

## SmartOnline 208/240V 6kVA 5.4kW Double-Conversion UPS, 4U Rack/Tower, Extended Run, Network Card Options, USB, DB9, Bypass Switch, L6-30R & L6-20R

MODEL NUMBER: SU6000RT4UHV



### Description

Featuring true on-line operation with pure sine wave output, zero transfer time to battery and complete UPS replacement capability with no downtime, the SU6000RT4UHV provides the highest level of protection available for mission-critical equipment from power outages, voltage fluctuations and transient surges. It converts incoming AC power to DC, and re-converts it back to filtered AC output with a pure sine wave, isolating connected components from all power problems in high-voltage environments. The SU6000RT4UHV has a 6kVA/5400W capacity and 4 AC outlets (2 L6-20R; 2 L6-30R).

With its detachable PDU, the SU6000RT4UHV is easily hot-swappable by a user of any skill set—no need for lengthy and expensive service calls, and no downtime if a repair or battery replacement is needed. In bypass mode, the PDU passes power to equipment without the use of the power and battery modules, allowing them to be removed while keeping your application in operation.

UPS battery backup keeps connected equipment operational through short power failures, and provides time to save data and perform an orderly system shutdown in case of a prolonged blackout. The SU6000RT4UHV's runtime can be expanded with optional external battery packs.

The SU6000RT4UHV features a highly efficient (96%) economy mode setting that can significantly reduce a facility's energy costs by minimizing heat output, reducing cooling requirements and consuming less electricity.

An LCD display with LED indicators enables IT personnel to monitor operating modes and conditions. The LCD/LED panel rotates for viewing in horizontal rack or vertical tower installations and includes an audible alarm that signals various conditions.

### Highlights

- 6000VA / 6kVA / 5400W on-line double-conversion 4U rack/tower UPS, Sine Wave
- Included maintenance bypass switch enables live replacement of UPS with zero downtime
- Extended runtime options, Interactive LCD interface, Economy-mode option, 0.9 power factor
- USB, RS232 & EPO ports; Slot for network management card options
- NEMA L6-30P 200-240V 50/60Hz input; L6-30R and L6-20R outlets; Configurable for 200/208/220/230/240V 50/60Hz output

### Package Includes

- SU6000RT4UHVPM Power Module
- SUPDMB6K Detachable PDU with Maintenance Bypass Switch
- USB, DB9 and EPO cables
- 4 post rackmount installation hardware

The SU6000RT4UHV features a USB port and a DB9 port that, when used with Tripp Lite's PowerAlert software, provides comprehensive network power monitoring and control. An optional network management card accessory, enables the UPS to operate as an IP managed device.

The unit requires only 4U of rack space in a standard rack enclosure and can be installed in a 2-post rack using the 2POSTRMKITHD accessory, or in a tower configuration with the 2-9USTAND accessory.

The SU6000RT4UHV comes with \$250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only) for connected equipment.

## Features

- Tripp Lite SU6000RT4UHV 6000VA / 6kVA / 5400 watt online, double-conversion UPS system in a single 4U rack/tower compatible housing (at 208V nominal, output is limited to 4992 watts)
- Full-time active power conditioning maintains clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- Detachable back panel PDU contains input line cord connection and output receptacles, plus manual bypass switch to support hot-swappable whole UPS replacement with no interruption to connected equipment
- L6-30P input plug; two L6-30R and two L6-20R outlets
- Included rail kit supports 4U 19 inch rackmount installation in 4 post racks
- Optional 2POSTRMKITHD supports installation in 2 post 19 inch racks (1 required for SU6000RT4UHV)
- Optional 2-9USTAND supports upright tower placement (1 required for SU6000RT4UHV)
- Maximum installed rack depth of only 20.7 in. / 52.6cm
- Maintains full-time sine wave output within 2% of selected 200/208/220/230/240V nominal in double conversion mode
- Corrects brownouts to 156V at full load (100V at 50% load or less)
- Corrects overvoltages to 290V at full load (300V at 90% load or less)
- Supports 50/60Hz operation for worldwide frequency compatibility
- Double-conversion operation offers full-time AC to DC, then DC to AC conversion to maintain perfectly regulated sine wave AC output with enhanced protection from harmonic distortion, fast electrical impulses and other hard-to-solve power problems not addressed by other UPS types
- High efficiency ECONOMY MODE operation significantly reduces BTU heat output and operating energy costs
- Network-grade AC surge and noise suppression
- Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via built-in RS-232, USB and slot for network management card options
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD
- Optional RELAYIOMINI interface module offers three configurable hard contact closure outputs for



custom event notification (requires removal of USB interface module)

- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from [www.tripplite.com/poweralert](http://www.tripplite.com/poweralert)
- Front panel LEDs and LCD readout with scroll controls support front-panel visual monitoring of all major UPS functions with support for a variety of control options to support advanced UPS settings and configurations
- LED/LCD display panel rotates for viewing in rackmount or tower configurations
- Supports Emergency Power Off (EPO) via built-in interface
- Battery independent restart ensures automatic UPS power-up without user interaction after lengthy power outages, even when batteries are expired and require replacement
- BP192V12-3U external battery packs are field replaceable and hot swappable
- Intelligent battery management system with temperature-compensated charging extends battery life
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Frequency conversion mode enables conversion of 60Hz to 50Hz or 60Hz to 50Hz (no de-rating)

## Specifications

OVERVIEW	
UPC Code	037332157096
UPS Type	On-Line
INPUT	
Rated input current (Maximum Load)	31.9A (200V), 30.6A (208V), 29A (220V), 27.7A (230V), 26.6A (240V)
Nominal Input Voltage(s) Supported	200V AC; 208V AC; 240V AC
Nominal Input Voltage Description	Factory configured to 208V
UPS Input Connection Type	L6-30P
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.1
Recommended Electrical Service	30A
Input Phase	Single-Phase
OUTPUT	
Output Volt Amp Capacity (VA)	6000
Output kVA Capacity (kVA)	6



Output Watt Capacity (Watts)	5400
Output kW Capacity (kW)	5.4
Output Capacity Details	Output capacity de-rates to 4992 watts when used at 208V nominal; Supports up to 105% load continuously in double conversion mode, 106 to 125% for 1 minute, 126% to 150% for 30 seconds; Loads over 150% trigger immediate bypass mode operation to support loads directly from mains power; Double conversion mode is automatically restored as the overload is cleared
Power Factor	0.9
Crest Factor	3:1
Nominal Voltage Details	Voltage selection via front panel LCD interface
Frequency Compatibility	50 / 60 Hz
Frequency Compatibility Details	Output frequency matches input nominal on startup; Frequency conversion mode enables conversion of 60Hz to 50Hz or 50Hz to 60Hz (no de-rating)
Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 2%
Output Receptacle Details	Output receptacles and input line cord are mounted on a detachable PDU backplate with bypass switch to enable hot-swappable power module replacement
Output Circuit Breakers	20A breaker protects L6-20R outlets, L6-30R outlets are unbrokened
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	200V; 208V; 240V
Output Receptacles	(2) L6-20R; (2) L6-30R
Individually Controllable Load Banks	No
<b>BATTERY</b>	
Battery Type	Valve Regulated Lead Acid (VRLA)
Full Load Runtime (min.)	2 minutes (5400 watts)
Half Load Runtime (min.)	8.5 minutes (2700 watts)
Expandable Battery Runtime	Runtime is expandable with external battery packs
Expandable Runtime	Yes
External Battery Pack Compatibility	<a href="http://www.tripplite.com/External-192V-3U-Rack-Tower-Battery-Pack-select-Tripp-Lite-UPS-Systems-BP192V12-3U">BP192V12-3U</a> & <a href="http://www.tripplite.com/External-192V-2U-Rackmount-Battery-Pack-UPS-Systems-BP192V5RT2U">BP192V5RT2U</a> (limit 1); <a href="http://www.tripplite.com/external-192v-tower-battery-pack-for-select-tripp-lite-ups-systems-su5000rt4u-su6000rt4u-su8000rt4u-BP192V787C-1PH">BP192V787C-1PH</a>
DC System Voltage (VDC)	192
Battery Recharge Rate (Included Batteries)	6 hours from 10% to 90% (typical, full load discharge)



Battery Access	Front panel battery access door
Internal UPS Replacement Battery Cartridge	&nbsp;<a class="productLink" href="//www.tripplite.com/4U-UPS-Replacement-192VDC-Battery-Cartridge-1-set-of-16-Tripp-Lite-SmartOnline-UPS~RBC5-192">RBC5-192</a>&nbsp;</td>
Battery Replacement Description	Hot-swappable, user replaceable internal batteries
<b>VOLTAGE REGULATION</b>	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	Corrects overvoltages as high as 300V (<90% load) and 280V (full load)
Undervoltage Correction	Corrects undervoltages as low as 100 (<50% load) and 155V (full load); derates linearly
<b>USER INTERFACE, ALERTS &amp; CONTROLS</b>	
Front Panel LCD Display	Selectable LCD display with scroll and selection buttons enables UPS control and detailed monitoring options; LED/LCD panel rotates for viewing in rack/tower formats (see manual)
Switches	Includes main power off/on switch, plus 2 switches to set and execute scrollable LCD functions. A manual bypass switch featured on the detachable PDU allows for complete removal of the UPS during routine maintenance without disrupting power to connected loads.
Alarm Cancel Operation	Alarm cancel switch
Audible Alarm	Unique audible alarms for all major UPS, environmental and power conditions (see manual)
LED Indicators	6 LEDs indicate line power, online mode, economy/bypass mode, on-battery, charger and AC output status; LCD screen offers additional information and control options
<b>SURGE / NOISE SUPPRESSION</b>	
UPS AC Suppression Joule Rating	2595
UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
<b>PHYSICAL</b>	
Cooling Method	Fans
Included Mounting Accessory Description	Includes 4 post rackmount installation accessories
Installation Form Factors Supported with Included Accessories	4 post 19 inch rackmount
Installation Form Factors Supported with Optional Accessories	2 post rackmount (&nbsp;<a class="productLink" href="//www.tripplite.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD">2POSTRMKITHD</a>&nbsp;</td><a class="productLink" href="//www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2-9USTAND</a>&nbsp;</td>
Maximum Device Depth (cm)	52.58
Maximum Device Depth (in.)	20.7
Maximum Device Depth (mm)	526
Minimum Required Rack Depth with External Battery Pack (cm)	74
Minimum Required Rack Depth with External Battery Pack (in.)	29



Minimum Required Rack Depth without External Battery Pack (cm)	65
Minimum Required Rack Depth without External Battery Pack (in.)	25.75
Primary Form Factor	Rackmount
Primary UPS Depth (mm)	525
Primary UPS Height (mm)	174
Primary UPS Width (mm)	445
Rack Height	4U
Shipping Dimensions (hwd / cm)	76.20 x 91.44 x 60.96
Shipping Dimensions (hwd / in.)	30.00 x 36.00 x 24.00
Shipping Weight (kg)	86.18
Shipping Weight (lbs.)	190.00
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, cm)	17.40 x 44.45 x 52.50
UPS Power Module Dimensions (hwd, in.)	6.85 x 17.5 x 20.67
UPS Power Module Weight (kg)	48.99
UPS Power Module Weight (lbs.)	108
<b>ENVIRONMENTAL</b>	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	0 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	1767
AC Economy Mode BTU / Hr. (Full Load)	768
Battery Mode BTU / Hr. (Full Load)	2279
AC Mode Efficiency Rating (100% Load)	90%
AC Economy Mode Efficiency Rating (100% Load)	96%
Operating Elevation (ft.)	Up to 6500 ft.
Audible Noise	60 dBA at front side 1 meter
Operating Elevation (m)	0-2000m
<b>COMMUNICATIONS</b>	



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Network Management Cards	<a href="http://www.tripplite.com/SNMP-Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~SNMPWEBCARD">SNMPWEBCARD</a> &nbsp;; &nbsp; <a href="http://www.tripplite.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD">TLNETCARD</a> &nbsp;; &nbsp; <a href="http://www.tripplite.com/Web-Management-Accessory-Card-WEBCARDLX">WEBCARDLX</a> &nbsp;; &nbsp; <a href="http://www.tripplite.com/MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control-MODBUSCARD">MODBUSCARD</a> &nbsp;; &nbsp; <a href="http://www.tripplite.com/Programmable-Relay-I-O-Card-RELAYIOCARD">RELAYIOCARD</a> &nbsp;;
Network Monitoring Port Description	Additional contact closure support with optional RELAYIOCARD and RELAYIOMINI interface cards. RELAYIOMINI installation requires removal of panel containing USB ports
PowerAlert Software	For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at <a href="https://www.tripplite.com/poweralert">https://www.tripplite.com/poweralert</a>
Communications Cable	USB, DB9 serial and EPO cables included
WatchDog Compatibility	Yes
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)
<b>LINE / BATTERY TRANSFER</b>	
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Transfer Time (Economy Mode)	8 ms. typical power failure response in optional economy mode
Low Voltage Transfer to Battery Power (Setpoint)	156V (full load) / 100V (50% load or less, derates linearly)
High Voltage Transfer to Battery Power (Setpoint)	280V (full load) / 300V (90% load or less)
<b>SPECIAL FEATURES</b>	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Auto Probe Monitoring (requires WEBCARDLX); Automatic inverter bypass; Expandable battery backup; Hot swappable batteries; Hot swappable UPS power module; Manual bypass switch; On-Line/Double-Conversion; Remote management; Sine wave output; Zero transfer time
Green Energy-Saving Features	High efficiency economy mode operation; Support for daily startup and shutoff; Schedulable daily hours of economy mode operation
<b>STANDARDS &amp; COMPLIANCE</b>	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances)
Certification Details	IEC 61000-4-5 1995 B Surge Immunity
<b>WARRANTY</b>	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 &nbsp; <a href="http://www.tripplite.com/support/insurance-policy">Ultimate Lifetime Insurance</a> &nbsp;;

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