Hewlett Packard Enterprise

HPE ProLiant Gen9 Flexible Slot Power Supplies

Highly efficient and serviceable power solutions

Want to improve data center power efficiency without impacting IT performance? HPE Flexible Slot Power Supplies improve serviceability with a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen9 performance servers. With certification for high-efficiency operation and multiple power output options, these innovative power supplies allow you to right size for specific server configurations to reduce power waste, lower overall energy costs, and avoid trapped power capacity in the data center. And, the new Flex Slot Battery Backup Module is designed to install in a single Flex Slot bay packing the power and reliability you need into a small space.

HPE ProLiant Gen9 Flex Slot Power Supplies are supported across all HPE ProLiant 300 Gen9 series servers, simplifying your spares strategy and reducing data center costs.

Key features and benefits

Right size your power needs with flexible choices

- Support for both low-line and high-line AC input voltages provides flexibility to operate in multiple IT environments (500 W and 800 W Platinum only); -48 VDC, 277 VAC, and 380 VDC input voltages are also available
- Support for multiple operating modes maximizes power efficiency when configuring servers with redundant power supplies
- The 800 W Titanium and 1400 W Platinum Plus models offer integrated support for HPE Power Discovery Services, which communicates with the HPE Intelligent Series PDU to monitor and manage power usage

Streamline the data center via Flex Slot design

- Tool-less hot plug design allows quick and easy access to improve serviceability
- Common form factor across all HPE ProLiant Gen9 Performance series servers allows multiple server platforms to share power supply spares, reducing cost and space requirements
- The Flex Slot form factor is 25 percent smaller than the previous generation Common Slot power supplies, giving you more space to add server options to improve your IT performance

Choose 80 PLUS-certified Titanium power efficiency of up to 96 percent

- Titanium power efficiency certification from the 80 PLUS program is one of the highest power efficiency certifications available in the IT industry
- Enhanced power efficiency reduces data center operating costs by reducing server power requirements and power waste

To review 80 PLUS Certification reports for each HPE Flexible Slot Power Supply, refer to the 80 PLUS website at: **80plus.org**.

The 80 PLUS Platinum difference

The 80 PLUS Certification Program[1] provides incentives for consumers 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, the ENERGY STAR® v1.0 specification requires a minimum of 80 PLUS Silver certification (89 percent power efficiency at 50 percent load). HPE Platinum and Platinum Plus Power Supplies provide up to 94 percent efficiency and HPE Titanium Power Supplies provide up to 96 percent efficiency at 50 percent load, vastly exceeding ENERGY STAR requirements. Platinum Plus Power Supplies are now a standard feature across many of the HPE ProLiant Gen8 and Gen9 servers.

Introducing the HPE 750 W Flexible Slot Battery Backup Module

Pack the power and reliability you need into a small space

An HPE innovation, the new HPE 750 W Flex Slot Battery Backup Module installs into a single Flex Slot Power Supply bay to free up the space needed for rack mount UPS without compromising server uptime. Daisy-chained operation between two battery backup modules allows paralleled connection for pass-through power sharing between two HPE ProLiant DL300 Gen9 series servers. In the event of a power outage, the module can provide up to 750 W of power for up to 60 seconds, or up to 500 W when in paralleled configuration.

Embedded management for the full server lifecycle

The HPE Flex Slot Battery Backup is managed by the HPE Integrated Lights-Out (iLO) management tool, a complete set of embedded management features supporting the full lifecycle of the server—from initial deployment through ongoing management to service alerting and support. By delivering comprehensive embedded management, HPE iLO helps you speed time-to-deployment, maximize server and application availability through proactive notification, and dramatically accelerate time-to-resolution when issues arise.

The HPE 750 W Flex Slot Battery Backup Module pairs with any 500 W or 800 W HPE Flex Slot Power Supply.

[1] The 80 PLUS Certification Program does not address power supplies operating at 48 VDC, 380 VDC, or 277 VAC input voltages.

HPE Power Discovery Services are supported by the 1400 W Platinum Plus and 800 W Titanium Hot Plug Power Supply Kits.

Flexible power options

In addition to traditional AC power supplies, HPE Flex Slot Power Supplies are available in -48 VDC and HVAC/HVDC 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 HVDC or HVAC power distribution.

Enable HPE Power Discovery Services

HPE Power Discovery Services—which combines HPE Titanium and Platinum Plus Power Supplies with the HPE Intelligent Series Power Distribution Units (iPDUs) and HPE Insight Control v7 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 are enabled through the embedded power line communication port located within the blue power connectors for both Titanium 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 reclaim up to 10 percent more usable power per circuit.[2]

Enjoy the benefits of HPE Qualified Options

As HPE Qualified Options, Flex Slot Power Supplies are built to provide better performance, reliability, and compatibility with HPE ProLiant servers. HPE Qualified Options strengthen the foundation of your data center with high-caliber products that are easy to maintain and tailored for HPE ProLiant, Integrity, and Storage systems, giving you confidence in your whole infrastructure.

- **Integrated HPE Server and Storage Care Pack support at no additional cost.** You receive automatic and free extension of the standard warranty (except for HPE MCS and UPS above 12 kVA capacity) when used together with HPE ProLiant server and HPE Storage Care Packs.
- **Tailored for HPE ProLiant, Integrity, and Storage systems.** Qualified Options are specifically designed and rigorously tested to maximize performance, reliability, and compatibility with HPE Server firmware and operating system stacks.
- **Lower operating costs**. You can substantially reduce energy costs with 80 PLUS-certified power efficiency of up to 96 percent.

[2] HPE brief, "**Common Slot power supply technology**," August 2014

Resources

HPE Qualified Options
hp.com/go/hpqo

HPE High-Efficiency Power Supplies
hpe.com/info/proliant/powersupply

HPE Power Discovery Services
hp.com/go/ipd

HPE Power Advisor Tool
hp.com/go/hppoweradvisor

80 PLUS Certification Program
80plus.com

HPE Flex Slot Power Supply options

HPE Flex Slot Power Supply options for HPE ProLiant Gen9 servers are available in Titanium, Platinum, and Platinum Plus efficiencies—and with a range of power input and output options.

Titanium Power Supply Kits—Up to 96 percent efficiency	
720482-B21	HPE 800 W Flex Slot Titanium Hot Plug Power Supply Kit
Platinum Plus Power Supply Kits—Up to 94 percent efficiency	
720620-B21	HPE 1400 W Flex Slot Platinum Plus Hot Plug Power Supply Kit
Platinum Power Supply Kits—Up to 94 percent efficiency	
720478-B21	HPE 500 W Flex Slot Platinum Hot Plug Power Supply Kit
720479-B21	HPE 800 W Flex Slot Platinum Hot Plug Power Supply Kit
-48 VDC Power Supply Kits—Up to 94 percent efficiency	
720480-B21	HPE 800 W Flex Slot -48 VDC Hot Plug Power Supply Kit
HVAC/HVDC Power Supply Kits—Up to 94 percent efficiency	
720484-B21	HPE 800 W Flex Slot Universal Hot Plug Power Supply Kit
Battery Backup Unit Kits*	
738024-B21	HPE 750 W Flex Slot Micro UPS Hot Plug Kit

* Compatible with HPE Gen9 Flex Slot Power Supplies

For detailed specifications, refer to the product **QuickSpecs**.

Learn more at
hpe.com/info/proliant/powersupply

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