



Technical Specifications

- [Switch Specifications, page 1](#)
- [Power Supply Module Specifications, page 3](#)
- [3000 W Power Supply AC Power Cords, page 4](#)
- [Fan Module Specifications, page 10](#)
- [Chassis and Module Power and Heat Values , page 11](#)

Switch Specifications

Environmental	Specification
Temperature, operating	<p>Certified for operation: 32° to 104°F (0° to 40°C)</p> <p>Designed and tested for operation: 32° to 131°F (0° to 55°C)</p> <p>Note The Catalyst 6880-X switch is equipped with internal air temperature sensors that generate a minor alarm when triggered at 104°F (40°C) and generate a major alarm when triggered at 131 °F (55°C).</p>
Temperature, nonoperating and storage	<p>Chassis unpackaged: -4° to 149°F (-20° to 65°C)</p> <p>Chassis in protective shipping package: -40° to 158°F (-40° to 70°C)</p>
Thermal transition	<p>0.9°F (0.5°C) per minute (hot to cold)</p> <p>0.59°F (0.33°C) per minute (cold to hot)</p>
Humidity (RH), ambient (noncondensing operating)	5% to 90%
Humidity (RH), ambient (noncondensing nonoperating and storage)	5% to 95%

Environmental	Specification
Altitude, operating	Certified for operation: 0 to 6500 ft (0 to 2000 m) Designed and tested for operation: -200 to 10,000 ft (-60 to 3000 m)
Shock and vibration	Shock <ul style="list-style-type: none"> • Operational — 5 G 30 ms, half-sine (IEC 68-2-27) • Nonoperational — 20 G, 7.5 ms, trapezoidal Vibration <ul style="list-style-type: none"> • Operational — 3 Hz to 500 Hz • Power Spectral Density (PSD) — 0.0005 G²/Hz at 10 Hz and 200 Hz. 5 dB/octave roll off at each end. 0.5 hours per axis (1.12 Grms).
Acoustic noise	67 dB. International Organization for Standardization (ISO) 7779: Bystander position operating to an ambient temperature of 86°F (30°C).
Physical characteristics	
Dimensions	<ul style="list-style-type: none"> • Height = 8.75 in. (22.23 cm) • Width = 17.35 in. (44.07 cm) • Depth= 23 in. (58.42 cm) • Chassis requires 5 rack units (RUs) • The Catalyst 6880-X switch is designed to install in standard 19-inch equipment racks that meet ANSI/EIA 310-D, IEC 60297, and ETS 300-199 standards.
Weight	Chassis only: 48 lb (21.77 kg) Chassis fully configured with 1 fan tray and 2 power supplies: 88 lb (39.92 kg)

Environmental	Specification
Airflow	<p>C6880-X-FAN</p> <p>Note The airflow in the Catalyst 6880-X switch chassis is from right to left. See Site Requirements for recommended separations between walls and the chassis air intake and air exhaust and between the air exhaust of one chassis with the air intake of another chassis. Failure to maintain adequate air space can cause the chassis to overheat and the system to fail.</p>

Power Supply Module Specifications

	C6880-X-3KW-AC	C6880-X-3KW-DC
Physical specifications	<ul style="list-style-type: none"> • (H x W x D): 1.6 x 3.95 x 22 in. (4.1 x 10 x 55.9 cm) • Weight: 5 lb (2.27 kg) 	<ul style="list-style-type: none"> • (H x W x D): 1.75 x 3.95 x 22 in. (4.45 x 10 x 55.9 cm) • Weight: 11 lb (5 kg)
Input voltage range	85 to 264 VAC	<ul style="list-style-type: none"> • -48 VDC nominal at 37 A in North America (operating range: -40.5 to -56 VDC) • -60 VDC nominal at 30 A for international (operating range: -55 to -72 VDC)
Input frequency range	47 to 63 Hz	
Input current (each input)	20 A maximum at nominal line voltage (110 or 220 VAC)	<ul style="list-style-type: none"> • 40 A maximum at -48 VDC input voltage (total of two inputs) • 45 A maximum at -40V input
Rush-in current	55 A maximum for one cycle	50A maximum cold, and 70A maximum hot
Power supply input receptacles	International Electrotechnical Commission (IEC) 320-C20	Dual M6 studs for cable terminal lugs (per KS TCLH!16-6-2AS; 4 each)
Power cord rating	16A	—

	C6880-X-3KW-AC	C6880-X-3KW-DC
British thermal units (BTUs)	<ul style="list-style-type: none"> • 10,410 BTU/hour at 3051W output • 5292 BTU/hour at 1551 W output 	<ul style="list-style-type: none"> • 10,410 BTU/hour at 3051W output • 5292 BTU/hour at 1551 W output
Output holdup time	20 milliseconds (ms) minimum	<ul style="list-style-type: none"> • 8 milliseconds (ms) for half load • 4 milliseconds (ms) for full load
Environmental conditions	<ul style="list-style-type: none"> • Operating temperature: 32 to 104°F (0 to 40°C) • Storage temperature: -40 to 185°F (-40C to 85°C) • Relative humidity operating, noncondensing: 10 to 90% • Relative humidity nonoperating, noncondensing: 10 to 95% 	

3000 W Power Supply AC Power Cords

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

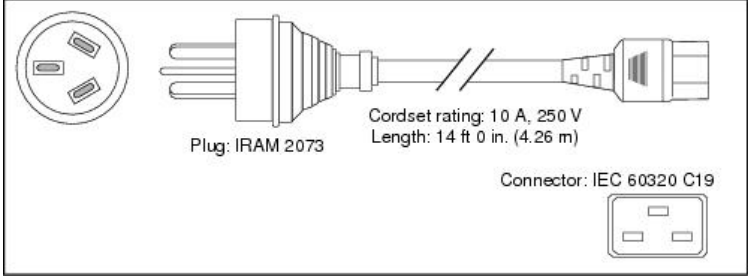
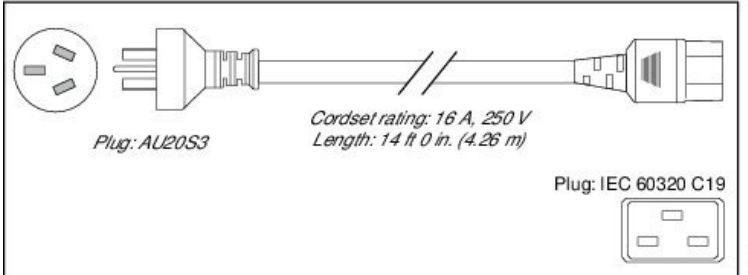
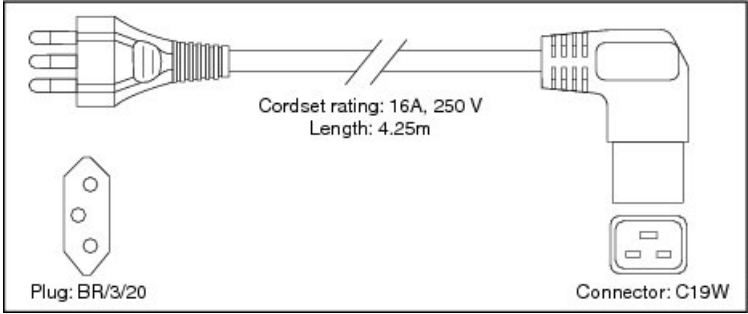


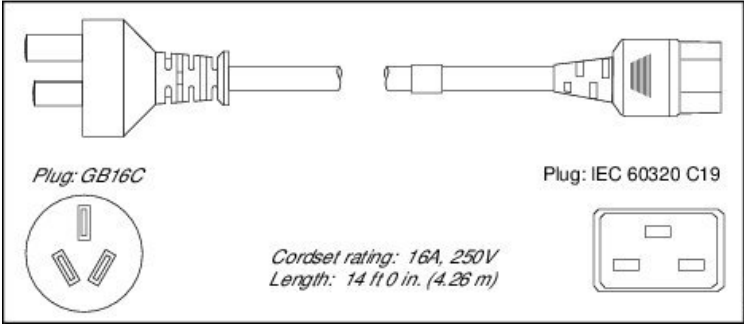
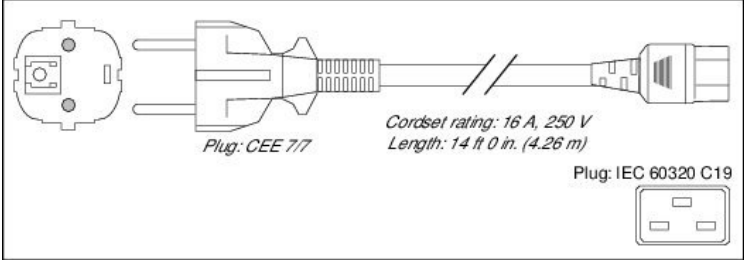
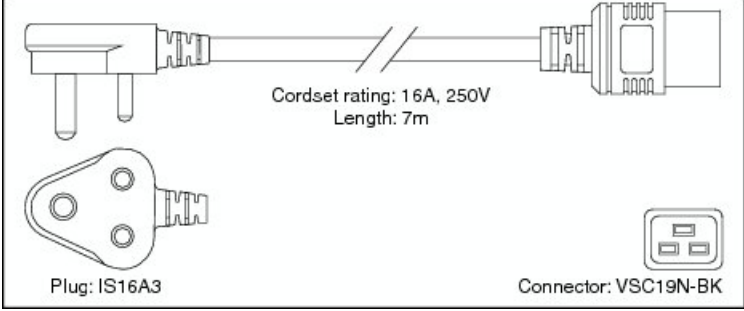
Note

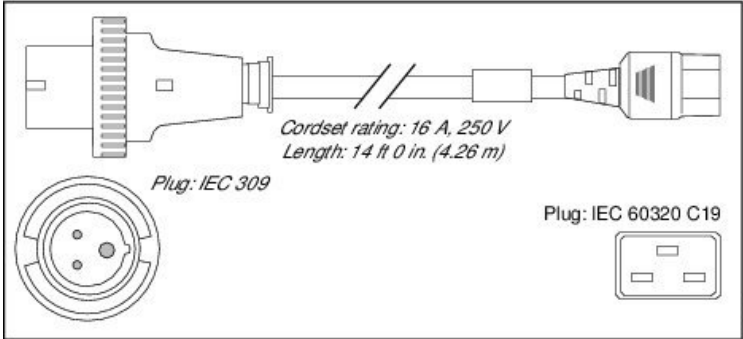
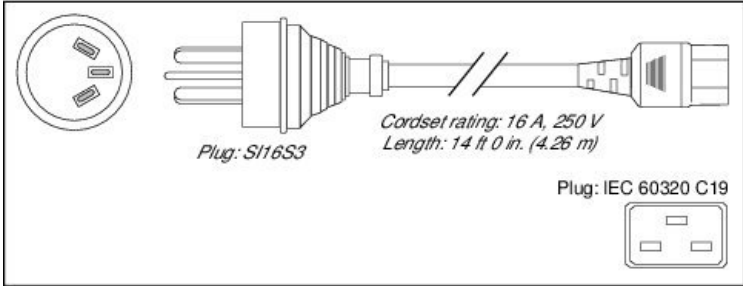
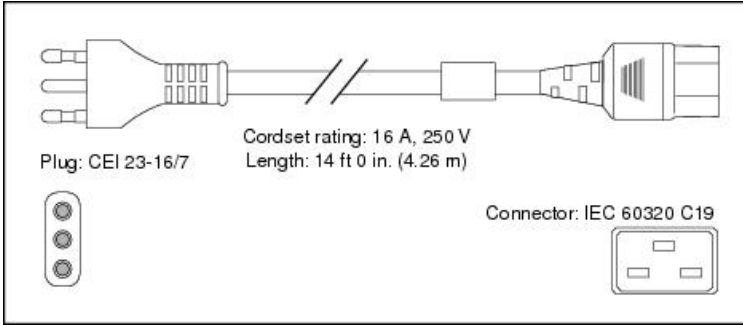
All 3000 W power supply power cords:

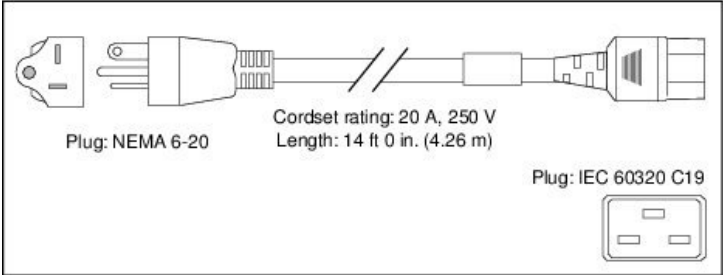
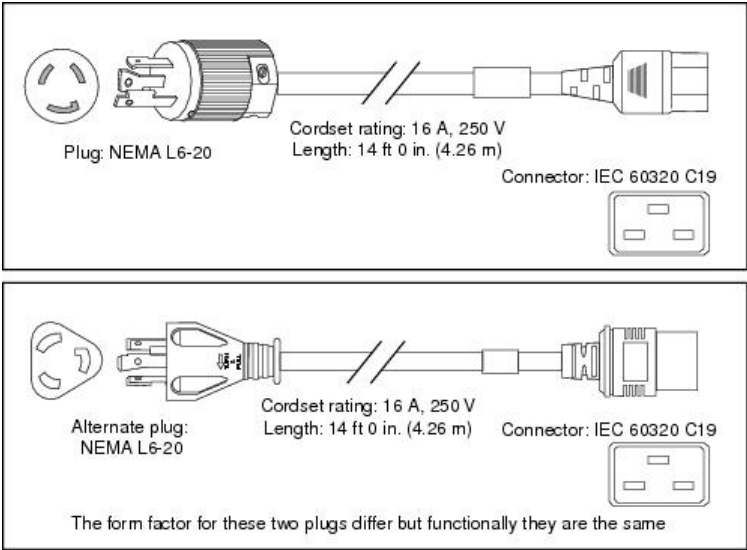
- Are 14 feet (4.3 meters) in length.
 - Have an IEC60320/C19 appliance connector at one end.
-

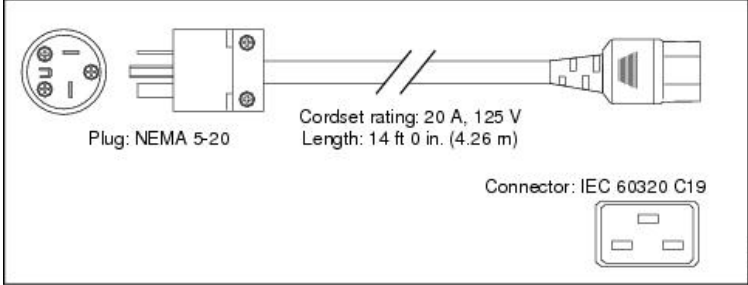
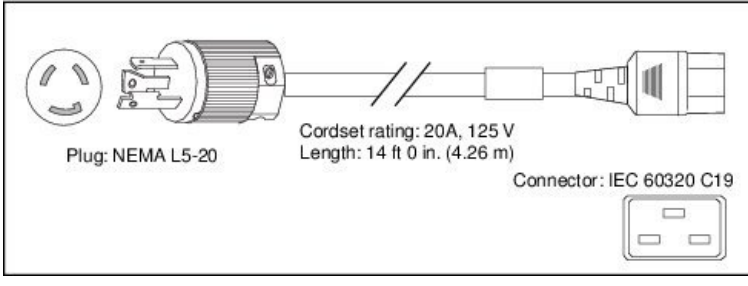
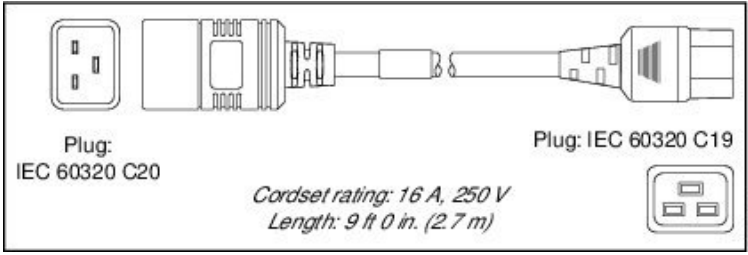
Table 1: 3000 W Power Supply AC Power Cords

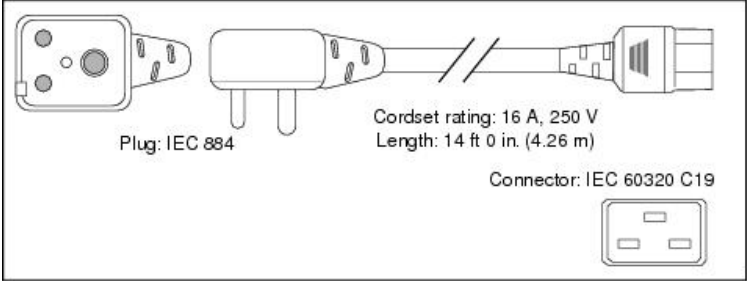
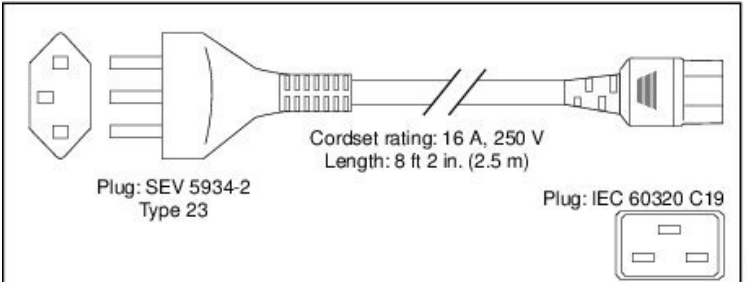
Locale	AC Source Plug Type	Cordset Rating	Power Cord Part Number and Reference Illustration
Argentina	IRAM 2073	16 A, 250 VAC	<p>Figure 1: CAB-IR2073-C19-AR= (Argentina)</p> 
Australia, New Zealand	AU20S3	16 A, 250 VAC	<p>Figure 2: CAB-AC-16A-AUS= (Australia, New Zealand)</p> 
Brazil	EN60320 / C19	16 A, 250 VAC	<p>Figure 3: UCSB-CABL-C19-BRZ= (Brazil)</p> 
People's Republic of China	GB16C	16 A, 250 VAC	

Locale	AC Source Plug Type	Cordset Rating	Power Cord Part Number and Reference Illustration
			<p>Figure 4: CAB-AC16A-CH= (People's Republic of China)</p>  <p>Plug: GB16C</p> <p>Plug: IEC 60320 C19</p> <p>Cordset rating: 16A, 250V Length: 14 ft 0 in. (4.26 m)</p>
Continental Europe	CEE 7/7	16 A, 250 VAC	<p>Figure 5: CAB-AC-2500W-EU= (Continental Europe)</p>  <p>Plug: CEE 7/7</p> <p>Plug: IEC 60320 C19</p> <p>Cordset rating: 16 A, 250 V Length: 14 ft 0 in. (4.26 m)</p>
India	EN60320/C19	16 A, 250 VAC	<p>Figure 6: CAB-SABS-C19-IND= (India)</p>  <p>Plug: IS16A3</p> <p>Connector: VSC19N-BK</p> <p>Cordset rating: 16A, 250V Length: 7m</p>
International	IEC 309	16 A, 250 VAC	

Locale	AC Source Plug Type	Cordset Rating	Power Cord Part Number and Reference Illustration
			<p>Figure 7: CAB-AC-2500W-INT= (International)</p>  <p>Cordset rating: 16 A, 250 V Length: 14 ft 0 in. (4.26 m)</p> <p>Plug: IEC 309</p> <p>Plug: IEC 60320 C19</p> <p>113067</p>
Israel	SI16S3	16 A, 250 VAC	<p>Figure 8: CAB-AC-2500W-ISRL= (Israel)</p>  <p>Cordset rating: 16 A, 250 V Length: 14 ft 0 in. (4.26 m)</p> <p>Plug: SI16S3</p> <p>Plug: IEC 60320 C19</p> <p>130713</p>
Italy	CEI 23-16/7	16 A, 250 VAC	<p>Figure 9: CAB-7513ACI= (Italy)</p>  <p>Cordset rating: 16 A, 250 V Length: 14 ft 0 in. (4.26 m)</p> <p>Plug: CEI 23-16/7</p> <p>Connector: IEC 60320 C19</p> <p>113393</p>
	NEMA 6-20	16 A, 250 VAC	

Locale	AC Source Plug Type	Cordset Rating	Power Cord Part Number and Reference Illustration
Japan, North America (Nonlocking Plug) 200 to 240 VAC Operation			<p>Figure 10: CAB-AC-2500W-US1= (Japan, North America [Nonlocking Plug] 200 to 240 VAC operation)</p>  <p>Plug: NEMA 6-20 Cordset rating: 20 A, 250 V Length: 14 ft 0 in. (4.26 m) Plug: IEC 60320 C19</p> <p>113062</p>
Japan, North America (Locking Plug) 200 to 240 VAC Operation	NEMA L6-20	16 A, 250 VAC	<p>Figure 11: CAB-AC-C6K-TWLK= (Japan, North America [Locking Plug] 200 to 240 VAC operation)</p>  <p>Plug: NEMA L6-20 Cordset rating: 16 A, 250 V Length: 14 ft 0 in. (4.26 m) Connector: IEC 60320 C19</p> <p>Alternate plug: NEMA L6-20 Cordset rating: 16 A, 250 V Length: 14 ft 0 in. (4.26 m) Connector: IEC 60320 C19</p> <p>The form factor for these two plugs differ but functionally they are the same</p> <p>187845</p> <p>Note The form factor for these two plugs differ but functionally they are the same.</p>
Japan, North America 100 to 120 VAC operation ¹	NEMA 5-20	20 A, 125 VAC	

Locale	AC Source Plug Type	Cordset Rating	Power Cord Part Number and Reference Illustration
			<p>Figure 12: CAB-7513AC= (Japan, North America 100 to 120 VAC operation)</p> 
North America	NEMA L5 -20	20 A, 125 VAC	<p>Figure 13: CAB- L520P - C19 -US= (North America)</p> 
Power Distribution Unit (PDU) 2	IEC 60320 C19 IEC 60320 C20	16 A, 250 VAC	<p>Figure 14: CAB-C19-CBN= (PDU)</p> 
South Africa	IEC 884-1	16 A, 250 VAC	

Locale	AC Source Plug Type	Cordset Rating	Power Cord Part Number and Reference Illustration
			<p>Figure 15: CAB-7513ACSA (South Africa)</p> 
Switzerland	SEV 5934-2 Type 23	16 A, 250 VAC	<p>Figure 16: CAB-ACS-16= (Switzerland)</p> 

¹ The 3000 W power supply operating on 110 VAC delivers 1400 W.

² The PDU power cable is designed for users who power their switch from a PDU. The end of the cable that plugs into the chassis power supply has a C19 connector; the other end of the cable that connects to the PDU has a C20 connector .

Fan Module Specifications

Physical Specification	
Dimensions (H x D x W)	5.75 x 23.28 x 1.65 in. (14.60 x 59.13 x 4.19 cm)
Weight	6.39 lb (2.90 kg)
Operating Specification	
Airflow	250 cfm

Chassis and Module Power and Heat Values

Module Type	Module Current (A)	Module Power (Watts)	AC-Input Power (Watts)	AC Heat Diss (BTU/HR)	DC Input Power (Watts)	DC Heat Diss (BTU/HR)
C6880-X-FAN	4 A	200 W	216 W	737	216	737
Catalyst 6880-X ³	13.2 A	660 W	713 W	2432 BTU/HR	697 W	2432 BTU/HR
Catalyst 6880-X-LE ⁴	12.6 A	630 W	680 W	2321 BTU/HR	680 W	2321 BTU/HR

³ Includes fan tray

⁴ Includes fan tray

