HP ProLiant Gen9 Flexible Slot Power Supplies

Highly efficient and serviceable power solutions

Want to improve data center power efficiency without impacting IT performance? HP Flexible Slot Power Supplies improve serviceability with a common electrical and physical design that allows for hot plug, tool-less installation into HP 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.

HP ProLiant Gen9 Flex Slot Power Supplies are supported across all HP 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 HP Power Discovery Services, which communicates with the HP 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 HP 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 HP 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). HP Platinum and Platinum Plus Power Supplies provide up to 94 percent efficiency and HP 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 HP ProLiant Gen8 and Gen9 servers.

Introducing the HP 750 W Flexible Slot Battery Backup Module

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

Pack the power and reliability you need into a small space
An HP innovation, the new HP 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 HP 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 HP Flex Slot Battery Backup is managed by the HP 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, HP iLO helps you speed time-to-deployment, maximize server and application availability through proactive notification, and dramatically accelerate time-to-resolution when issues arise.

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

Flexible power options

In addition to traditional AC power supplies, HP 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 HP Power Discovery Services

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

HP Power Discovery Services—which combines HP Titanium and Platinum Plus Power Supplies
with the HP Intelligent Series Power Distribution Units (iPDU) and HP Insight Control v7 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 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
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 reclaim up to 10 percent more usable power
per circuit.[2]

Enjoy the benefits of HP Qualified Options

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

• **Integrated HP Server and Storage Care Pack support at no additional cost.** You
receive automatic and free extension of the standard warranty (except for HP MCS and
UPS above 12 kVA capacity) when used together with HP ProLiant server and HP Storage
Care Packs.

• **Tailored for HP ProLiant, Integrity, and Storage systems.** Qualified Options are specifically
designed and rigorously tested to maximize performance, reliability, and compatibility with
HP 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.

HP Flex Slot Power Supply options

HP Flex Slot Power Supply options for HP 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	HP 800 W Flex Slot Titanium Hot Plug Power Supply Kit

Platinum Plus Power Supply Kits—Up to 94 percent efficiency

720620-B21	HP 1400 W Flex Slot Platinum Plus Hot Plug Power Supply Kit

Platinum Power Supply Kits—Up to 94 percent efficiency

720478-B21	HP 500 W Flex Slot Platinum Hot Plug Power Supply Kit
720479-B21	HP 800 W Flex Slot Platinum Hot Plug Power Supply Kit

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

720480-B21	HP 800 W Flex Slot -48 VDC Hot Plug Power Supply Kit

HVAC/HVDC Power Supply Kits—Up to 94 percent efficiency

720484-B21	HP 800 W Flex Slot Universal Hot Plug Power Supply Kit

Battery Backup Unit Kits[3]

738024-B21	HP 750 W Flex Slot Micro UPS Hot Plug Kit

For detailed specifications, refer to the product QuickSpecs.

[3] Compatible with HP Gen9 Flex Slot Power Supplies

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

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