HP Rackmountable Uninterruptible Power Systems

Data sheet

R1500 G2 UPS

R/T2200 G2 UPS

HP Rackmountable Uninterruptible Power Systems (UPSs) protect your computer equipment and your critical data against damage due to inconsistent and fluctuating power.

HP rackmountable UPSs, designed for dense datacenter environments, offer industry-leading power density (watts/U-space). More true power (measured in watts) in smaller form factors (measured in rack U-space) provide more performance while saving valuable rack space for your server and storage equipment. Like the award winning R3000 that packs 2700 watts in just 2U, or the new R5500 which has 1500 watts per U (4500 watts total). Bundled with the FREE HP Rack and Power Management Software, these UPSs are supported by option cards and Extended Runtime Modules (ERMs) that add networking capabilities and load segmentation, while increasing system back up time.

Many studies and experiences show that power outages and disturbances account for a significant number of server failures and system downtime. You never know when that type of event will happen—but it will. Make sure you have an HP UPS supporting all your HP Server and Storage equipment.

Key benefits

More power in less space

- HP rackmountable UPSs pack the greatest amount of power in the smallest form factor allowing you more rack space for server and storage equipment. The new R1500 G2 UPS features 1000 watts in 1U. The R3000 has an unprecedented 2700W in 2U and the R5500 has 4500W in 3U.

Enhanced battery management

- HP UPSs incorporate enhanced battery management technology, an exclusive technology that doubles battery service life, optimizes battery recharge time, and provides 60-day advance notice of the end of useful battery life.*

System flexibility

- With Extended Runtime Modules (ERMs), you can extend your overall runtime to continue working even during prolonged power outages.

Load segment control

- Load segment control via receptacle groups gives you the flexibility to configure scheduled start-ups and shutdowns of network equipment to extend the runtime time of critical devices.
- All HP rackmountable UPSs are equipped with hot-swappable batteries, which allow you to replace batteries without powering down the connected equipment. For superior high-availability, you can hot-swap both the battery and electronics modules of the HP UPSs R3000 UPS and R5500.

Best-in-class warranty

- Backed by a limited three-year warranty, HP battery pre-failure warranty, and a $250,000 load protection guarantee.**

Intelligent manageability with HP Power Manager software

- Whether you use HP Rack and Power Manager for larger environments or HP Power Manager for single installations, the free bundled management software from HP allows you to manage and monitor the UPSs on your network.

HP UPS sizer

Do you need to find the correct HP UPS for your system as well as view UPS specifications? Just go to www.upssizer.com to put the HP UPS sizer to work for you. You can select the right HP Tower and Rackmountable UPS in three easy steps:

1. Determine a group of devices you need to protect.
2. Specify the UPS requirements such as input voltage, backup time required, and provisions for future growth.
3. The UPS sizer selects the best UPS solution and shows the technical specifications of the recommended UPS.

* Except on the R/T2200

** Certain restrictions and exclusions apply, available in North America only.

Technology services

HP Technology Services provides a range of services to commercial and enterprise customers. For more information, contact your HP sales representative or visit w**ww.hp.com/hps/support**.

Financial services

HP Financial Services provides financing and financial asset management programs. For more information, contact your HP sales representative or visit **www.hp.com/go/hpfinancialservices**.

For more information

For more information about the HP Tower UPS systems, visit, **http://h18004.www1.hp.com/products/servers/proliantstorage/power-protection/towerups/index.html**. For help sizing your HP UPS, go to **www.upssizer.com**.

HP Services

To help you streamline implementation and enhance ongoing support of your rack solution, HP provides cost-effective service options with resources and specialized expertise to complement your in-house capabilities.

Installation and Startup services
Take advantage of complete installation and implementation support—including global rollout capabilities—to get your rack solutions up-and-running rapidly, with minimal business disruption.

Rack Option Hardware Support
Cover your rack options with a single convenient service package. HP Care Pack Services for rack-mounted ProLiant DL servers and storage products provide support for all HP-branded rack hardware options that are qualified for inclusion with your server at the time of or after purchase. In addition, 22-inch and smaller external monitors, tower units, and UPS options up to 3KVA are covered at the same service level and for the same period as the server at not additional cost. Also covered are any additional HP-qualified rack options installed within the same rack.

HP Care Pack Services help increase uptime and productivity with rapid response on a 24x7 or 13x5 basis. Both options feature same-day, 4-hour onsite assistance when service issues cannot be resolved remotely. And both help you enhance the return on your server investment with proven HP Services expertise and consistent support levels across geographically dispersed sites

For more information, visit **www.hp.com/go/services**.

Electrical input & output	
Frequency	50/60 Hz, ± 5Hz (auto sensing)
Online regulation	–10% to +6% of nominal voltage
On battery regulation	±5% of nominal voltage
REPO	Remote emergency power-off (REPO) disables AC power to load

Battery	
Type	Maintenance-free, sealed, valve-regulated lead acid (VRLA)
Recharge time	<3 hours to 80% usable capacity; <24 hours for complete recharge

Environmental and safety	
Operating temperature	50°F to 104°F/10°C to 40°C
Operating humidity	20% to 80% (non-condensing)
Operating altitude	Up to 10,000 ft/3,048m above sea level
Emissions	FCC CFR 47, Part 15 Class A, EN50091-2
Immunity	IEC 801-2, IEC 801-3, IEC 801-4, IEC 801-5
Surge Suppression	Conforms to IEEE 587b and ANSI C62.41
REPO port	Meets NEC Code 645-11 intent and UL requirements

Backup times† (in minutes)

	Load, percent	Load, watts	Estimated battery runtime at 100% battery charge	Runtime with an ERM	Runtime with 2nd ERM
R1500 G2	20%	200	58 minutes		
	50%	500	17 minutes		
	80%	800	8 minutes		
	100%	1000	5 minutes		
R/T2200 G2	20%	288	45 minutes	150 minutes	
	50%	450	15 minutes	60 minutes	
	80%	1152	8.5 minutes	30 minutes	
	100%	1440	6 minutes	20 minutes	
R3000	20%	540	40 minutes	120 minutes	250 minutes
	50%	1350	12 minutes	45 minutes	100 minutes
	80%	2160	6.5 minutes	30 minutes	60 minutes
	100%	2700	5 minutes	20 minutes	40 minutes
R5500 NA	20%	900	59minutes	138 minutes	247 minutes
	50%	2250	15 minutes	49 minutes	85 minutes
	80%	3600	7 minutes	25 minutes	48 minutes
	100%	4500	5 minutes	19 minutes	36 minutes
R5500 INTL	20%	1080	49minutes	138 minutes	247 minutes
	50%	2700	15 minutes	49 minutes	85 minutes
	80%	4320	7 minutes	25 minutes	48 minutes
	100%	5400	5 minutes	19 minutes	36 minutes

† Backup times are estimated for typical applications. Actual performance will depend on environmental conditions, ambient temperature, battery age, and other factors. Technical information in this document is subject to change without notice.

Ordering information

Model	Part number	Nominal voltage (VAC)	Power out (VA/watts)	Input connection	Output connection/load segments	U Height	Communication port	Option cards
Low voltage models								
R1500 G2, NA	AF419A	120[1]	1440/1000	NEMA 5-15P	(4) NEMA 5-15R 2 switched load segments	1U	Serial, USB	6 port, SNMP
R/T2200 G2	AF409A	120[1]	2200/1440	NEMA 5-20P	(4) NEMA 5-15R (4) NEMA 5-15/20R 3 switched load segments, 1 non-switched load segments	2U	Serial, USB	N/A
R3000 , NA low	AF422A	120[1]	2880/2700	NEMA L5-30P	(1) NEMA L5-30R; (6) 5-15R 3 switched load segments	2U	Serial	6 port, SNMP
R1500 G2, JPN	AF421A	100[2]	1200/1000	NEMA 5-15P	(4) NEMA 5-15R 2 switched load segments	1U	Serial, USB	6 port, SNMP
R/T2200 G2, JPN	AF410A	120[1]	2200/1440	NEMA 5-20P	(4) NEMA 5-15R (4) NEMA 5-15/20R 3 switched load segments, 1 non-switched load segments	2U	Serial, USB	N/A
R3000, JPN low	AF424A	100[2]	2400/2250	NEMA L5-30P	(1) NEMA L5-30R; (6) 5-15R 3 switched load segments	2U	Serial	6 port, SNMP
High-voltage models								
R1500 G2, INTL	AF408A	230[3]	1500/1000	IEC-320-C14	(4) IEC-320-C13 2 switched load segments	1U	Serial, USB	6 port, SNMP
R/T2200 G2, INTL	AF411A	120[1]	2200/1440	IEC-320-C20	(8) IEC-320-C13 3 switched load segments, 1 non-switched load segments	2U	Serial, USB	N/A
R3000, NA high	AF423A	208[4]	3000/2700	NEMA L6-20P	(1) NEMA L6-20R; (9) IEC-320-C13 3 switched load segments	2U	Serial	6 port, SNMP
R3000, JPN high	AF425A	208[4]	3000/2700	NEMA L6-20P	(1) NEMA L6-20R; (9) IEC-320-C13 3 switched load segments	2U	Serial	6 port, SNMP
R3000, INTL detached cord	AF414A	230[4]	3000/2700	Detachable cord with country-specific plug[5]	(1) IEC-320-C19; (9) IEC-320-C13 3 switched load segments	2U	Serial	6 port, SNMP
R5500, NA/JPN	AF426A	200/208[4]	5000/4500	NEAM L6-30P	(4) IEC-320-C13; (4) IEC-320-C19; (1) L6-30R 2 switched load segments	3U	Serial	6 port, SNMP
R5500, INTL	AF416A	230[3]	6000/5400	IEC-309, 32A	(4) IEC-320-C13; (4) IEC-320-C19; (1) IEC-309, 32A 2 switched load segments	3U	Serial	6 port, SNMP
Optional extended runtime modules (ERMs)								
R/T2200 G2, ERM	AF412A					2U		
R3000, ERM	AF415A					2U		
R5500, ERM	AF417A					3U		
UPS option cards								
6 port card	AF428A							
SNMP	AF427A							

[1] User selectable (via front panel) for 110, 120 and 127 VAC. With 110 VAC selected, unit can operate at 50 Hz.
[2] User selectable (via front panel) for 100, 110, 120 and 127 VAC. With 100 or 110 VAC selected, unit can operate at 50 Hz.
[3] User selectable (via front panel) for 220, 230 and 240 VAC.
[4] User selectable (via front panel) for 200, 208, 220, 230 and 240 VAC.
[5] (6) IEC-320 10 amp cables (two 2 meter cables, two 2.5 meter cables, and two 3 meter cables), and (2) IEC-320 16 amp cables supplied with UPS.

For more information, visit www.hp.com/products/ups

4AA0-6981ENW, July 2006

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