

Overview

HPE G2 Switched Power Distribution Units

Setting new standards for reliable power distribution and metering

HPE G2 Switched PDUs are designed to work precisely with HPE Infrastructure and Compute solutions, providing a highly accurate (billing grade accuracy) power distribution and metering solution with outlet-level switching for your IT racks. Designed for use with HPE Standard, Advanced, and Enterprise racks (and compatible with other industry-standard server racks), HPE G2 Switched PDUs guaranty a compatible fit and reliable operation backed by a 3 year warranty. HPE G2 Switched PDUs are also rated for operating temperatures up to 60°C, adding an increased level of operational reliability for power distribution in your IT racks.

A major concern for IT administrators and facility managers is their ability to quickly diagnose and service power related problems in their IT racks. The HPE G2 PDU portfolio addresses this problem by, first, offering a range of models and mounting options that promote flexible power configuration in IT racks. Vertical, Horizontal, and True OU mounting, give you the flexibility to efficiently utilize rack space while placing access to power where you need it most in the rack. Serviceability is further enhanced with features such as color-coded outlets and low-profile form factors, allowing for simple and quick access to IT equipment and power cables in the rear of the rack.

HPE G2 Switched PDU features are also directly focused on other pain points in the data center. 1Gb Ethernet alleviates the need to maintain older switch solutions that have been traditionally required for PDU network connectivity. Support for up to eight sensors per PDU provides a cost-effective and exhaustive solution for monitoring the environmental elements (temperature, humidity, and leakage) in both the front and rear of the rack.

HPE IEC Locking Power Cords are a new supported option available for most HPE G2 PDUs. The IEC Locking Power Cords provide secure cable retention to both the PDU and target device, protecting against vibration during shipping and ensuring that cables are not dislodged during a service event. HPE's IEC Locking Power Cords provide a safe and secure solution against the common issues that lead to power-related downtime.

Why HPE Switched PDUs?

- HPE Foundation Care services purchased for server and storage products, such as extended warranties and premium support services, extend to our PDU products free of charge when purchased together.
- HPE guarantees 100% compatibility between its Rack and Power Infrastructure products and its industry-standard compute, storage, and networking solutions, backed with a 3-year warranty for all G2 Metered PDU models.
- HPE offers multiple Metered PDU form factors that promote efficient use of space in the rack and provide flexibility in how each PDU can be mounted and configured with cables.

Models

100-120V Input, Single Phase, North America/Japan

HPE G2 Switched 1.9kVA/IEC C20 Detachable 12A/120V Outlets (8) 5-20R/1U Horizontal NA/JP PDU	P9S07A
HPE G2 Switched 1.9kVA/IEC C20 Detachable 12A/120V Outlets (12) 5-20R/Vertical NA/JP PDU	P9S08A
HPE G2 Switched 2.8kVA/L5-30P 24A/120V Outlets (18) 5-20R/Vertical NA/JP PDU	P9S09A
HPE G2 Switched 2.8kVA/L5-30P 24A/120V Outlets (16) 5-20R/2U Horizontal NA/JP PDU	P9S10A

NOTE: Models P9S07A and P9S08A include a C19 to NEMA 5-15 detachable input power cord.

100-240V Input, Single Phase, Worldwide

HPE G2 Switched 3.6kVA/IEC C20 Detachable 16A/100-240V Outlets (8) C13/1U Horizontal WW PDU	P9S11A
HPE G2 Switched 3.6kVA/IEC C20 Detachable 16A/100-240V Outlets (12) C13 (4) C19/Vertical WW PDU	P9S12A

NOTE: Worldwide models do not include an input power cord. Please go to the Related Options section and select the appropriate input power cord for your geographic location.

200-208V Input, Single Phase, North America/Japan

HPE G2 Switched 4.9kVA/L6-30P 24A/208V Outlets (12) C13 (4) C19/2U Horizontal NA/JP PDU	P9S13A
HPE G2 Switched 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	P9S14A

220-240V Input, Single Phase, International

HPE G2 Switched 7.3kVA/60309 3-wire 32A/230V Outlets (12) C13 (4) C19/2U Horizontal INTL PDU	P9S16A
HPE G2 Switched 7.3kVA/60309 3-wire 32A/230V Outlets (20) C13 (4) C19/Vertical INTL PDU	P9S17A

Models

Horizontal Form Factors

1U Horizontal WW Model (P9S11A)

Coming Soon!

2U Horizontal Models (P9S13A, P9S16A)

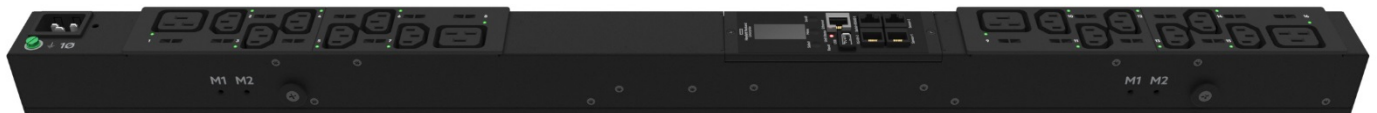


Vertical Form Factors

Vertical 120V Model (P9S08A)

Coming Soon!

WW Vertical Model (P9S12A)



Full-Height Vertical Models (P9S14A, P9S17A)



Key Features

- Power Metering and Management**
- All G2 HPE Switched PDUs meet IEC 62053-21, Class 1 standards for $\pm 1\%$ or better accuracy in power metering of:
 - Amperage
 - Voltage
 - Wattage
 - Kilowatts per hour
 - OLED display provides local monitoring and alert indications
 - Remote PDU management and power monitoring supported through integrated web-based user interface, CLI, and third-party software applications supporting SNMP

- Compatibility**
- Designed specifically for use with HPE rack enclosures, but compatible with most 3rd party IT racks
 - Integrated web-based user interface compatible with IPv4/IPv6 and SNMPv1/SNMPv3

- Usability**
- Range of mounting options including vertical, 1U/2U horizontal, and True OU (between the RETMA rails)
 - Low-profile PDU form factors ensure integrity of rear-rack keep-out zone for IT maintenance
 - Color-coded receptacles to easily distinguish between the different load segments/phases
 - Integrated cord retention on all IEC C19 and C13 receptacles (does not require any additional brackets)
 - Local and remote firmware updates

- Security**
- Outlet-level on/off power switching that can be accessed locally and remotely
 - Local and LDAP security with multiple access levels
 - Support for HTTP, HTTPS, SSH protocols
 - Configurable alarm thresholds for both power and environmental monitoring
 - Optional dual-locking power cords securing both power connections

HPE G2 Switched PDUs support multiple features that are unique to HPE and help to provide the best user experience. Information on these features is summarized below with additional information found online in HPE G2 Metered PDU User's Guide.

- Rated for High Operating Temperatures**
- Increasing IT densities and escalating operating costs have created a need for rack infrastructure that can operate reliably at higher operating temperatures. HPE G2 PDUs have been designed with high temperature-rated premium components and construction that support increased reliability levels at elevated temperatures. HPE G2 PDUs are rated for operation in temperatures up to 60°C (or 140°F) in the rear of the rack.

- IEC Locking Power Cords**
- HPE G2 PDU models support optional IEC Locking Power Cords with an integrated locking technology on both ends of the cable. HPE Locking Power Cord are available for both C13/14 and C19/20 power receptacles in multiple cable length options, and can be purchased in single or six-pack kits. One IEC Locking Power Cord has been included with each PDU model that supports either a C13 and/or C19 outlet.

- Color-Coded Outlets**
- All HPE G2 PDU models now include color-coded outlets which are highly visible from the rear of the rack. The color-coding helps to easily and clearly identify outlets to simplify cabling and power phase balancing when configuring your IT equipment.

- 1Gb Ethernet Support**
- HPE is the first IT solutions company to standardize on 1Gb Ethernet for PDU network connectivity. This eliminates the need to maintain older switching solutions needed for the 10/100 connectivity provided by most other PDU manufacturers.

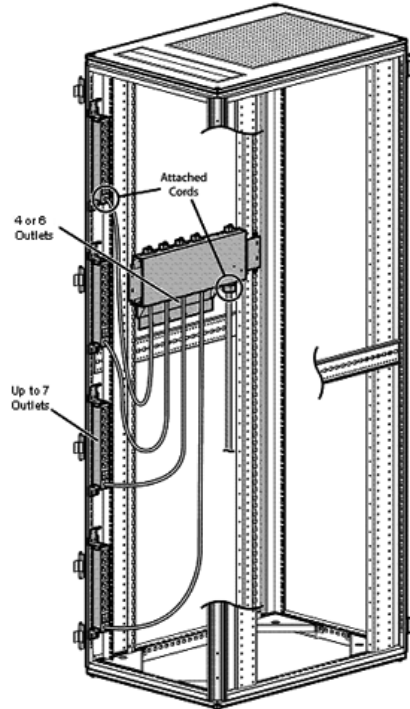
- Environmental Sensors**
- HPE G2 Switched PDU models include two environmental sensor ports (can be upgraded to six ports with the addition of up to two G2 PDU Sensor Port Hubs) that can monitor and record up to eight sensor measurements. Multiple sensor options are available providing the ability to monitor temperature, humidity, water leakage, and intrusion for each rack. Please review the Related Options section for a list of the options available.

- Flexible Mounting**
- Most vertical HPE G2 PDU models support mounting on the back and both sides of the PDU using a button and keyhole mounting system for easy drop-in installation. This provides a flexible mounting capability that allows power cables to be configured toward the front, middle, or rear of the rack, allowing users to customize their cable management strategy specifically for each rack.

Key Features

True OU Mounting

HPE Horizontal PDUs have a unique design specifically for data center customers who want to maximize space efficiencies in the rack. All HPE 1U Horizontal PDUs can be installed in any U position in your rack or can be installed in the OU space between the RETMA rails on HPE Advanced and Enterprise Series racks (see figure below).



HPE PDU Extension Bar Options

HPE PDU extension bar options help expand the availability of power in the rear of the rack. Each extension bar includes a locking input power cord that connects to the PDU and supports HPE's new IEC Locking Power Cords for C13/C14 and C19/C20 outlets. HPE PDU extension bars can be added to Horizontal and Vertical PDU models, with available C19 outlets, to add additional power outlets and expand access to power in the back of the rack when needed. Extension Bars mount directly to the frame of the rack in multiple locations allowing you the flexibility of placing access to power where it is needed most (see figure above). Multiple extension bar options are available to help you customize the outlet configurations you require extension bars are also compatible with previous generation PDU models that offer C20 outlets (locking feature only supported on new G2 PDU models). See the Related Options section for more information on G2 Extension Bar models.

3-Year Warranty

HPE G2 Switched PDU models are supported with a 3-year warranty. Additionally, the HPE Foundation Care Extension program provides additional support and services for your PDU models when purchased with HPE servers, storage, and networking solutions at no additional charge.

Additional information regarding worldwide limited warranty and technical support is available at:

<http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/index.aspx#.V-10xE3rvbq>

Related Options

Related Options

Extension Bars

HPE G2 IEC C20 Input/(8) C13 Expansion Outlets/PDU Extension Bar Kit	P9Q66A
HPE G2 IEC C20 Input/(4) C13 (2) C19 Expansion Outlets/PDU Extension Bar Kit	P9Q67A
HPE G2 IEC C20 Input/(7) 5-20R Expansion Outlets/PDU Extension Bar Kit	P9Q68A

NOTE: All kits include 2 extension bars with a locking C19 input power cord (1.8m).

IEC Locking Power Cords

HPE C13 - C14 WW 250V 10Amp 0.7m Black Locking Power Cord	Q0P67A
HPE C13 - C14 WW 250V 10Amp 0.7m Black 6-pack Locking Power Cord	Q0Q02A
HPE C13 - C14 WW 250V 10Amp 1.4m Black Locking Power Cord	Q0P68A
HPE C13 - C14 WW 250V 10Amp 1.4m Black 6-pack Locking Power Cord	Q0Q03A
HPE C13 - C14 WW 250V 10Amp 2m Black Locking Power Cord	Q0P69A
HPE C13 - C14 WW 250V 10Amp 2m Black 6-pack Locking Power Cord	Q0Q04A
HPE C13 - C14 WW 250V 10Amp 3m Black Locking Power Cord	Q0P70A
HPE C13 - C14 WW 250V 10Amp 3m Black 6-pack Locking Power Cord	Q0Q05A
HPE C19 - C20 WW 250V 16Amp 0.7m Black Locking Power Cord	Q0R19A
HPE C19 - C20 WW 250V 16Amp 0.7m 6-pack Black Locking Power Cord	Q0R15A
HPE C19 - C20 WW 250V 16Amp 1.2m Black Locking Power Cord	Q0P71A
HPE C19 - C20 WW 250V 16Amp 1.2m 6-pack Black Locking Power Cord	Q0R16A
HPE C19 - C20 WW 250V 16Amp 2m Black Locking Power Cord	Q0P72A
HPE C19 - C20 WW 250V 16Amp 2m 6-pack Black Locking Power Cord	Q0R17A
HPE C19 - C20 WW 250V 16Amp 2.5m Black Locking Power Cord	Q0P73A
HPE C19 - C20 WW 250V 16Amp 2.5m 6-pack Black Locking Power Cord	Q0R18A

NOTE: HPE Locking Power Cords are only supported on either C13/14 or C19/20 power receptacles using HPE G2 PDUs.

IEC Standard Power Cords

HPE C13 - C14 WW 250V 10A Gray 0.7m Jumper Cord	A0K03A
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 10A Gray 1.37m Jumper Cord	A0K04A
HPE C13 - C14 WW 250V 10Amp 2.0m Jumper Cord	A0K02A
HPE C13 - C14 WW 250V 10Amp Flint Gray 2.0m Jumper Cord	AF573A
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 OEM C13 - C14 WW 250V 10A Gray 3m Jumper Cord	A0K06A
HPE C20 - C13 WW 250V 15Amp 2.0m Jumper Cord	AF590A
HPE C19 - C20 WW 250V 16Amp Flint Gray 1.20m Jumper Cord	AF575A
HPE C19 - C20 WW 250V 16Amp Flint Gray 2.0m Jumper Cord	AF574A
HPE C19 - C20 WW 250V 16Amp 2.5m Jumper Cord	295633-B22

Country-Specific Power Cords

HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
HPE C19 - CEE-VII EU 250V 16Amp 3.6m Power Cord	AF576A
HPE C19 - CEI-23-50 IT/CL 250V 16Amp 3.6m Power Cord	AF580A
HPE C19 - GB-1002 CN 250V 16Amp 2.5m Power Cord	AF584A
HPE C19 - Nema L6-20P NA/JP 250V 20Amp High Voltage 3.6m Power Cord	AF593A
HPE 240 VAC 4.5M Unterminated End NA Power Cord	E7806A

HPE Vertical PDU 10K G2 Mounting Kit	H6L32A
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Related Options

HPE Mounting Brackets **NOTE:** This kit allows for vertical HPE G2 PDU models to be mounted in HPE 10000 G2 series racks and in the HPE Standard Series rack.

Environmental Sensors HPE G2 Metered PDUs include 2 physical sensor ports and can monitor and record up to eight sensor measurements. Data collected by each sensor can be viewed and managed through the integrated graphical user interface (GUI), or by third-party applications that communicate through SNMP or through a Redfish supported API. Consult the HPE G2 Metered PDU User Guide for more information on use with third-party software applications.

HPE G2 PDU Environmental Temperature Sensor	P9T00A
NOTE: Requires one input port and monitor/records one sensor measurement.	
HPE G2 PDU Environmental Temperature and Humidity Sensor	P9T01A
NOTE: Requires one input port and monitors/records two sensor measurements.	
HPE G2 PDU Environmental 3 Temperature and 1 Humidity Sensor	P9T02A
NOTE: Requires one input port and monitors/records four sensor measurements.	
HPE G2 PDU Open Door Sensor	P9T03A
NOTE: Requires two input ports and monitors/records two sensor measurements.	
HPE G2 PDU Leak Detection Sensor	P9T04A
NOTE: Requires one input port and monitors/records one sensor measurement. Kit covers up to six linear meters and can be expanded to cover up to thirty linear meters with the addition of up to four HPE G2 PDU Leak Detection Sensor Extension Kits (P9T08A).	
HPE G2 PDU Sensor Port Hub	P9T07A
NOTE: This is an adapter that expands a single physical sensor port into three physical sensor ports.	
HPE G2 PDU Leak Detection Sensor Extension Kit	P9T08A
NOTE: Leak Detection Sensor (P9T04A) must be purchased separately to use in conjunction with this kit. Up to four Extension Kits can be added to a single Leak Detection Sensor to cover up to a maximum of thirty linear meters.	

Model Matrix – Input Power

Mounting options for Horizontal 1U and 2U PDU models					
Model	W x H x D (inches)	Unit Weight (lbs.)	U Height	Horizontal Mounting	True 0U Mounting
P9S07A	17.46 x 1.71 x 10.62	9.5	1	✓	✓
P9S10A	17.46 x 3.43 x 10.62	14.6	2	✓	-
P9S11A	17.46 x 1.71 x 10.62	9.0	1	✓	✓
P9S13A	17.46 x 3.43 x 10.62	15.9	2	✓	-
P9S16A	17.46 x 3.43 x 10.62	15.1	2	✓	-

Mounting options for Vertical PDU models in HPE Advanced and Enterprise racks (1075mm depth)							
Model	W x H x D (inches)	Unit Weight (lbs.)	Vertical Height	Maximum PDUs per Side of Rack			
				22U	36U	42U	48U
P9S08A	2.05 x 36.10 x 2.09	10.2	Half	2	2	4	4
P9S09A	2.05 x 58.66 x 2.09	14.6	Mid	-	2	2	2
P9S12A	2.05 x 36.10 x 2.09	10.0	Half	2	2	4	4
P9S14A	2.05 x 68.90 x 2.09	17.2	Full	-	-	2	2
P9S17A	2.05 x 68.90 x 2.09	14.4	Full	-	-	2	2

NOTE: HPE G2 Advanced and Enterprise 1200mm deep racks include an extra set (2) of PDU trays in the rear of the rack enabling support of up to 2x the number of PDUs listed above for 1075mm deep racks.

Model Matrix – Input Power						
Model	Region	Input Phasing & Voltage	Input Amps	Circuit Breakers	Input Plug Type	Input Cord Length
P9S07A	NA/JP	1-ph, 100-120V	16	-	C20 Inlet	12' (detachable)
P9S08A	NA/JP	1-ph, 100-120V	16	-	C20 Inlet	10' (detachable)
P9S09A	NA/JP	1-ph, 100-120V	24	(2) 1-pole, 20A	L5-30P	10'
P9S10A	NA/JP	1-ph, 100-120V	24	(2) 1-pole, 20A	L5-30P	12'
P9S11A	WW	1-ph, 100-240V	16	-	C20 Inlet	Cord Not Included*
P9S12A	WW	1-ph, 100-240V	16	-	C20 Inlet	Cord Not Included*
P9S13A	NA/JP	1-ph, 200-240V	24	(2) 2-pole 20A	L6-30P	12'
P9S14A	NA/JP	1-ph, 200-240V	24	(2) 2-pole 20A	L6-30P	10'
P9S16A	INTL	1-ph, 200-240V	32	(2) 1-pole, 16A	IEC 32A, 1ph	12'
P9S17A	INTL	1-ph, 200-240V	32	(2) 1-pole, 16A	IEC 32A, 1ph	10'

*WW models require the selection of a regional power cord. Refer to Related Options section for HPE power cord options.

NOTE: All Input Circuit Ratings for NA/JP models have been de-rated according to NEC requirements.

Nominal Input Voltage Ratings used for calculating output power are as follows:




























- 100 – 125V: 120V
- 200 – 208V: 208V
- 100 – 240V: 230V
- 220 – 240V: 230V

Model Matrix – Output Power

Model Matrix – Output Power						
Model	Region	Nominal Power (kVA)	Output Voltage Range	Output Receptacles	Support Extension Bar Options	Support Locking Power Cord Options
P9S07A	NA/JP	1.9	100-125V	(8)5-20R	-	-
P9S08A	NA/JP	1.9	100-125V	(12)5-20R	-	-
P9S09A	NA/JP	2.8	100-125V	(18)5-20R	-	-
P9S10A	NA/JP	2.8	100-125V	(16)5-20R	-	-
P9S11A	WW	3.6	100-240V	(8)C13	✓	✓
P9S12A	WW	3.6	100-240V	(12)C12, (4)C19	✓	✓
P9S13A	NA/JP	4.9	200-208V	(12)C13, (4)C19	-	✓
P9S14A	NA/JP	4.9	200-208V	(20)C13, (4)C19	✓	✓
P9S16A	INTL	7.3	220-240V	(12)C13, (4)C19	✓	✓
P9S17A	INTL	7.3	220-240V	(20)C13, (4)C19	✓	✓

NOTE: For more information on Extension Bar and Power Cord options, please see the Related Options section.

PDU Plugs

Voltage	Amps	# Wires	Plug Name	Sample Plug Image (color may vary by manufacturer)	
				Receptacle (R)	Plug (P)
100-125 V Single Phase	15 A	3	NEMA 5-15		
	20 A	3	NEMA 5-20		
	30 A	3	NEMA L5-30		
200-240 V Single Phase	20 A	3	IEC C20		
	30 A	3	NEMA L6-30		
	32 A	3	IEC 309 32A		
	50 A	3	CS8265C		
	63 A	3	IEC 309 63A		
200 - 208 V NA/JPN Three Phase	30 A	5	NEMA L15-30		
	30 A	5	NEMA L21-30		
	50 A	4	CS8365C		
	60 A	4	IEC 309 60A		
200 - 240 V 400 - 415 V INTL Three Phase	16 A	5	IEC 309 16 A		
	32 A	5	IEC 309 32 A		

Technical Specifications

Operating Temperature	50° to 140° F (10° to 60° C)
Operating Relative Humidity (%)	10% to 90%
Operating Elevation	0 to 10,000 ft. (0 to 3000 m)
Storage Temperature	-4° to 140° F (-20° to 60° C)
Storage Relative Humidity (%)	5% to 95%
Storage Elevation	0 to 30,000 ft. (0 to 9144 m)
Conformance Standards	UL or CSA, CB Test+ FCC, ICES, VCCI - NA/JPN models CE, DEMKO, EAC, KC+KCC, ACMA, Ukraine - INTL models UL or CSA, CB Test+CE, DEMKO, EAC, FCC, ICES, KCC, KC, VCCI ACMA, Ukraine - WW models
Kit Contents	All G2 Switched PDU models ship with: <ul style="list-style-type: none">• Mounting brackets/hardware• Tie wraps• HPE IEC Locking Power Cord sample (for models with either C13 and/or C19 outlets)• Read me first card

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.

The EU WEEE Directive (2012/19/EU) 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.

Summary of Changes

Date	Version History	Action	Description of Change
01-Oct-2018	Version 4	Changed	Models were updated.
02-Jul-2018	Version 3	Changed	Models section was updated
05-Mar-2018	Version 2	Changed	Models, Related options, Model Matrix sections were updated
27-Mar-2017	Version 1	Added	New QuickSpecs.



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