



## Powering on the Switch

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- [Powering on the Switch, on page 1](#)
- [Power Module Overview, on page 1](#)
- [Connect HVAC Power Supply to Power Source, on page 2](#)
- [Power Supply Power Cord Specifications, on page 4](#)

## Powering on the Switch

This chapter describes how to connect the power modules in the chassis and to power on the switch.

## Power Module Overview

You can install an AC power module in the chassis. Ensure all power connection wiring conforms to the rules and regulations in the National Electrical Code (NEC) as well as local codes.

The chassis has a power assembly shelf that supports the following number of power trays:

- Cisco 9804 chassis contains two power trays

Each power tray supports up to three AC power modules.



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**Note** Use only one kind of power tray and power module in the chassis.

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**Note** Use only the same capacity power module in the chassis. Do not mix different capacity power modules.

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### High-Voltage AC Power Supplies

HVAC power modules operate in the input range of 180 VAC to 305 VAC (nominal input level of 200 to 240 VAC, 277 VAC).

- NXX-HV-6.3KW20A-A: Each 6.3 KW, 20A power module can supply up to 6.3 KW to the power tray when it's supplied by two feeds (A and B). It can supply up to 3.15 KW with only one feed.

- NXX-HV-6.3KW30A-A: Each 6.3 KW, 30A power module can supply up to 6.3 KW to the power tray when it's supplied by two feeds (A and B). It can supply up to 4.8 KW with only one feed.

## Connect HVAC Power Supply to Power Source

The HVAC power supply has 2 redundant input power lines. It can provide a power output of 6.3 kW from each input power line with 2 inputs operating, or provide 4.8 kW (30A) or 3.15 kW (20A) output from either input with one input operating. The HVAC power supply provides  $n+n$  or  $n+x$  line redundancy mode in a single power supply for the switch.

The HVAC power supply accepts a maximum of 305VAC or 400VDC input power.

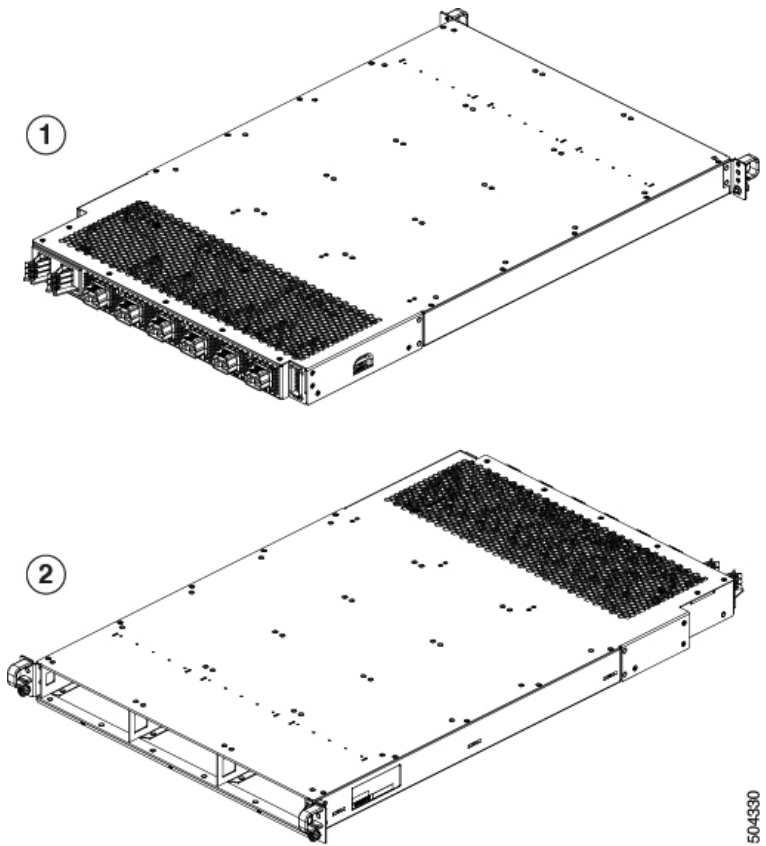
If you are not using power redundancy or are using  $n+1$  power redundancy, you can connect all the power supplies in the chassis to the same power grid on the rear end of each power tray. If you are using  $n+n$  power redundancy, connect one redundant grid to one of the power supply inputs and the other redundant grid to the other power supply input on the back of the power tray as shown for each power supply. To enable grid redundancy, you must connect the corresponding inlet of power supplies to the correct power grids. For example, first inlet of all PS slots correspond to Grid-A and second inlet of all PS slots correspond to Grid-B.

### Before you begin

- Turn off the power source at its circuit breaker.
- Check that the power switch is set to the STANDBY (0) position on the power tray.
- NXX-HV-6.3KW30A-A: The HVAC power sources are rated for 30A maximum input current.
- NXX-HV-6.3KW20A-A: The HVAC power sources are rated for 20A maximum input current.

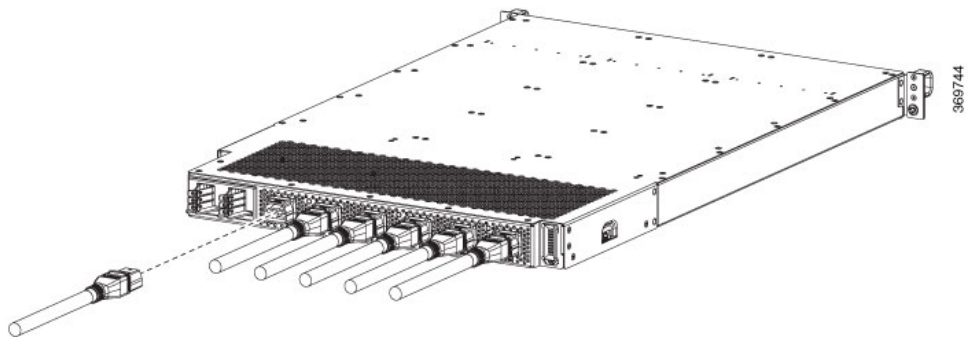
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- Step 1** Choose your power supply (HVAC) and use a Saf-D-Grid power cable to connect to the power supply tray.
- Step 2** For HVAC input, connect a Saf-D-Grid AC power cable to the Saf-D-Grid receptacle.

Figure 1: HV Power Tray



1	Rear	2	Front
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Figure 2: HVAC Power Connection



**Step 3** Verify that the Saf-D-Grid plug is plugged in completely to secure the built-in retaining latch.

**Step 4** Turn on the circuit breaker for the HVAC power source circuit.

**Note** If you use both inputs, the IN LED of the power supply is green. If you use only one input, the IN LED is blinking green.

**Step 5** Turn on the switch of the power shelf to turn on the system.

### What to do next

Use the **power redundancy-mode mode** command to specify one of the following power modes:

- For combined mode, include the **combined** keyword.
- For  $n+1$  redundancy mode, include the **ps-redundant** keyword.
- For  $n+n$  redundancy mode, include the **insrc-redundant** keyword.

### Example:

```
switch(config)# power redundancy-mode insrc-redundant
switch(config)#
```

## Power Supply Power Cord Specifications



**Note** Always use the Saf-D-Grid connector toward the switch.

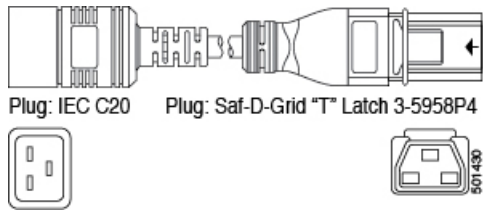
**Table 1: Standard AC and HDVC Power Cords**

Locale	Part Number	Cisco Part Number (CPN)	Power Cord Set Rating	Connector Part Number	Power Cord Illustration
North America	CAB-AC-20A-SG-C20	37-1653-01	20A, 250VAC	Saf-D-Grid 3-5958P4 to IEC 60320 C20	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
IEC/EU, US, CANADA, MEXICO, BRAZIL, NETHERLANDS, IRELAND, FRANCE, UK, GERMANY, SWITZERLAND, NORWAY, SPAIN, ITALY, SINGAPORE, CHINA, SOUTH AFRICA	CAB-AC-20A-NA	37-2126-01	20A, 250VAC	Saf-D-Grid 3-5958P2 to IEC 60320 C20	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>

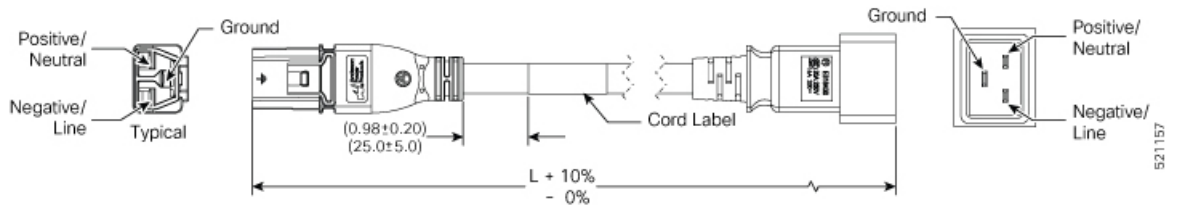
Locale	Part Number	Cisco Part Number (CPN)	Power Cord Set Rating	Connector Part Number	Power Cord Illustration
IEC/EU, AUSTRALIA/NEW ZEALAND, SWITZERLAND, ITALY, SOUTH AFRICA, ISRAEL, BRAZIL, ARGENTINA, INDIA	CAB-AC-32A-ANZ, CAB-AC-32A-CHE, CAB-AC-32A-ITA, CAB-AC-32A-BRZ, CAB-AC-32A-ZAF, CAB-AC-32A-ISR, CAB-AC-32A-IND, CAB-AC-32A-ARG	37-101007-01	32A, 250VAC	Saf-D-Grid 3-5958P4 to Hubbell C332P6S Plug	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
NORTH AMERICA	CAB-AC-30A-US1, CAB-AC-30A-US2	37-101008-01, 37-101009-01	30A, 250VAC	Saf-D-Grid 3-5958P4 to VOLEX 174606	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
NORTH AMERICA	CAB-AC-30A-US3	37-101013-01	30A, 277VAC	Saf-D-Grid 3-5958P4 to HBL2631	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
NORTH AMERICA	CAB-AC-30A-US4	37-101018-01	30A, 300VAC	Saf-D-Grid 3-5958P4 to Saf-D-Grid 3-6074P30	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
IEC/EU	CAB-AC-32A-EU	37-101019-01	32A, 300VAC	Saf-D-Grid 3-5958P4 to Saf-D-Grid 3-6074P30	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
IEC/EU	CAB-DC-32A-EU1, CAB-DC-32A-EU2	37-101015-01, 37-101017-01	32A, 400VDC	Saf-D-Grid 3-5958P4 to Saf-D-Grid 3-5958P4	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
CHINA	CAB-AC-32A-CHN	37-101010-01	32A, 250VAC	-	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>
KOREA	CAB-AC-32A-KOR	37-101012-01	32A, 250VAC	-	Refer the figure in <a href="#">Power Cord Illustrations, on page 6</a>

# Power Cord Illustrations

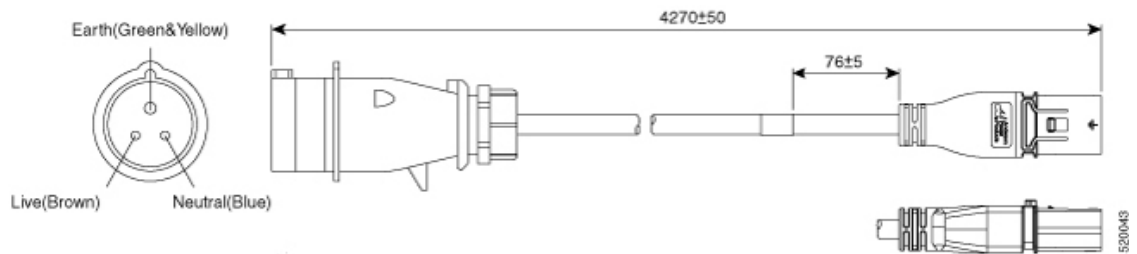
**Figure 3: CAB-AC-20A-SG-C20 Power Cord and Plugs for Standard AC Power Supply**



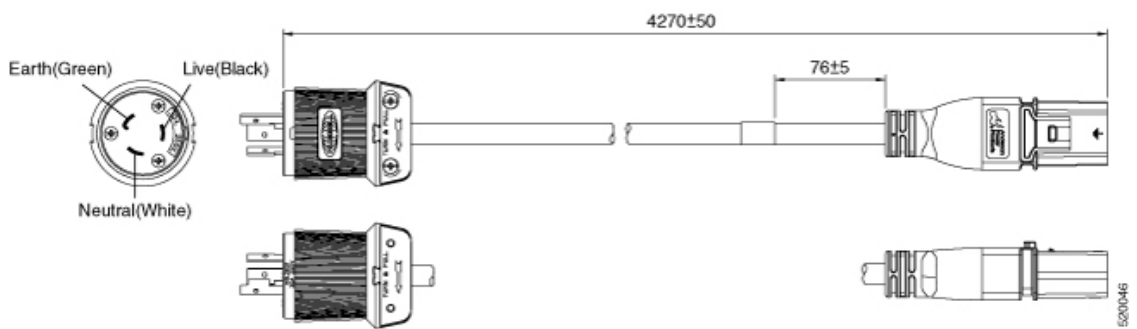
**Figure 4: CAB-AC-20A-NA Power Cord and Plugs for Standard AC Power Supply**



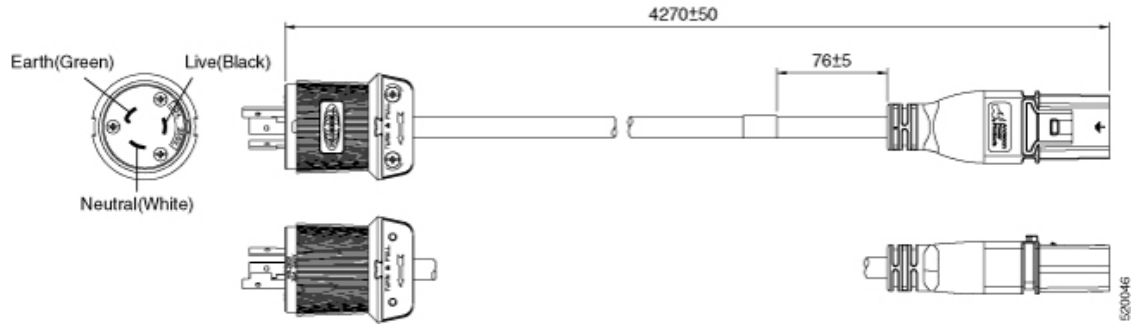
**Figure 5: CAB-AC-32A-ANZ, CAB-AC-32A-CHE, CAB-AC-32A-ITA, CAB-AC-32A-BRZ, CAB-AC-32A-ZAF, CAB-AC-32A-ISR, CAB-AC-32A-IND, CAB-AC-32A-ARG Power Cord and Plugs for Standard AC Power Supply**



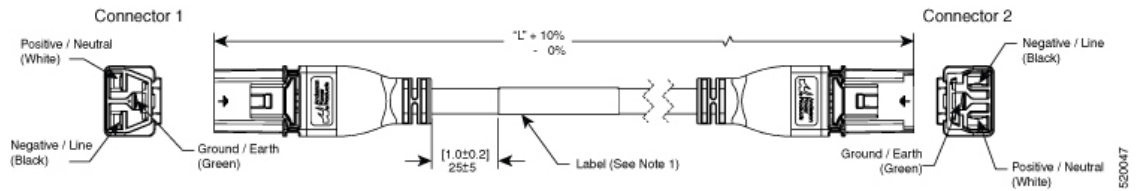
**Figure 6: CAB-AC-30A-US1, CAB-AC-30A-US2 Power Cord and Plugs for Standard AC Power Supply**



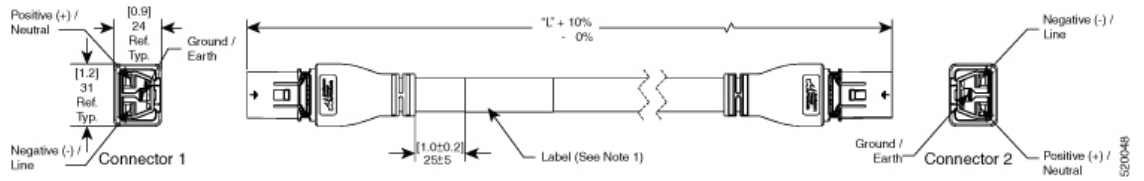
**Figure 7: CAB-AC-30A-US3 Power Cord and Plugs for Standard AC Power Supply**



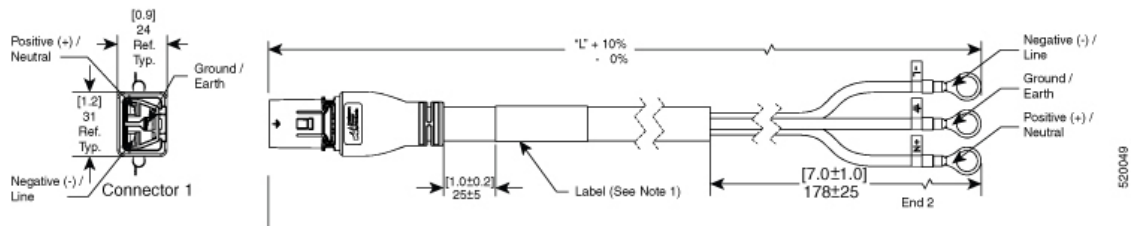
**Figure 8: CAB-AC-30A-US4 Power Cord and Plugs for Standard AC Power Supply**



**Figure 9: CAB-AC-32A-EU Power Cord and Plugs for Standard AC Power Supply**



**Figure 10: CAB-DC-32A-EU1, CAB-DC-32A-EU2 Power Cord and Plugs for HVDC Power Supply**



**Figure 11: CAB-AC-32A-CHN Power Cord and Plugs for Standard AC Power Supply**

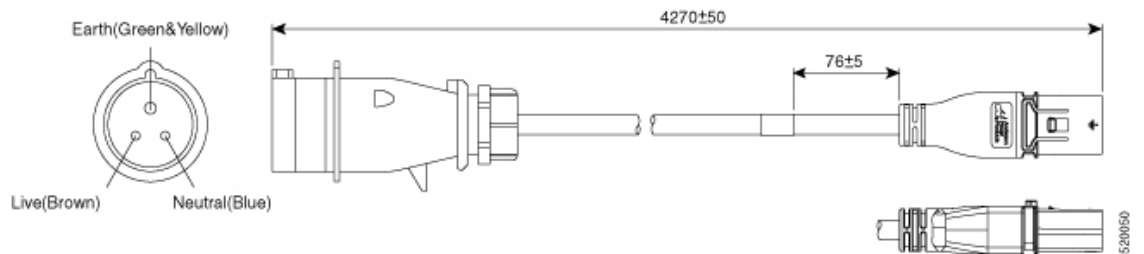


Figure 12: CAB-AC-32A-KOR Power Cord and Plugs for Standard AC Power Supply

