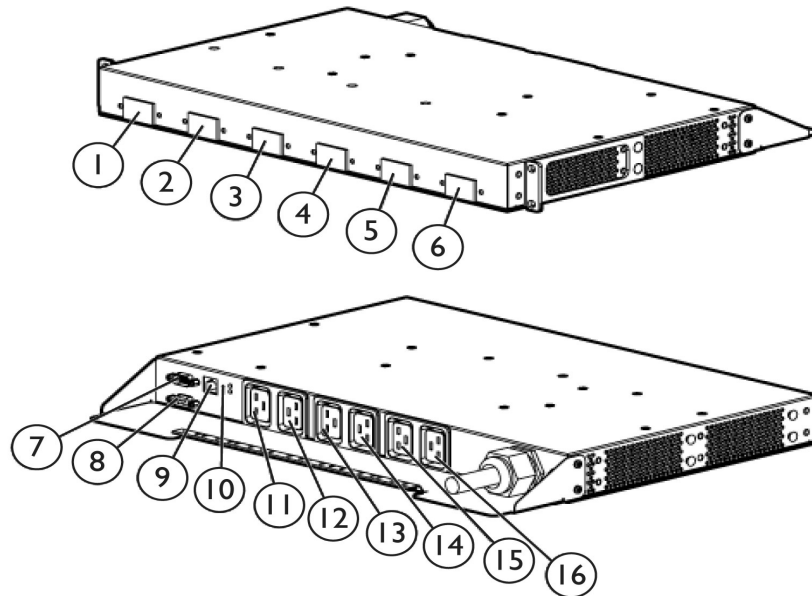


Overview

You cannot control what you cannot monitor. The new HP Intelligent Power Distribution Unit (iPDU) brings state of the art management and control to rack mounted power distribution units (PDU) to prevent over provisioning of power from restricting growth in your data center.

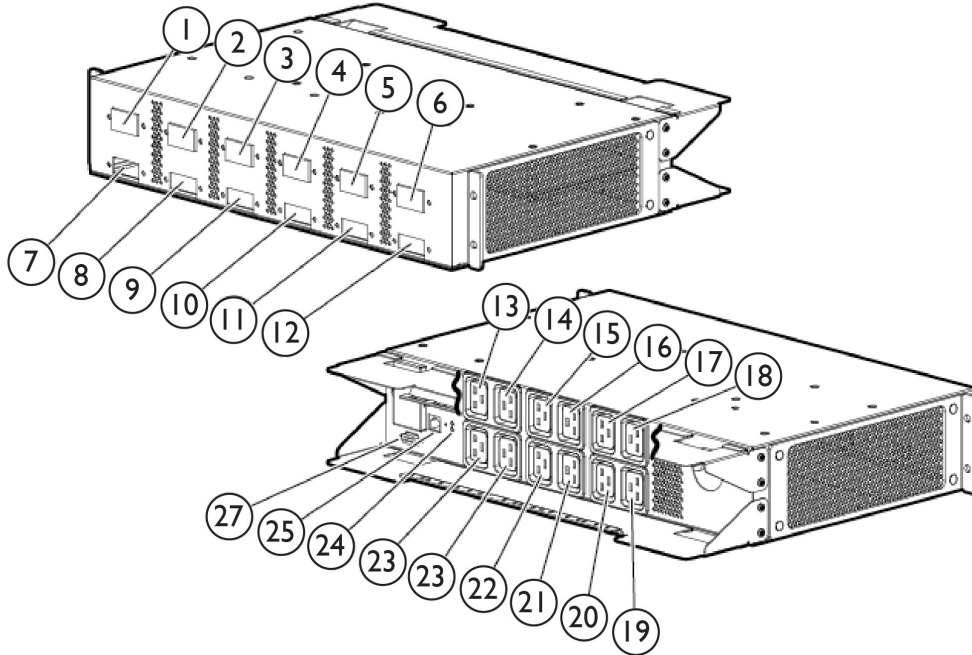
Using the popular core and stick architecture of HP's Modular PDU line the HP Intelligent PDU provides monitoring of power consumption at the core, load segment, stick, and outlet level with unmatched precision and accuracy. Remote management is built in and even provides power cycle ability of individual outlet on the Intelligent Extension Bars. HP is also the first to incorporate Power Discovery Services, which when combined with HP's line of Platinum or Platinum Plus high efficiency power supplies the Intelligent PDU actually communicates with the attached servers to collect asset information for the automatic mapping of the power topology inside a rack, speeding implementation time and greatly reducing the risk of human errors that can cause power outages.



Intelligent PDU 6 Outlet Core Unit

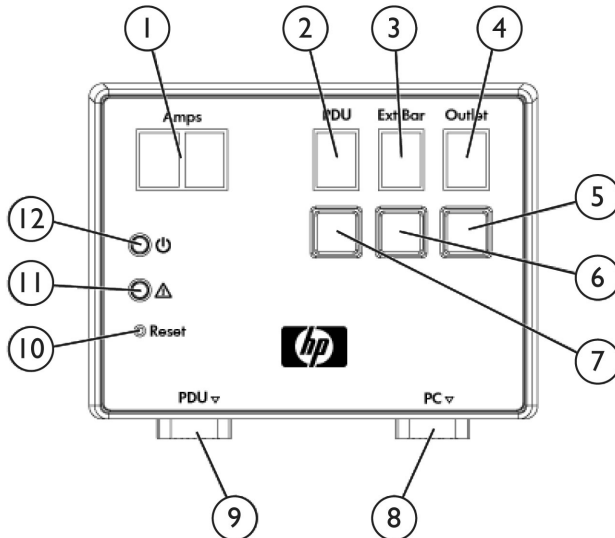
- | | | | |
|------|--|--------|------------------------------|
| 1-6. | Load segment circuit breakers, one per IEC C19 | 9. | Network connection (RJ-45) |
| 7. | LED Display Connection (DB-9) | 10. | Reset button (recessed) |
| 8. | For future use (DB-9) | 11-16. | IEC C19 Load segment outlets |

Overview



Intelligent PDU 12 Outlet Core Unit

- | | | | |
|-------|--|-----|-------------------------------|
| 1-12. | Load segment circuit breakers, one per IEC C19 | 26. | Network connection (RJ-45) |
| 13-24 | IEC C19 Load segment outlets | 27. | LED Display Connection (DB-9) |
| 25. | Reset button (recessed) | | |

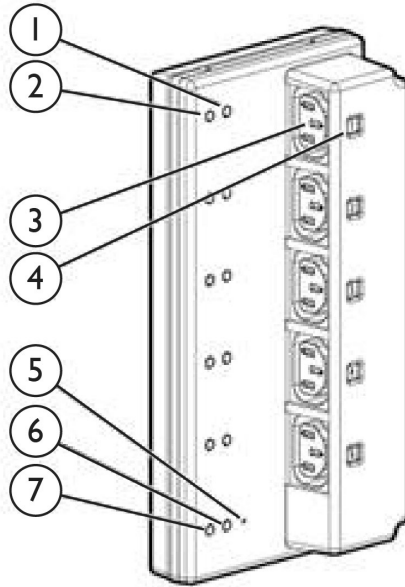


Intelligent PDU rear mount LED Display

- | | | | |
|----|--|----|---|
| 1. | Multi segment LED for amperage display | 7. | Scroll button for PDU Core Unit selection |
|----|--|----|---|

Overview

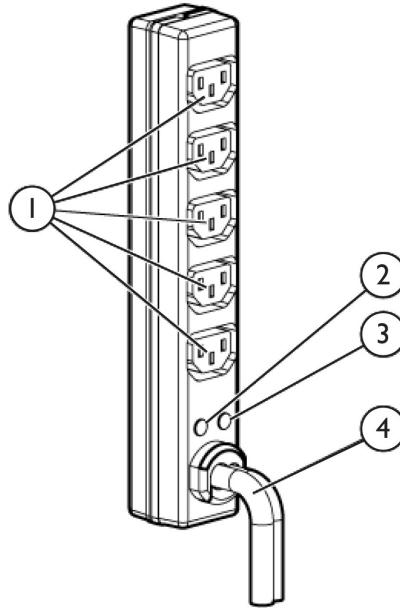
- | | | | |
|----|--|-----|---------------------------------------|
| 2. | Multi segment LED for PDU Core Unit identification | 8 | DB-9 for firmware updates |
| 3. | Multi segment LED for Load segment /Extension Bar identification number | .9. | DB-9 for connection to iPDU Core Unit |
| 4. | Multi segment LED for outlet identification number (Intelligent Extension bars only) | 10. | Recessed reset button |
| 5. | Scroll button for outlet selection (intelligent Extension bars 11. only) | | Alarm indicator |
| 6. | Scroll button for load segment/extension bar selection | 12. | Power Indicator |



Intelligent Extension Bar G2 for iPDU

- | | | | |
|----|--|----|--|
| 1. | Outlet UID indicator (blue LED) | 5. | Reset button |
| 2. | Outlet Status indicator (red/green LED) | 6. | Extension Bar UID indicator (blue LED) |
| 3. | 5x Individually monitored and switchable IEC C13 outlets with PLC connectors | 7. | Power on indicator for Intelligent Extension Bar (green LED) |
| 4. | Outlet number ID window (changes based on orientation) | | |

Overview



Standard Extension Bar for iPDU

- | | | | |
|----|---|----|---|
| 1. | 5 x IEC C13 outlets | 3. | Extension Bar UID indicator (blue LED) |
| 2. | Extension Bar power indicator (green LED) | 4. | Inlet cord with IEC C19 PLC connector to attach to iPDU Core Unit |

What's New

- New 8 foot Power Line Communications Power Cable for use in deeper racks.

Models

HP Intelligent Power Distribution Units (iPDU)

iPDU Core Units

NOTE: Each iPDU Core has 6 or 12 IEC C19 outlets and includes the LED display unit.
NOTE: 6 outlet iPDU cores can be mounted in 1U or 0U locations. 12 outlets iPDU cores require 2U of rack space.

HP 4.9kVA 24A Single Phase Core Intelligent Modular Power Distribution Unit	AF520A
HP 8.3kVA 40A Single Phase Core Intelligent Modular Power Distribution Unit	AF521A
HP 8.6kVA 24A Three Phase Core Intelligent Modular Power Distribution Unit	AF522A
HP 14.4kVA 40A Three Phase Intelligent Modular Power Distribution Unit	AF533A
HP 17.3kVA 48A Three Phase Core Intelligent Modular Power Distribution Unit	AF523A
HP 11.4kVA 16A 415V Three Phase L22-20 Core Intelligent Power Distribution Unit	AF900A
HP 17.3kVA 24A 415V Three Phase L22-30 Core Intelligent Power Distribution Unit	AF902A
HP 17.3kVA 24A 415V Three Phase IEC309 Core Intelligent Power Distribution Unit	AF901A
HP 17.3kVA 48A Three Phase 12 Outlet Intelligent Modular Distribution Unit	AF535A
HP 17.3kVA 24A 415V Three Phase 12 Outlet Intelligent Modular Distribution Unit	AF537A

iPDU Kits with Standard Extension Bars

Overview

HP 17.3kVA 48A 208V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF531A
--	--------

HP 17.3kVA 24A 415V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF532A
--	--------

NOTE: iPDU Kits include one Core Unit, LED Display, and 4 Standard (non-intelligent) Extension Bars. Total outlets would be 20 IEC C13 and 2 IEC C19 per kit. Additional Standard or Intelligent Extension bars can be added for a maximum of 30 IEC C13 outlets.

Product Highlights

Key Features

- 4.9kVA to 22kVA modular PDU core units
 - Unique modular design architecture
 - Up to 2 iPDU cores can be connected serially to work off of the same IP address or local display
 - Small form factor with flexible mounting options
 - 6 and 12 IEC C19 outlet models
 - IEC C19 outlets accept optional iPDU Extension Bars or direct IEC C20 cable connections for HP BladeSystems Enclosures
 - Automatic 100mS per outlet start delay on Intelligent Extension Bar
 - User configurable restart delay by Intelligent Extension Bar outlet from 0-999 seconds
 - Secure Web Browser user interface.
 - Individual outlet control and monitoring on Intelligent Extension Bars
 - Individual outlet monitoring on iPDU core.
 - Easy installation
 - Consolidated cord management and retention
 - Easily accessible outlets
 - All outlets can be used with either Power Discovery Services (PDS) enabled power cables or standard IEC jumper cables. Power Discovery Services requires PDS enabled power cables and Common Slot Platinum or Platinum Plus Power Supplies with PLC connectors on ProLiant DL servers or BLc Single Phase Intelligent Power Module equipped HP BladeSystem c7000 Platinum Enclosures.

Unique Modular Design Architecture

Hp's Intelligent PDUs have a patented modular architecture that improves their flexibility. This "Building block" concept consists of two main parts, the iPDU Core Unit, and the Extension Bar(s). The HP Intelligent PDUs ship with one Core Unit, the mountable LED display and mounting hardware. The 6 outlet Core Unit is zero-U or 1U rack mountable. The 12 outlet core unit is 2u rack mountable. Optional Extension Bars mount directly to the rack-frame or the rack extension unit.

PDU Core Units

- Each iPDU Core Unit incorporates an embedded web engine for remote monitoring and control and includes the LED display unit for local monitoring of current at the rack.
- Core units can be mounted in zero U configurations in HP 10000 series racks or in 1U configurations in any industry standard rack.
- Core units are available in a variety of single phase or three phase inputs to match any application.
- Each core unit has individually monitored IEC C19 outlets that are individually protected by high quality commercial grade breakers.
- Each IEC C19 on the HP Intelligent PDU incorporates out of band power line communications (PLC) technology to communicate with either the Standard Extension Bars or the Intelligent Extension bars.
- The iPDU extension bars can be plugged into the Core Unit, and can be mounted directly to the rack frame, spanning the entire length of the rack.

LED Monitoring Display

- Each Intelligent PDU Core Unit includes a LED Display for local monitoring of power consumption at the rack.
- LED Displays are mountable on the inside rear door of the rack.
- LED Displays have an external alert indicator that is visible from the rear of the rack with doors closed.

Product Highlights

- LED Displays show power draw (amperage) at the iPDU and can scroll through individual C19 outlet (load segments), and individual C13 outlets on the Intelligent Extension Bars.

All PDU Extension Bars (overview)

- All iPDU Extension bars are sold in pairs.
- Each Extension bar has five IEC C13 outlets for connection to external equipment.
- Extension Bars can be mounted in the rear of the rack to ease cable management.
- Individual extension bars do not extend into the maintenance zone between RETMA rails at the rear of the rack.
- Extension Bars have power indicators and UID LEDs
- Extension bars have bright blue PLC IEC C20 input connectors for use with HP Intelligent PDU Core Units.

Intelligent PDU Extension Bars G2

- Each Intelligent Extension Bar is 5U in height and has 5 individually monitored and switchable IEC C13 outlets.
- Each IEC C13 outlet has a status indicator and UID LED that is activated when scrolling through the local display unit or remotely via the embedded web engine.
- Each IEC C13 on the Intelligent Extension Bar incorporates bright blue PLC connections to communicate with HP Common Slot Platinum Power Supplies with PLC.
- Standard IEC C14 jumper cables can be used with the Intelligent Extension bars for powering non-IPD enabled devices.
- Each IEC C13 outlet on the Intelligent Extension Bar is capable of remote power cycling or remote lock out to prevent unauthorized equipment from being installed in the rack.
- Each IEC C13 outlet on the Intelligent Extension Bar has an automatic 100mS per outlet start delay and can be user programmed for restart delays of up to 999 seconds on a per outlet basis.
- The Intelligent Extension Bar G2 has an automatic outlet numbering systems that maintains consistent outlet identification so that Outlet Number 1 will always be the top of the Extension Bar independent of which side of the rack the Intelligent Extension Bar G2 is mounted on.
- The inlet cable on the Intelligent Extension Bar G2 has been moved to the back of the bar to ease installation and improve cable routing to the iPDU Core.

Standard PDU Extension Bars (non-intelligent)

- Standard Extension Bars can be mounted side by side for high density or redundant applications.
- Standard Extension bars are monitored as a single load segment of 5 x C13 outlets at the IEC C19 outlet on the Intelligent PDU Core Unit.
- Standard Extension Bars have a power indicator and UID LED that is activated when scrolling through the local display unit or remotely via the embedded web engine.

Power line communications (Power Discovery Services (PDS) enabled) power cables

- Each PDS enabled power cable incorporates RS232 serial connections to enable Power Discovery Services.
- Power Discovery Services uses out of band power line communications to transfer server identity information between the HP Common Slot Platinum Power Supplies and the HP Intelligent PDU's Intelligent Extension Bars and automatically maps the server to outlets on the iPDU.
- PDS enabled cables and connectors conform to standard IEC specifications and sizes.
- When combined with HP ProLiant rack mount servers all outlets can be used with either PDS enabled power cables or standard IEC jumper cables. Power Discovery Services requires PDS enabled power

Product Highlights

cables and Common Slot Platinum or Platinum Plus Power Supplies with PLC connectors on ProLiant DL servers or BLc Single Phase Intelligent Power Module equipped HP BladeSystem enclosures such as the c7000 Platinum Enclosures.

- Available in a wide range of lengths for C13-C14 jumper cables for ProLiant servers and C19-C20 jumper cables for BladeSystems c7000 Platinum Enclosures. If cable management arms are used a combination of 4.5ft and 6ft cables should be used to reach Intelligent Extension Bars mounted on alternate sides of a rack up to 1 meter deep. A combination of 6ft and 8ft or 8ft and 10ft cables should be used for deeper racks.

Accuracy, Precision, and Reporting

- Voltage accuracy within:
 - 1% at 200-240 volt input
- Current accuracy within:
 - 1% >1A
 - 3% 400mA-1A
 - 5% 100mA-400mA
 - 10% <100mA
- Wattage accuracy within 1 watt at > 20mA
- Precision
 - 0.5 Second data collection for Voltage, Amperage, Wattage, VA, and Power Factor.
- Reporting
 - 2 digit local display for amperage by iPDU core, load segment, or individual Intelligent Extension Bar outlet
 - Remote reporting of Voltage, Amperage, Wattage, VA, and Power Factor down to 0.01 amp, 0.1 volt measured by load segment and by individual Intelligent Extension Bar outlet

Power Discovery Services

- Power Discovery Services automatically senses new equipment as it is plugged into the iPDU to map power connections and changes, insure redundancy, and configure iPDU and Systems Insight Manager with minimal manual configuration reducing human errors that can cause unplanned outages.
- Automatic discovery -When ProLiant servers with Platinum or Platinum Plus Common Slot Power Supplies are connected to an iPDU Intelligent Extension Bar using PDS Enabled power cables the iPDU automatically records the server name, server type, iLO IP address, and the Unique Universal Identification (UUID) number and maps the server to the connected outlets.
- Assisted discovery - The iPDU will detect non PDS enabled and third party equipment when they are plugged in and highlight the outlets on the management screens. Asset and identification information for non PDS enabled and third party equipment must be manually entered into the iPDU Management Screens.
- Once stored the iPDU will detect and track changes in the power plug locations based on the UUID information.
- This information can be automatically forwarded to Insight Control eliminating human errors in configuration and speeding implementation.
- Unused Intelligent Extension Bar C13 outlets can be disabled globally with a button click to prevent unplanned devices from using empty outlets and protect breakers.

Product Highlights

Redundancy and Grouping

- Two iPDUs can be paired to 2 other iPDUs in the same rack for redundancy.
- HP Intelligent Extension Bars connected to iPDU Cores enable outlet grouping on a single iPDU, outlet pairing on redundant iPDUs, and power redundancy verification. All based on UUID information obtained automatically.
- Paired iPDUs can recognize redundant Platinum Common Slot Power Supplies in ProLiant servers and ensure they are plugged into different iPDU Intelligent Extension bars on different iPDU cores for true power redundancy.
- Redundant Platinum Common Slot Power Supplies in ProLiant servers are automatically paired across multiple grouped iPDUs or grouped on a single iPDU to ease management and reduce potential errors during configuration.
 - Up 8 outlets can be paired together across multiple grouped iPDUs or grouped on a single iPDU.
 - If iPDUs are paired outlets must be paired across both iPDUs and cannot be grouped on a single iPDU.
 - If redundant Platinum Common Slot Power Supplies in ProLiant servers are not connected correctly across multiple grouped iPDUs a redundancy failure warning will be issued by flashing the outlet UID LEDs on the Intelligent Extension Bars and via SNMP and email alerts.
 - Paired outlets on grouped iPDUs can be power cycled simultaneously from either iPDU via a single control button in the remote management interface.
 - Grouped outlets on a single iPDU can be power cycled simultaneously via a single control button in the remote management interface. Automatically discovered servers and assisted discovery devices benefit from all the redundancy management features

Security

- SSL 3.0/TLS 1.0 (168 bit TLS-RSA-with-3DES-EDE-CBC-SHA data encryption). X.509 certificate
- Certificate Authority (CA) or self-signed certificates can be uploaded

SNMP and email alerts

- The iPDU provides detailed SNMP and email alerts showing alert origination by iPDU, load segment, and outlet as well as alert description, value, and trigger.
- The iPDU allows SNMP queries for data collection.

Configuration Options

Depending on the level of monitoring and control needed there are 3 basic configurations for the HP iPDU.

- **Core Only:** provide highly accurate power monitoring of each C19 outlet.
- **Core and Standard Extension bars:** Provides highly accurate power monitoring at the C19 level as a load segment of five C13 outlets each.
- **Core and Intelligent Extension Bars:** provides highly accurate power monitoring and remote switching of each individual C13 outlet on the Intelligent Extension Bars. This configuration also enables Power Discovery Services when combined with the Common Slot Platinum or Platinum Plus Power Supplies.

Easy Installation

Installation is quick and easy. Whether you choose to mount the Intelligent PDU core in zero-U or 1U, all required mounting brackets, accessories, and installation instructions are shipped with the product. The Extension Bars come with easy to use, snap-in brackets, which fit directly into the rack frame of HP 10000 G2, 11000 G2, and Intelligent Series racks.

Product Highlights

Compatibility

Ideal for use with the 10000 G2, 11000 G2, and Intelligent Series Racks, the Intelligent PDUs are largely designed for the dense rack environment. These Intelligent PDUs connect directly to the facility input power.

Warranty

Standard three year warranty with first year including parts and labor. HP UPSs are backed by a standard three year limited warranty; 3 year parts, 1 year Labor, 1 year onsite.

Service and Support

Service and Support

HP Technology Services

HP Technology Services offers you consultants and support experts to solve your most complex infrastructure problems. We help keep your business running, boost availability and avoid downtime.

Protect your business beyond warranty with HP Care Pack Services

When you buy HP Options, it's also a good time to think about what level of service you may need. HP Care Pack services provide total care and support expertise with committed response choices designed to meet your IT and business need.

Recommended HP Care Pack Services for optimal satisfaction with your HP product

Recommended Services

3-Year HP 24x7 4 hour Response, Hardware Support Onsite Service

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

HP ProLiant Server Hardware Installation

Provides for the basic hardware installation of HP branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN>

Related HP Care Pack Services to enhance your HP product experience

Related Services

3-Year HP 6 hour Hardware Support Onsite Call-to-Repair Service

Provides an IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 hours of the initial service request to the HP Global Solution Center

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EN>

HP Proactive Select Service

Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months. <http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN>

Insight Remote Support

Delivers secure remote monitoring and support for HP servers and storage, 24x7 at no additional cost. Available as part of HP Warranty, Care Pack and Service Contract offers.

Parts and materials

HP will provide HP-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. Supplies and consumable parts will not be provided as part of this service; standard warranty terms and conditions apply. Parts and components that have exceeded their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual or the technical product data sheet will not be provided, repaired or replaced as part of this service.

Coverage

For ProLiant servers and storage systems, this service covers HP-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

Service and Support

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 HP 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 HP 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.

For more information

To learn more on services for HP ESSN Options, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: <http://www.hp.com/services/proliant> or www.hp.com/services/bladesystem

Related Options

Related Options

iPDU Extension Bars

HP 5xC13 Intelligent PDU Extension Bar G2 Kit AF547A

NOTE: Intelligent Extensions Bars have individually monitored outlets that are also individually switchable for power cycling attached equipment. Each individual C13 outlet has Power Line Communications to support Intelligent Power Discovery when connected to PLC enabled common slot power supplies.

HP 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar AF528A

NOTE: Standard (non-intelligent) Extension Bars are monitored as a single load segment and do not support Intelligent Power Discovery. Standard Extension Bars for HP iPDUs include a blue unit ID LED (UID) which helps associate the load segment being monitored with the Extension bar.

PDS Enabled power cables with power line communications (PLC)

HP C13 - C14 WW 250V 10Amp IPD 0.76m 1pc Jumper Cord SG506A

HP C13 - C14 WW 250V 10Amp IPD 0.76m 5pc Jumper Cord SG507A

HP C13 - C14 WW 250V 10Amp IPD 1.37m 1pc Jumper Cord SG508A

HP C13 - C14 WW 250V 10Amp IPD 1.37m 5pc Jumper Cord SG509A

HP C13 - C14 WW 250V 10Amp IPD 1.83m 1pc Jumper Cord SG510A

HP C13 - C14 WW 250V 10Amp IPD 1.83m 5pc Jumper Cord SG511A

HP C13-C14 8ft Single Power Line Communications Power Cable D9Y24A

HP C13-C14 8ft 5pc Power Line Communications Power Cable D9Y25A

HP C13 - C14 WW 250V 10Amp IPD 3.0m 1pc Jumper Cord SG512A

HP 1.37m 250V 16A C19-C20 WW Single IPD Enabled Jumper Cord TK744A

HP 1.37m 250V 16A C19-C20 WW 3PC Kit IPD Enabled Jumper Cord TK745A

HP 2.0m 250V 16A C19-C20 WW Single IPD Enabled Jumper Cord TK738A

HP 2.0m 250V 16A C19-C20 WW 3PC Kit IPD Enabled Jumper Cord TK739A

HP C19-C20 8ft Single Power Line Communications Power Cable TK740K

HP 2.5m 250V 16A C19-C20 WW 3PC Kit IPD Enabled Jumper Cord TK741A

HP 3.0m 250V 16A C19-C20 WW Single IPD Enabled Jumper Cord TK742A

HP 3.0m 250V 16A C19-C20 WW 3PC Kit IPD Enabled Jumper Cord TK743A

NOTE: PLC power cables are designated by bright blue IEC connectors.

NOTE: C13-C14 PLC power cables enable Power Discovery Services communications between HP Common Slot Platinum or Platinum Plus Power Supplies and the HP Intelligent Extension Bars when used with the HP Intelligent PDU cores.

NOTE: C19-C20 PLC power cables enable Power Discovery Services communications between HP BladeSystem c7000 Platinum Enclosure and HP Intelligent PDU cores.

Related Options

HP Power Supplies

HP Common Slot Platinum Plus Power Supply Kits

NOTE: 94% efficiency with support for HP Power Discovery Services.

NOTE: Common Slot Platinum Plus Power supplies are compatible with Gen 8 ProLiant servers

HP 460W Common Slot Platinum Plus Hot Plug Power Supply Kit 656362-B21

HP 750W Common Slot Platinum Plus Hot Plug Power Supply Kit 656363-B21

HP 1200W Common Slot Platinum Plus Hot Plug Power Supply Kit 656364-B21

HP 1500W Common Slot Platinum Plus Hot Plug Power Supply Kit 684532-B21

HP Common Slot Platinum Power Supplies

NOTE: 94% efficiency with support for HP Power Discovery Services

NOTE: Common Slot Platinum Power supplies are compatible with G6 and G7 ProLiant servers.

HP 460W Common Slot Platinum Hot Plug Power Supply Kit 593188-B21

HP 750W Common Slot Platinum Hot Plug Power Supply Kit 593831-B21

HP 1200W Common Slot Platinum Hot Plug Power Supply Kit 578322-B21

NOTE: PLC enabled power supplies and PLC power cables are required to enable Power Discovery Services.

HP Care Pack Services

HP Install Rack and Rack Options Service

U2871A

Intelligent PDU Family Information

Model Selection Matrix

Intelligent PDU 6 outlet core only units

	4.9 kVA iPDU Core	8.3 kVA iPDU Core	8.6 kVA iPDU Core	14.4kVA iPDU Core	17.3 kVA iPDU Core
Part Number	AF520A	AF521A	AF522A	AF533A	AF523A
Input Connection (Single Input)	3.6m input cord with L6-30P	3.6m input cord with Non-NEMA Locking CS8265C, 50A	3.6m input cord with NEMA L15-30P	3.6m input cord with Non-NEMA Locking CS8365C, 50A	3.6m input cord with IEC-60309 3 pole, 4 wire 200-240VAC 60A Waterproof
Facility power connection	NEMA L6-30R	Non-NEMA CS8264C or CS8269, 50A or equivalent	208V 3 phase 3 pole 4 wire (Delta) NEMA L15-30R	208V 3 phase 3 pole 4 wire (Delta) CS8364C, CS8369, or equivalent	IEC60309 3 pole, 4 wire, 208VAC 60A IEC 460C9W, 460R9W, or equivalent
Output Connections on iPDU core	6 IEC 320 C-19	6 IEC 320 C-19	6 IEC 320 C-19	6 IEC 320 C-19	6 IEC 320 C-19
Extension Bars	Optional on all Core Only Models, maximum 3 pair per iPDU Core				
Current (max)	24A	40A	41.52A	69A	83.04A
AC Voltage Range	200-208V	200-208V	208v 3Ø Delta	208v 3Ø Delta	208v 3Ø Delta
Frequency (Hertz)	60Hz	60Hz	60Hz	60Hz	60Hz
Load Capacity (VA)	4992 (@208V)	8320 (@208V)	8600 (@208V)	14393 (@208V)	17272 (@208V)
Output Circuit Breakers	6 X 20A	6 X 20A	6 X 20A	6 X 20A	6 X 20A
Overload Protection	Yes, per individual IEC C19 outlet on Core Unit				

Intelligent PDU core only units, 415 Volt

	11.5 kVA iPDU Core	17.3 kVA iPDU Core	17.3 kVA iPDU Core
Part Number	AF900A	AF901A	AF902A
Input Connection (Single Input)	3.6m input cord with NEMA L22-20P	3.6m input cord with IEC 530P6S Splashproof	3.6m input cord with NEMA L22-30P
Facility power connection	415 Volt NEMA 22-20R	IEC60309 4 pole, 5 wire, 380-415 VAC, 30A IEC 530C6S or equivalent	415 Volt NEMA L22-30R
Output Connections on iPDU core	6 IEC 320 C-19	6 IEC 320 C-19	6 IEC 320 C-19
Extension Bars	Optional on all Core Only Models, maximum 3 pair per iPDU Core		
Current (max)	27.71A	41.52A	41.52A
AC Voltage Range	380-415V 3Ø Wye	380-415V 3Ø Wye	380-415V 3Ø Wye
Frequency (Hertz)	60Hz	60Hz	60Hz
Load Capacity (VA)	11,500 (@415V)	17,250 (@415V)	17,250 (@415V)
Output Circuit Breakers	6 X 20A	6 X 20A	6 X 20A

Intelligent PDU Family Information

Overload Protection	Yes, per individual IEC C19 outlet on Core Unit
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Intelligent PDU 12 outlet core only units

	17.3 kVA 208V iPDU Core	17.3 kVA 415V iPDU Core
Part Number	AF535A	AF537A
Input Connection (Single Input)	3.6m input cord with IEC-60309 3 pole, 4 wire 200-240VAC 60A Waterproof	3.6m input cord with IEC 530P6S Splashproof
Facility power connection	IEC60309 3 pole, 4 wire, 208VAC 60A IEC 460C9W, 460R9W, or equivalent	IEC60309 4 pole, 5 wire, 380-415 VAC, 30A IEC 530C6S or equivalent
Output Connections on iPDU core	12 IEC 320 C-19	12 IEC 320 C-19
Extension Bars	Optional on all Core Only Models, maximum 6 pair per iPDU Core	
Current (max)	83.04A	41.52A
AC Voltage Range	208v 3Ø Delta	380-415V 3Ø Wye
Frequency (Hertz)	60Hz	60Hz
Load Capacity (VA)	17292 (@208V)	17,250 (@415V)
Output Circuit Breakers	12 X 20A	12 X 20A
Overload Protection	Yes, per individual IEC C19 outlet on Core Unit	

Intelligent PDU Kits (includes 4 Standard (non-intelligent) Extension bars)

	4.9 kVA iPDU Kit	8.6 kVA iPDU Kit
Part Number	AF531A	AF532A
Input Connection (Single Input)	3.6m input cord with L6-30P	3.6m input cord with NEMA L15-30P
Facility power connection	NEMA L6-30R	208V 3 phase 3 pole 4 wire (Delta) NEMA L15-30R
Output Connections on iPDU core	6 IEC 320 C-19	6 IEC 320 C-19
Extension Bars	4 Standard Extension Bars w/ 5x C13 each	4 Standard Extension Bars w/ 5x C13 each
Total outlets	20 x IEC C13, 2x IEC C19	
Current (max)	24A	41.52A
AC Voltage Range	200-208V	208v 3Ø Delta
Frequency (Hertz)	60Hz	60Hz
Load Capacity (VA)	4992 (@208V)	8600 (@208V)
Output Circuit Breakers	6 X 20A	6 X 20A
Overload Protection	Yes, per individual IEC C19 outlet	

Intelligent PDU Family Information

HP Power Cables	Cable	Description	Part Number
IEC C-13	4.5 ft (1.37 m), x15	HP C13 - C14 WW 250V 10Amp 1.4m 15 pc Jumper Cord	142257-007
	4.5 ft (1.37 m), x1	HP C13 - C14 WW 250V 10Amp 1.4m Jumper Cord	142257-006
	1.6 ft (0.5m) x1	HP C13 - C14 WW 250V 10Amp 0.7m Jumper Cord	142257-B28
	8 ft (2.5m) x1	HP C13 - C14 WW 250V 10Amp 2.5m Jumper Cord	142257-002
NOTE: Standard power cables and jumpers do not support Power Line Communications or Power Discovery Services.			
IEC C-19	8 ft (2.5m) x 1	HP C19 - C20 WW 250V 16Amp 2.5m Jumper Cord	295633-B22
	NOTE: Standard power cables and jumpers do not support Power Line Communications or Power Discovery Services.		

Please refer to the Power Cord Matrix for more information on power cords/cable part numbers, input/output descriptions.

<http://www.hp.com/go/powercordmatrix>.

Disclaimer: HP makes no recommendations regarding power connector manufactures. The 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.

Technical Specifications

Shipping Weight	6 outlet: 20.2 lb (9.16 kg), 12 outlet: 36.4 lb (16.51 kg)
Operating Temperature	50° to 122° F (10° to 50° C)
Operating Relative Humidity (%)	10% to 90%
Operating Elevation	0 to 10,000 ft (0 to 3048 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)
Input Plug Length	142 inches (360.7 cm)
Conformance Standards	UL, CUL, CE, NOM, D - 16A and 40A models UL, CUL, NOM - 24A High and Low voltage models CE, D - 32A model
Mechanical Dimensions (WxHxD), 6 outlet cores	17.5 x 1.62 x 7.5 in (44.45 x 4.11 x 19.22 cm)
Unit Weight, 6 outlet cores	20 lb (9.07 kg)
Shipping Dimensions (WxHxD), 6 outlet cores	21.5 x 12.25 x 15.0 in (54.61 x 31.12 x 38.1 cm)
Shipping Weight, 6 outlet cores	22.2 lb (10.07 kg)
Mechanical Dimensions (WxHxD), 12 outlet cores	17.5 x 3.28 x 7.5 in (44.45 x 8.4 x 19.22 cm)
Unit Weight, 12 outlet cores	32 lb (14.52 kg)
Shipping Dimensions (WxHxD), 12 outlet cores	21.5 x 12.9 x 18.2 in (54.61 x 32.76 x 46.3 cm)
Shipping Weight, Outlet cores	36.4 lb (16.51 kg)
Kit Contents	iPDU Core Unit, Rear mount LED Display, mounting brackets, Serial cables
All iPDU Core Units	All models ship with: OU/1U Mounting brackets/hardware for Control Unit Cord Retention bracket for the Control Unit Tie wraps Install Card
SKU Specific Kit Contents	AF531A, AF532A Include iPSU Core Unit, LED Display, and 4 standard (non-intelligent) Extension bars plus all mounting hardware.

Technical Specifications

**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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