SmartOnline 5kVA On-Line Double-Conversion UPS, 4U Rack/Tower, Split-phase input includes Bypass Switch

MODEL NUMBER: **SU5000RT4U**

Description

Tripp Lite 5kVA SmartOnline Hot-Swappable Modular Rack/Tower UPS. 5000VA on-line, double-conversion UPS 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. Single all-in-one housing installs in 4 rack spaces (4U). Upright tower installation with optional 2-9USTAND accessory. 2-post rackmount installation with optional 2POSTRMKITHD. 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. Dual-conversion UPS 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. 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 RS-232 enabled and contact closure serial port, enhanced USB port and SNMPWEBCARD slot. Includes USB and DB9 serial ports. Built-in DB9 port offers both enhanced RS-232 enabled monitoring data, plus contact closure monitoring ability. 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 mains power conditions via all 3 network interfaces. Includes PowerAlert monitoring software and complete cabling. Emergency Power Off (EPO) 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. Audible alarm. Self test. 4-post rackmount accessories. Includes NEMA L14-30P split phase 4 wire input plug and 12 total output receptacles (2 L6-30R, 2 L6-20R and 8 5-15/20R). Input cord and outlets are mounted on a detachable backplate with manual bypass switch to enable hot-swappable UPS replacement without powering off connected equipment. Optional SUPDM56HW detachable backplate accessory enables hardwire input-output connections to the UPS. Additional external Power Distribution Unit (PDU) options available. Internal batteries and optional external battery packs are field replaceable and hot swappable. Attractive all-black color scheme. $250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only).

Highlights

- 5000VA / 5kVA / 3800W on-line double-conversion UPS
- Included maintenance bypass switch enables live replacement of UPS with zero downtime
- 208/120V or 240/120V +/-3% output at 60Hz
- 4U Rack/Tower compatible; Hot-swappable power and battery modules
- USB, RS232 & EPO ports; support for SNMP/WEB card options
- Front panel LEDs with detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs
- NEMA L14-30P input (4 wire split phase); L6-30R, L6-20R & 5-15/20R outlets

System Requirements

- Electrical Service: 125/250V, 4-wire, split phase, 30A
- Communication Interface: serial DB-9 or USB
- Compatible with all standard 19-in. equipment

Package Includes

- SU5000RT4U UPS System (with SUPDMB56 detachable PDU module)
- USB, DB9 and EPO cabling
- Rackmount installation kit for 4 post rack enclosures
- Owner's manual and warranty information

Features

- True on-line, double-conversion UPS provides pure, full-time sine wave AC output free of surges, voltage fluctuations and line noise
- 5000VA/3800 watt output power capacity with dual voltage output of 208/120 or 240/120V
- 4U all-in-one high power density housing supports rackmount installation in only 4 rack spaces
- 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
- Input cord and outlets are mounted on a detachable backplate with manual bypass switch to enable hot-swappable UPS replacement without powering off connected equipment
- Optional SUPDM56HW detachable backplate accessory enables hardwire input-output connections to the UPS
- 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 14/6 minutes at half/full load levels, runtime is further expandable with optional external 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
- Included PowerAlert UPS monitoring software supports safe unattended shutdown, monitoring and control via local connected servers, plus any number of additional servers over IP
- Communication 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
- Includes USB and DB9 serial ports. Built-in DB9 port offers both enhanced RS-232 enabled monitoring data, plus contact closure monitoring ability. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X.
- Built-in Emergency Power Off (EPO) interface with cable
- Includes 12 built-in output receptacles (2 L6-30R, 2 L6-20R, 8 NEMA 5-15/20R)
- L14-30P split phase, 4 wire plug-in connection (featured on included detachable PDU). Optional SUPDM56HW hardwire input/output PDU available separately
- 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
- Optional 2POSTRMKITHD accessory enables 2-post rackmount installation
- UPS ships fully assembled in full compliance with DOT regulations, no time consuming connection of internal batteries by user is required
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- Detachable PDU with built-in manual bypass switch enables hot-swappable UPS replacement without powering off connected equipment
- $250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only)

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	5000
Output kVA Capacity (kVA)	5
Output Watt Capacity (Watts)	3800
Output kW Capacity (kW)	3.8

Power Factor	0.8
Crest Factor	3:1
Nominal Output Voltage(s) Supported	120V; 208V; 240V
Nominal Voltage Details	240/120V or 208/120V split phase output
Frequency Compatibility	60 Hz
Output Voltage Regulation (Line Mode)	+/- 3%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 3%
UPS Output Receptacles	8 5-15/20R outlet(s); 2 L6-20R outlet(s); 2 L6-30R outlet(s)
Output Circuit Breakers	20A branch rated breakers (x4) protect 2 5-15/20R outlets each, 20A double pole breakers (x2) protect one L6-20R each, L6-30R outlets are unbreakered
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave

INPUT	
Rated input current (Maximum Load)	21A
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	L14-30P
UPS Input Connection Description	4 wire split-phase input (L1, L2, N, G)
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3
Recommended Electrical Service	30A 208/120V Split Phase
Input Cord Length (m)	3
Input Phase	Single-Phase

BATTERY	
Full Load Runtime (min.)	6 min. (3800w)
Half Load Runtime (min.)	14 min. (1900w)
Expandable Battery Runtime	Supports extended runtime with optional 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)	Less than 6 hours from 10% to 80% (typical, full load discharge)

Internal UPS Replacement Battery Cartridge	RBC9-192
Battery Access	Front panel battery access door
Battery Replacement Description	Hot-swappable, user replaceable batteries

VOLTAGE REGULATION	
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)

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
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. Battery Charge level switch allows the charger output to be adjusted to a higher charge rate when additional battery packs are added.

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.)	7 x 17.5 x 30.8
UPS Power Module Dimensions (hwd, cm)	17.8 x 44.4 x 78.1
Installed Whole System Maximum Rack Depth (in.)	30.8
Installed Whole System Maximum Rack Depth (cm)	78.1
Rack Height (U Spaces)	4U
UPS Power Module Weight (lbs.)	149.6
UPS Power Module Weight (kg)	67.9

UPS Dimensions Details	4U UPS with internal batteries
UPS Shipping Dimensions (hwd / in.)	13.2 x 37 x 23
UPS Shipping Dimensions (hwd / cm)	33.7 x 94 x 58.4
Shipping Weight (lbs.)	189.2
Shipping Weight (kg)	85.9
Cooling Method	Fan
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)	1435.6
Battery Mode BTU / Hr. (Full Load)	1277.8
AC Mode Efficiency Rating (100% Load)	90%
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; 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

LINE / BATTERY TRANSFER

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)

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); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)
WARRANTY	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	$250,000 Ultimate Lifetime Insurance