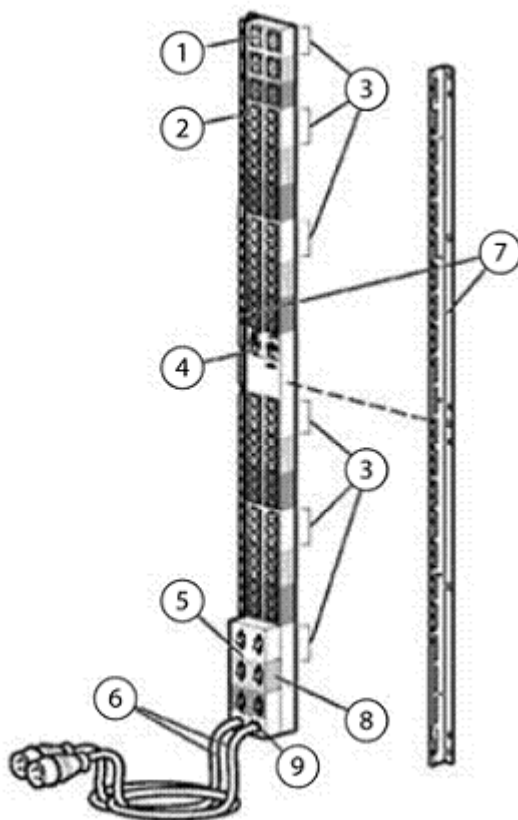


### Overview

The HP Monitored PDUs allow administrators and facility personnel to monitor current draw directly at the rack and per PDU. HP Monitored PDUs are available in both 1 phase and 3 phase and in single and dual input. Power capacity per PDU ranges from ranging from 4.9 kVA up to 22 kVA to provide flexibility in deployment. Available PDU's include full rack models with 39 receptacles on the single input models or with 78 receptacles on the dual input models. Half rack versions are single input and are available in a popular single phase model with 24 C-13 and 3 C-19 receptacles and a high capacity 3 phase model with 12 C-19 receptacles for use in dense BladeSystem environments. The optional PDU Management Module allows for remote monitoring of the PDUs across the network.

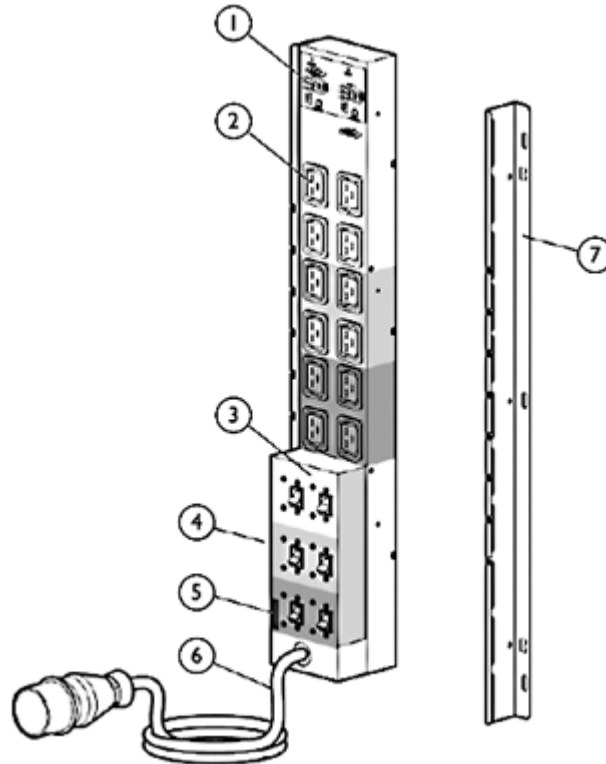
### Full Rack Vertical PDU Model (Ideal for 36U to 47U racks)



- |  |   |
|--|---|
| 1. 3 x C-19 outlets per input  | 6. Power cords                          |
| 2. 36 x C-13 outlets per input   | 7. Mounting and cord retention brackets |
| 3. Color coded load segments   | 8. Serial number label                  |
| 4. Front Panel Display and communications port for PDU Management module | 9. Model number                         |
| 5. Color coded circuit breakers  |   |

### Overview

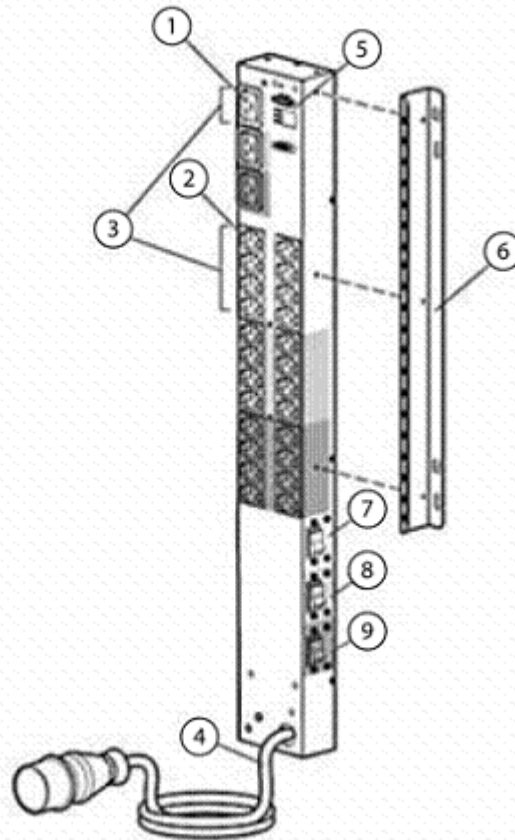
#### Half Rack Vertical PDU Models S340 and S348



- |  |   |
|--|---|
| 1. Front Panel Display and communications port for PDU Management module | 4. Serial Number label                  |
| 2. 12 x Color Coded C-19 outlets for Load Segmentation                   | 5. Model number                         |
| 3. Color coded circuit breakers  | 6. Power cord                           |
|  | 7. Mounting and cord retention brackets |
-

### Overview

Half Rack Vertical PDU Models S124



1. 3 x C19 outlets
2. Color Coded C19 and C13 outlets for Load Segmentation
3. 24 x C13 outlets
4. Power cord
5. Front Panel Display and communications port for PDU Management module
6. Mounting and cord retention brackets
- 7-9. Color coded circuit breakers

### What's New

- New S340 Monitored PDU is a half height form factor that connects to a 50 amp 3 phase circuit using the popular CS8365C connector. The new S340 has a single input and 12 C19 outputs for connection to a variety of HP equipment.

### Models

#### HP Monitored Power Distribution Unit: Full Rack Version

HP 17.3 kVA S2324 Monitored PDU- dual input, 3Ø, 24A

AF503A

HP 8.6 kVA S1324 Monitored PDU- single input, 3Ø, 24A

AF504A

HP 16.6 kVA S2140 Monitored PDU- dual input, 1Ø, 40A

AF505A

HP 8.3 S1140 Monitored PDU- single input, 1Ø, 40A

AF506A

### Overview

#### HP Monitored Power Distribution Unit: Half Rack Version

HP 4.9 kVA S124 Monitored PDU- single input, 1Ø, 24A

AF914A

HP 14.4 kVA S340 Monitored PDU- single input, 3Ø, 40A

AF536A

HP 17.3 kVA S348 Monitored PDU- single input, 3Ø, 48A

AF916A

**NOTE:** "Ø" = number of electrical phases at input.

### Product Features

#### Target Applications and Markets

- **24/7 data centers**
  - The HP Monitored PDU enables data centers to provide full rack power from one or more power distribution units. Available products include vertical rack mount taking 0U of rack space, as well as single or dual input models for increased power redundancy. Half height PDUs are perfect for BladeSystems and dense environments.
- **Power monitoring**
  - The HP Monitored PDU provides local and optional remote load monitoring. Each PDU chassis includes two serial ports-#1 for local set-up and configuration and #2 for attachment of the optional remote monitoring module.  
**NOTE:** [Optional remote monitoring with HP PDU Management Module \(PN: AF400A\)](#)
- **Power display**
  - The local user interface consists of a basic control panel that includes a two-digit 7-segment display, a recessed reset button, a scroll/invert button and 6 segment-dedicated LEDs. Local alarms are annunciated for current and voltage excursions.

#### Customer Challenges/Requirements

- Easy access to power multiple servers, storage and other rack mount equipment
- Need more outlets and more power in each rack
- Require easy and quick access to all power outlets in the back of the rack
- Monitor power in each rack and each PDU locally or remotely

#### Model Features - Full-Rack Vertical PDU

- Single and dual input models
- Single and three phase inputs
- 36 C13s + 3 C19s per input (single input models)
- 72 C13s + 6 C19s per input (dual input models)
- Unique color-coded load identification
- Local power monitoring display and optional remote power reporting with the PDU Management Module

#### Model Features - Half-Rack Vertical PDU

- Single input Models
  - 3 phase input with 12 x C-19s
  - Single phase input with 24 x C-13 and 3 x C-19
- Unique color-coded load identification Local power monitoring display and optional remote power reporting with the PDU Management Module

#### Optional HP PDU Management Module

- The HP PDU Management Module enables you to monitor power environments through comprehensive control of individual HP PDUs. The module can be configured to send alert traps to HP Systems Insight Manager and other SNMP management programs or used as a standalone monitoring system. This flexibility enables you to monitor up to two PDUs through the network connector or serial connector located on the front of the management module. To facilitate day-to-day maintenance tasks, the embedded management software provides detailed system logs.
- The HP PDU Management Module provides remote monitoring of a PDU by connecting the PDU directly to the network. Monitoring of the PDU can be achieved from anywhere and at anytime via a standard web browser.

**NOTE:** For additional information on the PDU Management Module please go to:  
<http://h18004.www1.hp.com/products/servers/proliantstorage/power-protection/power-distribution/module/index.html>

### Product Features

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### *Service and Support, HP Care Pack, and Warranty Information*

HP Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMware-based IT solutions helping to deliver high level of application availability. Response times range from 30 minutes for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

**NOTE:** For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

**NOTE:** For more complete information on HP Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

**NOTE:** Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

**NOTE:** For additional information on Server Services, Rack and Power Options, please visit: <http://h20219.www2.hp.com/services/cache/111072-0-0-225-121.html>

**NOTE:** The information contained herein is subject to change without notice and is provided "as is" without warranty of any kind.

**NOTE:** The warranties for HP products and services are set forth in the express limited warranty statements accompanying such products and services.

**NOTE:** Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

### Related Options

HP PDU Extension Bars	HP C-13 PDU Extension Bar Kit, pair	AF500A
	<b>NOTE:</b> Each extension bar has a C-20 input cord and 7 x C-13 receptacles.	
HP PDU Management Module	HP Fixed Cord Extension Bar Kit, pair	351655-B21
	<b>NOTE:</b> Each extension bar has a C-20 input cord and 7 attached 13 inch C-13 power cords for use with 1U servers.	
	<b>NOTE:</b> Extension bars may be used with any HP Monitored PDU that has C-19 outlets.	
HP PDU Management Module	HP PDU Management Module	AF400A
HP Power Cables	10A, IEC320 C-14 to IEC 320 C-13 Cables, 4.5ft (1.37m), 15 pack	142257-007
	10A, IEC320 C-14 to IEC 320 C-13 Cables, 4.5ft (1.37m), single pack	142257-006
	10A, IEC320 C-14 to IEC 320 C-13 Cables, 2.3ft (0.7m), single pack	142257-B28
	<b>NOTE:</b> For more information on HP power cords please go to: <a href="ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/power-cord-option-kits.pdf">ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/power-cord-option-kits.pdf</a>	
Service and Support Offerings (HP Care Pack Services)	Hardware Installation (Electronic)	U2871E

# QuickSpecs

## HP Monitored Power Distribution Unit (PDU)

### Technical Specifications

#### Full Rack Vertical PDU Dual Input Models

Model Number	S2324		S2140	
Part number	AF503A		AF505A	
<b>Input ratings</b>				
Voltage (VAC)	~A: 200-240V 60/50Hz 3Ø Delta		~A: 200-240V 60/50Hz 1Ø	
	~B: 200-240V 60/50Hz 3Ø Delta		~B: 200-240V 60/50Hz 1Ø	
<b>Current (Amps)</b>				
Branch circuit requirements	208V, 3Ø, 4-wire, 30A		200-240V, 3-wire 50A	
Input plug/cord rating	NEMA L15-30P x 2		Non-NEMA Locking CS8265C, 50A x 2	
Input cord length	72in (1.83m)		72in (1.83m)	
Facility receptacle needed	NEMA L15-30R x 2		Hubbell CS8264C, CS8269, or equivalent x2	
De-rated capacity	24A		40A	
<b>Output ratings</b>				
Voltage (VAC)	~A: 200-240V 60/50Hz 3Ø		~A: 200-240V 60/50Hz 1Ø	
	~B: 200-240V 60/50Hz 3Ø		~B: 200-240V 60/50Hz 1Ø	
<b>Current (Amps)</b>				
Outlet rating	C-13	10A	10A	
	C-19	16A	16A	
Load segment	L3	~A: 13.86A	~A: 20A	
		~B: 13.86A	~B: 20A	
	L2	~A: 13.86A	~A: 20A	
		~B: 13.86A	~B: 20A	
	L1	~A: 13.86A	~A: 20A	
		~B: 13.86A	~B: 20A	
<b>Maximum Total</b>		~A: 41.6A	~A: 40A	
		~B: 41.6A	~B: 40A	
<b>Power (Watts)</b>				
	Per Line Cord	~A: 8.6 kVA	~A: 8.3 kVA	
		~B: 8.6 kVA	~B: 8.3 kVA	
	PDU Total	17.2 kVA	16.6 kVA	
<b>Number of outlets</b>				
Load Segment / Line Cord	C-13	~A: 36 (12 per segment)	~A: 36 (12 per segment)	
		~B: 36 (12 per segment)	~B: 36 (12 per segment)	
	C-19	~A: 3 (1 per segment)	~A: 3 (1 per segment)	
		~B: 3 (1 per segment)	~B: 3 (1 per segment)	
PDU total	C-13	72	72	
	C-19	6	6	
<b>Dimensions &amp; Weights</b>				

### Technical Specifications

Product	Product	Product	Product
Product	Height	60 inches (1524 mm)	60 inches (1524 mm)
	Width	3.75 inches (95.25 mm)	3.75 inches (95.25 mm)
	Depth	2.0 inches (50.8 mm) @ outlets	2.0 inches (50.8 mm)@ outlets
	Weight	27.5 pounds (12.47 Kg)	37.5 pounds (37.5 Kg)
	Shipping	Shipping	Shipping
Shipping	Height	66.7 inches (1694 mm)	66.7 inches (1694 mm)
	Width	11.0 inches (279.4 mm)	11.0 inches (279.4 mm)
	Depth	11.3 inches (287.02 mm)	11.3 inches (287.02 mm)
	Weight	42.3 pounds (19.18 Kg)	42.3 pounds (19.18 Kg)

### Full Rack Vertical PDU Single Input Models

Model number	S1324	S1140	
Part number	AF504A	AF506A	
Input ratings			
Voltage (VAC)	200-240V 60/50Hz 3Ø Delta	200-240V 60/50Hz 1Ø	
Current (Amps)			
Branch circuit requirements	208V, 3F, 4-wire, 30A	200-240V, 3-wire 50A	
Input plug/cord rating	NEMA L15-30P	Non-NEMA Locking CS8265C, 50A	
Input cord length	72in (1.83m)	72in (1.83m)	
Facility receptacle needed	NEMA L15-30R	Hubbell CS8264C or CS8269, 50A or equivalent	
De-rated capacity	24A	40A	
Output ratings			
Voltage (VAC)	200-240V 60/50Hz 1U	200-240V 60/50Hz 1U	
Current (Amps)			
Outlet rating	C-13	10A	10A
	C-19	16A	16A
Load segment	L3	13.86A	20A
	L2	13.86A	20A
	L1	13.86A	20A
Maximum Total	41.6A	40A	
Power (kVA)			
Per line cord	8.6 kVA	8.3 kVA	
PDU Total	8.6 kVA	8.3 kVA	
Number of outlets			
Load segments	C-13	3 load segments 12 x C-13 outlets per segment 1 load segment per electrical phase	3 load segments 12 x C-13 outlets per segment
	C-19	3 (1 per segment)	3 (1 per segment)

# QuickSpecs

## HP Monitored Power Distribution Unit (PDU)

### Technical Specifications

PDU total	C-13	36	36
	C-19	3	3
<b>Dimensions &amp; Weights</b>			
Product	Height	60 inches (1524 mm)	60 inches (1524 mm)
	Width	1.9 inches (48.26 mm)	1.9 inches (48.26 mm)
	Depth	2.0 inches (50.8 mm) @ outlets	2.0 inches (50.8 mm)@ outlets
	Weight	25.1 pounds (11.38 Kg)	25.1 pounds (11.38 Kg)
Shipping	Height	64.8 inches (1645.2 mm)	64.8 inches (1645.2 mm)
	Width	7.8 inches (198.12 mm)	7.8 inches (198.12 mm)
	Depth	9.5 inches (241.3 mm)	9.5 inches (241.3 mm)
	Weight	26.1 pounds (11.83 Kg)	26.1 pounds (11.83 Kg)

### Half Rack Vertical PDU Models

Model number	<b>S340</b>		<b>S348</b>	
Part number	<b>AF536A</b>		<b>AF916A</b>	
<b>Input ratings</b>				
Voltage (VAC)	200-240V 60/50Hz 3Ø Delta		200-240V 60/50Hz 3Ø Delta	
<b>Current (Amps)</b>				
Branch circuit requirements	208V, 3Ø, 4-wire, 50A		208V, 3Ø, 4-wire, 60A	
Input plug/cord rating	Hubbell CS8365C 3 pole, 4 wire Twist lock		IEC60309 460P9 Watertight 3 Pole, 4 wire, 250VAC, 60A	
Input cord length	96 in (2.43m)		96 in (2.43m)	
Facility receptacle needed	Hubbell CS8365C 3 pole, 4 wire Twist lock		IEC309 3 Pole, 4 wire, 250VAC, 60A Hubbell WHBL460C9W, HBL460R9W, or equivalent	
De-rated capacity			48A	
<b>Output ratings</b>				
Voltage (VAC)	200-240V 60/50Hz 1 Ø		200-240V 60/50Hz 1 Ø	
<b>Current (Amps)</b>				
Outlet rating	C-19	16A	16A	
Load segment	L6	20A	20A	
	L5	20A	20A	
	L4	20A	20A	
	L3	20A	20A	
	L2	20A	20A	
	L1	20A	20A	
Power (kVA)	14.4 kVA		17.3 kVA	
Maximum amperage per phase	23 amps / phase		27.7 amps / phase	
PDU Total	14.4 kVA		17.3 kVA	



### Technical Specifications

Number of outlets			
Load segment / line cord	C-19	6 load segments 2 outlets per segment 2 load segments per electrical phase	6 load segments 2 outlets per segment 2 load segments per electrical phase)
PDU total	C-19	12	12
Dimensions & Weights			
Product	Height	28.32 inches (719.2 mm)	28.32 inches (719.2 mm)
	Width	3.78 inches (96mm)	3.78 inches (96mm)
	Depth	3.70 inches (94mm)	3.70 inches (94mm)
	Weight	24.2 lbs (11 Kg)	24.2 lbs (11 Kg)
Shipping	Height	33.25 inches (844.55 mm)	33.25 inches (844.55 mm)
	Width	12.9 inches (327.66 mm)	12.9 inches (327.66 mm)
	Depth	10.2 inches (259.08 mm)	10.2 inches (259.08 mm)
	Weight	31 lbs (14.1 Kg)	31 lbs (14.1 Kg)

### Half Rack Vertical PDU Single Input Models

Model number	S124		
Part number	AF914A		
Input ratings			
Voltage (VAC)	200-240V 60/50Hz 1U		
Current (Amps)			
Branch circuit requirements	208V, 1Ø, 3-wire, 30A		
Input Plug/Cord Rating	NEMA L6-30P		
Input cord length	120 in (3.05m)		
Facility receptacle needed	NEMA L6-30R		
De-rated capacity	24A		
Output ratings			
Voltage (VAC)	200-240V 60/50Hz 1U		
Current (Amps)			
Outlet rating	C-13	10A	
	C-20	16A	
Load segment	L3	20A	
	L2	20A	
	L1	20A	
Total	24A		
Power (kVA)	4.9 kVA		
PDU Total	4.9 kVA		
Number of outlets			
Load segments	C-13	3 load segments 8 x C-13 outlets per segment	
	C-19	3 (1 per segment)	

### Technical Specifications

PDU total	C-13	24
	C-19	3
<b>Dimensions &amp; Weights</b>		
Product	Height	28.86 inches (733mm)
	Width	3.78 inches (96mm)
	Depth	1.97 inches (50mm)
	Weight	
Shipping	Height	34.4 inches (874.7 mm)
	Width	7.94 inches (201.6mm)
	Depth	5.13 inches (130.2 mm)
	Weight	13.2 pounds (5.99 Kg)

Disclaimer: HP makes no recommendations regarding power connector manufactures. The manufacturers and model numbers listed in the above tables are strictly for the purpose of providing examples. Please consult a licensed professional to determine the best connector or receptacle for your specific needs.

#### Environment-friendly Products and Approach

#### End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

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 web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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