HP 460 W CS HE Power Supply

HP 750 W CS HE Power Supply

HP 1200 W CS HE Power Supply

HP 1200 W CS Platinum Power Supply

HP High Efficiency Common Slot Power Supplies
Data sheet

High-efficiency common-slot power supplies help decrease your data centre's power consumption – ultimately saving energy and helping you get your data centre's power budget under control.

Introduction

Today's power and cooling costs can account for up to 50 per cent of the data centre's operation expense. To help lower energy consumption and management expenses, HP has introduced High Efficiency Common Slot Power Supplies for the sixth generation (G6) of HP ProLiant ML, DL, and BL servers.

To ease serviceability and increase flexibility, each version of the common slot power supply shares a common electrical and physical design for installation in G6 server platforms that have common slot power supply bays.

HP offers high efficiency common slot power supplies in three different wattages: 460 W, 750 W, and 1200 W, so you can choose the right size power supply for your specific server configuration. By using the capacity that most closely matches the actual power your server consumes, you get the best in efficiency while reclaiming any wasted or lost power.

Key features and benefits

Significant increase in power efficiency
The common slot power supplies represent a significant improvement in efficiency and cost savings over past generations of power supplies:

- 460 W and 750 W power supplies are up to 92 per cent efficient.
- 1200 W AC power supply is up to 94 per cent efficient.

At average loads, data centres can realise a 7 per cent improvement per high efficiency power supply over the previous generation power supply. In addition, these power supplies have a faster rise time and higher efficiency at lower loads, as well as longer sustained high efficiency at the top end of the load. These power supplies enable HP to achieve 80 PLUS Platinum certification for over 90 per cent of the ProLiant server line.

Significant increases in flexibility

The availability of common-slot power supplies in multiple capacities allows you to match the power supply capacity (select the right-size supply) to the server load, so you can reduce wasted power and free trapped power capacity. Figure 1 shows the efficiency of each power supply across the load range. The power supply efficiency is independently tested by 80 PLUS and publicly posted on **www.80PLUS.org**.

In addition, you can use one form factor power supply across most of the ProLiant G6 portfolio, and even some Integrity, Storage Works, and ProCurve products. The design similarities help to decrease an IT department's maintenance and logistics concerns because it's no longer necessary to keep an extensive inventory of spares and storage space to satisfy contingency plans for different models. Smaller capacity power supplies also cost less than larger capacity power supplies. For an expenditure involving hundreds of servers, the savings from ordering only the capacities actually needed can be significant.

HP Power Advisor

HP makes it easy to choose which power supply is right for your particular server configuration. As Figure 2 illustrates, to get optimal efficiency, it is important to closely match your power supply to the power your server is actually using. Using the HP Power Advisor, you can select your configuration and get a power number associated with that configuration, which helps you select the correct power supply.

For more information, visit **www.hp.com/go/hppoweradvisor**.

HP Services

When technology works, business works.
HP Care Pack services for HP Integrity, BladeSystem, ProLiant servers, and StorageWorks provide support for all HP-branded hardware options qualified for inclusion in your server at the time of purchase or afterwards at no additional cost.

HP Care Pack services help increase uptime and productivity with rapid-response support on a 24x7 or 13x5 basis. Both options feature same-day 4-hour onsite assistance when service issues cannot be resolved remotely. For business-critical server and storage environments, where downtime is not an option, HP offers 24x7 6-hour call to repair. We offer the best of both worlds: the strong global presence and proven experience of HP, and a familiar local presence in our HP channel partners.

Solutions include:

- Expert support for today's heterogeneous server, storage, SAN and NAS, data backup technologies, and multi-vendor storage products

- End-to-end services for Information Lifecycle Management (ILM) solution planning, architecture design, implementation, integration, and ongoing support

- A single point of accountability and collaborative approach to help you cut costs and complexity when managing and maintaining your IT investments
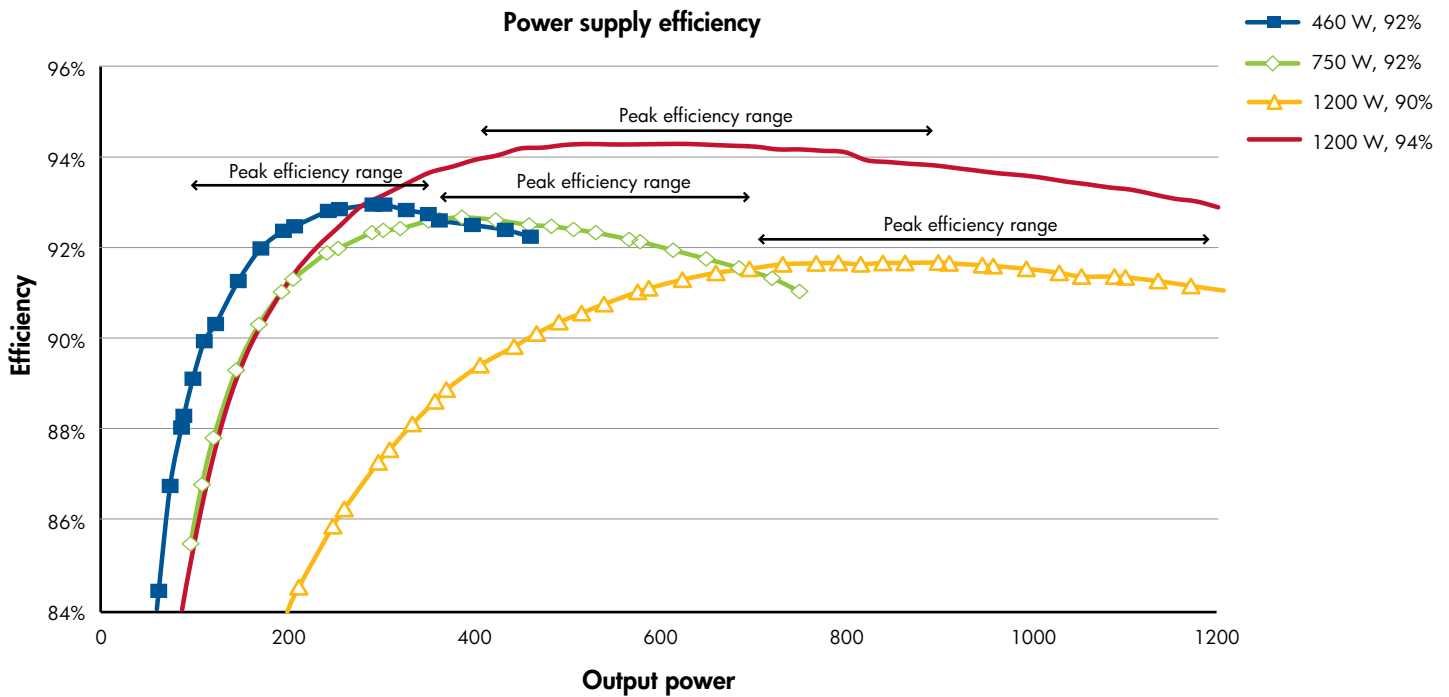
For more information, visit:
www.hp.com/services/bladesystemservices
www.hp.com/services/proliantservices

Figure 1. Common-slot power supply operating efficiencies (measured by the independent party for the 80 PLUS programme)

Power Supply	Part Number	80 Plus Certification	Per cent of efficiency		
			20% Load	50% Load	100% Load
1200 W	578322-B21	Platinum	92.50%	94.30%	93.20%
1200 W	500172-B21	Silver	86.84%	91.75%	91.19%
750 W	512327-B21	Gold	91.33%	94.58%	92.57%
460 W	503296-B21	Gold	90.70%	93.20%	92.81%

Note: All supplies tested with 230 VAC input.

Figure 2. G6 power supply efficiency curve

Figure 2. G6 power supply efficiency curve — Power supply efficiency. Legend: 460 W, 92%; 750 W, 92%; 1200 W, 90%; 1200 W, 94%. Y-axis: Efficiency (84% to 96%). X-axis: Output power (0 to 1200). Annotations: Peak efficiency range.

Why HP?

HP products are covered by the same warranty as your HP servers, reducing the cost of the solution. Furthermore, HP computing solutions can be configured and tested in HP's factories and then delivered fully integrated via HP Factory Express. For more information, visit **www.hp.com/go/factory-express**.

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programmes to help you cost-effectively acquire, manage, and ultimately retire your HP solutions. For more information, contact your local HP representative, or visit **www.hp.com/go/hpfinancialservices**.

HP Customer Support

HP Customer Support provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services such as proactive mission-critical services and support management services for deployment of the entire IT infrastructure, including HP and multi-vendor environments. For more information on these services, contact your HP sales representative or visit **www.hp.com/hps/support**.

For more information

For more information about HP High Efficiency Common Slot Power Supplies, contact your local HP representative or visit **www.hp.com/go/rackandpower**.

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