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## Model #: SU16000RT4U

### SmartOnline 16kVA On-Line Double-Conversion UPS, 8U Rack/Tower, 208/120V or 240/120V Hardwire+NEMA outputs, Split phase input

#### Highlights



- 16kVA / 16,000VA / 11,200 watt on-line double-conversion 8U rack/tower UPS, split phase 4-wire input
- 208/120V or 240/120V +/-3% output at 60Hz
- 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
- Hardwire input (4 wire); L6-30R, C19 & 5-15/20R outlets

#### Description

Tripp Lite 16kVA SmartOnline Hot-Swappable Modular Rack/Tower UPS offers 16,000 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 and output supported. UPS supported outlets include two L6-30R, six C19 and 5 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. 2-year warranty and \$250,000 [connected equipment insurance](#); extended warranty and service contracts available.

#### Package Includes

- 16kVA/16,000 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

#### Features

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

- 16,000 VA/11,200 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
- 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, hardwire output and output receptacles are mounted on a detachable backplate with manual 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 12/5 minutes at half/full load levels, runtime is further expandable with optional external BP192V18-4U battery packs
- 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 13 output receptacles (2 L6-30R, 6 C19, 5 NEMA 5-15/20R) plus hardwire output, all of which are available for simultaneous use
- Split phase, 4 conductor 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
- 2 year manufacturer's product warranty, \$250,000 [Ultimate Lifetime Insurance](#) (USA & Canada only)

## Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	16000
Output kVA capacity (kVA)	16
Output Watt Capacity (watts)	11200
Output kW capacity	11.2
Output power factor	0.7
Output Capacity Details	16,000 VA (240V) / 13,860 VA (208V) / 11,200 watts (208/240V)
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%

<b>Output voltage regulation (Economy line mode)</b>	+/- 10%
<b>Output voltage regulation (Battery mode)</b>	+/- 3%
<b>Built-in UPS output receptacles</b>	5 5-15/20R outlet(s); 2 L6-30R outlet(s); 6 C19 outlet(s); Hardwire
<b>Output circuit breaker</b>	20A branch rated double pole breakers (x3) protect 2 C19 and 1 5-15/20R outlets each, 30A branch rated double pole breakers (x2) protect 1 L6-30R outlet each, 20A single pole breakers (x2) protect one 5-15/20R outlet each
<b>Output AC waveform (AC mode)</b>	Sine wave
<b>Output AC waveform (battery mode)</b>	Pure Sine wave
<b>INPUT</b>	
<b>Rated input current (at maximum load)</b>	68A
<b>Nominal Input Voltage(s) Supported</b>	208V AC / 120V AC (4 wire split single phase); 240V AC /120V AC (4 wire split single phase)
<b>UPS input connection type</b>	Hardwire
<b>UPS input connection description</b>	4 wire split-phase input (L1, L2, N, G)
<b>Recommended Electrical Service</b>	70A 208/240-120 Split Phase
<b>BATTERY</b>	
<b>Full load runtime (minutes)</b>	5 min. (11,200w)
<b>Half load runtime (minutes)</b>	12 min. (5600w)
<b>Expandable battery runtime</b>	Supports extended runtime with optional external battery packs
<b>External battery pack compatibility</b>	<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>
<b>DC system voltage (VDC)</b>	192
<b>Battery recharge rate (included batteries)</b>	Less than 6 hours from 10% to 80%
<b>Battery replacement description</b>	Hot-swappable, user replaceable batteries
<b>VOLTAGE REGULATION</b>	
<b>Voltage regulation description</b>	Online, double-conversion power conditioning
<b>Overvoltage correction</b>	3% output voltage regulation during overvoltages to 140 (measured L1-N : L2-N)
<b>Undervoltage correction</b>	3% output voltage regulation during undervoltages to 65 (measured L1-N : L2-N)
<b>LEDS ALARMS &amp; SWITCHES</b>	

<b>LED Indicators</b>	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>Alarms</b>	Unique audible alarms for all major UPS, environmental and power conditions (see manual)
<b>Alarm cancel operation</b>	Alarm cancel switch
<b>Switches</b>	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
<b>SURGE / NOISE SUPPRESSION</b>	
<b>UPS AC suppression response time</b>	Instantaneous
<b>EMI / RFI AC noise suppression</b>	Yes
<b>PHYSICAL</b>	
<b>Installation form factors supported with included accessories</b>	4 post 19 inch rackmount (mounting rail kit included)
<b>Included mounting accessory description</b>	2 sets of adjustable 4 post rack rails included
<b>Installation form factors supported with optional accessories</b>	2 post rackmount (2POSTRMKITWM); Tower (2-9USTAND)
<b>Optional mounting accessory notes</b>	2 sets of <a href="#">2POSTRMKITWM</a> required for 2 post rackmount installation of separate power module and battery pack
<b>Primary form factor</b>	Rackmount
<b>UPS / Power Module dimensions in primary form factor (height x width x depth / inches)</b>	7 x 17.5 x 40.5
<b>UPS / Power Module dimensions in primary form factor (height x width x depth / cm)</b>	17.8 x 44.4 x 102.9
<b>Installed whole system maximum rack depth (inches)</b>	40.5
<b>Installed whole system maximum rack depth (cm)</b>	102.9
<b>Installed whole system total rack space height (rack spaces)</b>	8U
<b>Secondary form factor</b>	Tower (requires <a href="#">2-9USTAND</a> )
<b>UPS / Power Module weight (lbs)</b>	86
<b>UPS / Power Module weight (kg)</b>	39
<b>UPS dimensions details</b>	Includes 4U power module and 4U battery pack

Included battery pack dimensions (height x width x depth / inches)	7 x 17.5 x 27.8
Included battery pack dimensions (height x width x depth / cm)	17.7 x 44.4 x 70.6
Included battery pack weight (lbs)	239
Included battery pack weight (kg)	108.5
UPS Shipping dimensions (height x width x depth / inches)	45.5 x 23.5 x 34.3
UPS Shipping dimensions (height x width x depth / cm)	115.6 x 59.7 x 87.1
Shipping weight (lbs)	448.8
Shipping weight (kg)	203.8
UPS housing material	Steel
Cooling method	Fan
<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)	5690.1
Battery mode BTU / hr. (full load)	4231.1
Operating Elevation (ft)	0-3000m (0 to 10,000 ft.)
Audible Noise	60 dBA at front side 1 meter
<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)

<b>High voltage transfer to battery power (setpoint)</b>	140V (L1-N:L2-N)
<b>SPECIAL FEATURES</b>	
<b>Cold Start (startup in battery mode during a power failure)</b>	Cold-start operation supported
<b>High availability UPS features</b>	Automatic inverter bypass; Manual bypass switch; Detachable hot-swap PDU; Hot swappable UPS power module; Hot swappable batteries
<b>Green &amp; high efficiency features</b>	High efficiency economy mode operation; Schedulable daily hours of economy mode operation
<b>CERTIFICATIONS</b>	
<b>UPS Certifications</b>	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)
<b>WARRANTY</b>	
<b>Product Warranty Period (U.S., Canada &amp; Puerto Rico)</b>	2-year limited warranty

## Related Items

### Optional Products

Product Type	Related Model	Description	Qty.
Extended Warranties	<a href="#">WEXT3-SU16-20K</a>	3-Year Warranty (1-Year Extension) - For SU16K through SU20K Single-Phase UPS Models	-
Extended Warranties	<a href="#">WEXT5-SU16-20K</a>	5-Year Warranty (3-Year Extension) - For SU16K through SU20K Single-Phase UPS Models	-
SNMP Accessories	<a href="#">SNMPWEBCARD</a>	For remote monitoring and control via SNMP, Web, or Telnet.	-
SNMP Accessories	<a href="#">ENVIROSENSE</a>	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	-
Surge Protectors	<a href="#">DTEL2</a>	Network Surge Suppressor - Essential protection for data and communication lines	-
Surge Protectors	<a href="#">DNET1</a>	Network Surge Suppressor - Essential protection for data and communication lines	-
External Battery Packs	<a href="#">BP192V18-4U</a>	BP192V18-4U - External Battery Pack for UPS System	-
Tower Stands	<a href="#">2-9USTAND</a>	Enables Tower Placement of Rackmount UPS Systems	-
Shutdown Cable Kits	<a href="#">AS400CABLE KIT</a>	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	-
UPS Accessories	<a href="#">MODBUSCARD</a>	For remote monitoring and control via MODBUS protocol	-
Rackmount/Wallmount Kits	<a href="#">2POSTRMKITHD</a>	Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components	-

More information, including related products, owner's manuals, and additional technical specifications, can be found online at [www.tripplite.com/en/products/model.cfm?txtModelID=3652](http://www.tripplite.com/en/products/model.cfm?txtModelID=3652).

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