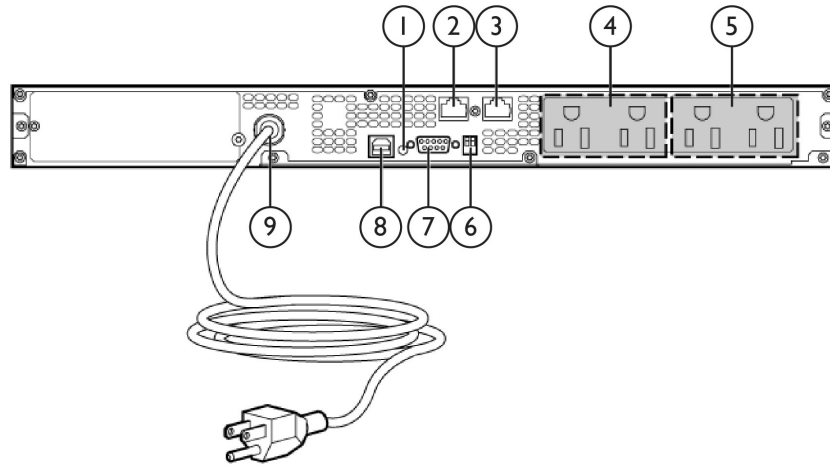


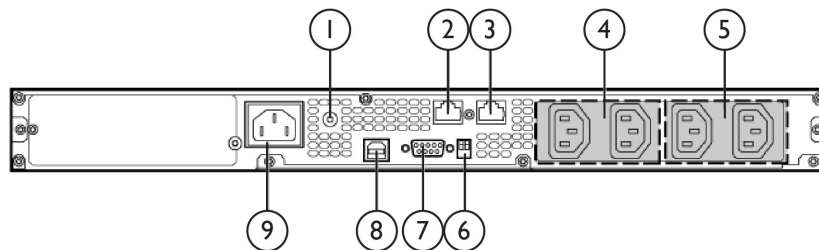
Overview

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 G3 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, HP's new Power Protector software is included at no charge for robust and flexible UPS management.



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

Models

HP R1.5kVA G3 1U Uninterruptible Power System

AF469A

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 Protector management software
- Support for the HP UPS Network 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

1U Power Packed Design Rated up to 1500VA/1000W, the HP UPS R1500 G3 packs more power in space-conserving rack-mount design, allowing you to support more critical equipment in your rack.

Lower Cost of Ownership with Innovative Technology The UPS R1500 G3 utilizes a line interactive which features true 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

Investment Protection with HP Enhanced Battery Management The UPS R1500 G3 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.

Intelligent Manageability HP Power Protector management software included with the R1500 G3 models. The HP Power Protector 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 UPSs conditions. It enables you to monitor system status and power conditions, configure shut down timing, customize alert messages, and gracefully shut down servers during an extended power outage. For more information on HP Power Protector software be see: www.hp.com/go/hppp

Standard Features

Optional UPS Network Module

The HP UPS Network 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 UPS Network 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 Network 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 Network Module please see: www.hp.com/go/hpunm.

Independently Controllable Load Segments

With two independent controlled load segments, you have the flexibility to configure each segment's shut down schedule to maximize runtime for critical equipment.

Ease of Maintenance with Hot-Swappable Batteries

The HP R1500 G3 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.

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.

Warranty

The HP UPS R1500 G3 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

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/5981-6636ENN>

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 usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms

Service and Support

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

UPS Management

HP UPS Network Module Mini-slot Kit

AF465A

HP Care Pack

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
Low-Voltage Models				
AF469A	120V	1440/1000	NEMA 5-15P	(4) Nema 5-15R
Kit Contents	NOTE: Part Number AF469A is user selectable for 110V, 120V, or 127V via the rear panel dip switch			
	<ul style="list-style-type: none">● HP UPS R1500 G3● Power Products Documentation CD● Depth adjustable fixed rack mounting rails● Serial communications cable (1.83 meters)● Additional IEC to IEC jumper cords, and detachable country specific input cord with the high voltage INTL model● USB communications cable (1.8 meters)			

Technical Specifications

Unit Dimensions	17.5 x 1.75 x 24.0 in (44.45 x 4.44 x 61 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	Voltage Range ± 20% of nominal 100, 120 and 230V models. See Model Matrix for nominal and user selectable voltage settings via the rear panel dip switch
	Frequency 50/60 Hz ± 5Hz (auto sensing)
	Input Plug See Model Matrix
	Online Efficiency 95%
	Surge Suppression High Energy 6500A peak
Electrical Output	Online Regulation -10% to +6% of nominal voltage*
	On battery Regulation ±5% of nominal voltage
	Voltage Wave Form Sine wave
	Connections See Model Selection Matrix; divided into 2 Load Segments
	Output Protection Firmware overload sensing and control, customer supplied facility input circuit breaker, and re-settable rear panel circuit breaker on the INTL HV AF418A
Battery	Type Maintenance-free, sealed, valve-regulated lead acid (VRLA)
	Backup Time See Backup Times Chart
	Recharge Time <3 hours to 90% usable capacity; <24 hours for complete recharge
	Voltage 36V Battery String
Communications	Ports Standard DB-9 port (ships with communication cable) USB port (ships with communication cable)
	Option Slot One
	Option Cards HP UPS Network Module
	LED Indicators LED display integrated into the front panel
	Software HP Power Protector management software available via download
Environmental and Safety	Operating Temperature 50° to 104° F (10° to 40° C)
	Transit Temperature -5° to 131° F (-15° to 55° C)
	Storage Temperature -15° to 55° F (-26° to 13° C)
	Humidity (Operation) 5% to 95%
	Humidity (Non-operating) 5% to 95%
	Operating Altitude 3000 m <35 d C; 1500 m 36 - 40 d C
	Storage Altitude <40db in normal operation; <45db while on inverter
	Audible Noise <46db (at 1m from surface of unit)
	Safety Markings UL/cUL ICES, GS, GOST, EK
	Safety Certifications UL1778; UL6950, CSA22.2 No.107.1, No.107.2, No.950; CB Bulletin No.86AI; EN50091-1; EN60950
	EMC Markings FCC-A; CISPR 22; VCCI-A; CE, BSMI, C-TICK
	Emissions FCC CFR 47, Part 15 Class A, EN50091-2
	Immunity IEC 801-2, IEC 801-3, IEC 801-4, IEC 801-5

Technical Specifications

Surge Suppression Conforms to IEEE 587B and ANSI C62.41

* The R1500 G3 UPS regulates the output voltage at -10% / +6% of the selected nominal voltage. The regulation is accomplished by bucking or boosting the input voltage.

The voltage regulation operation is governed the unit's input voltage spec of +/-20%. The unit will regulate at -10% / +6% while within the limits set by the input spec. The unit will go to battery operation upon exceeding the limits set by the input spec.

The buck and boost voltage regulation operation, or AVR (Automatic Voltage Regulation), is accomplished by adjusting output transformer tap selections via electromechanical relays.

The transformer tap selection is controlled via digital transition voltage set point values programmed in the unit's firmware. These programmed values are without tolerance.

The unit will monitor the input voltage and accept a range of +/-4% of the selected nominal voltage as the target voltage to regulate at -10% / +6%. For example, a unit configured to 120V nominal voltage will regulate at -10% / +6% for any voltage measured between 115.2V and 124.8V. The digital transition voltage set point values will adjust accordingly to regulate to -10% / +6% of the measured input voltage.

Transition set point voltages are subject to a hardware tolerances of +/-2% of the set point value.

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.

Technical Specifications

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