

# Model #: SU6000RT4UTF

## SmartOnline 6kVA On-Line Double-Conversion UPS, 6U Rack/Tower, 208/120V or 240/120V NEMA outlets



#### **Highlights**

- 6kVA / 6000VA / 5400W on-line double-conversion UPS; 0.9 power factor
- 208/120V or 240/120V 60Hz output, Economy mode option
- 6U Rack/Tower installation; 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
- NEMA L6-30P input (3 wire); NEMA L6-30R, L6-20R, 5-15/20R & 5-15R outlets

## **Description**

Tripp Lite SU6000RT4UTF 6000VA / 6kVA / 5400 watt on-line, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a 6U rack/tower compatible configuration. 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 UPS power module replacement with no interruption to connected equipment. 4U UPS power module and included 2U low-voltage transformer install in only 6 rack spaces total (6U) with a maximum installed depth of only 21.8 in. / 55.3 cm. Maintains full-time sine wave output within 2% of selectable 208/240V and 120V nominal at 60Hz 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 resynthesizes 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. L6-30P input plug. UPS supported outlets include two L6-30R, two L6-20R, 8 5-15/20R and 4 5-15R outlets. External battery packs are field replaceable and hot swappable. 2 year warranty and \$250,000 connected equipment insurance; extended warranty and service contracts available.

#### **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 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 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)
- 2-year warranty and \$250,000 connected equipment insurance; extended warranty and service contracts available

## **Specifications**

OUTPUT	
Output Volt Amp Capacity (VA)	6000
Output kVA capacity (kVA)	6.0
Output Watt Capacity (watts)	5400
Output kW capacity	5.4
Output power factor	.9
Output Capacity Details	Output capacity de-rates to 4992 watts when used at 208V nominal
Crest Factor	3:1

Nominal Output Voltage(s) Supported	120V; 208V; 240V		
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%		
Built-in UPS output receptacles	4 5-15R outlet(s); 8 5-15/20R outlet(s); 2 L6-20R outlet(s); 2 L6-30R outlet(s)		
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 breaker	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		
INPUT			
Rated input current (at 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		
Recommended Electrical Service	30A		
BATTERY			
Full load runtime (minutes)	2 min. (5400 watts)		
Half load runtime (minutes)	8.5 min. (2700 watts)		
Expandable battery runtime	Runtime is expandable with external battery packs		
External battery pack compatibility	BP192V12-3U; BP192V557C-1PH; BP192V787C-1PH; BP192V1037C-1PH; BP192V1407C-1PH		

DC system voltage (VDC)	192				
Battery recharge rate (included batteries)	6 hours from 10% to 90% (internal batteries)				
Replacement battery cartridge (internal UPS battery replacement)	RBC5-192				
Battery Access	Front panel battery access door				
Battery replacement description	Hot-swappable, user replaceable batteries				
VOLTAGE REGULATIO	N				
Voltage regulation description	Online, double-conversion power conditioning				
Overvoltage correction	Corrects overvoltages as high as 300V (				
Undervoltage correction	Corrects undervoltages as low as 100 (				
LEDS ALARMS & SWIT	CHES				
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				
Alarms	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 SUPPR	RESSION				
UPS AC suppression response time	Instantaneous				
EMI / RFI AC noise suppression	Yes				
PHYSICAL					
Installation form factors supported with optional accessories	2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND)				
Primary form factor	Rackmount				
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	6.85 x 17.5 x 20.07				
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	17.4 x 44.5 x 52.6				
Installed whole system maximum rack depth (inches)	21.8				

Installed whole system maximum rack depth (cm)	55.4
Installed whole system total rack space height (rack spaces)	6U
Secondary form factor	Tower
UPS / Power Module weight (lbs)	116.2
UPS / Power Module weight (kg)	52.8
Stepdown transformer dimensions (height x width x depth / inches)	3.5 x 17.5 x 21.8
Stepdown transformer dimensions (height x width x depth / cm)	8.8 x 44.5 x 55.4
Stepdown transformer weight (Ibs)	72.6
Stepdown transformer weight (kg)	33
UPS Shipping dimensions (height x width x depth / inches)	22.5 x 25 x 30
UPS Shipping dimensions (height x width x depth / cm)	57.2 x 63.5 x 76.2
Shipping weight (lbs)	293
Shipping weight (kg)	133
UPS housing material	Steel
Cooling method	Fans
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
Battery mode BTU / hr. (full load)	1784

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			
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 TRAN	SFER			
Transfer time	No transfer time (0 ms.) in online, double-conversion 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 & high efficiency features	High efficiency economy mode operation; Support for daily startup and shutoff; Schedulable daily hours of economy mode operation			
CERTIFICATIONS				
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); 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 (U.S., Canada & Puerto Rico)	2-year limited warranty			
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance			

#### **Related Items**

**Optional Products** 

Product Type	Related Model	Description	Qty.
Environmental Monitoring	ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	1
Extended Warranties	WEXT3-SU6000	3-Year Extended Warranty - For SU6000 models	1
Extended Warranties	WEXT5-SU6000	5-Year Extended Warranty - For SU6000 models	1
External Battery Packs	BP192V12-3U	BP192V12-3U - External Battery Pack for UPS System	1
Rackmount/Wallmount Kits	2POSTRMKITHD	Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components	2
SNMP Accessories	RELAYIOCARD	Programmable Relay I/O Card	1
SNMP Accessories	SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
Tower Stands	2-9USTAND	Enables Tower Placement of Rackmount UPS Systems	1
UPS Accessories	RELAYIOMINI	3 Relay I/O Mini-module	1

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/en/products/model.cfm?txtModeIID=4528.

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