Hewlett Packard Enterprise

HPE Common Slot Power Supplies

HPE ProLiant Gen9 Common Slot Power Supplies are supported across a wide range of HPE ProLiant and Integrity servers and HPE storage solutions, reducing the cost of maintaining spares.

Reduce power costs with up to 94 percent efficiency[1]

HPE Common Slot (CS) Power Supplies share a common electrical and physical design that allows for hot-swap, tool-less installation into HPE server and storage solutions. HPE's CS Power Supplies offer high-efficiency power options available in multiple input and output options, allowing users to "right-size" a power supply for specific server/storage configurations and environments. This flexibility helps to minimize power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

They are ideal for ProLiant customers operating mid-to-large data centers who want to reduce operating expenses, and intelligently manage power, downtime, and resources.

Key features and benefits

Key features and benefits for Common Slot Power Supplies include:

- **New!** 1500 W Common Slot form factor enabling high output –48 V support with 94 percent efficiency for Moonshot and ProLiant DL500 series servers
- 80 PLUS-certified power efficiency of up to 94 percent[2] or 96 percent for standard AC power supplies to reduce power waste and costs
- New input power options of 380 Vdc and 277 Vac to let you choose the best distribution system for your data center
- Support for HPE Power Discovery Services to optimize data center power efficiency and usage

[1,2] **HPE Common Slot Power Supply technology brief.**

- Improved specifications for power factor and ITHD at lower load levels, providing better reliability, lowering power costs, and minimizing the risks of unplanned downtime
- Multiple output options—available in 460 W, 750 W, 1200 W, and 1500 W—to let you "right-size" your power requirements for each server configuration
- Redundancy power management options, including high-efficiency and load-balancing modes to let you optimize server-power efficiency in redundant power configurations

The 80 PLUS Platinum difference

The 80 PLUS program was created in 2004 through a joint effort between Ecova and the Electric Power Research Institute (EPRI). It provides incentives for consumers (commercial and residential) and manufacturers to buy and sell high-efficiency power solutions to lower power costs and waste while reducing plug loads on overburdened power grids. The certification enables customers worldwide to use the most efficient power supplies available. In addition, ENERGY STAR® v1.0 requires a minimum of 80 PLUS Silver certification (89 percent power efficiency at 50 percent load). HPE Platinum Plus Power Supplies provide up to 94 percent efficiency (at 50 percent load), vastly exceeding ENERGY STAR requirements. And now, Hewlett Packard Enterprise offers power supplies rated for Titanium level certification with efficiency of up to 96 percent.

Reduce your power costs and reclaim power capacity

Power expenses can account for more than 50 percent of the data center OPEX budget. An increase in power efficiency can save your enterprise thousands, or possibly millions, of dollars annually. New Common Slot Power Supplies can provide a savings of up to 60 W per server by minimizing power waste and reducing power requirements. When combined with new low-voltage, high-performance HPE SmartMemory, you can reduce overall data center power requirements by up to 10 percent[3] (compared to HPE ProLiant G6 power estimates).

Because HPE Common Slot Power Supplies are available in multiple output options, they can be right-sized for individual server configurations. That helps you recover "trapped" power capacity by reducing overprovisioning of server power, allowing you to improve overall compute density by reallocating saved power within the data center.

[3] **HPE Common Slot Power Supply technology brief**.

Enable HPE Power Discovery Services

HPE Power Discovery Services—which combines HPE Platinum and Platinum Plus Power Supplies with the HPE iPDU and HPE Insight Control Power Management software—enables the collection and display of critical temperature, workload, power, and location data for servers in the new HPE Intelligent Series rack-level enclosure. This data lets you automatically track server assets and locations, and intelligently place workloads for optimum performance. Power Discovery Services is enabled through the embedded power line communication port located within the blue power connectors for both Platinum and Platinum Plus Power Supplies. These ports facilitate communication between the server and HPE iPDU, creating an energy-aware network between IT systems and facilities management. HPE Power Discovery Services prevent 100 percent of typical manual configuration errors, provide a 25 percent reduction in the causes of data center outages, and shrink deployment times from hours to minutes while helping users to reclaim up to 10 percent more usable power per circuit.[4]

Common Slot DC and AC power options

In addition to traditional AC power supplies, HPE Common Slot Power Supplies are available in 48 Vdc, 380 Vdc, and 277 Vac power input options. These power supplies help increase data center efficiency and reduce power-related costs by providing new high-efficiency input voltage alternatives. They are ideal for telecommunications customers and large scale out data centers that require a 48 Vdc power source, and for those seeking the high efficiency of 380 Vdc or 277 Vdc power distribution. These power supply options include many of the features and benefits offered with HPE Platinum Plus Common Slot Power Supplies.

[4] **HPE Common Slot Power Supply technology brief**.

Resources

HPE Qualified Options webpage
hp.com/go/hpqo

HPE Power Discovery Services website
hp.com/go/ipd

HPE Power Advisor Tool
hp.com/go/hppoweradvisor

80 PLUS certification program
80plus.com

HPE Common Slot Power Supply technology brief
hp.com/ctg/manual/c03502743.pdf

Technical specifications

HPE Common Slot Power Supply options for HPE ProLiant Gen8 servers are available in Platinum Plus and Gold efficiencies and with a range of power input and output options.

Titanium Power Supply Kits—Up to 96% efficiency with support for HPE Power Discovery Services	
697581-B21	HPE 750W Common Slot Titanium Hot Plug Power Supply Kit
Platinum Plus[5] Power Supply Kits—Up to 94% efficiency	
656362-B21	HPE 460W Common Slot Platinum Plus Power Supply Kit
656363-B21	HPE 750W Common Slot Platinum Plus Power Supply Kit
656364-B21	HPE 1200W Common Slot Platinum Plus Power Supply Kit
684532-B21	HPE 1500W Common Slot Platinum Plus Power Supply Kit
Gold Power Supply Kits—Up to 92% efficiency	
503296-B21	HPE 460W Common Slot Gold Power Supply Kit
512327-B21	HPE 750W Common Slot Gold Power Supply Kit
–48 Vdc Power Supply Kits—Up to 94% efficiency	
New 746708-B21	HPE 1500W Common Slot 48VDC Hot Plug Power Supply Kit
437573-B21	HPE 1200W Common Slot –48VDC Hot Plug Power Supply Kit
636673-B21	HPE 750W Common Slot –48VDC Hot Plug Power Supply Kit
380 Vdc Power Supply Kits—Up to 94% efficiency	
684539-B21	HPE 1200W Common Slot 380VDC Hot Plug Power Supply Kit
277 Vac Power Supply Kits—Up to 94% efficiency	
717359-B21	HPE 1200W Common Slot 277VAC Hot Plug Power Supply Kit

[5] The 80 PLUS certification program does not address power supplies operating at 48 Vdc, 380 Vdc, or 277 Vac input voltages.

Learn more at
hp.com/go/proliant/powersupply

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