

## SmartOnline 208/240 & 120V 6kVA 5.4kW Double-Conversion UPS, 6U Rack/Tower, Extended Run, Network Card Options, USB, DB9 Serial, Bypass Switch, Outlets

MODEL NUMBER: **SU6000RT4UTF**



### 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 SU6000RT4UTF provides the highest level of protection available for mission-critical equipment from all power problems. It converts incoming AC power to DC, and re-converts it back to filtered AC output with a pure sine wave, providing ultimate protection. The SU6000RT4UTF has a 6kVA/5400W capacity and 16 AC outlets (4 5-15R; 8 5-15/20R; 2 L6-20R; 2 L6-30R). Using the 2U transformer, the SU6000RT4UTF can support both low- and high-voltage equipment.

With its detachable PDU, the SU6000RT4UTF 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 SU6000RT4UTF's runtime can be expanded with external battery packs.

The SU6000RT4UTF 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.

The SU6000RT4UTF features a USB port and a DB9 port that, when used with Tripp Lite's downloadable PowerAlert software, provides comprehensive network power monitoring and control. An optional network management card enables the UPS to operate as an IP managed device.

The unit requires only 6U of rack space in a standard rack enclosure and can be installed in a 2-post rack using the 2POSTRMKITHD accessory (2 required), or in a tower configuration with the 2-9USTAND accessory.

### Features

- Tripp Lite SU6000RT4UTF 6000VA / 6kVA / 5400 watt on-line, double-conversion UPS system in a 6U rack/tower compatible configuration (4U power module plus 2U low-voltage transformer; at 208V nominal, output is limited to 4992 watts)
- Full-time active power conditioning maintains clean, continuous dual-conversion AC output free of

### Highlights

- 6000VA / 6kVA / 5400W on-line double-conversion 4U rack/tower UPS, Sine Wave
- Includes 4U UPS power module with maintenance bypass switch and 2U transformer module
- 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 208/240V 60Hz input; NEMA L6-30R, L6-20R (208/240V), 5-15/20R and 5-15R (120V) outlets

### Package Includes

- SU6000RT4UHVPM hot swappable UPS Power Module
- SUPDMB6K Detachable PDU with Maintenance Bypass Switch
- SU6000XFMR2U low voltage transformer
- 1 x 6-ft. USB Cable
- 1 x 6-ft. DB9 Cable
- 4-Post Rackmount Hardware (2 sets)

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, output receptacles and manual bypass switch to support hot-swappable whole UPS replacement with no interruption to connected equipment
- L6-30P input plug
- UPS supported outlets include two L6-30R, two L6-20R, 8 5-15/20R and 4 5-15R outlets
- Included rail kit supports 4U 19 inch rackmount installation in 4 post racks
- Optional 2POSTRMKITHD supports installation in 2 post 19 inch racks (2 required for SU6000RT4UTF)
- Optional 2-9USTAND supports upright tower placement (1 required for SU6000RT4UTF)
- Maximum installed rack depth of only 21.8 in. / 55.3 cm
- Maintains full-time sine wave output within 2% of selected 208/240V and 120V nominal at 60Hz 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)
- 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 optional 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 [tripplite.eaton.com/products/power-alert](http://tripplite.eaton.com/products/power-alert)
- 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)

## Specifications

| OVERVIEW |              |
|----------|--------------|
| UPC Code | 037332157102 |
| UPS Type | On-Line      |

| INPUT   |   |
|---|---|
| Input Phase                                   | Single-Phase  |
| Rated input current (Maximum Load)            | 31.9A (200V), 30.6A (208V), 29A (220V), 27.7A (230V), 26.6A (240V)  |
| Nominal Input Voltage(s) Supported            | 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   |
| OUTPUT  |   |
| Output Capacity (VA)                          | 6000  |
| Output Capacity (kVA)                         | 6   |
| Output Capacity (Watts)                       | 5400  |
| Output 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                                  | .9  |
| Crest Factor                                  | 3:1   |
| Nominal Voltage Details                       | This configuration requires the Power Module be set to 208 or 240V output voltage; included step-down transformer supports 120V output (when the voltage-selection switch on the transformer module is set to match the 208 or 240V power module setting)   |
| Frequency Compatibility                       | 60 Hz   |
| Frequency Compatibility Details               | Output frequency regulation +/-0.05Hz (free running)  |
| 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                       | High voltage 20A breaker protects L6-20R outlets, L6-30R outlets are unbreakered; Low voltage 20A breakers protect 4 5-15/20R outlets each; Low voltage 15A breakers protect 2 5-15/20R outlets each  |
| Output AC Waveform (AC Mode)                  | Pure Sine wave  |
| Output AC Waveform (Battery Mode)             | Pure Sine wave  |
| Nominal Output Voltage(s) Supported           | 120V; 208V; 240V  |

|  |   |
|--|---|
| Output Receptacles                           | (4) 5-15R; (8) 5-15/20R; (2) L6-20R; (2) L6-30R   |
| Individually Controllable Load Banks         | No  |
| <b>BATTERY</b>                               |   |
| Battery Type                                 | Valve Regulated Lead Acid (VRLA)  |
| Runtime Full Load (min.)                     | 2 min. (5400W)  |
| Runtime Half Load (min.)                     | 8.5 min. (2700W)  |
| Expandable Runtime                           | Yes   |
| External Battery Pack Compatibility          | BP192V1037C-1PH; &nbsp;<a class="productLink" href="//tripplite.eaton.com/External-192V-3U-Rack-Tower-Battery-Pack-select-Tripp-Lite-UPS-Systems~BP192V12-3U">BP192V12-3U</a>&nbsp;; BP192V1407C-1PH; BP192V557C-1PH; &nbsp;<a class="productLink" href="//tripplite.eaton.com/external-192v-tower-battery-pack-for-select-tripp-lite-ups-systems-su5000rt4u-su6000rt4u-su8000rt4u~BP192V787C-1PH">BP192V787C-1PH</a>&nbsp;; &nbsp;<a class="productLink" href="//tripplite.eaton.com/External-192V-2U-Rackmount-Battery-Pack-UPS-Systems~BP192V5RT2U">BP192V5RT2U</a>&nbsp;; (limit 1) |
| 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="//tripplite.eaton.com/4U-UPS-Replacement-192VDC-Battery-Cartridge-1-set-of-16-Tripp-Lite-SmartOnline-UPS~RBC5-192">RBC5-192</a>&nbsp;;   |
| Battery Replacement Description              | Hot-swappable, user replaceable 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  |
| <b>SURGE / NOISE SUPPRESSION</b>             |   |
| UPS AC Suppression Joule Rating              | 2595  |
| UPS AC Suppression Response Time             | Instantaneous   |
| EMI / RFI AC Noise Suppression               | Yes   |

| PHYSICAL  |   |
|---|---|
| Primary Form Factor   | Rackmount   |
| Rack Height   | 6U  |
| Cooling Method  | Fans  |
| Included Mounting Accessory Description                         | Two sets of adjustable 4 post 19 inch rackmount installation rails included   |
| Installation Form Factors Supported with Included Accessories   | 4 post 19 inch rackmount  |
| Installation Form Factors Supported with Optional Accessories   | 2 post rackmount ( <a href="//tripplite.eaton.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD">2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD</a> ); Tower ( <a href="//tripplite.eaton.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND</a> )   |
| Maximum Device Depth (cm)                                       | 55.37   |
| Maximum Device Depth (in.)                                      | 21.8  |
| Maximum Device Depth (mm)                                       | 554   |
| Minimum Required Rack Depth (cm)                                | 63.50   |
| Minimum Required Rack Depth (inches)                            | 25  |
| 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.) | 25.7  |
| Optional Mounting Accessory Notes                               | 2 post rackmount installation requires two <a href="//tripplite.eaton.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD">2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD</a> accessories; Tower installation requires one <a href="//tripplite.eaton.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND</a> accessory |
| Primary UPS Depth (mm)  | 526   |
| Primary UPS Height (mm)   | 174   |
| Primary UPS Width (mm)  | 445   |
| Shipping Dimensions (hwd / in.)                                 | 22.20 x 23.60 x 29.10   |
| Shipping Dimensions (hwd / cm)                                  | 56.39 x 59.94 x 73.91   |
| Shipping Weight (lbs.)  | 234.40  |
| Shipping Weight (kg)  | 106.32  |
| Stepdown Transformer Dimensions (hwd / cm)                      | 8.89 x 44.45 x 55.37  |
| Stepdown Transformer Dimensions (hwd / in.)                     | 3.50 x 17.50 x 21.80  |
| Stepdown Transformer Height (mm)                                | 89  |

|   |  |
|---|--|
| Stepdown Transformer Width (mm)               | 445  |
| Stepdown Transformer Depth (mm)               | 554  |
| Stepdown Transformer Weight (kg)              | 32.93  |
| Stepdown Transformer Weight (lbs.)            | 72.6   |
| UPS Housing Material                          | Steel  |
| UPS Power Module Dimensions (hwd, cm)         | 17.40 x 44.45 x 52.58  |
| UPS Power Module Dimensions (hwd, in.)        | 6.85 x 17.50 x 20.70   |
| UPS Power Module Weight (kg)                  | 52.71  |
| UPS Power Module Weight (lbs.)                | 116.2  |
| Unit Dimensions (hwd / in.)                   | 10.050 x 17.500 x 21.800   |
| Unit Weight (lbs.)                            | 188.800  |
| Unit Weight (kg)                              | 85.64  |
| <b>ENVIRONMENTAL</b>                          |  |
| Operating Temperature Range                   | 32° to 104°F (0° to 40°C)  |
| Storage Temperature Range                     | 5° to 122°F (-15° to 50°C)   |
| 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>                         |  |
| Network Management Cards                      | SNMPWEBCARD; &nbsp;<a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems-TLNETCARD">TLNETCARD</a>&nbsp;; &nbsp;<a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card-WEBCARDLX">WEBCARDLX</a>&nbsp;; &nbsp;<a class="productLink" href="//tripplite.eaton.com/MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control-MODBUSCARD">MODBUSCARD</a>&nbsp;; &nbsp;<a class="productLink" href="//tripplite.eaton.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 software at <a href="https://tripplite.eaton.com/products/power-alert">https://tripplite.eaton.com/products/power-alert</a>   |

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|---|---|
| Communications Cable  | USB, DB9 serial and EPO cables included   |
| WatchDog Compatibility                                      | Yes   |
| Network Management Card Description                         | Network management card optional  |
| 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)                                | 8ms. 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>FEATURES &amp; SPECIFICATIONS</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; Hot swappable batteries; Hot swappable UPS power module; Manual bypass switch; Remote management; Surge/noise protection; 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>APPLICATIONS</b>   |   |
| UPS Applications  | Mission Critical Applications   |
| <b>STANDARDS &amp; COMPLIANCE</b>                           |   |
| Product Certifications                                      | IEC 61000; CSA (Canada); UL 1778  |
| Product Compliance  | RoHS; FCC Part 15 Class A (USA); UKCA   |
| <b>WARRANTY &amp; SUPPORT</b>                               |   |
| Product Warranty Period (Worldwide)                         | 2-year limited warranty   |
| Connected Equipment Insurance (U.S., Canada & Puerto Rico)  | \$250,000 &nbsp;<a class="insuranceLink" href="//tripplite.eaton.com/support/insurance-policy">Ultimate Lifetime Insurance</a> &nbsp;   |