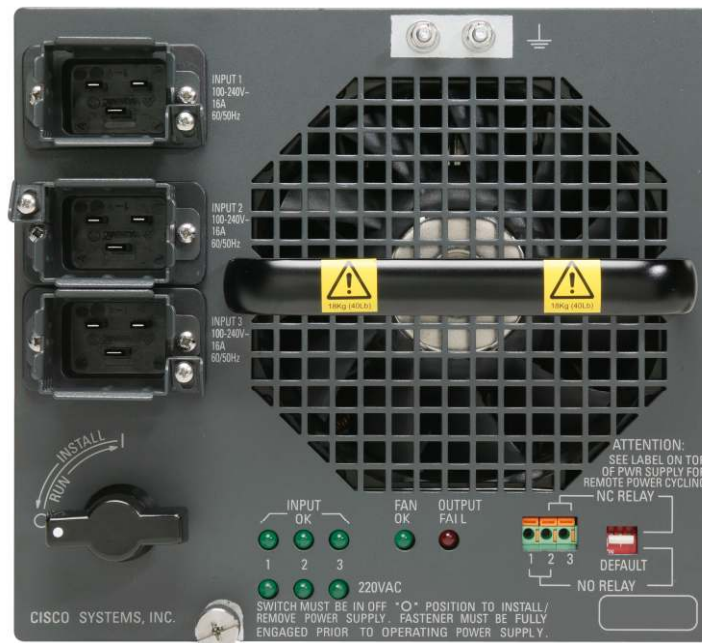# 8700 Watt Enhanced AC Power Supply for Cisco Catalyst 6500 Series Switches

Product Overview

Q. **What is the 8700 Watt (W) enhanced AC power supply?**

A. The 8700W enhanced AC power supply is a high-capacity power supply designed for Cisco[®] Catalyst[®] 6500 Series Switches for scaling the Power over Ethernet (PoE) density in a single chassis with full redundancy. With this power supply, the Cisco Catalyst 6509-E Switch chassis can support up to 420 IEEE class 3 (15.4W) PoE devices with full redundancy, thereby reducing the total cost of ownership in high-density PoE deployments.

Figure 1. Cisco 8700W Enhanced AC Power Supply for Cisco Catalyst 6500 Series Switches

Q. **What are the input power requirements for the 8700W enhanced AC power supply?**

A. The 8700W enhanced AC power supply is a triple input power supply. Each input requires 16A max at nominal line voltage –100–120VAC (low), 200–240VAC (high). The power supply is designed with independent inputs and hence supports different input power phases for each input.

Q. **In which Cisco Catalyst 6500 Series Switch chassis is the 8700W enhanced AC power supply supported?**

A. Table 1 lists the supported chassis and the maximum amount of available power on these chassis.

Table 1. 8700W Enhanced AC Power Supply and Chassis Support Matrix

Chassis	Maximum Amount of Power Available
WS-C6506	4000W
WS-C6509	4000W
WS-C6509-NEB-A	4500W
WS-C6513	6000W
WS-C6506-E	8700W
WS-C6509-E	8700W
Cisco 7609	4500W
Cisco 7613	6000W

Q. **What are the supervisor engine and software requirements for the 8700W enhanced AC power supply?**
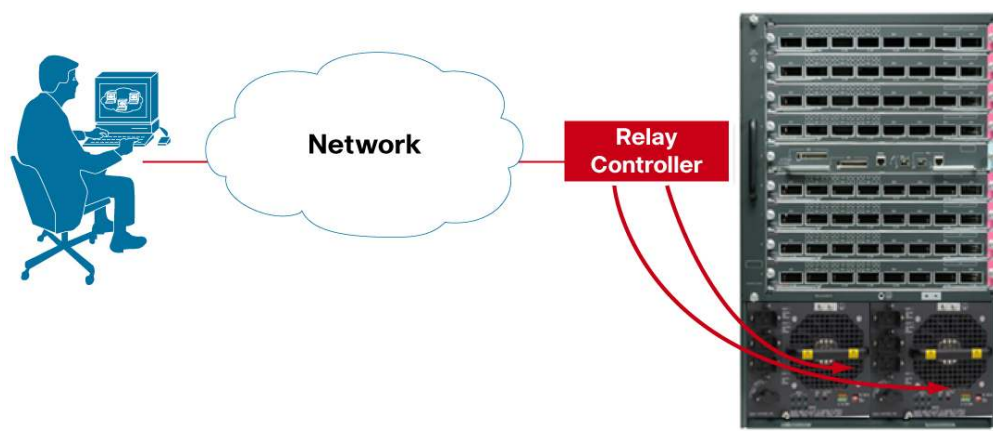
A. The 8700W AC power supply is supported on the Cisco Catalyst 6500 Series Supervisor Engine 2, Cisco Catalyst 6500 Supervisor Engine 32, and Cisco Catalyst 6500 Series Supervisor Engine 720. The minimum software requirement for the power supply is Cisco IOS® Software Release 12.2(18)SXF7. The power supply is not supported in any Cisco Catalyst OS release.

Q. **Is the 8700W enhanced AC power supply hot swappable?**

A. Yes, the 8700W AC power supply is hot swappable in Cisco Catalyst 6500 Series Switches. The power supply can be upgraded from an older, lower capacity AC or DC power supply without needing downtime.

Q. **What is the remote power restart feature on the 8700W enhanced AC power supply?**

A. The remote power restart feature on the 8700W enhanced AC power supply allows a Cisco Catalyst 6500 Series Switch to be power cycled or shut down using an appropriate third-party relay controller. The power supply has built-in external Normally Open (NO) or Normally Closed (NC) relay contacts using a front-panel terminal block interface that can be controlled by the relay controller. This feature allows the maintenance of Cisco Catalyst 6500 Series Switches to be simpler and eliminates the need for some onsite visits.

Figure 2. Remote Restart or Shutdown of Catalyst 6500 Series Switch via a Relay Controller

The 8700W enhanced AC power supply also provides the ability to perform a complete power restart using the Cisco IOS Software CLI.

Q. **How does the 8700W enhanced AC power supply compare with the existing AC power supplies for PoE scalability?**

A. The 8700W enhanced AC power supply provides the maximum scalability for PoE among the AC power supply options for Cisco Catalyst 6500 Series Switches. Table 2 compares the 3000W, 6000W, and 8700W AC power supplies in terms of PoE scalability.

Table 2.   PoE Scalability on Cisco Catalyst 6500 Series Switches

	3000WAC		6000WAC		8700WAC	
Number of Power Inputs (16A)	1		2		3	
Type of Interface	10/100*	10/100/1000**	10/100*	10/100/1000**	10/100*	10/100/1000**
Number of IEEE Class 3 Devices Supported with 220V Input	124	110	304	286	420***	384
Number of IEEE Class 3 Devices Supported with 110V input	42	42	124	114	193	179

All calculations are based on a single Supervisor Engine 32 on a Cisco Catalyst 6506-E or 6509-E Switch chassis.
*   Calculations based on WS-X6148-45AF.
**   Calculations based on WS-X6148-GE-AF.
***   Calculations based on WS-X6148X2-45AF.

Q. **What power cords are available for the 8700W enhanced AC power supply?**

A. The power cords available for the 8700W enhanced AC power supply are listed in Table 3.

Table 3.   8700W Enhanced AC Power Supply Cable Specifications

Locale	Part Number	Cord Length	Plug Type Wall Appliance	Wall Plug Rating
Australia, New Zealand	CAB-AC-16A-AUS	14 ft (4.3 m)	AU20S3	250VAC, 16A
People's Republic of China	CAB-AC16A-CH	14 ft (4.3 m)	GB16C	250VAC, 16A
Continental Europe	CAB-AC-2500W-EU	14 ft (4.3 m)	CEE 7/7	250VAC, 16A
International	CAB-AC-2500W-INT	14 ft (4.3 m)	IEC 309	250VAC, 16A
Israel	CAB-AC-2500W-ISRL	14 ft (4.3 m)	SI16S3	250VAC, 16A
Japan, North America (nonlocking) 200-240VAC operation	CAB-AC-2500W-US1	14 ft (4.3 m)	NEMA 6-20	250VAC, 16A
Japan North America (locking) 200-240VAC operation	CAB-AC-C6K-TWLK	14 ft (4.3 m)	NEMA L6-20	250VAC, 16A
Japan, North America 100-120VAC operation*	CAB-7513AC	14 ft (4.3 m)	NEMA 5-20	125VAC, 20A
Power Distribution Unit**	CAB-C19-CBN	14 ft (4.3 m)	IEC 60320 C19 IEC 60320 C20	250VAC, 16A
Switzerland	CAB-ACS-16	14 ft (4.3 m)	SEV 5934-2 Type 23	250VAC, 16A

*   The 8700W power supply operating on 110VAC delivers 4200W.
**   The PDU power cable is designed for users who power their switch from a PDU. The end of the cable that plugs into the Cisco Catalyst 6500 Series Switch chassis has a C19 connector; the other end of the cable that plugs into the PDU has a C20 connector.

More Information

For more information about the 8700W enhanced AC power supply for Cisco Catalyst 6500 Series Switches, refer to the product data sheet at http://www.cisco.com/en/US/prod/collateral/modules/ps7189/ps7195/product_data_sheet0900aecd8059a1ef.html.