



Cisco PWR-IE240W-AC-IEC, PWR-IE400W-AC-IEC Power Supply Units Hardware Installation Guide

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Cisco PWR-IE240W-AC-IEC and PWR-IE400W-AC-IEC Power Supply Units

The Cisco power supply units (PSU) are DIN rail mounted AC to DC PSUs with IEC C16 input connector, designed for use with Cisco IE series DIN rail mounted switches.

The two models are:

- PWR-IE240W-AC-IEC
- PWR-IE400W-AC-IEC

Compatible Products

These PSUs are designed for use with DIN rail mounted Cisco Industrial Ethernet switch families.



Note Refer to individual switch documentation for specific power requirements and PoE budgets.

Protection Features

This section describes the PSU protection features.

Table 1: Protection Features

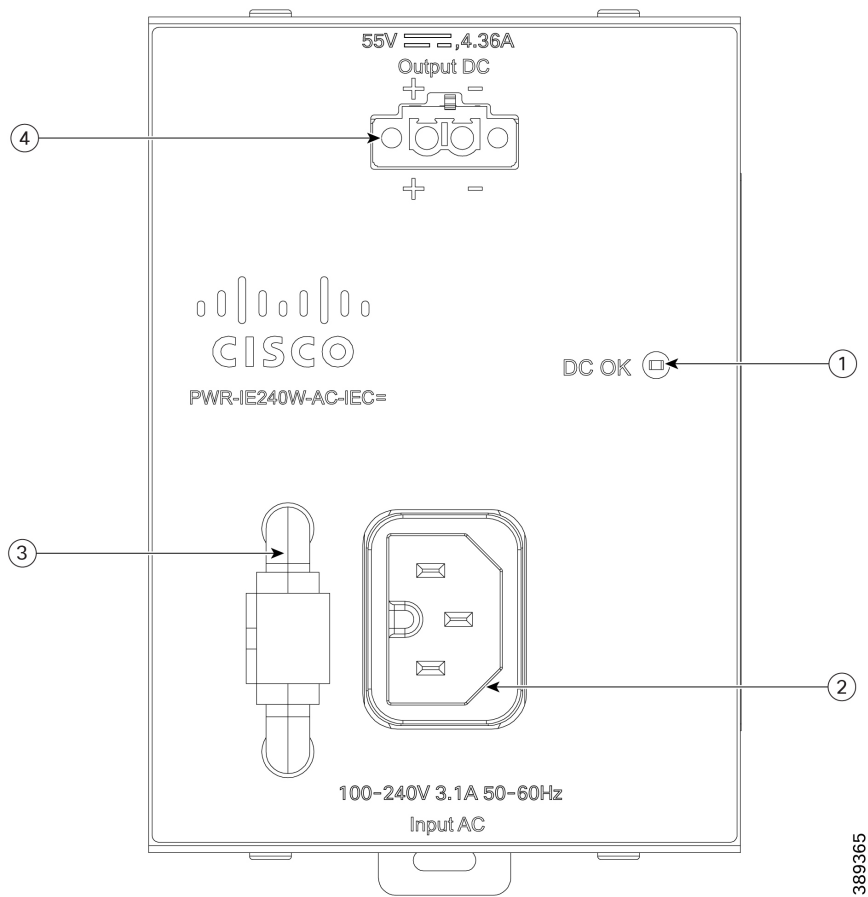
Feature	Trigger Threshold	Protection Type	Recovery
Over-Current Protection (OCP)	Trips at >120% of rated load current	Hiccup mode, non-latching	Automatic when fault is cleared
Over-Voltage Protection (OVP)	Limits the DC output to <60 V	Non-latching	Power cycle required
Thermal Protection	Auto shutdown if internal temperature exceeds safe limits	Non-latching	Automatic when temperature returns to normal range



Note If the PSU enters protection mode repeatedly, disconnect the load and inspect for faults before reconnecting. Check that ambient temperature is within the operating range, airflow is not obstructed, and that the load does not exceed the derated capacity at elevated temperatures.

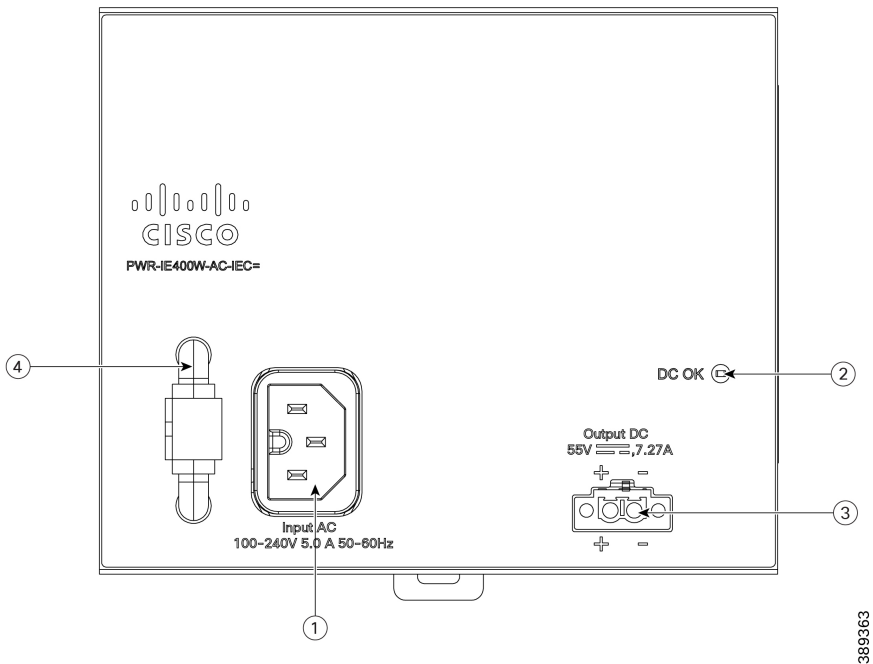
Front Panel

Figure 1: PWR-IE240W-AC-IEC Front Panel



1	Status LED	3	Cable Strain Relief and hook-and-loop strap
2	AC Input Connector	4	DC Output Connector

Figure 2: PWR-IE400W-AC-IEC Front Panel



1	AC Input Connector	3	DC Output Connector
2	Status LED	4	Cable Strain Relief and hook-and-loop strap

LED status

You can use the LEDs to monitor the PSU status.

Table 2: LED Status

LED	Status	Description
DC OK	Green—ON	DC output voltage is within specifications (54-56 VDC) and operating normally
	OFF	DC output is not present or out of specifications

Package Contents

This section lists the items included in the box.

- Cisco PWR-IExxxW-AC-IEC PSU
- One user selected country-based AC input cable

- One user selected DC power output cable:
 - CAB-DC-381=—DC power cable for switches with a 3.81mm power input (Such as IE3100 and IE3105), 1 meter length.
 - CAB-DC-500=—DC power cable for switches with a 5.00mm power input (Such as IE3500 and IE3505), 1 meter length.

DC Cables can also be ordered separately for replacement purposes.

If any item is missing or damaged, contact your Cisco representative or reseller.

Orderable Replacement Parts

Refer to the following PIDs to identify and order the correct replacement for your power supply unit or DC power cable.

Table 3: Power Supply Unit

PID	Description
PWR-IE240W-AC-IEC	240W AC to DC power supply with IEC connector
PWR-IE400W-AC-IEC	400W AC to DC power supply with IEC connector

Table 4: DC Power Cable

PID	Description	Compatible Switches
CAB-DC-381=	DC Power Cable with 3.81mm connector, 1 meter length	IE switches with 3.81mm power input connector
CAB-DC-500=	DC Power Cable with 5.00mm connector, 1 meter length	IE switches with 5.00mm power input connector



Note DC power cable is included with PSU purchase. Order separately only for replacement purposes.

Serviceability

The PSUs are not field-serviceable. No user-serviceable parts are inside.

- Replacement—In the event of PSU failure, replace the entire unit.
- Return Material Authorization (RMA)—Contact Cisco Technical Assistance Center (TAC) for RMA procedures.

Mounting Instructions

This section describes the mounting procedure for the Cisco PWR-IExxxW-AC-IEC PSUs.

- DIN rail mount

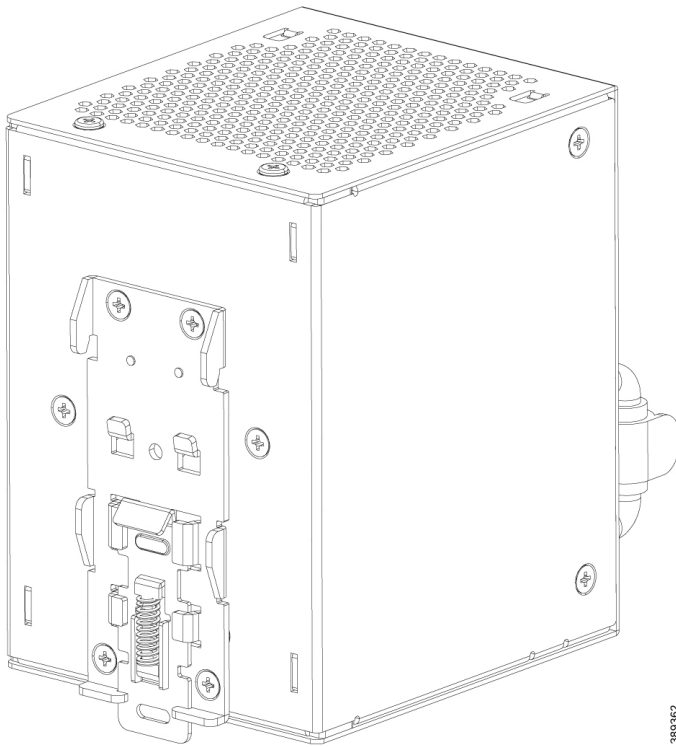
These power supplies are UL-certified for non-professional installation.

Mount the PSU on the DIN rail

This procedure guides you to mount the PSUs on standard IEC/EN 60715 top hat DIN rails 35-15 and 35-7.5.

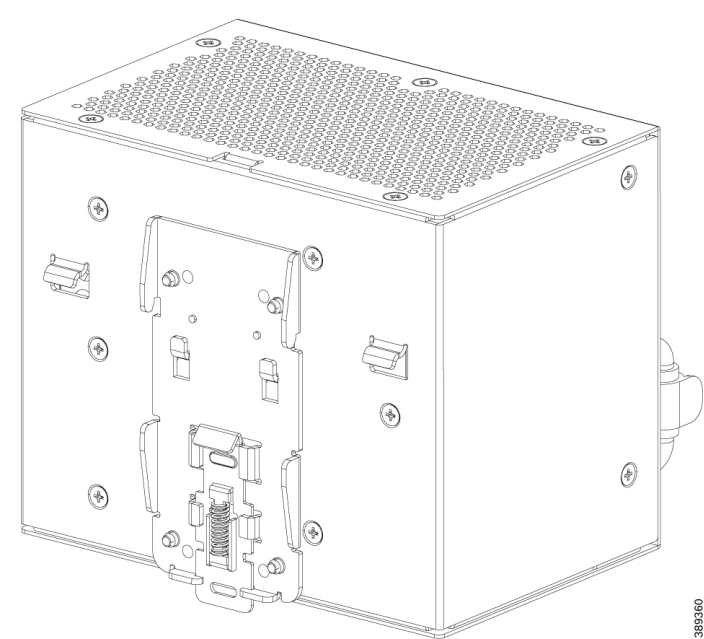
Both PSUs are intended for individual mounting adjacent to the Cisco IE DIN rail switch. To ensure proper cooling, maintain the clearance between the switch and the power supply as specified in the IE switch documentation.

Figure 3: PWR-IE240W-AC-IEC= DIN rail clip assembly



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Figure 4: PWR-IE400W-AC-IEC= DIN rail clip assembly



Before you begin

Table 5: Materials for DIN rail Mounting

Materials Needed	Supplied with the PSU
Power supply unit	Yes
Standard IEC/EN 60715 top hat DIN rails 35-15 and 35-7.5	No
Flat-head screwdriver	No

Procedure

- Step 1** Position the DIN rail in the desired location within your enclosure.

To ensure proper performance, maintain 1.0 inch (25 mm) of clearance at the top and bottom, 1.0 inch (25 mm) on the sides, and sufficient space for the PSU depth and cable bend radius, while verifying that ambient conditions meet the thermal derating profile.
- Step 2** Attach the PSU.

a. Align the PSU mounting clips on the back of the unit with the DIN rail.
b. Hook the upper clip over the rail edge at an angle.
c. Press the spring-loaded lower latch until it snaps onto the rail.

- d. Confirm the PSU is vertical and locked; re-seat if any movement is detected.

Step 3 Route the cables.

- a. Route the IEC C15 cord through the integrated handle or hook and loop tie to prevent accidental disconnects.
- b. Route DC cables to the Switch.

Step 4 Verify the PSU is firmly attached by gently pulling on it.

Connect the DC output power cable

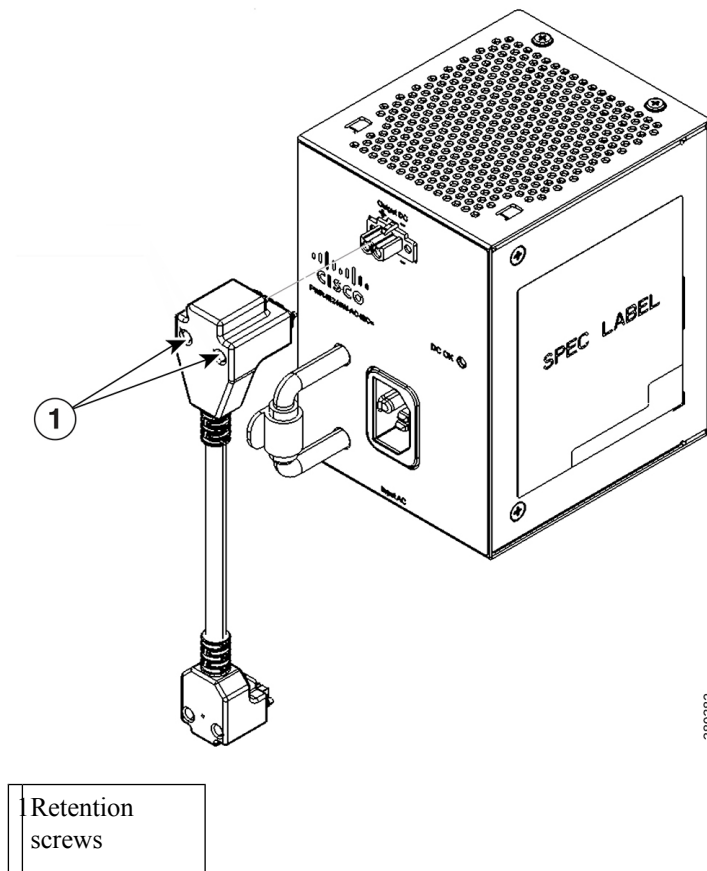
This procedure describes how to connect a compatible Cisco IE switch to the PSU and supply power using the DC power cable.

Before you begin

Table 6: Materials for Installing the DC Power Cable

Materials Needed	Supplied with the PSU
DC power cable (CAB-DC-381= or CAB-DC-500=)	Yes
Screwdriver	No

Figure 5: Connecting DC Power Cable to the PSU



Procedure

-
- Step 1** Plug the DC cable's male connector into the PSU's 2-pin DC Output Connector.
- The connector is keyed to prevent backwards connection. Firmly seat the connector without using excessive force, then secure it by tightening the retention screws to 3.5 in-lb (0.4 Nm) of torque.
- Step 2** Identify the mating connector on the Cisco IE switch.
- Ensure that you use the correct DC cable (3.81 mm or 5.00 mm) based on the DC connector on the Cisco IE switch.
- Step 3** Route the opposite end (female end) of the cable to the switch.
- Firmly insert the connector into the switch's DC Power Input. Tighten the retention screws.
- Step 4** Verify all connections are secure by gently pulling on each connector.
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Connect the AC input power cable

This procedure describes how to connect the input AC power cable to the PSU.

Before you begin



Warning To prevent the risk of electric shock, this equipment must be properly grounded. Always connect the 3-prong AC power cord to a grounded (earthed) outlet. Do not use 3-pin to 2-pin conversion adapters or any other device that defeats the protective ground connection. Maintaining a continuous ground path is essential for the safe operation of this power supply



Warning To prevent electrical arcing and damage, always connect your DC cables first before plugging in the AC power. Similarly, always unplug the AC power before disconnecting the DC cables.

Table 7: Materials for Installing the DC Power Cable

Materials Needed	Supplied in the Kit
AC power cable with IEC C15 connector	Choose region specific power cord while ordering the PSU



Note The IEC C15 power cord must comply with local electrical codes.

Procedure

- Step 1** Insert the IEC C15 plug fully into the PSU inlet.

Note
To ensure mechanical strain relief and prevent accidental disconnection, use the integrated hook-and-loop retention strap to anchor the AC power cord against the chassis handle and retention eyelet.
- Step 2** Connect the cord’s plug to a grounded AC outlet within the rated 90–264 VAC range.

Step 3 Verify the cable is securely connected by gently pulling the connector on both ends of the cable.

Dual Power Supply Redundancy Setup

This section describes the procedure to set up power redundancy for the Cisco IE switch using PWR-IExxxW-AC-IEC PSUs.



Note In systems configured with the redundant power option, connect each of the two power supplies to separate independent power sources. Failure to isolate power feeds introduces a single point of failure, risking system shutdown due to external wiring faults or circuit breaker trips.

Follow the installation steps for each unit, connecting them to separate power inputs on the switch.

Technical Specifications

This section provides the technical specifications for the Cisco PWR-IExxxW-AC-IEC series PSUs.



Note While the power supply unit is rated for operation between -40°C and +85°C, the input cable restricts the system's effective thermal envelope to -20°C to +70°C. To maintain operational integrity and prevent insulation degradation, ensure ambient and operational temperatures remain strictly within the input cable's specified thermal limits.

Table 8: Technical Specifications

Specifications	PWR-IE240W-AC-IEC	PWR-IE400W-AC-IEC
Input voltage range and frequency	Nominal AC input: 100-240 VAC, 50-60 Hz Supported AC input: 90-264 VAC, 47-63 Hz	
Output voltage and current	54-56 VDC (nominal 55 V), 4.36 A, 240 W Max	54-56 VDC (nominal 55 V), 7.27 A, 400 W Max
Operating temperature	-40 °C to +50 °C at full power	
Power derating	>50 °C to 85 °C at 2.5%/°C	
Physical specifications (W x H x D)	85 x 120 x 127 mm 3.34 x 4.72 x 5.0 in	144 x 120 x 126 mm 5.66 x 4.72 x 5.0 in
Weight	2.25 lbs (1.02 kg)	3.10lbs (1.41 kg)
Non-operating temperature	-40 °C to +85 °C	
Humidity	Operating: 5% to 95%, non-condensing Non-operating: 5% to 95%, non-condensing	
Thermal shock	Operating: -40 °C to +70 °C at 0.5°C/min Non-operating: -40 °C to +85 °C, 2-3 min change	
Altitude	Operating: 5000 meters	
Reliability	MTBF: 300,000 hrs @ 40 °C	
IP Rating	IP 20	

Mechanical Specifications

This section provides the PSU's physical dimensions.

PWR-IE240W-AC-IEC= Dimensions

Figure 6: Front view

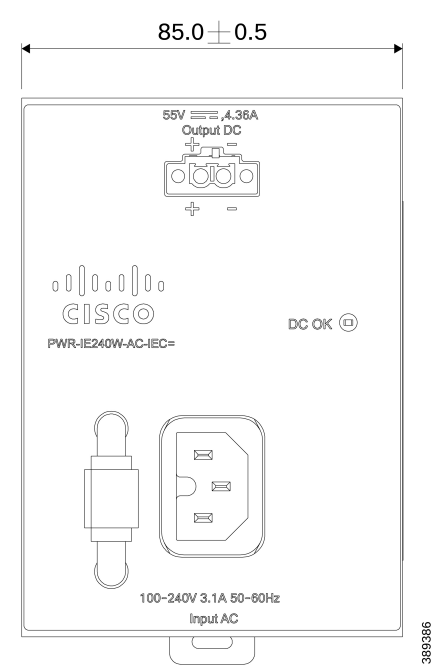
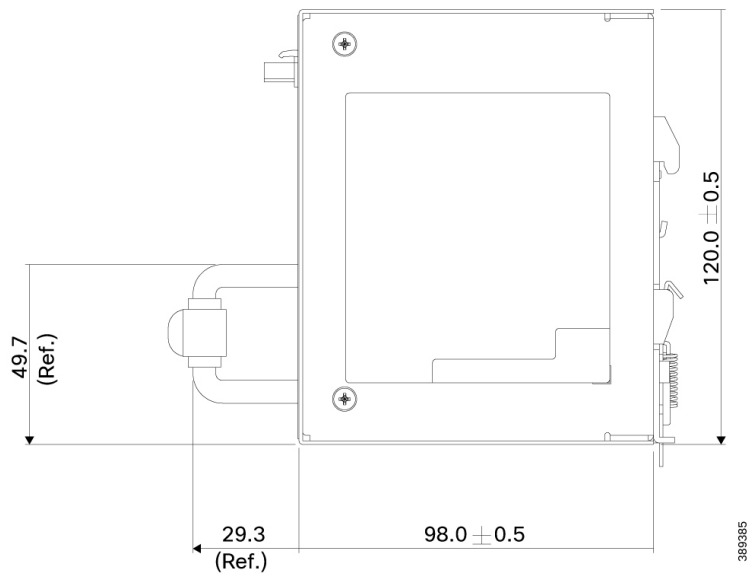


Figure 7: Side view



PWR-IE400W-AC-IEC= Dimensions

Figure 8: Front view

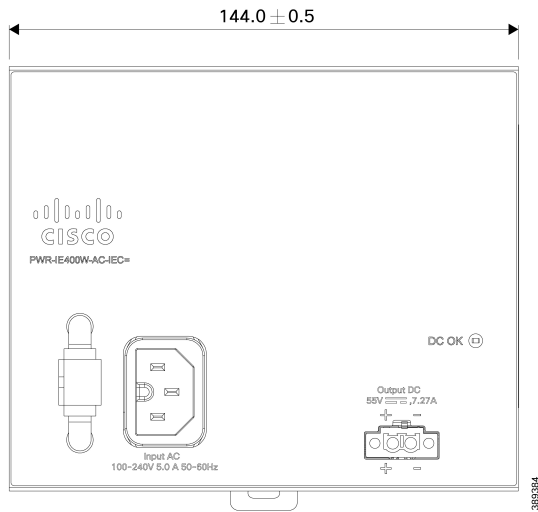
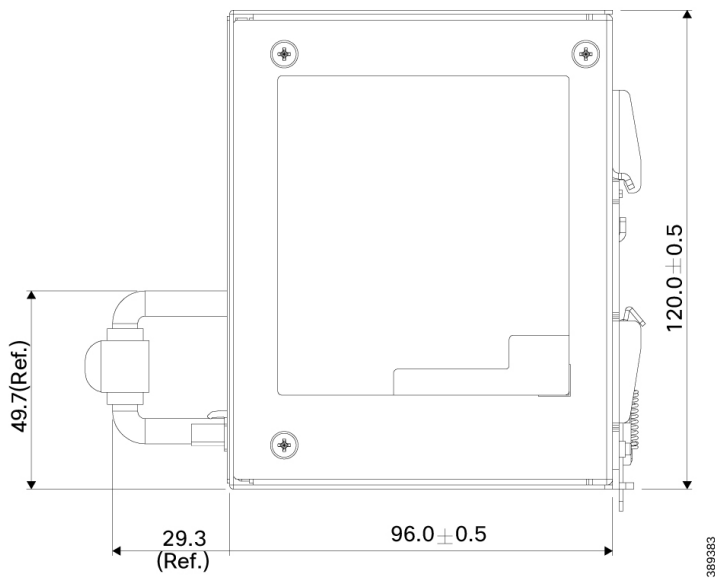


Figure 9: Side view



Troubleshooting

This section lists the common issues and their solutions.

Table 9: Troubleshooting

Symptom	Possible Cause	Solution
DC OK LED off	No AC input power	Check AC power source and verify outlet has power
	Faulty AC power cord	Test with known good IEC C15 power cord
	Load exceeds PSU capacity	Reduce load or use higher capacity PSU. Check ambient temperature and derating requirements.
	Short circuit	Disconnect input power. Inspect cables for damage
	PSU in protection mode	Disconnect AC power, wait 30 seconds to allow the latching protection to reset. Reconnect and retry
	Internal PSU failure	Replace PSU
PSU operates intermittently	Loose connections	Verify and tighten all cable connections
	Over-temperature condition	Verify adequate ventilation, check ambient temperature. Ensure ambient temperature is at or below 122°F (50°C) for full power operation.
	Overload condition	Verify load does not exceed PSU capacity, accounting for temperature derating
Switch does not power on	Incorrect DC cable	Verify correct cable type for switch model (3.81mm or 5.00mm)
	DC output voltage out of spec	Check DC OK LED; if off, see above troubleshooting steps
	Faulty switch	Test PSU with known good switch

Safety Guidelines

This section provides the regulatory and safety guidelines in using the PSU.

Regulatory Information



Note

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users are required to correct the interference at their own expense.

Safety Warnings



Warning**IMPORTANT SAFETY INSTRUCTIONS**

Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Read the installation instructions before using, installing, or connecting the system to the power source. Use the statement number at the beginning of each warning statement to locate its translation in the translated safety warnings for this device.

SAVE THESE INSTRUCTIONS



Warning

To avoid electromagnetic interference, do not install or use this product in a residential environment.

Safety Warnings

Do not install this device until you have read and understood the safety information in this section.



Warning

This power supply has not been evaluated to IEC 60079-0/15, UL121201 or CSA213 standards and is not approved for hazardous location installations.

The power supply can be used with a switch that is approved for Hazardous Locations (HazLoc). However, it must not be used in a HazLoc environment.

- To guarantee sufficient convection cooling, keep a distance of 1.0 in. (25 mm) above and below the device as well as a lateral distance of 1.0 in. (25 mm) to other units.
- Install the unit with a branch circuit protective device 20A (UL489 Listed)

- Use this equipment in a Pollution Degree 2 and at altitude up to 5000 meters.
- Do not dispose of electrical appliances as unsorted municipal waste. Use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

In countries applicable, when replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal for free of charge.

Product Compliance

The power supply meets the following:

Safety	UL 62368-1, CSA C22.2 No. 62368-1, CB to IEC 62368-1 and EN 62368-1
Emissions	EN 55011, EN 55032, EN 55035, CFR 47 Part 15B: Class A, ICES-003: Class A, EN 61000-6-1, EN 61000-6-2, EN 61000-6-4, VCCI
Immunity	EN 55035, EN 61000-6-1, EN 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-4-18



Note Restricted Substances Content Disclosure Table web address: <http://www.cisco.com/go/taiwanrohs>



Warning This is a Class A product based on the standard of the VCCI Council. If this equipment is used in a domestic environment, radio interference may occur, in which case, you may be required to take corrective actions.



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