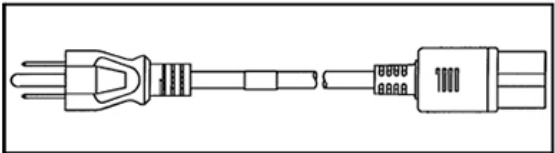
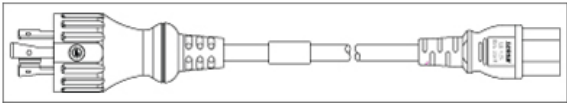
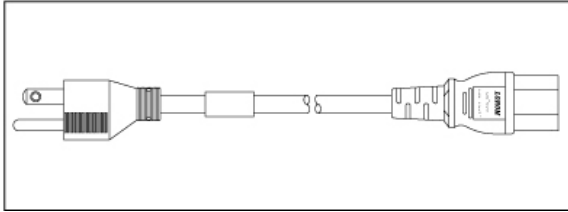
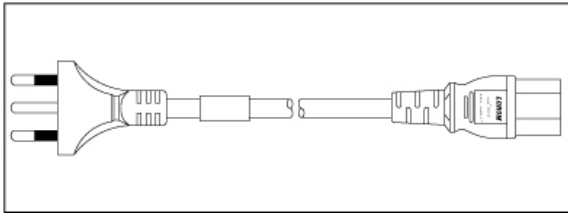
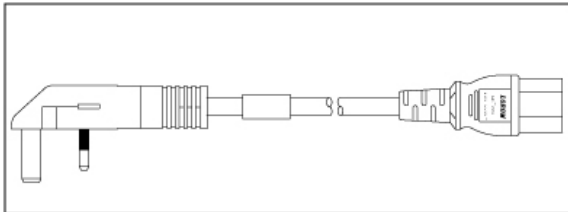
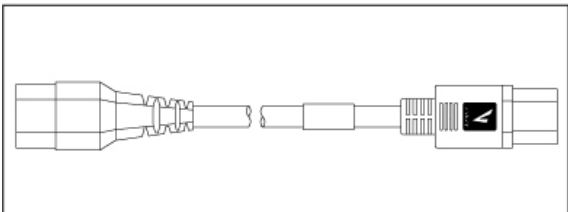


Table 4: AC power cords for 2000W AC PSUs

Locale	Part number	Cordset rating	Length in meters	AC source plug type
Argentina	CAB-TA-AR	125 VAC, 12 A	2.5 m	Figure 2: CAB-TA-AR= (Argentina) 
Australia	CAB-TA-AP	125 VAC, 12 A	2.5 m	Figure 3: CAB-TA-AP= (Australia) 

Locale	Part number	Cordset rating	Length in meters	AC source plug type
Brazil	CAB-ACBZ-12A	125 VAC, 12 A	2.5 m	Figure 4: CAB-ACBZ-12A= (Brazil) 
China	CAB-TA-CN	250 VAC, 10 A	2.5 m	Figure 5: CAB-TA-CN= (China) 
Denmark	CAB-TA-DN	250 VAC, 10 A	2.5 m	Figure 6: CAB-TA-DN= (Denmark) 
Europe	CAB-TA-EU	250 VAC, 10 A	2.5 m	Figure 7: CAB-TA-EU= (Europe) 
India	CAB-TA-IN	250 VAC, 10 A	2.5 m	Figure 8: CAB-TA-IN= (India) 

Locale	Part number	Cordset rating	Length in meters	AC source plug type
Israel	CAB-TA-IS	250 VAC, 16 A	2.5 m	Figure 9: CAB-TA-IS= (Israel) 
Italy	CAB-TA-IT	250 VAC, 10 A	2.5 m	Figure 10: CAB-TA-IT= (Italy) 
Japan	CAB-C15-CBN-JP	250 VAC, 12 A	3.05 m	Figure 11: CAB-C15-CBN-JP= (Japan) 
Japan	CAB-TA-250V-JP	250 VAC, 15 A	2.5 m	Figure 12: CAB-TA-250V-JP= (Japan) 
Japan	CAB-TA-JP	125 VAC, 12 A	2.5 m	Figure 13: CAB-TA-JP= (Japan) 
North America	CAB-AC-2KW-CBL	250 VAC, 13 A	4.25 m	Figure 14: CAB-AC-2KW-CBL= (North America) 

Locale	Part number	Cordset rating	Length in meters	AC source plug type
North America	CAB-TA-NA	125 VAC, 15 A	2.5 m	Figure 15: CAB-TA-NA= (North America) 
Switzerland	CAB-TA-SW	250 VAC, 10 A	2.5 m	Figure 16: CAB-TA-SW= (Switzerland) 
United Kingdom	CAB-TA-UK	250 VAC, 10 A	2.5 m	Figure 17: CAB-TA-UK= (United Kingdom) 
Cabinet jumper power cord; supported in all countries except Japan	CAB-C15-CBN	250 VAC, 13 A	1.22 m	Figure 18: CAB-C15-CBN= 

2000W DC-input power supply specifications

This table lists the specifications for C9600-PWR-2KWDC.

Table 5: 2000W DC-input power supply specifications

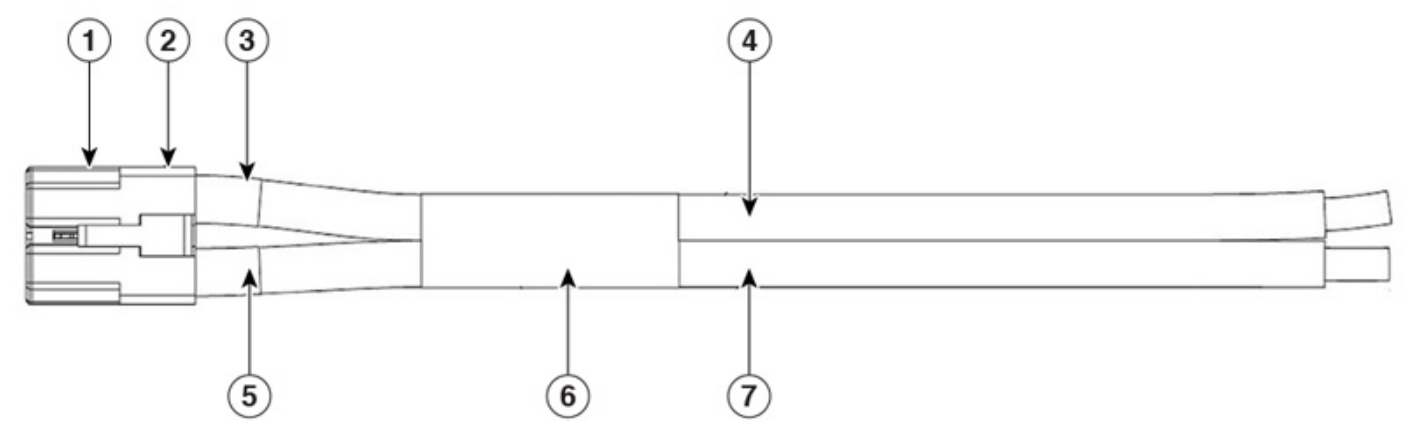
Specification	Description
DC-input voltage	-40 to -60 VDC, with extended range to -72 VDC

Specification	Description
DC-input current	Maximum: 60A
Power supply output capacity	For 12 VDC output—2000W
Output holdup time	5ms with 1200W output
Heat dissipation (in British Thermal Units [BTU])	750 BTU per hour
Weight	2.82 lb (1.28 kg)

DC power cords for 2000W DC power supply units

When you order the DC power supply units, you have the option to order the DC power cord (part number 71-100992-01). The length of all 2000W DC power supply cords range from 9.84 to 14 feet (3.0 to 4.293 meters); with most cord lengths between 13 and 14 feet (4.013 and 4.293 meters)

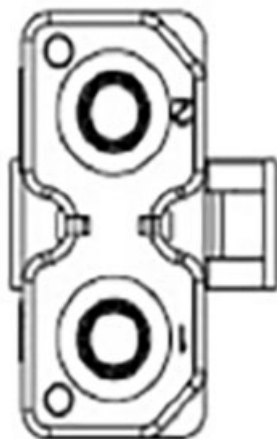
Figure 19: 2000W DC power supply cord



1	Appliance connector (C10-638974-000)	5	6 AWG ultra flex cable or equivalent (red in color)
2	Plug housing (C10-638978)	6	Label
3	Socket contact	7	2x shrink wrap
4	6 AWG ultra flex cable or equivalent (black in color)	-	-

These power cords have a C10-638974-000 appliance connector at one end.

Figure 20: C10-638974-000 appliance connector



3000W AC-input power supply specifications

This table lists specifications for C9600-PWR-3KWAC.

Table 6: 3000W AC-input power supply specifications

Specification	Description
AC-input type	Wide-ranging input with power factor correction.  Note Power factor correction is a standard feature on AC-input power supplies. Power factor correction reduces the reactive component in the source AC current, allowing higher power factors and lower harmonic current components.
AC-input voltage	Low-line (115 VAC nominal)—90 VAC (min) to 140 VAC (max) High-line (230 VAC nominal)—180 VAC (min) to 264 VAC (max)
AC-input current	16A at 115 VAC 16A at 230 VAC
AC-input frequency	50/60Hz nominal (47 to 63Hz full range)

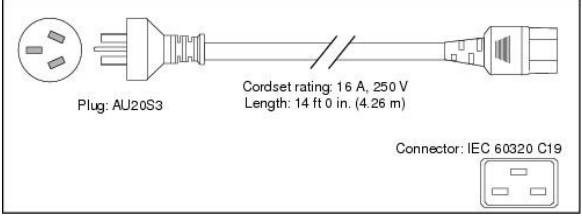
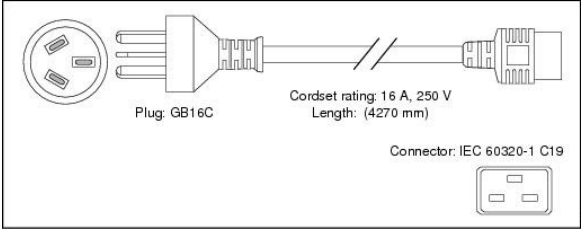
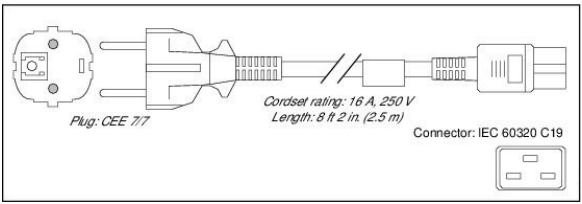
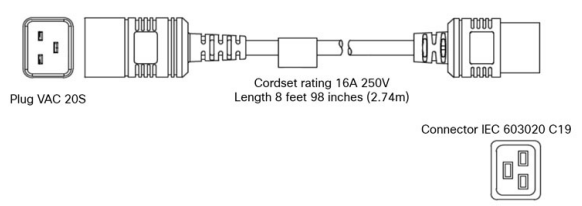
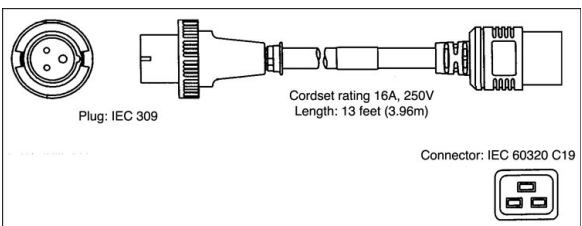
Specification	Description
Branch circuit requirement	Each chassis power supply should have its own dedicated, fused-branch circuit: • North America—20 A. • International—Circuits sized to local and national codes. • All AC power supply inputs are fully isolated. • Source AC can be out of phase between multiple power supplies in the same chassis, which means that PS1 can be operating from phase A and PS2 can be operating from phase B. • For high-line operation, the power supply operates with the line conductor wired to a source AC phase, and the neutral conductor wired either to a neutral, single-phase power system, or to another source AC phase as long as the net input voltage is in the range of 180 to 264 VAC.
Power supply output	• 90 to 140 VAC operation • 12V output—1500W • 180 to 264 VAC operation • 12V output—3000W
Output holdup time	20 ms minimum with 1800W output at high line input
kVA rating (kilovolt-amperes is the measure of apparent power in electrical systems, indicating the total power output.) ⁴	3 kVA maximum (total output power)
Heat dissipation (in British Thermal Units [BTU])	655 BTU per hour
Weight	3.09 lb (1.48 kg)

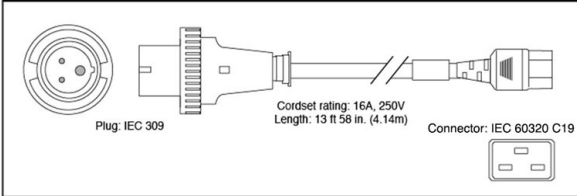
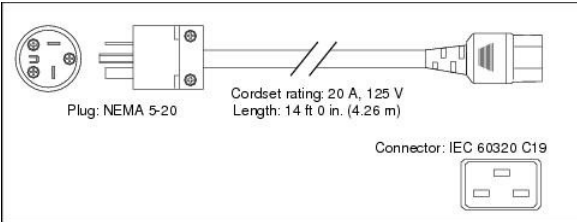
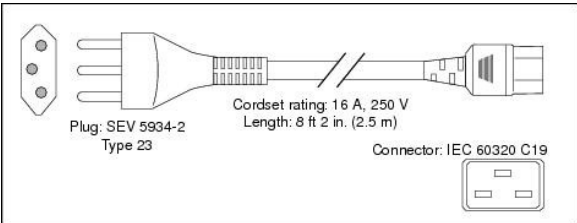
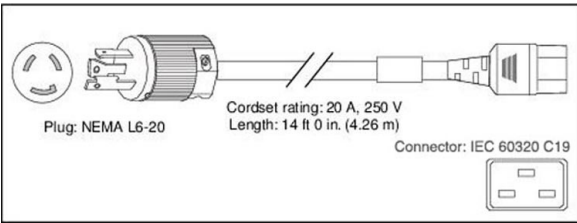
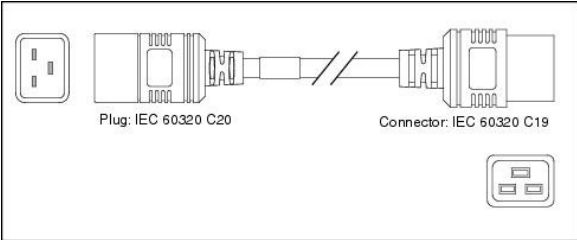
⁴ The kVA rating listed for the power supply should be used as the sizing criteria for both UPS outputs as well as standard circuits and transformers to power a switch

AC power cords for 3000W AC power supply units

This table lists the specifications for the AC power cords that are available for the 3000W AC-input power supply. The table also includes references to power cord illustrations.

Table 7: AC power cords for 3000W AC PSUs

Locale	Part number	Cordset rating	Length	AC source plug type
Australia	CAB-9K16A-AUS	250 VAC, 16 A	4.26 m	Figure 21: CAB-9K16A-AUS= (Australia) 
China	CAB-9K16A-CH	250 VAC, 16 A	4.27 m	Figure 22: CAB-9K16A-CH= (China) 
Europe	CAB-9K16A-EU	250 VAC, 16 A	2.5 m	Figure 23: CAB-9K16A-EU= (Europe) 
India	CAB-C19-C20-IND	250 VAC, 16 A	2.74 m	Figure 24: CAB-C19-C20-IND= (India) 
International	CAB-I309-C19-INTL	250 VAC, 16 A	3.96 m	Figure 25: CAB-I309-C19-INTL= (International) 

Locale	Part number	Cordset rating	Length	AC source plug type
International	CAB-9K16A-INT	250 VAC, 16 A	4.14 m	Figure 26: CAB-9K16A-INT= (International) 
North America and Japan	CAB-9K20A-NA	125 VAC, 20 A,	4.26 m	Figure 27: CAB-9K20A-NA= (North America and Japan) 
Switzerland	CAB-9K16A-SW	250 VAC, 16 A	2.5 m	Figure 28: CAB-9K16A-SW= (Switzerland) 
US and Japan	CAB-9K16A-US2	250 VAC, 20 A	4.26 m	Figure 29: CAB-9K16A-US2= (US/Japan) 
Cabinet jumper power cord	CAB-C19-CBN	250 VAC, 16 A	2.74 m	Figure 30: CAB-C19-CBN=(Cabinet Jumper Power Cord) 

Power and heat values

These tables provide the power and heat dissipation data. Unless otherwise noted, the information in the tables is measured under fully loaded conditions (with transceivers installed).

Table 8: Fan tray power requirements and heat dissipation

PID	AC-input power in Watts	DC-output in Watts	Current @ 90V	Current @ 120V	Current @ 180V	Current @ 240V	Heat Diss. in BTU / hr.
C9610-FAN	1111	1000	12.4	9.3	6.2	4.7	3791

Table 9: Line card power requirements and heat dissipation

PID	AC-input power in Watts	DC-output in Watts (Power requested)	Current @ 90V	Current @ 120V	Current @ 180V	Current @ 240V	Heat Diss. in BTU / hr.
C9610-LC-40YL4CD	466	420	5.2	3.9	2.6	1.95	1590
C9610-LC-32CD	495	450	5.6	4.2	2.8	2.1	1689
C9600-LC-40YL4CD	466	420	5.2	3.9	2.6	1.95	1590
C9600-LC-48TX	350	315	3.9	3.0	2.0	1.5	1195
C9600X-LC-32CD	495	450	5.6	4.2	2.8	2.1	1689
C9600X-LC-56YL4C	495	450	5.6	4.2	2.8	2.1	1689

Table 10: Supervisor module power requirements and heat dissipation

PID	AC-input power in Watts	DC-output in Watts (Power requested)	Current @ 90V	Current @ 120V	Current @ 180V	Current @ 240V	Heat Diss. in BTU / hr.
C9610-SUP-3	2444	2200	27.15	20.37	13.58	10.18	8339
C9610-SUP-3XL	2444	2200	27.15	20.37	13.58	10.18	8339

Weight specifications

The total weight of a fully configured chassis will depend on the type of chassis, the number of modules, and power supplies installed. Use the corresponding weights in the tables to arrive at the total chassis weight for your hardware configuration.

Weight measurement for the chassis

PID (add = for spare)	Weight (Chassis without fan trays and power supply units)
C9610R=	184.0 lbs (83.5kg)

Weight measurements for the supervisor module

PID (add = for spare)	Weight
C9610-SUP-3	31.1 lb (14.1 kg)
C9610-SUP-3XL	31.1 lb (14.1 kg)

Weight measurements for line cards

PID (add = for spare)	Weight
C9610-LC-32CD	13.45 lb (6.1 kg)
C9610-LC-40YL4CD	13.89 lb (6.3kg)
C9600-LC-40YL4CD	8.27 lb (3.75 kg)
C9600-LC-48TX	8.88 lb (4.03 kg)
C9600X-LC-32CD	8.71 lb (3.95 kg)
C9600X-LC-56YL4C	9.14 lbs (4.15 kg)

Weight measurements for power supply modules

PID (add = for spare)	Weight
C9600-PWR-2KWAC	2.60 lb (1.18 kg)
C9600-PWR-2KWDC	2.82 lb (1.28 kg)
C9600-PWR-3KWAC	3.09 lb (1.48 kg)

Weight measurements for the fan tray

PID (add = for spare)	Weight
C9610-FAN=	13.98 lbs (6.34 kg)

Blank covers

PID (add = for spare)	Weight
C9610-ADPT-BLANK= (Cisco C9610 series blank for line card adapter)	3.78 lb (1.7153 kg)
C9610-LC-BLANK= (Cisco C9610 series blank for line card slot)	4.54 lb (2.06 kg)
C9606-PWR-BLANK= (Cisco C9610 series blank for chassis power supply slot)	0.18 lb (0.08 kg)
C9610-SSD-BLANK= (Cisco C9610 series blank for SSD)	0.20 lb (0.0913 kg)
C9610-SUP-BLANK= (Cisco C9610 series blank for supervisor module slot)	6.08 lb (2.76 kg)