

SmartOnline 200-240V 6kVA 5.4kW On-Line Double-Conversion UPS, Extended Run, SNMP, Webcard, 4U Rack/Tower, USB, DB9 Serial, Bypass Switch

MODEL NUMBER: **SU6000RT4UHVVG**



Description

Tripp Lite SU6000RT4UHVVG 6000VA / 6kVA / 5400 watt on-line, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a single 4U rack/tower compatible housing. Full-time active power conditioning provides clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise. Fault-tolerant auto-bypass prevents unexpected service interruptions during UPS overload or internal fault conditions. Detachable back panel PDU with manual bypass switch supports hot-swappable whole UPS replacement with no interruption to connected equipment. Single all-in-one rack / tower housing installs in only 4 rack spaces (4U) with a maximum installed depth of only 20.7 in. / 52.6cm. Maintains full-time sine wave output within 2% of selectable 200/208/220/230/240V nominal during brownouts as low 100V and overvoltages as high as 300V. Expandable runtime is supported with optional BP192V12-3U external battery packs. Battery independent restart ensures automatic UPS power-up without user interaction after lengthy power outages, even when batteries are expired and require replacement. Double-conversion operation converts raw input from AC to DC, then re-synthesizes output power back to perfect sine wave AC with enhanced protection from harmonic distortion, fast electrical impulses and other hard-to-solve power problems not addressed by other UPS types. Highly efficient operation in optional economy mode 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 and USB interfaces. Optional SNMP/Web and contact-closure communications card accessories available. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Included PowerAlert monitoring software offers detailed site power and UPS updates with support for safe auto-shutdown of connected systems as UPS batteries become depleted. Included software packages include PowerAlert Local, PowerAlert Network Shutdown Agent and PowerAlert Network Management System for complete support for a wide variety of application types. Supports Emergency Power Off (EPO) via built-in interface. Front panel LEDs and LCD readout with scroll controls support front-panel visual monitoring of all major UPS 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. Hardwire input and 4 C19 outlets. Support for optional North American and International cordsets. External battery packs are field replaceable and hot swappable.

Highlights

- 6kVA / 6000VA / 5400W on-line double-conversion UPS; 0.9 power factor
- Included maintenance bypass switch enables live replacement of UPS with zero downtime
- 200/208/220/230/240V 50/60Hz output; High efficiency economy mode option
- 4U Rack/Tower compatible; Hot-swap power and battery modules
- USB, RS232 & EPO ports; SNMP/WEB and contact-closure card options
- Front panel LEDs with detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs
- Hardwire input (3 wire) with optional cordsets available; C19 outlets

Package Includes

- SU6000RT4UHVPM Hot-swappable UPS Power Module
- SUPDMB6KIEC Detachable PDU with Maintenance Bypass Switch
- PowerAlert Software CD
- 1 x 6-ft. USB Cable
- 1 x 6-ft. DB9 Cable
- 4-Post Rackmount Hardware

Features

- Tripp Lite SU6000RT4UHVG 6000VA / 6kVA / 5400 watt on-line, double-conversion UPS system in a single 4U rack/tower compatible housing (output is limited to 4992 watts when used at 208V with L6-30P input plug)
- 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 hardwire input line cord connection, output receptacles and manual bypass switch to support hot-swappable whole UPS replacement with no interruption to connected equipment
- Hardwire input and 4 C19 output receptacles
- 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 SU6000RT4UHVG)
- Optional 2-9USTAND supports upright tower placement (1 required for SU6000RT4UHVG)
- 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 optional SNMP card slot interfaces
- UPS card slot supports one card-based network interface option (part # SNMPWEBCARD) or dry-contact monitoring accessory (part # RELAYIOCARD)
- Optional SNMPWEBCARD offers communications and control via secure remote web and network interfaces
- Optional RELAYIOCARD supports six configurable hard contact closure outputs for custom event notification
- 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
- Includes Free PowerAlert monitoring software packages; PowerAlert LOCAL for desktops and small business networks, PowerAlert NSA (Network Shutdown Agent) for larger networks and PowerAlert NMS (Network Management System) for monitoring up to 250 SNMP-enabled UPS, PDU and other networking devices
- 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
- 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 50Hz to 60Hz (no de-rating)

Specifications



| OUTPUT | |
|---|--|
| Output Capacity Details | Output capacity de-rates to 4992 watts when used at 208V with optional L6-30P line cord; 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 |
| Output Volt Amp Capacity (VA) | 6000 |
| Output kVA Capacity (kVA) | 6.0 |
| Output Watt Capacity (Watts) | 5400 |
| Output kW Capacity (kW) | 5.4 |
| Power Factor | 0.9 |
| Crest Factor | 3:1 |
| Nominal Output Voltage(s) Supported | 200V; 208V; 220V; 230V; 240V |
| 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 enable 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 Receptacles | (4) C19 |
| Output Receptacle Details | Output receptacle and input connections are mounted on a detachable PDU backplate with bypass switch to enable hot-swappable power module replacement |
| Output Circuit Breakers | Two 20A breakers protect 2 C19 outlets each |
| Output AC Waveform (AC Mode) | Pure Sine wave |
| Output AC Waveform (Battery Mode) | Pure Sine wave |
| 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; 220V AC; 230V AC; 240V AC |
| Nominal Input Voltage Description | Factory configured to 208V |
| UPS Input Connection Type | Hardwire |
| UPS Input Connection Description | Supports North American 208/240V input (L1,L2,G) or International 230/220/240V (L,N,PE) input wiring; Optional SU30ACORD offers NEMA L6-30P input |
| Recommended Electrical Service | 40A (200/208v); 30-32A (220/230/240v) |
| Input Phase | Single-Phase |



| BATTERY | |
|---|--|
| 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 |
| External Battery Pack Compatibility | BP192V1037C-1PH; BP192V12-3U; BP192V1407C-1PH; BP192V557C-1PH; BP192V787C-1PH; BP192V5RT2U (limit 1) |
| DC System Voltage (VDC) | 192 |
| Battery Recharge Rate (Included Batteries) | 6 hours from 10% to 90% (typical, full load discharge) |
| Internal UPS Replacement Battery Cartridge | RBC5-192 |
| Battery Access | Front panel battery access door |
| Battery Replacement Description | Hot-swappable, user replaceable internal batteries |
| VOLTAGE REGULATION | |
| 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 |
| LEDS ALARMS & SWITCHES | |
| 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 |
| 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 |
| Audible Alarm | Unique audible alarms for all major UPS, environmental and power conditions (see manual) |
| Alarm Cancel Operation | Alarm cancel switch |
| 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. |
| SURGE / NOISE SUPPRESSION | |
| UPS AC Suppression Response Time | Instantaneous |
| EMI / RFI AC Noise Suppression | Yes |
| PHYSICAL | |
| Included Mounting Accessory Description | Includes 4 post rackmount installation accessories |
| Installation Form Factors Supported with Optional Accessories | 2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND) |



| | |
|---|---|
| Primary Form Factor | Rackmount |
| UPS Power Module Dimensions (hwd, in.) | 6.85 x 17.5 x 20.7 |
| UPS Power Module Dimensions (hwd, cm) | 17.4 x 44.5 x 52.6 |
| Installed Whole System Maximum Rack Depth (in.) | 20.7 |
| Installed Whole System Maximum Rack Depth (cm) | 52.6 |
| Rack Height (U Spaces) | 4 |
| UPS Power Module Weight (lbs.) | 108 |
| UPS Power Module Weight (kg) | 49 |
| UPS Shipping Dimensions (hwd / in.) | 12.7 x 23.6 x 29.1 |
| UPS Shipping Dimensions (hwd / cm) | 32.3 x 59.9 x 73.9 |
| Shipping Weight (lbs.) | 156.5 |
| Shipping Weight (kg) | 71.1 |
| Cooling Method | Fans |
| UPS Housing Material | Steel |
| ENVIRONMENTAL | |
| 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) | 707 |
| AC Mode Efficiency Rating (100% Load) | 90% |
| AC Economy Mode Efficiency Rating (100% Load) | 96% |
| Operating Elevation (ft.) | 0-3000m (0 to 10,000 ft.) |
| Audible Noise | 60 dBA at front side 1 meter |
| Operating Elevation (m) | 0-3000 m |
| COMMUNICATIONS | |
| Communications Interface | USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface |
| 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 | Included |



| | |
|---|--|
| Communications Cable | USB, DB9 serial and EPO cables included |
| WatchDog Compatibility | Yes |
| LINE / BATTERY TRANSFER | |
| 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) |
| SPECIAL FEATURES | |
| Cold Start (Startup in Battery Mode During a Power Failure) | Cold-start operation supported |
| High Availability UPS Features | Automatic inverter bypass; Manual bypass switch; Detachable hot-swap PDU; Hot swappable UPS power module; Hot swappable batteries |
| Green Energy-Saving Features | High efficiency economy mode operation; Schedulable daily hours of economy mode operation |
| CERTIFICATIONS | |
| UPS Certifications | Tested to UL1778 (USA); Tested to CSA (Canada); CE; Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances) |
| UPS Certification Details | IEC 61000-4-5 1995 B Surge Immunity |
| WARRANTY | |
| Product Warranty Period (Worldwide) | 2-year limited warranty |

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