6.0-kW DC Power Supply for Cisco Nexus 7000 Series Switches

Product Overview

Q. What is the 6.0-kW DC power supply module?

A. It is a high-capacity power supply designed for Cisco Nexus® 7000 Series Switches for scaling the DC power density in a single chassis with support for full redundancy. With this power supply, the Cisco Nexus 7000 Series chassis can support up to 512 ports of 10 Gigabit Ethernet with power-supply redundancy, thereby reducing the total cost of ownership (TCO) in high-density 10-Gigabit Ethernet deployments where DC power is a requirement (Figure 1).

Figure 1. 6.0-kW DC Power Supply for Cisco Nexus 7000 Series Switches

Q. What are the input power requirements for the 6.0-kW DC power supply?

A. The 6.0-kW DC power supply is a quad-input power supply. Each input requires 40A maximum at -48V nominal input voltage. The power supply is designed with independent inputs and hence supports separate input power connections for each input. Each input delivers up to 1500W for a total of 6000W in one power supply. You can use the power supply in either single input mode, where 3000W is delivered, or dual input mode, where a full 6000W of power is available. You can use the power supply with either -48V or -60V DC for both North America and worldwide operation. A full 6000W of output power is available with both power systems.

Q. Which Cisco Nexus 7000 Series Switch chassis does the 6.0-kW DC power supply support?

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

Table 1. 6.0-kW DC Power Supply and Chassis Support Matrix

Chassis	Maximum Amount of Power Available
N7K-C7010	18,000W
N7K-C7018	24,000W

Q. What are the software requirements for the 6.0-kW DC power supply?

A. The 6.0-kW DC power supply requires Cisco NX-OS 5.0(2) or later. The power supply is not supported in earlier releases.

Q. Is the 6.0-kW DC power supply hot-swappable?

A. Yes, it is hot-swappable in Cisco Nexus 7000 Series Switches. The power supply can be upgraded from an existing AC power supply without needing downtime.

Q. What is the real-time power feature on the 6.0-kW DC power supply?

A. The real-time power feature on the 6.0-kW DC power supply allows the operator to determine the actual output power being provided by each power supply unit. Thus the operator gleans information about the actual power being consumed at the system level.

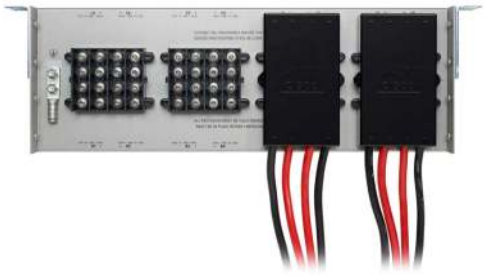
Q. What is the Cisco Nexus 7000 DC power cable for the 6.0-kW DC power supply?

A. The DC power cable provides a dedicated connector for the power supply to provide easy installation and hot-swap capability. Designed to meet the requirements of telecommunications environments, the cable can be connected into existing DC cabling using two-pole connectors.

Q. What is the Cisco Nexus 7000 Series DC Power Interface Unit (PIU)?

A. The Cisco Nexus 7000 DC PIU provides an optional customer option to simplify connecting the DC cables to the existing DC power environment. It provides a series of paired two-pole lugs to connect the DC cables and the customer cables using a simple connection panel. The PIU incorporates 19-inch rack-mount brackets. A single PIU supports the DC cable connections from two 6.0-kW power supplies (Figure 2).

Figure 2. Cisco Nexus 7000 Series DC PIU for Cisco Nexus 7000 Series Switches



Q. Is there a ground connection on the 6.0-kW DC power supply and the DC PIU?

A. Yes, both components include dedicated two-pole lug ground connections. Both the power supply and the PIU are connected to ground to provide safe operation of DC power.

For more information about the 6.0-kW DC power supply for Cisco Nexus 7000 Series Switches, refer to the product data sheet at: http://www.cisco.com/en/US/prod/collateral/switches/ps9441/ps9402/data_sheet_c78-602255.html.

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Printed in USA C67-605390-00 06/10