

QuickSpecs

R7000 Uninterruptible Power System (UPS)

Overview

R7000 Uninterruptible Power System (UPS)

The innovative Minimally Switched Technology used in the new HPE R7000 UPS improves the performance over traditional line-interactive UPS designs while reducing the cost, weight, and size of traditional double-conversion online UPS designs. The digital signal processing (DSP) enables complete digital control of the UPS resulting in increased power conditioning, lower system cost, and enhanced user interface interactivity.

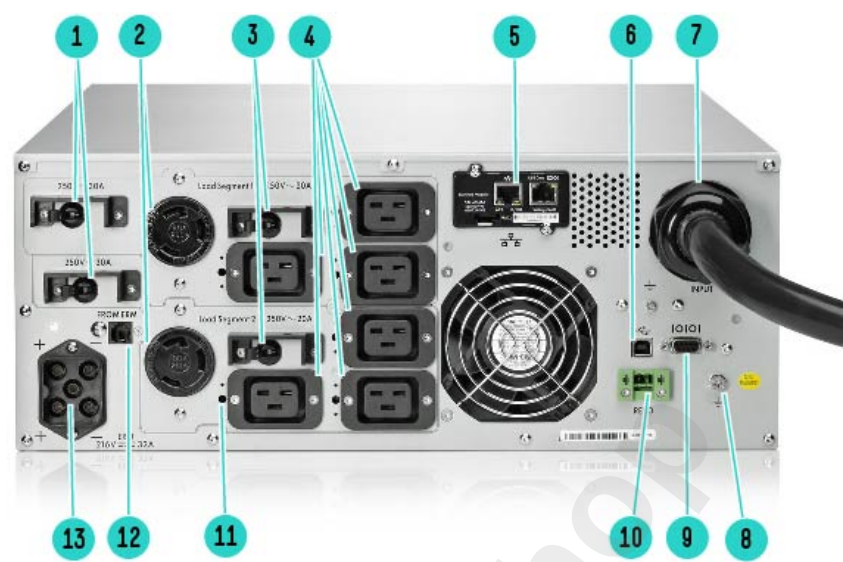
DSP technology enables the practical implementation of sophisticated UPS topologies and controls. The DSP can simultaneously control multiple power converters to optimize system efficiency and other performance characteristics such as: enhanced battery management for extended battery life, and improved output voltage regulation. The result is a higher performance UPS in smaller, lighter, more reliable designs—an advantage for space-constrained equipment racks and cost conscious, co-located data center applications.



Front View

- | | |
|-----------------------|------------------------|
| 1. Escape Button | 4. Enter/Select button |
| 2. Scroll up button | 5. Power button |
| 3. Scroll down button | |

Overview



Rear View

- | | |
|--|---|
| 1. Circuit Breaker (controls L6-30R receptacle for NA/JPN), | 8. Ground bonding screw |
| 2. Large output NEMA L6-30R receptacle (NA/JPN) or IEC- 9. 60309 32A receptacle on short cords (INTL) associated with load segment 1 | 9. Serial communications port |
| 3. Circuit Breaker (controls the C19 receptacles, but does not control the large output receptacle) | 10. REPO port |
| 4. 3 x IEC C19 receptacles | 11. Cord retention clip attachment locations |
| 5. HPE UPS Network Module | 12. ERM communication port |
| 6. USB communications port | 13. ERM connector for the large plug on the split ERM cable |
| 7. Input power line cord with NEMA CS8265C plug (NA/JPN) or IEC-309-32A plug (INTL) | |

Models

NOTE: #0D1 will appear after the part number on the sales order if HPE factory integration is indicated.

HPE R7000 4U 50A High Voltage NA/JP Uninterruptible Power System	AF462A
HPE R7000 4U IEC-32A High Voltage INTL Uninterruptible Power System	AF463A

Kit Contents

- HPE UPS R7000
- HPE UPS Network Module
- Power Products Documentation CD
- Depth adjustable fixed rack mounting rails, mounting brackets, cord retention clips
- Communications cable
- Two 7xC13 Extension Bars

Standard Features

Key Features

- High power density with up to 7200
- VA /7200 Watts of power packed in just 3U rack space
- Greater system uptime with support for Extended Runtime Modules (ERM)
- Easy configuration through enhanced front panel display
- Enterprise-wide intelligent manageability with bundled UPS Network Module and HPE Power Protector software
- More efficient voltage regulation with revolutionary technology
- Ultimate long-term battery reliability with HPE Enhanced Battery Management
- Enhanced system flexibility with two independently controlled load segments
- Support for Remote Emergency Power Off (REPO) circuitry
- Easy serviceability through modular design
- Hot-Swappable Battery
- Backed by a three year warranty with the first year including parts and labor. The HPE Pre-Failure warranty, and a \$250,000 load protection guarantee*. (Certain restrictions and exclusions apply;
*Load protection guarantee available in North America only.)
- Optional Extended Runtime Modules (ERM) increase batter runtime during a power failure

4U Power Packed Design

Rated at unity power at 7200VA /7200W for the NA/Japan model, and 6500VA/6500W on the international model, the HPE UPS R7000 packs more power in space-conserving rack-mount design, allowing you to support more critical equipment in your rack.

Increase System Uptime with Extended Runtime Modules

The Extended Runtime Modules are rack mounted battery modules that occupy 3U (5.25 inches) of rack space. The HPE UPS R7000 supports up to four Extended Runtime Modules (ERM), which extend your overall battery runtime.

Lower Cost of Ownership with Innovative Technology

The HPE UPS R7000 utilizes a Digital Signal Processing industry-leading technology that continually conditions and regulates power without using the battery, thereby increasing the life of the battery. The output voltage is automatically regulated, based on the connected load and the input voltage.

Investment Protection with HPE Enhanced Battery Management

HPE UPS R7000 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 can save 2-3 battery replacements over the life of the UPS saving hundreds of dollars giving you a lower total cost of ownership while still receiving the power protection for your critical equipment.

Enhanced Flexibility

Six C19 outlets, and two L6-30 outlet (2x 32A IEC on the International model) provide a wide range of connection options. Two included Extension Bars provide an addition 14 C13 outlets if needed. Adding additional HPE PDU Extension Bars, AF500A, provides additional C13 outlets making the R7000 and extremely flexible UPS for all environments.

Remotely Monitor UPSs on the Network

The installed UPS Network Module enables network administrators to remotely monitor UPSs and reboot network devices. It provides SNMP functionality, including power event alerts, network power diagnostics, and remote UPS reboot and testing. Used in conjunction with HPE Systems Insight Manager or other SNMP capable Network Management Software, power-related problems on the network are quickly discovered and remedied.

Easy Configuration via Enhanced Front Panel Display

LCD system integrated into the front panel with five button controls (three buttons for UPS power control and one button under the front bezel for configuration)

Standard Features

Independently Controllable Load Segments

With two load segments, you have the flexibility to configure scheduled startups and shutdowns, in addition to independently control the separate load segments. Working in conjunction with HPE UPS Network Module, the HPE UPS R7000 can be configured to extend the runtime for more critical devices.

Ease of Maintenance with Hot-Swappable Batteries and Electronics Modules

The UPS R7000 is modular in design, and both the battery and the electronics modules are hot swappable. HPE 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.

Extended Runtime Module (ERM), R7000

The UPS R7000 supports up to four Extended Runtime Modules. Each module is 3U (5.25 inches), a rack mountable battery module that extends your overall battery runtime.

HPE Quality

The HPE 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 Hewlett Packard Enterprise servers, storage, racks, rack options, and other rack mountable Hewlett Packard Enterprise equipment. For PDU options please refer to the UPS/PDU compatibility matrix on

HPE Uninterruptible Power Systems (UPS) web page

NOTE: for information on these products and their specifications , please see the

HPE Line Interactive Single Phase UPS QuickSpecs

Warranty

The HPE UPS R7000 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 fails. This warranty is offered worldwide. Specifically, the Pre-Failure Battery Warranty ensures that when customers receive notification from the HPE UPS Network Module that the battery may fail, the battery is replaced free of charge under the warranty.

All HPE Rackmount UPSs are also automatically covered to the full service level of ProLiant Pointnext in the same rack so there is no need to purchase additional Pointnext for the UPSs. Batteries are not covered under Pointnext Coverage

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

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.

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

Provides you with rapid remote support and if required an 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 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

Service and Support

Related HPE Pointnext operational Services to enhance your HPE product experience

Related Services

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.

Insight Remote Support

Delivers secure remote monitoring and support for Hewlett Packard Enterprise servers and storage, 24x7 at no additional cost. Available as part of HPE Warranty, PointNext and Service Contract offers.

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 quick-specs, 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 Hewlett Packard Enterprise due to malfunction.

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 inches 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>

Related Options

HPE UPS Options

HPE R5KVA and R7KVA 3U Extended Runtime Module AF464A

NOTE: #0D1 will appear after the part number on the sales order if HPE factory integration is indicated.

HPE Pointnext operational

HPE Install Universal Power Supply 3KVA to Below 6KVA Service U4693E

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UPS Model Matrix

High Voltage Models

Operating Voltage Settings	Power Out (VA/Watts)	Input Connection	Output Connection	Part Number
200/208*	7200VA/7200W	Hubble CS8265C, 3 m cord	LS1: 15A CB - 3 x C19 + 1 x L6-30R LS2: 15A CB - 3 x C19 + 1 x L6-30R	AF462A (NA/JPN)
220, 230*, 240	6300VA/ 6300W @230V input	IEC-309 32A, 3 m cord	LS1: 15A CB - 3 x C19 + + one pigtailed receptacle IEC-309 32A LS2: 15A CB - 3 x C19 + + one pigtailed receptacle IEC-309 32A	AF463A (International)

* Factory default setting.

Estimated Backup Times Chart (Minutes)

All Models

Load (Percent*)	Estimated battery runtime (Minutes)		With One Extended Runtime Module (Minutes)		With Four Extended Runtime Modules (Minutes)	
	NA/JPN	INTL	NA/JPN	INTL	NA/JPN	INTL
20	52	62	98	117	301	359
50	13	15	33	37	103	115
80	6	7	18	21	57	66
100	4	5	13	15	39	50
NOTE: Backup times are estimated for typical applications. Actual performance will depend on load and battery conditions.						

Technical Specifications

Unit Dimensions(HxWxD) 6.75 x 17.2 x 28.9 in (17.1 x 43.7 x 73.4 cm)

Unit Weight 165 lb/75 kg

Shipping Weight 210 lb/100 kg

BTU Break Down

BTU On Line	649 INTL, 581 NA/JPN
BTU On Battery	1290 INTL, 1501 NA/JPN
Battery String Voltage	216V
Battery Type	12V 45W
Battery Quantity	18

Electrical Input

Voltage Range	160-253V at 200/208V nominal; 160-253V at 220, 230, and 240V nominal
Frequency	50/60 Hz
Input Plug	Part number AF462A: Hubble CS6285C, 3 m cord Part number AF463A: IEC-309 32A, 3 m cord

Online Efficiency 95%

REPO Remote Emergency Power-Off disables AC power to load

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	Re-settable circuit protectors

Battery

Type	Maintenance-free, sealed, valve-regulated lead acid (VRLA)
Extended Batteries	Up to four ERMs supported
Backup Time	See Backup Times Chart
Recharge Time	<3 hours to 80% usable capacity; <48 hours for complete recharge
Battery String Voltage	216V
Battery Type	12V 45W
Battery Quantity	18

Maximum wattage based on voltage input

AF426A NA/JPN	200-240V: 7200VA/7200W
AF463A INTL	220V: 6100VA/6100W 230V: 6300VA/6300W 240V: 6500VA/6500W

Communications

Serial Ports	Standard DB-9 ports (ships with communication cable)
Included	HPE UPS Network Module
LED Indicators	LED and switch membrane integrated into the front panel; with four-button control (three buttons for UPS power control and one button under the front bezel for configuration).

Technical Specifications

Environmental and Safety	Operating Temperature	50° to 104° F (10° to 40° C)
	Transit Temperature	-13° to 131° F (-25° to 55° C)
	Storage Temperature	32° to 77° F (0° to 25° C)
	Operating Humidity	20% to 80% (non-condensing)
	Storage Humidity	5% to 95%
	Operating Altitude	Up to 6,562 ft (2000 m) above sea level
	Transit Altitude	49,212 ft (15,000 m) above sea level
	Audible Noise	<46db (at 1m from surface of unit)
	Safety Markings	NA/JPN: UL, cUL Int'l: GS, CE, GOST
	Safety Certifications	UL1778, UL60950-1; CSA22.2 No.107.3, No.60-1950; EN50091-1-1; EN60950-1 IEC62040-1-1
	EMC Markings	NA/JPN: FCC, VCCI, ICES, CISPR Int'l: BSMI, C-Tick, CISPR
	Emissions	FCC CFR 47, Part 15 Class A, EN50091-2
	Immunity	IEC 801-2, IEC 801-3, IEC 801-4, IEC 801-5
	REPO Port	Meets NEC code 645-11 intent and UL requirements

Environment-friendly Products and Approach

End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to:

<https://www.hpe.com/us/en/about/environment/product-recycling.html>.

To recycle your product, please go to:

<https://www.hpe.com/us/en/about/environment/product-recycling.html> or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise 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 Enterprise web site at:

<https://www.hpe.com/us/en/about/environment/product-recycling.html>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HPE OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
24-Oct-2018	Version 6	Changed	Rebranding Overview, Standard Features, Service and Support, Related Options, Technical Specifications sections were updated
23-Aug-2013	Version 5	Changed	Updated the Key Features section.
09-Jan-2012	Version 4	Changed	Revised an inactive link in the Compatibility section of Standard Features.
07-Oct-2011	Version 3	Changed	Introduction was revised.
09-Sep-2011	Version 2	Changed	Input Connection was revised.
30-Aug-2011	Version 1	Created	New QuickSpecs



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