Overview

HPE Rackmount Uninterruptible Power Systems (UPS)

Looking for cost-effective power protection for your small office environments?
HPE line interactive, single phase Rack/Tower and Rackmount Uninterruptible Power System (UPS) solutions can protect up to 10 servers and other devices in both rackmount and desktop IT environments. Standard features include intuitive front panel displays for local management, and HPE Enhanced Battery Management (EBM) that helps to extend the service-life of your batteries. HPE Power Protector, a power management software application, combined with a UPS Network Management Module, a support option on all models, enables you to remotely monitor and manage your UPS through HPE Systems Insight Manager or via a standard web browser.

When you need it, use outstanding HPE support services for your whole data center environment. With HPE Pointnext operational services, have the security of knowing that your HPE Rack/Tower and Rackmount UPS will be covered at the same service level and coverage period as your HPE server. HPE UPSs are backed by a 3-year limited warranty, with the first year including parts and labor. Also, standard on all HPE UPS units is our exclusive 30-day Battery Pre-Failure Warranty, which ensures that when customers receive notification from HPE Power Manager Software that the battery may fail, the battery is replaced free of charge under the warranty. This warranty is offered worldwide.

- Remote access through an optional 1-GbE-based network management card ensures widespread connectivity with most user networks.
- Web-based management applications, HPE Power Protector, allows you to monitor, manage, and control a single Uninterrupted Power Supply both locally and remotely.
- Outlet switching and metering at the load segment allows you to monitor, control and prioritize access to the Uninterrupted Power Supply's power
- Protects more devices by providing up to 14% more wattage compared to traditional Uninterrupted Power Supplies.
- HPE Enhanced Battery Management (EBM) technology delivers up to 50% longer battery life.
- Industry leading efficiency of up to 99% helps to ensure minimal power loss and lower power costs.
- Up to 4 extended runtime modules can be simply added to the Uninterrupted Power Supply configuration that extends your Uninterrupted Power Supply by a factor of 15x or more
- Batteries can be hot-swapped safely without every shutting down IT equipment.

Overview

<u>Rack/Tower UPS Models</u>

HPE R/T3000 Gen5 Low Voltage NA/JP UPS	Q1L85A
HPE R/T3000 Gen5 High Voltage INTL UPS	Q1L87A
HPE R/T3000 Gen5 High Voltage NA/JP UPS	Q1L86A
HPE R/T3000 G4 Extended Runtime Module	J2R10A

<u>Rack UPS Models</u>

HPE R1500 Gen5 NA UPS	Q1L88A
HPE R1500 Gen5 JP/TW UPS	Q1L89A
HPE R1500 Gen5 INTL UPS	Q1L90A

<u>Management Card</u>

HPE Single Phase 1Gb UPS Network Management Module	Q1C17A

Additional HPE Rackmount UPS models
Rack/Tower UPS Models

HPE R/T2200 Gen5 NA/JP UPS	Q1L84A
HPE R/T2200 G4 Extended Runtime Module	J2R09A

Overview

Flexible Rackmount and Rack/Tower Models Deliver Cost-Effective Power Protection
Key features
Ease of Use
- Next-generation LCD offers a graphical interface which provides all critical UPS information in a single screen view.
- Up to 4 extended runtime modules can be simply added to the UPS configuration that extend your UPS runtime by a factor of 15x or more.
- Batteries can be hot-swapped safely without ever shutting down IT equipment.

Management
- Remote access through an optional 1GbE-based network management card ensures widespread connectivity with most user networks.
- Web-based management application, HPE Power Protector, allows you to monitor, manage, and control a single UPS, locally and remotely.
- Outlet switching and metering at the load segment level allows you to monitor, control and prioritize access to UPS power.

Efficiency
- Protects more devices by providing up to 28% more wattage compared to traditional UPSs.
- Enhanced Battery Management (EBM) technology delivers up to 50% longer battery life.
- Industry leading efficiency of up to 99% helps to ensure minimal power loss and lower power costs.
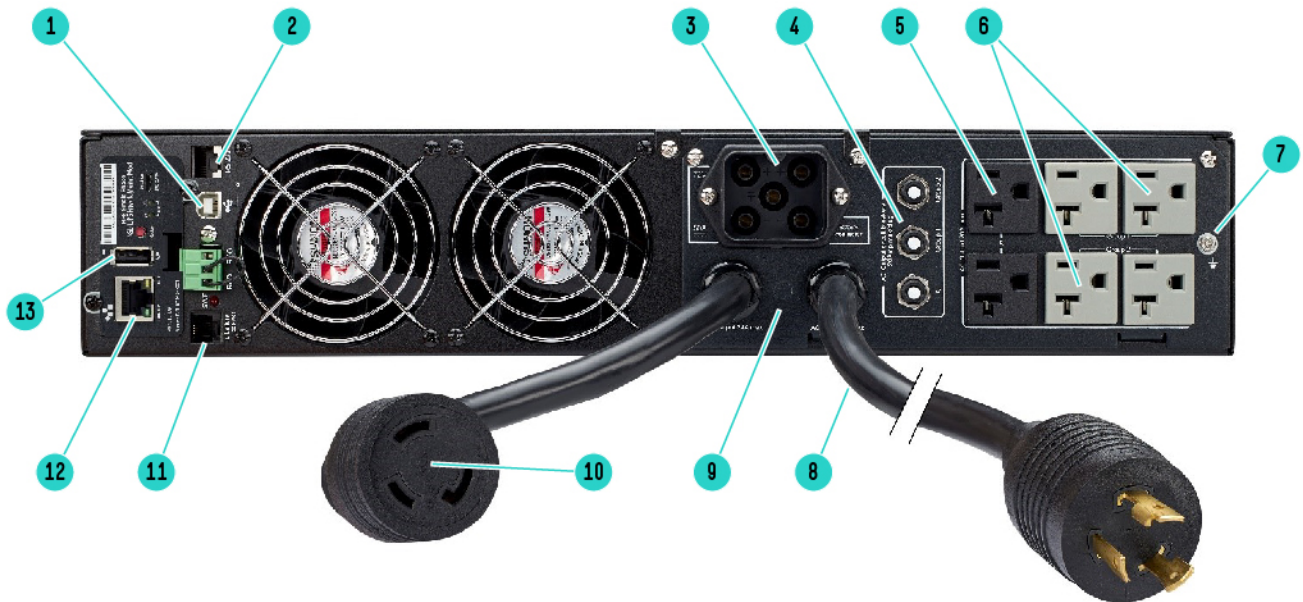-

HPE Rack/Tower UPS models

Rack configuration   Tower configuration

Overview

HPE R/T3000 Uninterruptible Power System (UPS)

LV NA/JPN rear panel

1	USB communication port	8	Attached input power cord for AC power source
2	RS-232 communication port	9	LED indicating SWF (site wiring fault) alarm (Although the LED remains on the rear panel, this feature is disabled for low voltage models)
3	Connector for additional battery module	10	30A outlet (L5-30R) for connection of equipment
4	Circuit breakers	11	Connector for automatic recognition of an additional battery module
5	Primary Group: outlets for connection of critical equipment	12	Connector for ROO (Remote On/Off) or RPO (Remote Power Off) control
6	Four programmable outlets for connection of equipment	13	Slot for optional communication card, shown with optional Management Card (installed)
7	Ground connection		

Overview

HPE R/T3000 Uninterruptible Power System (UPS)
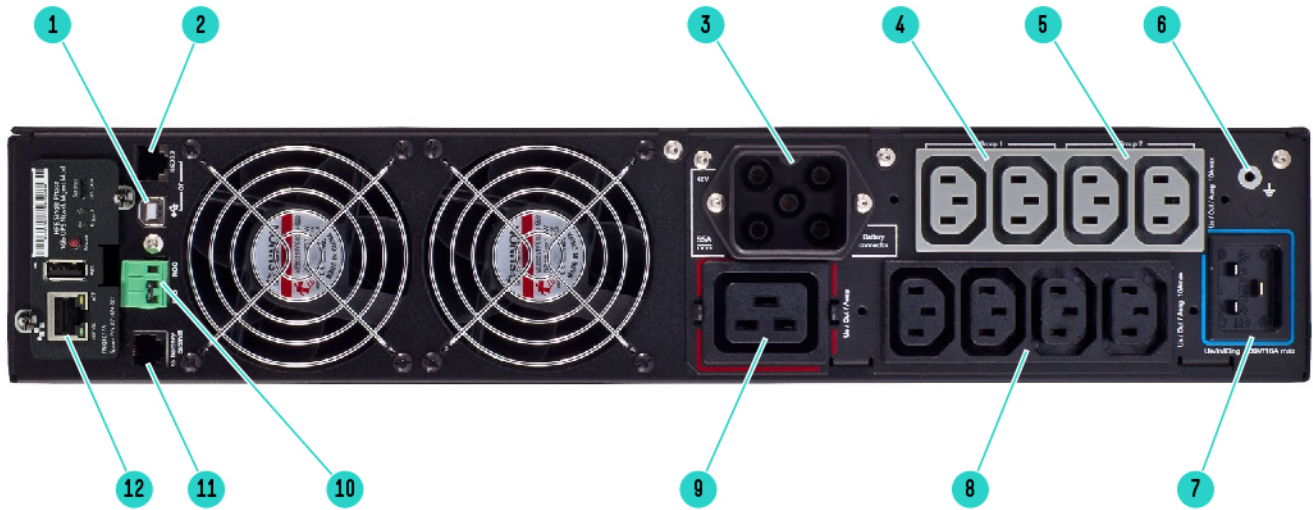
HV NA/JP and INTL rear panel

1	USB communication port	7	Inlet for connection to AC power source
2	RS-232 communication port	8	Primary Group: 4 outlets for connection of critical equipment
3	Connector for additional battery module	9	16A outlet for connection of equipment
4	Group 1: Two programmable outlets for connection of equipment	10	Connector for ROO (Remote On/Off) or RPO (Remote Power Off) control
5	Group 2: Two programmable outlets for connection of equipment	11	Connector for automatic recognition of an additional battery module
6	Ground connection	12	Slot for optional communication card, shown with optional HPE Management Card installed

Overview

HPE R/T2200 Uninterruptible Power System (UPS)
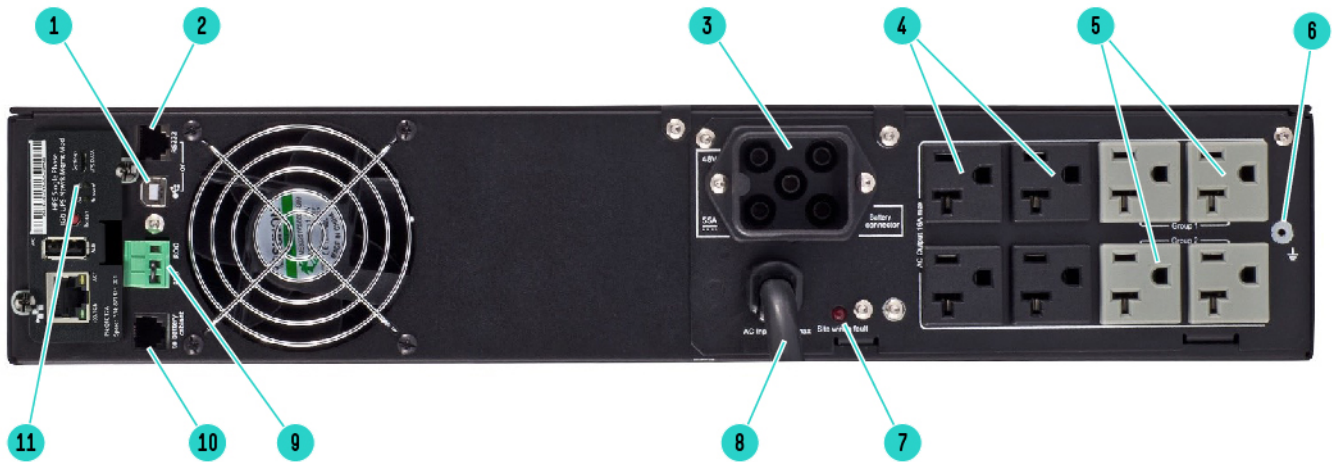
NA/JPN rear panel

1	USB communication port	7a	LED indicating SWF (site wiring fault) alarm (Although the LED remains on the rear panel, this feature is disabled for low voltage models)
2	RS-232 communication port	8	Attached input power cord for AC power source
3	Connector for additional battery module	9	Connector for ROO (Remote On/Off) or RPO (Remote Power Off) control
4	Primary Group: outlets for connection of critical equipment	10	Connector for automatic recognition of an additional battery module
5	Four programmable outlets for connection of equipment	11	Slot for optional communication card, shown with optional Management Card installed
6	Ground connection		

What's in the box:

- HPE R/T2200 UPS or R/T3000 UPS
- Rail kit and mounting hardware
- Bezel components
- Output power jump cables (2) for HV North America and International models
- RS-232 communication cable (1)
- USB cable (1)
- Cable locking device for HV North America and International models
- Tower stands
- Documentation

Overview

HPE R1500 G5 UPS Models

PE R1500 G5 NA and JP/TWN UPS

1. Slot for optional communication card; shown with Network Management Card installed
2. Connector for ROO(Remote On/Off) or RPO (Remote Power Off) Control
3. Primary Group: Outlets for connection of critical equipment
4. Programmable outlets for equipment connection
5. Ground screw

6. RS-232 Communication Port
7. USB Communication Port
8. Attached 6ft input power cord NEMA 5-15P for AC power source
9. LED indicating site wiring fault alarm
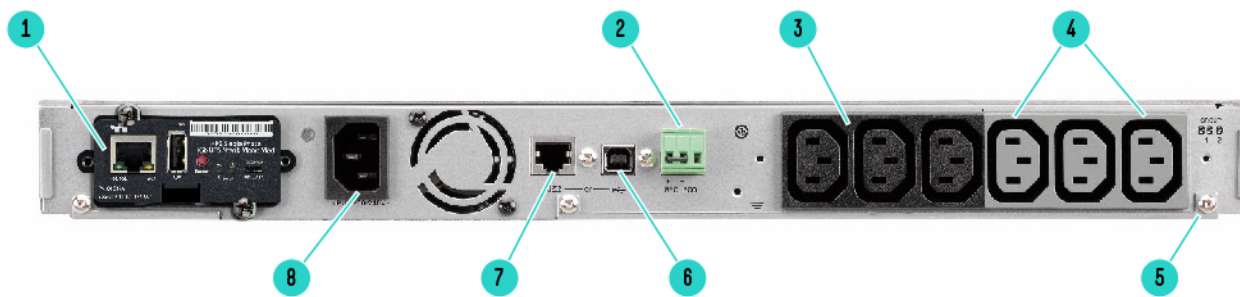
Overview

What's in the box
- HPE R1500 UPS
- Rail kit and mounting hardware
- Bezel components
- (2) Output power jump cables (International model only)
- (1) RS-232 communication cable
- (1)USB cable
- Cable locking device (International model only)
- Documentation

The R1500 G5 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 by 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 +/-3% 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 116.4V and 123.6V. 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 +/-3% of the set point value.

HPE R1500 G5 International UPS

. Slot for optional communication card; shown with Network Management Card installed
2. Connector for ROO (Remote On/Off) or RPO (Remote Power Off) control
3. Primary Group: Outlets for connection of equipment
4. Programmable outlets for equipment connection

5. Ground screw
6 RS-232 communication port
7. USB communication port
8. Input power connection (IEC -320-C14) for powering unit to AC power source

Related Options

HPE Power Management

HPE Power Protector Software

HPE Power Protector is a web-based application that enables administrators to manage an HPE UPS from a browser-based management console. Administrators can monitor, manage, and control a single UPS locally and remotely. A familiar browser interface provides secure access to the UPS Administrator Software and UPS Client Software from anywhere on the network. Administrators may configure power failure settings and define UPS load segments for maximum uptime of critical servers. The UPS can also be configured to extend runtimes for critical devices during utility power failures. For most UPSs, the receptacles on the rear panel are divided into one or more groups, called load segments, which can be controlled independently. By shutting down a load segment that is connected to less critical equipment, the runtime for more critical equipment is extended, providing additional protection.

- UPS power management via HPE Power Protector available via free download from HPE.com.
- Allows for local or network-based UPS monitoring, status updates, and control over shutdown communications
- Download to other servers or IT devices to create "clients" that can be configured for graceful shut down
- Access the HPE Power Protector user interface via a USB or serial connected server (proxy server) or through the optional 1GbE Network Management Card

Increase stability and security in your data center

HPE Power Protector gives you the ability to establish power failure policies and automatically respond 24×7 to power faults or security risks without IT administrators present. Prioritize shutdowns in the event of a power failure to ensure that your data and hardware are fully protected. Delay restart based on defined load segments after a shutdown to sequence the start-up of system components and perform UPS diagnostics to ensure the availability of adequate battery backup times.

Simplify management of UPS functions

Simple, effective management of environments, one UPS at a time. For users wanting ease of use, this is the tool to use. From load segmentation to power down prioritization and alert management, this tool offers everything needed from a single console. It even offers remote access via a web browser with secure SSL authentication. Simple, easy to read status "gauges" offer monitoring at a glance.

See HPE Power Protector **QuickSpecs** for more information. .

Supported Operating Systems

Similar to hardware support, HPE Power Protector is designed to support a wide array of operating systems, spanning Microsoft Windows, Linux, UNIX, and virtual platforms.

Related Options

UPS Network Management Module	The HPE UPS Network Module enables you to monitor and manage power environments through comprehensive control of HPE UPSs. The HPE UPS Management Module can support either a single UPS configuration or provide 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 HPE 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 HPE 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 any time via a standard web browser.

NOTE: For more information on the UPS Network Module please see:

http://www.hpe.com/info/rackandpower.

HPE Single Phase 1Gb UPS Network Management Module	Q1C17A

Extended Runtime Module (ERM)

HPE Extended Runtime Modules increase the available runtime for the larger rack mounted UPS units to allow customers to ensure all of their applications can be gracefully shutdown in the event of a power failure.

HPE R/T2200 G4 Extended Runtime Module	J2R09A
HPE R/T3000 G4 Extended Runtime Module	J2R10A

2U R/T UPS ERM Shipping Kit

HPE 2U Rack/Tower UPS Shipping Kit	L4Q11A

NOTE: The optional 2U shipping kit consists of heavy duty rails, front and back CTO brackets and required mounting hardware for attaching the UPS or ERM to the rack. This kit is an option that is required if the UPS and or ERM are going to be mounted into a rack that will be shipped via transport. One of these kits is required per unit, whether UPS or ERM.

Warranty and Care Pack

Warranty

When you need it, use outstanding HPE support services for your whole data center environment. With HPE Pointnext operational services, have the security of knowing that your HPE UPS will be covered at the same service level and coverage period as your HPE server. HPE UPSs are backed by a 3-year limited warranty, with the first year including parts and labor. Also, standard on all HPE UPS units is our exclusive 30-day Battery Pre-Failure Warranty, which ensures that when customers receive notification from HPE Power Manager Software that the battery may fail, the battery is replaced free of charge under the warranty. This warranty is offered worldwide.

NOTE: $250,000 Computer/Load Protection Guarantee is also provided (applicable in North America only).

The HPE UPS is covered by a three year warranty, with the first year including parts and labor. Also, standard on all HPE UPS units, is our exclusive Battery Pre-Failure Warning, which extends the advantage of a HPE three-year, limited warranty by applying it to the battery before it actually fails. This warranty is offered worldwide. Specifically, the Battery Pre-Failure Warning ensures that when customers receive notification from HPE 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 North America, in addition to the HPE 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

HPE Technology Services

HPE 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 HPE Pointnext operational services

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

Parts and materials

Hewlett Packard Enterprise will provide HPE-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.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Warranty and Care Pack

Coverage	For ProLiant servers and storage systems, this service covers HPE-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 and conditions apply.
	The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE 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 HPE 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 HPE ESSN Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: **https://www.hpe.com/us/en/support.html** or **https://www.hpe.com/us/en/services/operational.html**

Recommended HPE Pointnext operational services for optimal satisfaction with your HPE product

Recommended Services	**3-Year HPE 24x7 4 hour Response, Hardware Support Onsite Service**
	Provides you with rapid remote support and if required a Hewlett Packard Enterprise 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.
	HPE ProLiant Server Hardware Installation
	Provides for the basic hardware installation of Hewlett Packard Enterprise branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner
	3-Year HPE 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 HPE Global Solution Center
	HPE Proactive Select Service
	Provides a flexible way to purchase HPE 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.

HPE Pointnext operational services	HPE Install Universal Power Supply 3KVA to Below 6KVA Service	U4693E
	HPE Install Universal Power Supply Less Than 3KVA Service	U4690E

Warranty and Care Pack

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.

Technical Specifications

Operating system HPPP (Client & Admin)	Service Pack	Platform	HPPP		HPNMC
			Admin	**Client**	**NMC**
Microsoft Windows					
Windows Server 2016	Standard, Data Center, Core		Tested	Tested	Tested
Windows Server 2012	Standard, Data Center, Core	x64	Supported	Supported	Supported
Windows Server 2012 R2	Standard, Data Center, Core	x86, x64	Tested	Tested	Tested
Windows Server 2008 R2	Standard, Data Center, Core	SP1	x64, IA64	Tested	Tested	Tested
Windows Server 2008	Standard, Data Center, Core	SP2	x86, x64, IA64	Supported	Supported	Supported
Windows Server 2003 R2	Standard, Data Center, Core			Not supported	Not supported	Not supported
Windows 10	Enterprise, Pro		x64	Tested	Tested	Tested
Windows 8.1	Enterprise, Pro		x64	Tested	Tested	Tested
Windows 8	Enterprise, Pro		x86, x64	Supported	Supported	Supported
Windows 7	Professional, Ultimate, Standard	SP1	x86, x64	Tested	Tested	Tested
Windows XP	Professional	SP3		Not supported	Not supported	Not supported
Linux					
Red Hat Enterprise Linux	7.3		x86, x64	Tested	Tested	Tested
	7.2		x86, x64	Tested	Tested	Tested
	6.7		x86, x64	Tested	Tested	Tested
	6.6		x86, x64	Supported	Supported	Supported
	5.11		x86, x64	Tested	Tested	Tested
	5.10		x86, x64	Supported	Supported	Supported
	5.7		x86, x64	Not supported	Not supported	Not supported

Technical Specifications

Operating system HPPP (Client & Admin)		Service Pack	Platform	HPPP		HPNMC
				Admin	Client	NMC
SUSE Linux Enterprise Server/Novel l	Fedora core 15		x86, x64	Not supported	Not supported	Not supported
	Fedora core 14		x86, x64	Not supported	Not supported	Not supported
SUSE Linux Enterprise Server/Novel l	12	SP2	x86, x64, IA64	Tested	Tested	Tested
	11	SP3	x86, x64, IA64	Tested	Tested	Tested
	OpenSuse 13.0		x86, x64	Not supported	Not supported	Not supported
	OpenSuse 12.3		x86, x64	Not supported	Not supported	Not supported
Virtual environments						
VMware	ESXi 6.5		X86, IA64	n/a	Tested	Tested
VMware	ESXi 6.0	U1	X86, IA64	n/a	Tested	Tested
	ESXi 5.5	U3	X86, IA64	n/a	Tested	Tested
	ESXi 5.1 (pay version only)	U1		n/a	Supported	Supported
	ESXi 5.0 (pay version only)	U1		n/a	Supported	Supported
	ESX 4.1 (pay version only)	U1		n/a	Not supported	Not supported
	ESXi 4.1 (pay version only)	U1		n/a	Not supported	Not supported
	ESX 4.0 (pay version only)	U1		n/a	Not supported	Not supported
	ESXi 4.0 (pay version only)	U1		n/a	Not supported	Not supported

Technical Specifications

Rack/Tower models

HPE R/T2200 G5 UPS

Part Number	Operating Voltage	Default Voltage Setting	Power Out (VA/Watts)	Input Connection	Output Connection
Q1L84A NA/JP	120V to 125V	120V	1920/1920	NEMA 5-20P 20A, 3m cord	(8) –NEMA 5-20 Receptacles, (4) Primary Group (2) Load Group 1 (2) Load Group 2
	100V		1500/1400		

HPE R/T3000 G5 UPS Models

Part Number	Operating Voltage Settings		Power Out (VA/Watts)	Input Connection	Output Connection
Q1L85A LV NA/JP	120V[1] to 125V	120V	2880/2700	L5-30P, 2.4m cord	(6) NEMA 5-20R (1) NEMA L5-30 which includes (2) Primary Group 5-20R and (1) L5-30, (2) Load Group 1 5-20R and (2) Load Group 2 5-20R
	100V		2490/2250		
Q1L86A HV NA/JP	208V[1]	200V	3000/2700	L6-20P, 2.4m cord	(8) IEC C13 (1) IEC C-19 which includes (4) Primary Group IEC C13 and (1) IEC C19, (2) Load Group 1 IEC C13 and (2) Load Group 2 IEC C13
	200V		2490/2241		
Q1L87A HV INTL	208V to 240V	230V	3000/2700	Detachable IEC C-20 inlet plug for attaching country specific power cord	(8) IEC C13 (1) IEC C-19 which includes (4) Primary Group IEC C13 and (1) IEC C19, (2) Load Group 1 IEC C13 and (2) Load Group 2 IEC C13
	200V		2490/2241		

Technical Specifications

Operating system HPPP (Client & Admin)		Service Pack	Platform	HPPP		HPNMC
				Admin	**Client**	**NMC**
Microsoft	Windows Hyper-V Server 2012	R2		n/a	Supported	Supported
	Windows Hyper-V Server 2008	R2	X86, IA64	n/a	Supported	Supported
Xen	Citrix XenServer 6.0			n/a	Supported	Supported
	Citrix XenServer 5.6		IA64	n/a	Supported	Supported
	OpenSource Xen 2.6 on RHEL 5			Not supported	Not supported	Not supported
	OpenSource Xen 3.2 on Debian 5			Not supported	Not supported	Not supported
KVM	KVM 17 Linux 2.6.21 kernel			Not supported	Not supported	Not supported
For x86-64 and IA-64 architectures and on Microsoft Windows systems and HP-UX for IA-64, HPE Power Protector will work in 32-bit compatibility mode. This implies that no native ports for these architectures will be made for these systems; the only exception is for components that strictly require native ports, such as device drivers.						

Technical Specifications

R/T2200 and R/T3000 UPS Specifications

Electrical Input	**Voltage Range**	100V nominal = 80V – 128V
		120V nominal = 89V – 159V
		208V nominal = 160V – 163V
		230V nominal = 160V – 294V
		See Model Matrix for nominal and user selectable voltage settings.
	Frequency	50/60 Hz
	Online Efficiency	94%
Electrical Output	**On battery Regulation**	±5% of nominal voltage
	Online Regulation	-10% to +6% 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
Battery	**Type**	
	Extended Batteries	Up to four ERMs can be supported; recommendation is up to 2
	Backup Time	See Backup Times Chart
	Recharge Time	<3 hours to 90% usable capacity; <24 hours for complete recharge
	Voltage	R/T2200 = 48V
		R/T3000 = 72V
Communications	**Serial Ports**	Standard DB-9 and USB ports (ships with communication cables)
	Option Slot	(1) (For optional Communication Card)
	Option Cards	HPE UPS Network Management Module (sold separately)
	LCD Interface	LED Display integrated into front panel
	Management Software	Power Management including HPE Power Protector software. See HPE Power Protector **QuickSpecs** for more information.
Environmental and Safety	**Operating Temperature**	0°C to 40°C (32°F to 104°F); Long term use at higher temperature will reduce battery life 25°C (77°F)
	Non-operating Temperature	-15°C to 50°C (5°F to 122°F)
	Operating Humidity	0% to 90% (non-condensing)
	Storage Humidity	0% to 90%
	Operating Altitude	Up to 6,562 ft (2000 m) above sea level
	Audible Noise	<40dB in normal operation. <45dBA on battery operation
	Safety Markings	UL/cUL CE, TUV, C-tick, CES, EAC, VCCI, GS, KC, EK, BSMI, TIS, BIS
	Safety Certifications	UL1778; UL60950, CSA22.2 No.107.1,No.107.3,; CB Bulletin IEC62040-1; IEC 60950-1; EN60950-1;EN 62040-1; EN 61000-3-2+A1 +A2; EN 61000-3-3
	EMC Markings	FCC-A; CISPR 22; VCCI A; CE, BSMI, C-TICK
	Emissions	FCC CFR 47, Part 15 Class A, EN50091-2
	Immunity	EN 55024; EN 50091-2 consisting of IEC 61000-4-2 thru IEC 61000-4-6; IEC 61000-4-11
	Surge Suppression	Conforms to IEEE 587B and ANSI C62.41
	RPO/ROO Port	The Normally Closed (NC) RPO shuts off power to all UPS outlets when opened. The UPS must be manually restarted once the terminals are closed again. There is a preinstalled jumper in the RPO terminals. The Normally Open (NO) ROO initiates a UPS Power On function when closed. Opening the terminals again will shut off the UPS.

Technical Specifications

R/T2200 G5 Weights and Dimensions	**Unit Dimensions (LxWxH)**	20.55 x 17.36 x 3.39 inches / 522 x 441 x 86.2 mm
	Shipping Dimensions(LxWxH)	36.26 x 23.23 x 11.02 inches / 921 x 590 x 280 mm
	Unit Weight	65.28 lbs/29.61 kg
	Shipping Weight	83.62 lbs / 37.93 kg
R/T3000 G5 Weights and Dimensions	**Unit Dimensions (LxWxH)**	25.47 x 17.4 x 3.4 in / 647 x 441x 86.2 mm
	Shipping Dimensions(LxWxH)	36.26 x 23.23 x 11.02 inches / 921 x 590 x 280 mm
	Unit Weight	87.17 lbs / 39.54 kg
	Shipping Weight	107.48 lbs / 48.75 kg

Technical Specifications

PE R1500 G5 UPS

Electrical Input	**Voltage Range**	± 15% of nominal 100 and 120V models and ± 20% of nominal on 230V models. See Model Matrix for nominal and user selectable voltage settings via LCD Front Display Panel
	Frequency	50/60 Hz ± 5Hz (auto sensing at default voltage)
	Online Efficiency	92%
Electrical Output	**Online Regulation**	-10% to +6% of nominal voltage*
	On battery Regulation	-10% / + 6% of nominal voltage
	Voltage Wave Form	Sine wave
	Connections	See Model Matrix; divided into 3 Groups
	Output Protection	Firmware overload sensing and control
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 (Kit ships with cable for communication) USB port (Kit ships with cable for communication)
	Option Slot	(1) (reserved for Optional Network Management Module)
	Option Cards	HPE UPS Network Management Module (sold separately)
	LCD Indicators	LED display integrated into the front panel
	Management Software	Power Management including HPE Power Protector software. See HPE Power Protector **QuickSpecs** for more information.
Environmental and Safety	**Operating Temperature**	32° to 104° F (0° to 40° C) (with battery)
	Non-operating Temperature	-15° to 1122° F (-26° to 50° C)
	Operating Humidity	0% to 90% (non-condensing)
	Storage Humidity	0% to 90% (non-condensing)
	Operating Altitude	up to 2000 meters above sea level
	Audible Noise	<40db (at 1m from surface of unit) <45dBA on battery operation
	Safety Markings	UL/cUL CE, TUV, C-tick, CES, EAC, VCCI, GS, KC, EK, BSMI, TIS, BIS
	Safety Certifications	UL1778; UL60950, CSA22.2 No.107.1,No.107.3,; CB Bulletin IEC62040-1; IEC 60950-1; EN60950-1;EN 62040-1; EN 61000-3-2+A1 +A2; EN 61000-3-3
	EMC Markings	FCC-BCISPR 22; VCCI B; CE, BSMI, C-TICK
	Emissions	FCC CFR 47, Part 15 Class A, EN50091-2
	Immunity	EN 55024; EN 50091-2 consisting of IEC 61000-4-2 thru IEC 61000-4-6 ; IEC 61000-4-11
	Surge Suppression	Conforms to IEEE 587B and ANSI C62.41
	RPO/ROO Port	The Normally Closed (NC) RPO shuts off power to all UPS outlets when opened. The UPS must be manually restarted once the terminals are closed again. There is a preinstalled jumper in the RPO terminals. The Normally Open (NO) ROO initiates a UPS Power On function when closed. Opening the terminals again will shut off the UPS.

Unit Dimensions (LxWxH)	21.8x 17.2x 1.69 in (554 x 438 x 43 mm)
Shipping Dimensions	30.71x 22.8 x6.1 in (780 x 580 x 155 mm)
Unit Weight	39.06 lbs (19.72 kg)
Shipping Weight	54.45 lbs (24.7 kg)

Technical Specifications

Rack model					
HPE R1500 G5 UPS					
Part Number	**Operating Voltage Settings**	**Default Voltage Setting**	**Power Out (VA/Watts)**	**Input Connection**	**Output Connection**
Q1L88A NA	120V to 125V	120V	1440/1100	NEMA 5-15P	(5) NEMA 5-15R which includes
	100V		1200/900		
Q1L89A JP/TWN	100V	100V	1200/900	NEMA 5-15P With Taiwan approval	(5) NEMA 5-15R which includes (1) Primary Group 5-15R (2) Load Group 1 5-15R and (2) Load Group 2 5-15R
	120V[1] to 125V		1440/1100		
Q1L90A INTL	220V/230V/240V	230V	1550/1100	C14 inlet for attaching country specific power cord	(5) NEMA 5-15R which includes (1) Primary Group 5-15R (2) Load Group 1 5-15R and (2) Load Group 2 5-15R
	200V to 208V		1395/990		
NOTE: Voltage is user selectable via LCD Front Display Panel.					

Technical Specifications

Estimated Runtime with Extended Runtime Module (ERM)
Battery runtimes are approximate and may vary with equipment, configuration, battery age, temperature, etc.

R/T2200 G5 UPS

Power		Estimated Runtime (min)				
Load %	Watts	Internal Batteries	1 ERM	2 ERMs	3 ERMs	4 ERMs
10	191.1	80.1	286.9	491.0	725.3	898.3
20	382.2	30.5	122.9	217.7	311.0	406.2
30	573.3	17.3	74.9	135.3	189.5	255.4
40	764.4	11.6	52.7	96.5	133.3	183.7
50	955.5	8.5	40.1	74.3	101.5	142.3
60	1146.6	6.6	32.1	60.0	81.2	115.5
70	1337.7	5.3	26.6	50.1	67.3	96.8
80	1528.8	4.4	22.6	42.8	57.2	83.1
90	1719.9	3.7	19.5	37.3	49.5	72.6
100	1911	3.2	17.2	32.9	43.5	64.3

R/T3000 G5 UPS

Power		Estimated Runtime (min)				
Load %	Watts	Internal Batteries	1 ERM	2 ERMs	3 ERMs	4 ERMs
10	270	61.4	281.0	474.6	665.5	859.7
20	540	27.7	126.5	219.4	311.4	404.5
30	810	17.4	79.3	139.7	199.8	260.2
40	1080	12.5	57.0	101.4	145.8	190.3
50	1350	9.6	44.1	79.1	114.1	149.3
60	1620	7.8	35.7	64.6	93.5	122.4
70	1890	6.5	29.9	54.4	79.0	103.5
80	2160	5.6	25.7	46.9	68.2	89.5
90	2430	4.9	22.4	41.1	60.0	78.8
100	2700	4.3	19.8	36.6	53.4	70.3

Technical Specifications

R/T3000 G5 UPS High Voltage

Power		Estimated Runtime (min)				
Load %	Watts	Internal Batteries	1 ERM	2 ERMS	3 ERMs	4 ERMs
10	270	83.3	259.1	456.9	655.5	853.5
20	540	31.4	121.8	219.2	316.8	414.0
30	810	17.7	78.3	142.7	207.1	271.1
40	1080	11.8	57.2	105.2	153.2	200.8
50	1350	8.6	44.9	83.0	121.2	159.1
60	1620	6.7	36.8	68.4	100.1	131.5
70	1890	5.4	31.1	58.1	85.2	112.0
80	2160	4.4	26.9	50.5	74.0	97.4
90	2430	3.8	23.6	44.5	65.4	86.1
100	2700	3.2	21.1	39.8	58.6	77.2

R1500 G5 UPS Estimated Runtime

R1500 G4 UPS Models

Load %	Watts	Estimated Runtime (min)
10	109	97
20	219	39
30	328	23
40	438	16
50	547	12
60	656	10
70	766	8
80	875	7
90	985	6
100	1094	5

Summary of Changes

Date	Version History	Action	Description of Change
06-May-2019	Version 4	Changed	Models Section was updated
01-Oct-2018	Version 3	Changed	Overview, Models and Related Options were updated.
02-Jul-2018	Version 2	Changed	Models Section was updated
02-Apr-2018	Version 1	New	New QuickSpecs

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