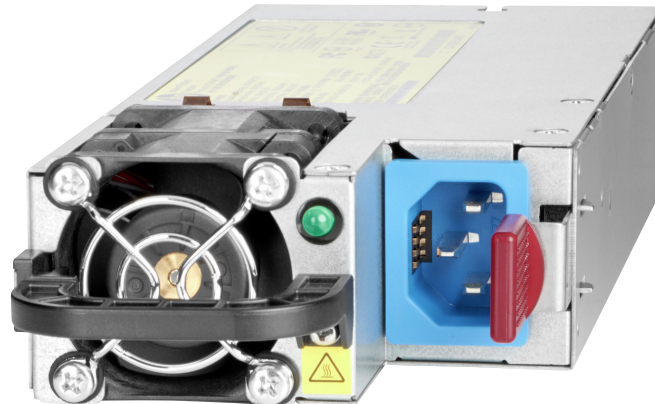


HP Common Slot Power Supplies



Reduce power costs with up to 94 percent efficiency¹

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

HP Common Slot (CS) Power Supplies share a common electrical and physical design that allows for hot-swap, tool-less installation into HP server and storage solutions. HP'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!** 1500W Common Slot form factor enabling high output -48V DC support with 94% efficiency for Moonshot and ProLiant DL500 Series servers
- 80 PLUS-certified power efficiency of up to 94 percent² 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 HP Power Discovery Services to optimize data center power efficiency and usage
- 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 460W, 750W, 1200W, and 1500W—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

^{1,2} HP Common Slot power supply technology brief



The 80 PLUS Platinum difference

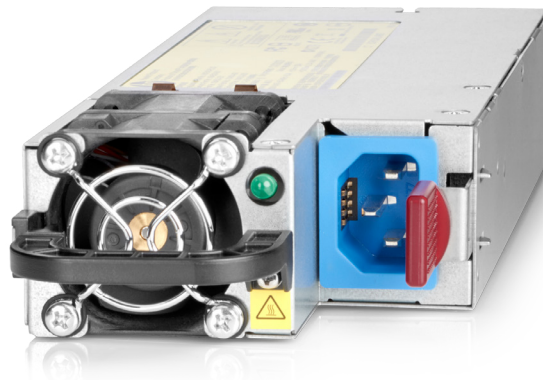
The 80 PLUS program was created in 2004 through a joint effort between Ecova and the Electric Power Research Institute (EPRI). It provides incentives for consumers (commercial and residential) and manufacturers to buy and sell high-efficiency power solutions to lower power costs and waste while reducing 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). HP Platinum Plus power supplies provide up to 94 percent efficiency (at 50 percent load), vastly exceeding ENERGY STAR requirements. And now, HP 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 60W per server by minimizing power waste and reducing power requirements. When combined with new low voltage, high performance HP SmartMemory, you can reduce overall data center power requirements by up to 10 percent³ (compared to HP ProLiant G6 power estimates).

Because HP 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 over-provisioning of server power, allowing you to improve overall compute density by reallocating saved power within the data center.

³HP Common Slot power supply technology brief



Enable HP Power Discovery Services

HP Power Discovery Services—which combines HP Platinum and Platinum Plus power supplies with the HP iPDU and HP Insight Control Power Management software—enables the collection and display of critical temperature, workload, power, and location data for servers in the new HP 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 HP iPDU, creating an energy-aware network between IT systems and facilities management. HP 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, HP 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 VAC power distribution. These power supply options include many of the features and benefits offered with HP Platinum Plus Common Slot Power Supplies.

⁴HP Common Slot power supply technology brief

Resources

HP Qualified Options webpage
hp.com/go/hpqa

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

HP Power Advisor Tool
hp.com/go/hppoweradvisor

80 PLUS Certification Program
80plus.com

HP Common Slot power supply technology brief
hp.com/ctg/Manual/c03502743.pdf

Technical specifications

HP Common Slot Power Supply options for HP 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 HP Power Discovery Services

697581-B21 HP 750W Common Slot Titanium Hot Plug Power Supply Kit

Platinum Plus⁵ Power Supply Kits—Up to 94% efficiency

656362-B21 HP 460W Common Slot Platinum Plus Power Supply Kit

656363-B21 HP 750W Common Slot Platinum Plus Power Supply Kit

656364-B21 HP 1200W Common Slot Platinum Plus Power Supply Kit

684532-B21 HP 1500W Common Slot Platinum Plus Power Supply Kit

Gold Power Supply Kits—Up to 92% efficiency

503296-B21 HP 460W Common Slot Gold Power Supply Kit

512327-B21 HP 750W Common Slot Gold Power Supply Kit

-48 VDC Power Supply Kits—Up to 94% efficiency

New 746708-B21 HP 1500W Common Slot 48VDC Hot Plug Power Supply Kit

437573-B21 HP 1200W Common Slot -48VDC Hot Plug Power Supply Kit

636673-B21 HP 750W Common Slot -48VDC Hot Plug Power Supply Kit

380 VDC Power Supply Kits—Up to 94% efficiency

684539-B21 HP 1200W Common Slot 380VDC Hot Plug Power Supply Kit

277 VAC Power Supply Kits—Up to 94% efficiency


717359-B21 HP 1200W Common Slot 277VAC Hot Plug Power Supply Kit

⁵The 80 PLUS certification program does not address power supplies operating at 48 VDC, 380 VDC, or 277 VAC input voltages.

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