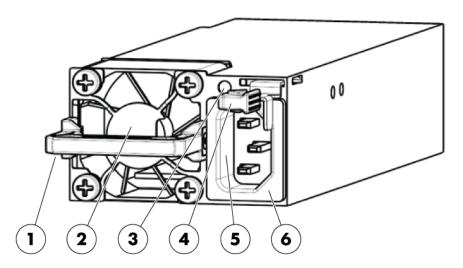
# QuickSpecs

#### **Overview**

### **HPE Flexible Slot Power Supplies**

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE server solutions. HPE's Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

Flex Slot power supplies are rated for Platinum-level certification with efficiency of up to 94%, and Titanium-level certification with efficiency of up to 96%. Support for HPE Power Discovery Services, via embedded power line communication technology on the Gen9 ProLiant Servers, is also available with the 800W Titanium and 1400W Platinum Plus model. This feature enables each server to communicate identification, location, and power-related data to the Intelligent Power Distribution Unit in the rack which can then be shared with HPE Insight Control to manage power usage and efficiency in the data center.



#### **HPE Flexible Slot Power Supplies**

- 1. Power Supply Handle
- 2. Identification Label
- 3. Power Supply LED Status Indicator
- 4. Release Lever
- 5. C-14 Input Connector
- Power Discovery Services Communication Port (Gen9 800W Titanium Plus and Gen9 1400W Platinum Plus model only)



#### **Overview**

# HPE Recommended Options

# HPE recommended options have best performance, value and availability. Recommended

Offering the best combination of performance, value and availability, Recommended Options have been selected by HPE experts to provide the right technology for a range of workloads and market segments. Fully integrated into the ProLiant management and security experience, Recommended Options provide the best fit with timely availability.

#### **Extended**

Extended Options provide an extended catalog of products tailored for customers in specific markets or with specific workloads, requiring the utmost in performance or value. Fully integrated into the ProLiant management and security experience, Extended Options represent great value and performance but typically have a longer lead-time.

HPE Recommended Options – **View the list for your region** 

#### **Models**

#### Recommended

### **HPE Power Supplies**

#### **Gen9 Flexible Slot Power Supplies**

**NOTE:** Mixing different power supplies in the same server may limit or disable some power supply features including support for power redundancy. To ensure access to all available features, all power supplies within the same server should have the same output and efficiency ratings. **NOTE:** Low Halogen Power Supplies are not compatible with HPE Gen9 Servers.

#### **HPE Flexible Slot Platinum Power Supply Kits**

**NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit

720478-B21

HPE 800W Flex Slot Platinum Hot Plug Power Supply Kit

720479-B21

#### **HPE Flexible Slot Platinum Plus Power Supply Kits**

NOTE: Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

NOTE: 1400W Flex Slot Platinum Plus power supplies must be used with high-line input (200V – 240V AC).

HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit

720620-B21

#### **HPE Flexible Slot -48VDC Power Supply Kits**

NOTE: Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HPE 800W Flex Slot -48VDC Hot Plug Power Supply Kit

720480-B21

#### **Gen10 Flexible Slot Power Supplies**

**NOTE:** Mixing different power supplies in the same server may limit or disable some power supply features including support for power redundancy. To ensure access to all available features, all power supplies within the same server should have the same output and efficiency ratings. **NOTE:** Low Halogen Power Supplies are not compatible with HPE Gen9 Servers.

#### **HPE Flexible Slot Platinum Power Supply Kits**

**NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

**NOTE:** 1600W Flex Slot Platinum power supplies must be used with high-line input (200V – 240V AC).

NOTE: 1800W-2200W Flex Slot Platinum power supplies is only supported on Apollo 2000 Gen10

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
HPE 1800W-2200W Flex Slot Platinum Hot Plug Power Supply Kit	876935-B21

#### Overview

#### **HPE Flexible Slot Titanium Power Supply Kits**

**NOTE:** Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.

**NOTE:** 800W Flex Slot Titanium Plus power supplies must be used with high-line input (200V – 240V AC).

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit

865438-B21

#### **HPE Flexible Slot -48VDC Power Supply Kits**

**NOTE:** Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit

865434-B21

#### **Extended**

#### **HPE Power Supplies**

#### **Gen9 Flexible Slot Power Supplies**

#### **HPE Flexible Slot Titanium Plus Power Supply Kits**

**NOTE:** Flex Slot Titanium Plus power supplies support power efficiency of up to 96% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

**NOTE:** 800W Flex Slot Titanium Plus power supplies must be used with high-line input (200V – 240V AC).

HPE 800W Flex Slot Titanium Hot Plug Power Supply Kit 720482-B21

### **Gen10 Flexible Slot Power Supplies**

#### **HPE Flexible Slot HVAC/HVDC Power Supply Kits**

**NOTE:** Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.

HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit 865428-B21

#### HPE Scalable Persistent Memory Power Supply and Battery Backup

**NOTE:** Contains 2 units in each SKU. Must be used with HPE Scalable Persistent Memory solution

HPE Scalable Persistent Memory 800W Flex Slot PSU and 400W BBU 2-pack FIO Kit 827608-B21

#### Standard Features

#### Features/Benefits

#### **Titanium-Certified Power Efficiency**

- Titanium (96%) power efficiency certification from 80Plus program one of the highest power efficiency certifications available in the IT industry
- Reduces data center operating costs related to power by reducing server power requirements and power waste

#### Flex Slot Design

- Tool-less hot plug design improves serviceability buy allowing quick and easy access to system power supplies
- Common form factor across all ProLiant Gen9 and Gen10servers allows multiple server platforms to share power supply spares, reducing cost and space requirements for spares

#### **Multiple Power Output Options**

- Multiple output options allowing users to "right-size" their power needs and avoid "trapped" power capacity in their data centers caused by over-subscribing power needs
- Support for both low-line and high-line AC input voltages providing additional flexibility to
  operate in multiple It environments (500W and 800W Platinum only). -48VDC, 277VAC and
  380VDC input voltages are also available.

#### **Power Management**

- Supports multiple operating modes to maximize power efficiency when configuring servers with redundant power supplies
- Integrated support for HPE's Power Discovery Services which communicates with the intelligent PDU to monitor and manage power usage (Gen9 800W Titanium and Gen9 1400W Platinum Plus only)

#### **80Plus Certification**

The 80PLUS test protocol was developed jointly by Ecova Plug Load Solutions and the Electric Power Research Institute (EPRI) in 2003, with the program being formally launched in 2004.

The 80 PLUS performance specification requires power supplies in servers to be 80% or greater energy efficient at 20%, 50% and 100% of rated load with a true power factor of 0.9 or greater. This makes an 80 PLUS certified power supply substantially more efficient than typical power supplies found in many other electrical devices.

### Who benefits from the 80PLUS power supply program?

- Commercial/Residential Consumers empowered with information regarding energy efficient IT
  options that help them cut energy costs and reduce their environmental impact
- Utility/Power Providers participation in a program that focuses on reducing power demands on overburdened grids as well as reducing power waste and its associated environmental impact

#### What are the efficiency requirements for each certification level?

80 PLUS Certification	230V Internal					
% of Rated Load	20% 50% 100%					
80 PLUS Bronze	81%	85%	81%			

#### Standard Features

80 PLUS Silver	85%	89%	85%
80 PLUS Gold	88%	92%	88%
80 PLUS Platinum	90%	94%	91%
80 PLUS Titanium	94%	96%	91%

#### What level of certification do HPE Flexible Slot Power Supplies meet?

HPE's Platinum and Platinum Plus power supply options meet 80PLUS requirements for Platinum certification. HPE's Titanium and Titanium Plus power supply options meet 80PLUS requirements for Titanium certification. To review 80Plus certification reports for each HPE Flexible Slot Power Supply, please refer to the 80Plus website at: <a href="https://www.plugloadsolutions.com/">https://www.plugloadsolutions.com/</a>.

# **Power Supplies**

Support for Redundant An HPE ProLiant server solutions configured with 2 Flex Slot Power Supplies – 500W, 800W, 1400W, 1600W, or 1800W-2200W - supports the following three power scenarios:

- Operation with a single power supply
- Operation with redundant power supplies in load-balanced mode
- Operation with redundant power supplies in high-efficiency mode

A single Flex Slot Power Supply supporting the entire load of the server can achieve the highest efficiency when operating in the middle range (50%) of its capacity.

For redundant Flex Slot Power Supplies operating in load-balanced mode (the default mode when adding redundant power supplies), the load is shared equally between the two power supplies. In general, the load-balanced mode offers better efficiency for loads requiring more than 60 percent of the primary power supply capacity.

When high-efficiency mode is enabled for redundant supplies (via the server's ROM-based setup utility under System options -> Redundancy options), each power supply in the server is designated as either a primary or secondary supply, and the entire server load is shifted to the primary power supply. This allows the primary power supply to operate at higher efficiency points on the load curve while the secondary power supply operates in idle mode, providing no output power and consuming very little energy (typically two to four watts per supply). The user can also specify that odd or even power supplies will be designated manually or automatically as secondary supplies. This flexibility allows users to balance the load across a rack manually or automatically.

#### Compatibility

HPE Gen9 Flex Slot power supplies are compatible with all HPE ProLiant Gen9 Performance servers including the:

- HPE ProLiant DL360 Gen9
- HPE ProLiant DL380 Gen9
- HPE ProLiant ML350 Gen9
- HPE Apollo 2000 Gen9
- HPE Apollo 4200 Gen9
- HPE Apollo 4500 Gen9

HPE Gen10 Flex Slot Low Halogen power supplies are compatible with most HPE ProLiant servers including the:

- HPE ProLiant DL360 Gen10
- HPE ProLiant DL380 Gen10
- HPE ProLiant DL385 Gen10
- HPE ProLiant DL560 Gen10

### **Standard Features**

- HPE ProLiant DL580 Gen10
- HPE ProLiant ML110 Gen10
- HPE ProLiant ML350 Gen10
- HPE Apollo 2000 Gen10
- HPE Apollo 4500 Gen10

HPE Scalable Persistent Memory Flex Slot power supply and battery backup is compatible with HPE ProLiant DL380 Gen10

To check for power supply compatibility, please review the appropriate HPE Server QuickSpecs at <a href="http://www.hpe.com/info/qs">http://www.hpe.com/info/qs</a>.

### Service and Support

#### Service and Support

**NOTE:** HPE Flexible Slot Power supplies are supported as a part of the HPE Server Infrastructure. No separate care packs are needed to be purchased.

#### **HPE Technology Services for Industry Standard Servers**

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HPE to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

#### Protect your business beyond warranty with HPE Pointnext operational services

HPE Pointnext operational services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.

## improve your support experience

Get connected to HPE to Connecting products to Hewlett Packard Enterprise will help prevent problems with 24x7monitoring, prefailure alerts, automatic call logging, and parts dispatch. With Connected products, you can have a dashboard to manage your IT anywhere, anytime, from any device.

#### **HPE Support Center**

Personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with HPE experts, access support resources or collaborate with peers. Learn more <a href="https://support.hpe.com/hpesc">https://support.hpe.com/hpesc</a>

The HPE Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Care Pack or Hewlett Packard Enterprise contractual support agreement.

\*The Hewlett Packard Enterprise Support Center Mobile App is subject to local availability.

#### Parts and materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

### Warranty / Service Coverage

For ProLiant servers and storage systems, this service covers HPE-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22" and tower UPS products; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by HPE as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.

# Service and Support

#### For more information

To learn more on services for HPE ESSN Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or

visit: http://www.hpe.com/services

## **Related Options**

## **Related Options**

Locking IEC Jumper Cables

HPE C13/C14 WW 10A 0.7m Blk Lckng PC	Q0P67A
HPE C13/C14 WW 10A 1.4m Blk Lckng PC	Q0P68A
HPE C13/C14 WW 10A 2m Blk Lckng PC	Q0P69A
HPE C13/C14 WW 10A 3m Blk Lckng PC	Q0P70A
HPE C19/C20 WW 16A 1.2m Blk Lckng PC	Q0P71A
HPE C19/C20 WW 16A 2m Blk Lckng PC	Q0P72A
HPE C19/C20 WW 16A 2.5m Blk Lckng PC	Q0P73A
HPE C13/C14 WW 10A 0.7m 6pc Lckng PC	Q0Q02A
HPE C13/C14 WW 10A 1.4m Blk 6pc Lckng PC	Q0Q03A
HPE C13/C14 WW 10A 2m Blk 6pc Lckng PC	Q0Q04A
HPE C13/C14 WW 10A 3m Blk 6pc Lckng PC	Q0Q05A
NOTE: Standard power cables and jumpers do not support Power Line	

Communications or Power Discovery Services.

**IEC Jumper Cables** 

HPE C13 - C14 WW 250V 10A Gray 0.7m Jumper Cord	A0K03A
HPE C13 - C14 WW 250V 10A Gray 1.37m Jumper Cord	A0K04A
HPE C13 - C14 WW 250V 10Amp Flint Gray 2.0m Jumper Cord	AF573A
HPE OEM C13 - C14 WW 250V 10A Gray 3m Jumper Cord	A0K06A
HPE C13 - C14 WW 250V 10Amp 0.7m Jumper Cord	142257-B28
HPE C13 - C14 WW 250V 10Amp 1.4m Jumper Cord	142257-006
HPE C13 - C14 WW 250V 10Amp 2.0m Jumper Cord	A0K02A
HPE C13 - C14 WW 250V 10Amp 2.5m Jumper Cord	142257-002
HPE C13 - C14 WW 250V 10Amp 3.0m Jumper Cord	142257-003
HPE C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
HPE C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
HPE C13-NEMA 6-15P 10A/250V 3.6m Black Power Cord	AON33A
HPE C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
HPE C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A
HPE C13 - IS-1293 IN 250V 10Amp HV 2.5m Power Cord	SG579A
HPE C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
HPE C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
HPE C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A
HPE C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
HPE C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
HPE C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
HPE C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
HPE C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
HPE C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
HPE C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
NOTE: Standard power cables and jumpers do not support Power Line	
Communications or Power Discovery Services.	

## **Related Options**

Localized Power Cords	HPE C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord HPE C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord HPE C13-NEMA 6-15P 10A/250V 3.6m Black Power Cord HPE C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord HPE C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord HPE C13 - IS-1293 IN 250V 10Amp HV 2.5m Power Cord HPE C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord HPE C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord HPE C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord HPE C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord HPE C13 - SI-32 IL 250V 10Amp 1.83m Power Cord HPE C13 - SS-30 IT/CL 250V 10Amp 1.83m Power Cord HPE C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord HPE C13 - SABS-164 ZA 250V 10Amp 1.83m Power Cord HPE C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord HPE C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord NOTE: Standard power cables and jumpers do not support Power Line Communications or Power Discovery Services.	AF572A AF569A AF556A AON33A AF557A AF562A SG579A AF561A AF558A AF591A AF566A AF566A AF564A AF571A AF560A AF567A AF565A AF565A AF5659A
-48VDC Power Cables	HPE No Plug 12AWG 48V DC 3.0m Power Cord  NOTE: This cable is only used with Gen9 -48VDC Flex Slot Power Supplies.  HPE 48VDC 2.85m Power Cable  NOTE: QOH80A is only used with Gen10 -48VDC Flex Slot Power Supplies.	J6X43A Q0H80A
277VAC / 380VDC Power Cables	HPE SAFDGRID-LS-25 277V 15Amp AC 0.76m Jumper Cord HPE SAFDGRID-LS-25 277V 15Amp AC 1.37m Jumper Cord HPE SAFDGRID-LS-25 277V 15Amp AC 2.0m Jumper Cord HPE SAFDGRID-SAFDGRID 277V 15Amp DC 0.76m Jumper Cord HPE SAFDGRID-SAFDGRID 277V 15Amp DC 1.37m Jumper Cord HPE SAFDGRID-SAFDGRID 277V 15Amp DC 2.0m Jumper Cord NOTE: These cables are only used with 277VAC / 380VDC Flex Slot Power Supplies.	J6X01A J6X02A J6X03A J6W98A J6W99A J6X00A

HPE 500W Flex Slot Platinum Hot Plug Power	HPE's Ge	neric Part	Number			72359	4-001		
Supply Kit (720478-B21)	HPE's Sp	HPE's Spares Part Number					754377-001		
Input Voltage Range ( V rms )		100-240							
Frequency Range (Nominal) ( Hz )				50-	-60				
Nominal Input Voltage ( V rms )	100	120	127	200	208	220	230	240	
Maximum Rated Output Wattage Rating (Watts)	500	500	500	500	500	500	500	500	
Nominal Input Current ( A rms )	5.6	4.6	4.3	2.7	2.6	2.5	2.4	2.3	
Maximum Rated Input Wattage Rating (Watts)	558	550	543	539	538	538	537	537	
Maximum Rated VA (Volt-Amp)	564	556	549	544	544	543	542	542	
Efficiency (%)	89.6	90.9	92.1	92.8	92.9	93.0	93.1	93.1	
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Leakage Current ( mA )	0.32	0.38	0.40	0.63	0.65	0.69	0.72	0.75	
Maximum Inrush Current (A peak )	30								
Maximum Inrush Current duration ( ms )		10							
Maximum British Thermal Unit Rating (BTU-Hr)	1904	1877	1853	1839	1837	1834	1832	1832	

HPE 800W Flex Slot Titanium Hot Plug Power	HPE's Generic	Part Number		734868-	001		
Supply (720482-B21)	HPE's Spares P	art Number	754378-	754378-001			
Input Voltage Range ( V rms )	200-240						
Frequency Range (Nominal) ( Hz )		50-60					
Nominal Input Voltage ( V rms )	200	208	220	230	240		
Maximum Rated Output Wattage Rating (Watts)	800	800	800	800	800		
Nominal Input Current ( A rms )	9.1 7.5 7.0 4.4						
Maximum Rated Input Wattage Rating ( Watts )	906 891 878 871 87						
Maximum Rated VA (Volt-Amp)	915	900	887	880	879		
Efficiency (%)	88.3	89.8	91.1	91.9	92.0		
Power Factor	0.99	0.99	0.99	0.99	0.99		
Leakage Current ( mA )	0.32	0.38	0.40	0.63	0.65		
Maximum Inrush Current (A peak )	30						
Maximum Inrush Current duration ( ms )	10						
Maximum British Thermal Unit Rating (BTU-Hr)	2910	2907	2904	2901	2899		

HPE 800W Flex -48VDC Hot Plug Power	HPE's Generic Part Numl	735040-001				
Supply (720480-B21)	HPE's Spares Part Numb	er	754382-001			
Input Voltage Range ( V DC )	-40 to -72					
Frequency Range (Nominal) ( Hz )	DC					
Nominal Input Voltage ( V DC )	-40	-40 -48				
Maximum Rated Output Wattage Rating (Watts)	800	800	800			
Nominal Input Current ( A DC )	22.0	18.1	11.9			
Maximum Rated Input Wattage Rating ( Watts )	882	871	858			
Maximum Rated VA (Volt-Amp)	882	871	858			
Efficiency (%)	90.7 91.9 93.2					
Power Factor	1.0					

Leakage Current ( mA )	0.0				
Maximum Inrush Current (A peak )	30				
Maximum Inrush Current duration ( ms )	10				
Maximum British Thermal Unit Rating (BTU-Hr)	3008	2971	2929		

HPE 800W Flex Slot Platinum Hot Plug Power	HPE's Ge	neric Par	t Number			723599	-001	
Supply (720479-B21)	HPE's Sp	HPE's Spares Part Number				754381-001		
Input Voltage Range ( V rms )		100-240						
Frequency Range (Nominal) ( Hz )				50-	-60			
Nominal Input Voltage ( V rms )	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	800	800	800	800	800	800	800	800
Nominal Input Current ( A rms )	9.1	7.5	7.0	4.4	4.2	4.0	3.8	3.7
Maximum Rated Input Wattage Rating ( Watts )	906	891	878	871	870	869	868	868
Maximum Rated VA (Volt-Amp)	915	900	887	880	879	877	876	877
Efficiency (%)	88.3	89.8	91.1	91.9	92.0	92.1	92.2	92.1
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current ( mA )	0.32	0.38	0.40	0.63	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak )	30							
Maximum Inrush Current duration ( ms )	10							
Maximum British Thermal Unit Rating (BTU-Hr)	3090	3040	2997	2972	2968	2963	2960	2963

HPE 1400W Flex Slot Platinum Plus Hot Plug	HPE's Generic	Part Number	733427-001 754383-001				
Power Supply Kit (720620-B21)	HPE's Spares	Part Number					
Input Voltage Range ( V rms )	200-240						
Frequency Range (Nominal) ( Hz )			50-60				
Nominal Input Voltage ( V rms )	200	208	220	230	240		
Maximum Rated Output Wattage Rating (Watts)	1400	1400	1400	1400	1400		
Nominal Input Current ( A rms )	7.9	7.6	7.2	6.8	6.5		
Maximum Rated Input Wattage Rating ( Watts )	1567	1564	1560	1557	1554		
Maximum Rated VA (Volt-Amp)	1583	1580	1575	1572	1570		
Efficiency (%)	89.4	89.5	89.8	89.9	90.1		
Power Factor	0.99	0.99	0.99	0.99	0.99		
Leakage Current ( mA )	0.63	0.65	0.69	0.72	0.75		
Maximum Inrush Current (A peak )	30						
Maximum Inrush Current duration ( ms )	10						
Maximum British Thermal Unit Rating (BTU-Hr)	5346	5336	5322	5311	5302		

HPE 500W Flex Slot Platinum Hot Plug Low	HPE's Ge	neric Par	Number			865398	-001	
Halogen Power Supply Kit (865408-B21)	HPE's Sp	HPE's Spares Part Number			866729-001			
Input Voltage Range ( V rms )				100-	-240			
Frequency Range (Nominal) ( Hz )				50-	-60			
Nominal Input Voltage ( V rms )	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	500	500	500	500	500	500	500	500
Nominal Input Current ( A rms )	5.6	4.6	4.4	2.7	2.6	2.5	2.4	2.3
Maximum Rated Input Wattage Rating (Watts)	557	550	549	539	539	538	537	537
Maximum Rated VA (Volt-Amp)	563	556	554	545	544	543	543	542
Efficiency (%)	89.7	90.8	91.1	92.7	92.8	93.0	93.1	93.1
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current ( mA )	0.33	0.39	0.41	0.65	0.68	0.72	0.75	0.78
Maximum Inrush Current (A peak )	30							
Maximum Inrush Current duration ( ms )	10							
Maximum British Thermal Unit Rating (BTU-Hr)	1902	1878	1873	1840	1838	1835	1833	1832

HPE 800W Flex Slot Platinum Hot Plug Low	HPE's Ge	neric Par	Number			865409	-001	
Halogen Power Supply Kit (865414-B21)	HPE's Sp	HPE's Spares Part Number			866730-001			
Input Voltage Range ( V rms )				100-	-240			
Frequency Range (Nominal) ( Hz )				50-	-60			
Nominal Input Voltage ( V rms )	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	800	800	800	800	800	800	800	800
Nominal Input Current ( A rms )	9.1	7.5	7.0	4.4	4.2	4.0	3.8	3.6
Maximum Rated Input Wattage Rating ( Watts )	899	887	883	867	866	865	864	864
Maximum Rated VA (Volt-Amp)	908	896	892	876	875	874	873	873
Efficiency (%)	89.0	90.2	90.6	92.3	92.4	92.5	92.6	92.6
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current ( mA )	0.33	0.39	0.41	0.65	0.68	0.72	0.75	0.78
Maximum Inrush Current (A peak )	30							
Maximum Inrush Current duration ( ms )		10						
Maximum British Thermal Unit Rating (BTU-Hr)	3067	3025	3012	2958	2956	2951	2948	2949

HPE 1600W Flex Slot Platinum Hot Plug Low	HPE's Generic	Part Number	830262-003	1	
Halogen Power Supply Kit (830272-B21)	HPE's Spares	HPE's Spares Part Number			1
Input Voltage Range ( V rms )			200-240		
Frequency Range (Nominal) ( Hz )			50-60		
Nominal Input Voltage ( V rms )	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	1600	1600	1600	1600	1600
Nominal Input Current ( A rms )	8.7	8.3	7.9	7.5	7.2
Maximum Rated Input Wattage Rating ( Watts )	1734	1732	1726	1727	1725
Maximum Rated VA (Volt-Amp)	1736	1734	1729	1729	1728
Efficiency (%)	92.2 92.4 92.7 92.7 92.8				92.8
Power Factor	1.00	1.00	1.00	1.00	1.00

Leakage Current ( mA )	0.63	0.65	0.69	0.72	0.75	
Maximum Inrush Current (A peak )	30					
Maximum Inrush Current duration ( ms )	10					
Maximum British Thermal Unit Rating ( BTU-Hr )	5918	5911	5888	5891	5884	

HPE 800W Flex Slot -48VDC Hot Plug Low	HPE's Generic Part Num	865431-001				
Halogen Power Supply Kit (865434-B21)	HPE's Spares Part Numb	HPE's Spares Part Number				
Input Voltage Range ( V DC )	-40Vdc to -72Vdc					
Frequency Range (Nominal) ( Hz )		DC				
Nominal Input Voltage ( V DC )	40	40 48				
Maximum Rated Output Wattage Rating (Watts)	800	800	800			
Nominal Input Current ( A DC )	22.1	18.2	12.0			
Maximum Rated Input Wattage Rating ( Watts )	874	865	854			
Maximum Rated VA (Volt-Amp)	883	873	862			
Efficiency (%)	91.5	92.5	93.7			
Power Factor		1.0				
Leakage Current ( mA )	0.13	0.16	0.23			
Maximum Inrush Current (A peak )	30					
Maximum Inrush Current duration ( ms )	10					
Maximum British Thermal Unit Rating (BTU-Hr)	2983	2951	2912			

HPE 800W Flex Slot Titanium Hot Plug Low	HPE's Generic	Part Number	865435-001	865435-001	
Halogen Power Supply Kit (865438-B21)	HPE's Spares	HPE's Spares Part Number			
Input Voltage Range ( V rms )			200-240		
Frequency Range (Nominal) ( Hz )			50-60		
Nominal Input Voltage ( V rms )	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	800	800	800	800	800
Nominal Input Current ( A rms )	4.3	4.1	3.9	3.7	3.6
Maximum Rated Input Wattage Rating (Watts)	851	851	850	848	848
Maximum Rated VA (Volt-Amp)	860	859	858	857	857
Efficiency (%)	94.0	94.0	94.2	94.3	94.3
Power Factor	0.99	0.99	0.99	0.99	0.99
Leakage Current ( mA )	0.65 0.68 0.72 0.75 0				0.78
Maximum Inrush Current (A peak )	30				
Maximum Inrush Current duration ( ms )	10				
Maximum British Thermal Unit Rating (BTU-Hr)	2905	2903	2899	2895	2893

HPE 800W Flex Slot Universal Hot Plug Low	HPE's Ge	neric Part Numbe	865425-001			
Halogen Power Supply Kit (865428-B21) 277VAC	HPE's Sp	ares Part Numbe	r	866727-0	001	
Input Voltage Range ( V rms )		200-277				
Frequency Range (Nominal) ( Hz )			50-60			
Nominal Input Voltage ( V rms )	200 208 230 240 277				277	
Maximum Rated Output Wattage Rating (Watts)	800 800 800 800 800					
Nominal Input Current ( A rms )	4.4 4.2 3.8 3.6 3.1					

Maximum Rated Input Wattage Rating ( Watts )	869	868	865	864	861	
Maximum Rated VA (Volt-Amp)	877	876	874	872	869	
Efficiency (%)	92.1	92.2	92.5	92.6	93.0	
Power Factor	0.99	0.99	0.99	0.99	0.99	
Leakage Current ( mA )	0.65	0.68	0.75	0.78	0.90	
Maximum Inrush Current (A peak )	8					
Maximum Inrush Current duration ( ms )	10					
Maximum British Thermal Unit Rating (BTU-Hr)	2964	2960	2951	2947	2936	

HPE 800W Flex Slot Universal Hot Plug Low	HPE's Generic Part Number	865425-001
Halogen Power Supply Kit (865428-B21) HVDC	HPE's Spares Part Number	866727-001
Input Voltage Range ( V rms )	380	
Frequency Range (Nominal) ( Hz )	DC	
Nominal Input Voltage ( V rms )	380	
Maximum Rated Output Wattage Rating (Watts)	800	
Nominal Input Current ( A rms )	2.3	
Maximum Rated Input Wattage Rating ( Watts )	863	
Maximum Rated VA (Volt-Amp)	863	
Efficiency ( % )	92.8	
Power Factor	1.00	
Leakage Current ( mA )	0.0	
Maximum Inrush Current (A peak )	8	
Maximum Inrush Current duration ( ms )	10	
Maximum British Thermal Unit Rating ( BTU-Hr )	2943	

HPE Scalable Persistent Memory 800W Flex	HPE's Ge	HPE's Generic Part Number					827497-001		
Slot PSU and 400W BBU 2-pack FIO Kit (827608-B21)	HPE's Sp	HPE's Spares Part Number 86				866430-001			
Input Voltage Range ( V rms )				100	-240				
Frequency Range (Nominal) ( Hz )				50	-60				
Nominal Input Voltage ( V rms )	100	120	127	200	208	220	230	240	
Maximum Rated Output Wattage Rating (Watts)	500	500	500	800	800	800	800	800	
Nominal Input Current ( A rms )	5.6	4.6	4.7	4.4	4.2	3.9	3.8	3.6	
Maximum Rated Input Wattage Rating ( Watts )	551 544 586 861 860 859 857 8					855			
Maximum Rated VA (Volt-Amp)	557	549	592	870	869	867	866	864	
Efficiency (%)	90.7	91.9	85.4	92.9	93.0	93.2	93.3	93.5	
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Leakage Current ( mA )	0.33	0.39	0.41	0.65	0.68	0.72	0.75	0.78	
Maximum Inrush Current (A peak )	30								
Maximum Inrush Current duration ( ms )		10							
Maximum British Thermal Unit Rating (BTU-Hr)	1881	1856	1999	2939	2935	2929	2925	2918	

HPE 1800W-2200W Flex Slot Platinum Hot	HPE's Generic	Part Number	876	932-001	
Plug Power Supply Kit (876935-B21)	HPE's Spares	Part Number	882	882135-001	
Input Voltage Range ( V rms )			200-240		
Frequency Range (Nominal) ( Hz )			50-60		
Nominal Input Voltage ( V rms )	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	1800	1900	2000	2100	2200
Nominal Input Current ( A rms )	9.75	9.91	9.88	9.94	9.99
Maximum Rated Input Wattage Rating (Watts)	1931	2041	2153	2262	2373
Maximum Rated VA (Volt-Amp)	1951	2062	2175	2285	2397
Efficiency (%)	93.20	93.09	92.90	92.83	92.72
Power Factor	0.99	0.99	0.99	0.99	0.99
Leakage Current ( mA )	0.63	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak )	30				
Maximum Inrush Current duration ( ms )	10				
Maximum British Thermal Unit Rating (BTU-Hr)	6590	6964	7345	7719	8096

### **Technical Specifications**

**All AC Power Supplies:** 

Operating Temperature 41° to 131°F (5° to 55°C)
Operating Relative Humidity (%) 5% to 95%, non-condensing

Operating Elevation

The maximum ambient to

The maximum ambient temperature of the power supply shall have an altitude de-rating, from sea level, of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum

of 3048 m (10,000 ft).

Storage Temperature -40° to 185°F (-40 to 85°C)
Storage Relative Humidity (%) 5% to 95%, non-condensing
Storage Elevation 0 to 50,000ft (0 to 15,240m)

Input Voltage Low Line - Rated: 100V - 127V; Min 90V to Max 132V

High Line - Rated: 200 - 240V; Min 180V to Max 264V

(model 720620-B21, 720482-B21, 830272-B21, 865438-B21, and 876935-B21 supports

High Line AC input only)

High Line - Rated: 200 - 277VAC; Min 180VAC to Max 305VAC (model 720484-B21 only) 240VDC Support - Rated 240VDC; Min 180VDC to Max 320VDC (model 720478-B21, 720479-B21, 720482-B21, 720620-B21, 865408-B21, 865414-B21, 865438-B21,

830272-B21, and 876935-B21 only)

Input Frequency Rated: 50 - 60Hz; Min 47Hz to Max 63Hz

FCC EMI Certification CE Mark, UL, cUL, IEC, EN, KCC, BSMI, CCC, TUV, C-tick, CISPR Class A

Mechanical Dimensions 2.68 x 1.59 x 8.87 in (6.80 x 4.04 x 22.53 cm) (WxHxD) NOTE: Length includes from handle to card-edge.

Unit Weight 2.0 lbs. (0.91 kg)

3.0 lbs. (1.36 kg) (model 720620-B21 only) 14.75 x 7.5 x 5.75 in (37.47 x 19.05 x 14.61 cm)

Shipping Dimensions

(WxHxD)

Shipping Weight

3.5 lb (1.59 kg)

4.5 lb (2.04 kg) (model 720620-B21 only)

Kit Contents Model 720478-B21. 720479-B21. 720620-B21 720482-B21. 865408-B21

865414-B21, 830272-B21, and 865438-B21 ship with:

(1) Power supply unit, (1) IEC C13-C14 jumper cable, installation/safety guide

Model 720484-B21, 865428-B21 ship with: (1) Power supply unit, installation/safety guide

Power Supply Hold-Up time in the

event of AC loss

Condition: 100% rated output power (Time in Milliseconds –

Minimum)

Non-Redundant (1+0) - 10ms

Redundant (1+1) – 20ms Non-Redundant (1+0) – 20ms

Condition: 50% rated output power (Time in Milliseconds –

Minimum)

Redundant (1+1) - 30ms

**All DC Power Supplies:** 

Operating Temperature 41° to 131°F (5° to 55°C)
Operating Relative Humidity (%) 5% to 95%, non-condensing

Operating Elevation 0 to 5,000ft (1,524m) with no derating;

The maximum ambient temperature of the power supply shall have an altitude derating from sea level, of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum

of 3048 m (10,000 ft).

Storage Temperature -40° to 185°F (-40 to 85°C)

### **Technical Specifications**

Storage Relative Humidity (%) 5% to 95%, non-condensing

Storage Elevation 0 to 50,000ft msl

Input Voltage 48VDC to 54VDC (nominal); Min 40VDC to Max 72VDC (model 720480-B21 only)

380VDC(nominal); Min 240VDC to Max 420VDC (model 720484-B21 only)

Input Frequency DC input

Conformance Standards CE Mark, UL, CSA, IEC, EN, CNS, KC, CCC, C-tick, TUV, CISPR Class A

Mechanical Dimensions (WxHxD) 1.58 x 2.67 x 7.20 in (4.03 x 6.80 x 18.29 cm)

Unit Weight 2.5 lb (1.13 kg)

Shipping Dimensions (WxHxD)  $14.87 \times 7.25 \times 5.63$  in (37.77 x 18.42 x 14.30 cm) Shipping Weight 3.5 lb (1.59 kg) (for model 720480-B21, 720484-B21)

Kit Contents Models 720480-B21,720484-B21, and 865428-B21 ship with:

(1) Power supply unit, installation/safety guide

### **Technical Specifications**

# 800W Power Supply with 400 W BBU

Operating Temperature
Operating Relative Humidity (%)

50° to 98°F (10° to 37°C) 5% to 95%, non-condensing

Operating Elevation

The maximum ambient temperature of the power supply shall have an altitude de-rating of 2.0°C per every 304.8 m (1000 ft) starting from 1524m (5,000 ft.) up to 3048m (10,000 ft.)

above sea level

Non-Operating: 15240m (50,000 ft.) above sea level

Storage Temperature  $-22^{\circ}$  to  $104^{\circ}$ F (-30 to  $40^{\circ}$ C) for 3 months  $-22^{\circ}$  to  $77^{\circ}$ F (-30 to  $25^{\circ}$ C) for 18 months

Storage Relative Humidity (%) 5% to 95%, non-condensing

Storage Elevation 0 to 50,000ft (0 to 15,240m)

Input Voltage Low Line - Rated: 100V - 127V; Min 90V to Max 132V

500W Maximum Output Power

High Line - Rated: 200 - 240V; Min 180V to Max 264V

800W Maximum Output Power

Input Frequency Rated: 50 - 60Hz; Min 47Hz to Max 63Hz

FCC EMI Certification CE Mark, UL, cUL, IEC, EN, KCC, BSMI, CCC, TUV, C-tick, CISPR Class A

Models 827608-B21 ship with:

Mechanical Dimensions 2.68 x 1.59 x 8.87 in (6.80 x 4.04 x 22.53 cm) (WxHxD) **NOTE:** Length includes from handle to card-edge.

Unit Weight 2.2 lbs. (1 kg)

Shipping Dimensions

(WxHxD) Kit Contents 14.75 x 7.5 x 5.75 in (37.47 x 19.05 x 14.61 cm)

(1) Power supply unit, installation/safety guide

The battery product may require replacement after 3 years operation in order to assure that the battery product retains the required capacity to fulfill the run time requirements of the end use system. The End use system will additionally provide Warning alert IML messaging to inform users of the need to replace the battery product when the remaining battery capacity is determined to be low.

# Environment-friendly Products and Approach

# End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

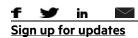
#### http://www.hpe.com/recycle

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

#### http://www.hpe.com/recycle

### **Summary of Changes**

Date	Version History	Action	Description of Change
02-Jul-2018	From Version 7 to 8	Changed	Standard Features, Related Options, and Technical Specifications were revised.
04-Jun-2018	From Version 6 to 7	Added	New 1800W-2200W Flex Slot Power Supply was added to the QuickSpecs.
		Changed	Overview, Standard Features, and Power Specifications were revised.
04-Dec-2017	From Version 5 to 6	Changed	Overview and Standard Features were revised.
25-Sep-2017	From Version 4 to 5	Added	New HPE Scalable Persistent Memory 800W Flex Slot PSU and 400W BBU 2-pack FIO Kit was added to the QuickSpecs.
		Changed	Overview, Standard Features, Power Specifications, and Technical Specifications were revised.
11-Jul-2017	From Version 3 to 4	Changed	Overview, Standard Features, Related Options, Power Specifications, and Technical Specifications were revised.
08-Jan-2016	From Version 2 to 3	Changed	Overview and Related Options sections were revised.
30-Mar-2015	From Version 1 to 2	Added	Added new Power Supply Kits.
		Changed	Overview, Standard Features, Service and Support, Related Options, Power Specifications, and Technical Specifications were revised.





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c04346217 - 15029 - Worldwide - V8 - 2-July-2018