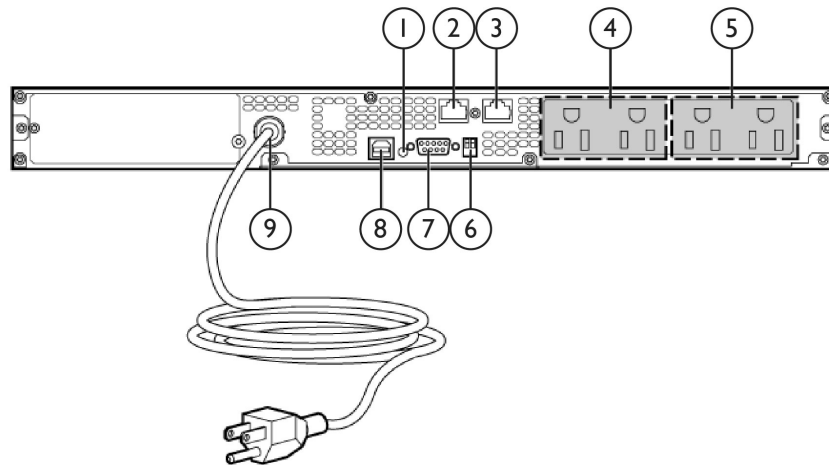


### Overview

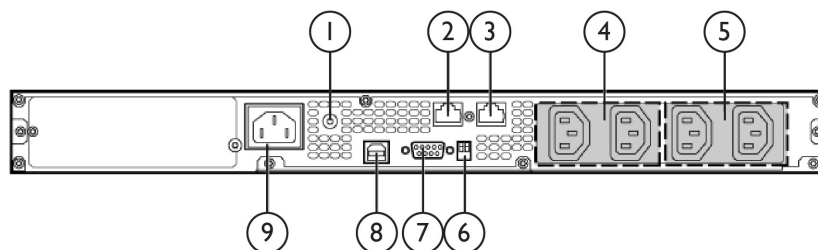
HP Rack-mountable UPSs provide maximum uptime in the event of a power problem for a variety of rack-based computer systems, providing powerful performance while occupying minimal rack space.

The HP R1500 G2 UPS is a 1U, high power density solution designed for customers who want to provide power protection, for maximum uptime and data corruption avoidance, in space-constrained rack environments. In addition, the R1500 G2 can be connected to the host server via the USB port for UPS management.



- |   |  |
|---|--|
| 1. Input circuit breaker  | 6. Voltage configuration dip switches                              |
| <b>NOTE:</b> International model only   |  |
| 2. Network Transient protector IN Jack  | 7. Serial communications port                                      |
| 3. Network transient protector OUT Jack   | 8. USB communications port   |
| 4. Load segment one (two NEMA 5-15R output receptacles for surge and battery backup protection) | 9. NA and JPN models input power connector is hardwired NEMA 5-15P |
| 5. Load segment two (two NEMA 5-15R output receptacles for surge and battery backup protection) |  |

## Overview



- |  |  |
|--|--|
| 1. Input circuit breaker<br><b>NOTE:</b> International model only                                | 6. Voltage configuration dip switches  |
| 2. Network Transient protector IN Jack   | 7. Serial communications port  |
| 3. Network transient protector OUT Jack  | 8. USB communications port   |
| 4. Load segment one (two IEC 320-C13 output receptacles for surge and battery backup protection) | 9. Input power connector (IEC-320- C14 power inlet<br><b>NOTE:</b> NA and JPN models input power connector is hardwired NEMA 5-15P |
| 5. Load segment two (two IEC 320-C13 output receptacles for surge and battery backup protection) |  |

## Models

HP R1500 G2 1440VA Low Voltage 1U Rackmount Uninterruptible Power System

AF419A



### Standard Features

#### Key Features

- Increased power density with up to 1500VA/1000 Watts of power packed in just 1U rack space
- 1U Chassis
- Front panel LED display
- Enterprise-wide intelligent manageability with bundled HP Power Manager management software
- Support for the HP UPS Management Module that extends the power management capabilities of the UPS
- More efficient voltage regulation with revolutionary technology
- Ultimate long-term battery reliability with HP Enhanced Battery Management
- Enhanced system flexibility with two independently controlled load segments
- Hot-Swappable Batteries
- Backed by a three-year warranty with the first year including parts and labor Pre-Failure warranty, and a \$250,000 load protection guarantee

**NOTE:** Certain restrictions and exclusions apply

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<b>1U Power Packed Design</b>	Rated up to 1500VA/1000W, the HP UPS R1500 G2 packs more power in space-conserving rack-mount design, allowing you to support more critical equipment in your rack.
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<b>Lower Cost of Ownership with Innovative Technology</b>	The UPS R1500 G2 utilizes a line-interactive topology which features sine wave output and superior input/output voltage regulation. This technology is inherently reliable and highly efficient. The HP UPS can correct input voltage variations as low as -23% of nominal voltage without transferring to the battery. This will ensure the battery is preserved and ready for the next power anomaly
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<b>Investment Protection with HP Enhanced Battery Management</b>	The UPS R1500 G2 incorporates Enhanced Battery Management: an exclusive, patented technology that doubles battery service life, optimizes battery recharge time, and provides advance notice of pending battery failure. With Enhanced Battery Management, you have a lower total cost of ownership and receive the best in the industry protection for your critical equipment.
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<b>Intelligent Manageability</b>	HP Power Manager management software, an integrated component of HP Insight Manager, the industry-leading hardware management platform, is included with the R1500 G2 models. The HP Power Management Software enables you to monitor and control HP UPSs locally or remotely. This software is a versatile, fully configurable, alert response tool that gives system administrators a full overview of the network's conditions. It enables you to monitor system status and power conditions, configure shut down timing, customize alert messages, and perform UPS diagnostic checks quickly and easily.
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<b>Independently Controllable Load Segments</b>	With two independent controlled load segments, you have the flexibility to configure each segment's, scheduled startups and shutdowns. Working in conjunction with HP Power Management Software, the HP UPS R1500 G2 can be configured to extend the runtime for more critical devices.
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<b>Ease of Maintenance with Hot-Swappable Batteries</b>	The UPS R1500 G2 is modular in design, and the batteries are hot swappable. HP UPSs are designed with simple access through the front panel. Users can safely install new batteries without ever powering down connected server and server options.
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### Standard Features

#### HP Quality

HP's hardware qualification is the toughest in the industry. Extensive evaluation, testing, product improvement, and an unsurpassed warranty guarantee the highest level of system protection, electrical performance, product quality and compatibility.

#### Compatibility

Compatible with all HP servers, storage, racks, rack options, and other rack mountable HP equipment.

#### HP UPS Management Module

The HP UPS Management Module enables you to monitor and manage power environments through comprehensive control of HP UPSs. The HP UPS Management Module can support either a single UPS configuration or provides additional power protection with support for dual redundant UPS configuration for no-single-point-of-failure. The additional serial ports will provide greater power management control and flexible monitoring.

The management module can be configured to send alert traps to HP Systems Insight Manager and other SNMP management programs or used as a standalone management system. This flexibility enables you to monitor and manage UPSs through the network. To facilitate day-to-day maintenance tasks, the embedded management software provides detailed system logs.

The HP UPS Management Module provides remote management of a UPS by connecting the UPS directly to the network. Configuration & Management of the UPS from anywhere and at anytime via a standard web browser.

**NOTE:** For more information on the UPS Management Module please see <http://h18004.www1.hp.com/products/servers/proliantstorage/powerprotection/software/module/ups/index.html> web browser.

#### Warranty

The HP UPS R1500 G2 is covered by a three year warranty, with the first year including parts and labor. Also, standard on all HP UPS units is our exclusive Pre-Failure Warranty which extends the advantage of a HP three-year, limited warranty by applying it to the battery before it actually fails. This warranty is offered worldwide. Specifically, the Pre-Failure Battery Warranty ensures that when customers receive notification from HP Power Management Software that the battery may fail, the battery is replaced free of charge under the warranty.

**NOTE:** \$250,000 Computer/Load Protection Guarantee is also provided, in addition to the HP three year, limited warranty.

#### Warranty Upgrade Options:

- Response - Upgrade on-site response from next business day to same day 4-hours
- Coverage - Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours
- Duration - Select duration of coverage for a minimum period of 1 year or multiple years



## Service and Support

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 basis 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 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack Services include HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the enclosure, as well as 22" and smaller external monitors and rack mounted UPS options. HP Uninterruptible Power Systems will be covered at the same service level and coverage period as the server. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

**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.



## *Related Options*

HP UPS Management	HP Management Card for XR UPS	AF401A
HP Care Pack Services	HP Install Universal Power Supply Less Than 3KVA Service	U4690E



## UPS Model Matrix

Part Number	Operating Voltage Settings	Power Out (VA/Watts)	Input Connection	Output Connection
<b>Low-Voltage Models</b>				
AF419A	120V	1440/1000	NEMA 5-15P	(4) Nema 5-15R
<b>NOTE:</b> Part Number AF419A is user selectable for 110V, 120V, or 127V via the rear panel dip switch				
AF421A	100V	1200/900	NEMA 5-15P	(4) Nema 5-15R
	110v	1320/1000	Nema 5-15P	(4) Nema 5-15R
<b>NOTE:</b> Part Number AF421A is user selectable for 100V, or 110V via rear panel dip switch				
<b>High Voltage Model</b>				
AF418A	230V	1500/1000	IEC-320 C14	(4) IEC 320-C13
<b>NOTE:</b> Part Number AF418A is user selectable for 220V, 230V, or 240V via the rear panel dip switch				
<b>Kit Contents</b>				
<ul style="list-style-type: none"> <li>● HP UPS R1500 G2</li> <li>● HP Power Management Software CD</li> <li>● Power Products Documentation CD</li> <li>● Depth adjustable fixed rack mounting rails</li> <li>● Serial communications cable (1.83 meters)</li> <li>● Additional IEC to IEC jumper cords, and detachable country specific input cord with the high voltage INTL model</li> <li>● USB communications cable (1.8 meters)</li> </ul>				



## Technical Specifications

Unit Dimensions	17.5 x 1.75 x 23.0 in (44.45 x 4.44 x 58.42 cm)
Shipping Dimensions	32 x 11.5 x 26.75 in (81.28 x 29.21 x 67.95 cm)
Unit Weight	50.5 lb (22.9 kg)
Shipping Weight	76 lb (34.5 kg)
Electrical Input	<b>Voltage Range</b> ± 20% of nominal 100, 120 and 230V models. See Model Matrix for nominal and user selectable voltage settings via the rear panel dip switch <b>Frequency</b> 50/60 Hz ± 5Hz (auto sensing) <b>Input Plug</b> See Model Matrix <b>Online Efficiency</b> 95% <b>Surge Suppression</b> High Energy 6500A peak
Electrical Output	<b>Online Regulation</b> -10% to +6% of nominal voltage <b>On battery Regulation</b> ±5% of nominal voltage <b>Voltage Wave Form</b> Sine wave <b>Connections</b> See Model Selection Matrix; divided into 2 Load Segments <b>Output Protection</b> Firmware overload sensing and control, customer supplied facility input circuit breaker, and re-settable rear panel circuit breaker on the INTL HV AF418A
Battery	<b>Type</b> Maintenance-free, sealed, valve-regulated lead acid (VRLA) <b>Backup Time</b> See Backup Times Chart <b>Recharge Time</b> <3 hours to 90% usable capacity; <24 hours for complete recharge <b>Voltage</b> 36V Battery String
Communications	<b>Ports</b> Standard DB-9 port (ships with communication cable) USB port (ships with communication cable) <b>Option Slot</b> One <b>Option Cards</b> HP UPS Management Module <b>LED Indicators</b> LED display integrated into the front panel <b>Software</b> HP Power Manager management software
Environmental and Safety	<b>Operating Temperature</b> 50° to 104° F (10° to 40° C) <b>Transit Temperature</b> -5° to 131° F (-15° to 55° C) <b>Storage Temperature</b> -15° to 55° F (-26° to 13° C)  <b>Humidity (Operation)</b> 5% to 95% <b>Humidity (Non-operating)</b> 5% to 95% <b>Operating Altitude</b> 3000 m <35 d C; 1500 m 36 - 40 d C <b>Storage Altitude</b> <40db in normal operation; <45db while on inverter <b>Audible Noise</b> <46db (at 1m from surface of unit) <b>Safety Markings</b> UL/cUL ICES, GS, GOST, EK <b>Safety Certifications</b> UL1778; UL6950, CSA22.2 No.107.1, No.107.2, No.950; CB Bulletin No.86A1; EN50091-1; EN60950;  <b>EMC Markings</b> FCC-A; CISPR 22; VCCI-A; CE, BSMI, C-TICK <b>Emissions</b> FCC CFR 47, Part 15 Class A, EN50091-2 <b>Immunity</b> IEC 801-2, IEC 801-3, IEC 801-4, IEC 801-5





## Technical Specifications

Surge Suppression

Conforms to IEEE 587B and ANSI C62.41

### Estimated Backup Times Chart (Minutes)

Load, Percent	Load, Watts	Minutes of Back up time
20%	200	58
50%	500	17
80%	800	8
100%	1000	5

#### 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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