

## SmartOnline Hot-Swappable Modular UPS System - On-line, double-conversion protection for mission critical applications

MODEL NUMBER: **SU10000RT4U**



### Description

Tripp Lite 10kVA SmartOnline Hot-Swappable Modular Rack/Tower UPS offers 10,000 VA on-line, double-conversion UPS support for server, network and telecommunications equipment. Maintains battery-derived AC output during blackouts with active, full-time power conditioning. Fault-tolerant auto-bypass prevents unexpected service interruptions during overload or internal fault conditions. 4U power module and 4U external battery pack installs in 8 rack spaces (8U). Upright tower installation supported with optional accessories. Maintains full-time sine wave output within 3% of selectable 208/120 or 240/120V AC. Corrects brownouts and overvoltages from 65V to 140V (L-N). Expandable runtime with optional external battery packs. Converts raw input from AC to DC, then resynthesizes output power back to perfect 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. Highly efficient operation in optional economy mode setting, saving BTU heat output and energy costs. Network-grade AC surge and noise suppression. Network management interfaces include combination DB9 RS-232 enabled and dry contact serial port, enhanced USB port and SNMPWEBCARD slot. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Supports simultaneous detailed monitoring of equipment load levels, self-test data and utility power conditions via all 3 network interfaces. Includes PowerAlert monitoring software and complete cabling. Supports Emergency Power Off (EPO) via built-in interface. Front panel LEDs and LCD readout with scroll controls support visual monitoring of all major UPS functions. LED/LCD display panel easily rotates for viewing in rackmount or tower configurations. Split phase 4 conductor hardwire input. UPS supported outlets include four L6-20R and 4 low voltage 5-15/20R. Output connections are mounted on a detachable backplate with manual bypass switch to enable hot-swappable UPS replacement without powering off connected equipment. External battery packs are field replaceable and hot swappable. Attractive all-black color scheme. \$250,000 connected equipment insurance;

### Features

- True online, double-conversion UPS provides pure, full-time sine wave AC output free of surges, voltage fluctuations and line noise

### Highlights

- 10,000VA / 10kVA online 4U rack / tower UPS with expandable runtime (4U Power Module + 4U Battery Pack)
- Maintains dual 208/120 or 240/120V output +/-3% during brownouts and overvoltages (4 wire input)
- Simultaneous use HID compliant USB port, serial port, SNMP/Web card slot and EPO interface - front panel LCD digital display for real-time site electrical and detailed UPS operating parameters
- Detachable hardwire input & outlet panel with manual and automatic make-before break bypass and fault tolerant design enables hot-swap UPS replacement without powering off connected equipment
- Expandable runtime with optional BP192V18-4U external battery packs
- \$250,000 Ultimate Lifetime Insurance (USA, Puerto Rico & Canada only)

### Package Includes

- 10kVA/10,000 VA UPS power module in 4U rackmount housing
- Detachable hardwire input/output and output receptacle PDU
- External 4U battery pack
- 4 post rackmount installation brackets



- 10,000 VA/8,400 watt output power capacity with dual voltage output of 208/120 or 240/120V
- 4U high power density power module and 4U external battery pack supports rackmount installation in 8 rack spaces
- Battery chassis contains four 48lb battery modules for single-user maintenance
- Automatic restart after power outage that fully depletes batteries
- Dual conversion UPS actively converts raw input from AC to DC, then back to perfect 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
- Hardwire input terminals and output receptacles are mounted on a detachable backplate with manual make before break bypass switch to enable hot-swappable UPS replacement without powering off connected equipment
- Provides perfectly regulated, sine wave output power free of line noise, transient surges and frequency variation for the most efficient operation of critical servers, networking and telecommunications equipment
- Maintains output within 3% of selected 208/120 or 240/120V nominal voltage during brownouts and overvoltages
- Supports connected equipment during blackouts for 20/7 minutes at half/full load levels, runtime is further expandable with optional external BP192V18-4U battery packs
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Network interfaces support simultaneous communications via DB9 port, USB port and SNMPWEBCARD slot. DB9 port supports RS-232 and dry contact messaging. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X.
- Included PowerAlert UPS monitoring software supports safe unattended shutdown, monitoring and control via local connected servers, plus any number of additional servers over IP
- Communications ports support on-battery, low-battery, power-restored, AC-voltage, DC-voltage, output current monitoring, battery charge current, battery capacity, AC line frequency, timed inverter shutoff, activate self-test and output power control
- Built-in Emergency Power Off (EPO) interface with cable
- Includes 8 output receptacles (4 L6-20R and 4 NEMA 5-15/20R)
- 4-wire hardwire input connection (featured on included detachable PDU).
- Front panel LEDs and LCD readout with scroll button enables visual confirmation of all major UPS functions and current site electrical conditions
- Front panel switches enable power on/off control, self-test and alarm cancel functions
- Included adjustable mounting rails support installation in 4 post 19 inch rack enclosures
- Optional 2-9USTAND set of tower stands supports upright tower installation
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- \$250,000 Ultimate Lifetime Insurance (USA and Canada Only)

## Specifications

OUTPUT	
Output Capacity Details	10,000 VA / 8,400 watts (208/240V)
Output Volt Amp Capacity (VA)	10000
Output kVA Capacity (kVA)	10
Output Watt Capacity (Watts)	8400
Output kW Capacity (kW)	8.4
Power Factor	0.84
Crest Factor	3:1
Nominal Output Voltage(s) Supported	120V; 208V; 240V



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Nominal Voltage Details	240/120V or 208/120V 4-wire output
Frequency Compatibility	60 Hz
Output Voltage Regulation (Line Mode)	+/- 3%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 3%
Output Receptacles	(4) 5-15/20R; (4) L6-20R
Output Circuit Breakers	20A branch rated double pole breakers (x4) for L6-20R outlets, 20A branch rated single pole breakers (x4) for 5-15/20R outlets
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
<b>INPUT</b>	
Rated input current (Maximum Load)	50A
Nominal Input Voltage(s) Supported	208V AC / 120V AC (4 wire split single phase); 240V AC /120V AC (4 wire split single phase)
UPS Input Connection Type	Hardwire
UPS Input Connection Description	4 wire AC input (L1, L2, N, G)
Recommended Electrical Service	60A 208/240-120 4-Wire (L1, L2, N, G)
Input Phase	Single-Phase
<b>BATTERY</b>	
Full Load Runtime (min.)	7 min. (8,400w)
Half Load Runtime (min.)	20 min. (4,200w)
Expandable Battery Runtime	Supports extended runtime with optional external battery packs
External Battery Pack Compatibility	<a href="#">BP192V18-4U</a> ; <a href="#">BP192V557C-16K</a> ; <a href="#">BP192V787C-16K</a> ; <a href="#">BP192V1037C-16K</a> ; <a href="#">BP192V1407C-16K</a>
DC System Voltage (VDC)	192
Battery Recharge Rate (Included Batteries)	Less than 6 hours from 10% to 80%
Battery Replacement Description	Hot-swappable, user replaceable batteries. Battery pack contains (4) 48lb. single-user replaceable battery modules
<b>VOLTAGE REGULATION</b>	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	3% output voltage regulation during overvoltages to 140 (measured L1-N : L2-N)
Undervoltage Correction	2% output voltage regulation during undervoltages to 65 (measured L1-N : L2-N)
<b>USER INTERFACE, ALERTS &amp; CONTROLS</b>	



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Switches	2 Switches control off/on power status and alarm-cancel/self-test operation; 2 additional switches support set and execute scrolling LCD functions; bundled PDU includes bypass switch to enable hot-swap UPS power module replacement
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 Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
AC Suppression Response Time	Instantaneous
<b>PHYSICAL</b>	
Included Mounting Accessory Description	2 sets of adjustable 4 post rack rails included
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND)
Optional Mounting Accessory Notes	2 sets of <a href="#">2POSTRMKITHD</a> required for 2 post rackmount installation of separate power module and battery pack
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	7 x 17.5 x 40.5
UPS Power Module Dimensions (hwd, cm)	17.8 x 44.4 x 102.9
Installed Whole System Maximum Rack Depth (in.)	40.5
Installed Whole System Maximum Rack Depth (cm)	102.9
Rack Height (U Spaces)	8
UPS Power Module Weight (lbs.)	86
UPS Power Module Weight (kg)	39
UPS Dimensions Details	Includes 4U power module and 4U battery pack
Included Battery Pack Dimensions (hwd / cm)	7 x 17.5 x 27.8
Included Battery Pack Weight (lbs.)	239
Included Battery Pack Weight (kg)	108.5
UPS Shipping Dimensions (hwd / in.)	45.5 x 23.5 x 34.3
UPS Shipping Dimensions (hwd / cm)	115.6 x 59.7 x 87.1
Shipping Weight (lbs.)	448.8



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Shipping Weight (kg)	203.8
Cooling Method	Fan
UPS Housing Material	Steel
<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)	4286
Battery Mode BTU / Hr. (Full Load)	3187
AC Mode Efficiency Rating (100% Load)	87%
AC Economy Mode Efficiency Rating (100% Load)	94%
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
<b>COMMUNICATIONS</b>	
Communications Interface	USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface
Network Monitoring Port Description	RS232 and contact closure communications are supported on one DB9 port
PowerAlert Software	Included
Communications Cable	USB and DB9 cabling included
<b>LINE / BATTERY TRANSFER</b>	
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Low Voltage Transfer to Battery Power (Setpoint)	65V (L1-N:L2-N)
High Voltage Transfer to Battery Power (Setpoint)	140V (L1-N:L2-N)
<b>SPECIAL FEATURES</b>	
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
<b>CERTIFICATIONS</b>	



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UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)
<b>WARRANTY</b>	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 <a href="#">Ultimate Lifetime Insurance</a>

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