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## Model #: SU16KRT

### SmartOnline 16kVA On-Line Double-Conversion UPS, N+1, 12U Rack/Tower, 200-240V NEMA & C19 outlets



#### Highlights

- 16kVA / 16,000VA / 14,400W on-line double-conversion UPS; 0.9 power factor
- 200/208/220/230/240V 50/60Hz output, Economy mode option
- Hot-swap power and battery modules, N+1 fault tolerance at loads up to 8kVA
- USB, RS232 & EPO ports; support for 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); L6-30R & C19 outlets

#### Description

Tripp Lite SU16KRT 16,000VA / 16kVA / 14,400 watt online, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a 12U rack/tower configuration. This system delivers complete N+1 redundancy when used at loads up to 8kVA, and non-redundant operation at loads between 8 and 16kVA. Fault-tolerant auto-bypass prevents unexpected service interruptions during UPS overload or internal fault conditions. Included parallel PDU with manual bypass switching enables hot-swappable replacement of all major UPS system components in both N+1 and combined operating modes. Enhanced availability, fault tolerance and simple hot-swap replacement options make this UPS ideal for advanced networking applications in data centers, computer rooms, network closets and rugged industrial locations.

#### Package Includes

- Two SU8000RT3UPM UPS power modules
- Two BP240V10RT3U battery packs
- SUPDMB20K parallel PDU with Bypass switch
- 4 post rackmount installation rails
- PowerAlert software and cabling

#### Features

- Tripp Lite SU16KRT 16kVA, 16,000VA / 14,400 watt on-line, double-conversion UPS system in 12U total rack/tower configuration
- Unique configuration offers 16kVA non-redundant operation and automatic N+1 redundancy at load levels of 8kVA and under
- Included Parallel PDU with manual bypass switch enables hot-swap replacement of power modules at any supported load level
- Hardwire input; 2 L6-30R and 8 C19 outlets
- Maintains full-time sine wave output within 2% of selectable 200/208/220/230/240V nominal
- Supports 50/60Hz operation for worldwide frequency compatibility
- Expandable runtime with optional external battery packs
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Battery independent restart
- Highly efficient economy mode option
- Optional SNMPWEBCARD, RELAYIOCARD and RELAYIOMINI interface modules available (RELAYIOMINI requires removal of USB interface module)
- HID-compliant USB interface
- Includes Free PowerAlert monitoring software; PowerAlert LOCAL, PowerAlert NSA and PowerAlert NMS for monitoring up to 250

SNMP-enabled UPS, PDU and other networking devices

- Optional 2POSTRMKITHD supports installation in 2 post 19 inch racks (4 required)
- Optional 2-9USTAND supports upright tower placement (2 required)
- Supports Emergency Power Off (EPO) via built-in interface
- Front panel LEDs and LCD readout with scroll controls
- LED / LCD display panel rotates for viewing in rackmount or tower configurations
- External battery packs are field replaceable and hot swappable
- Frequency conversion mode enables conversion of 60Hz to 50Hz or 50Hz to 60Hz (no de-rating)

## Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	16000
Output kVA capacity (kVA)	16
Output Watt Capacity (watts)	14400
Output kW capacity	14.4
Output power factor	0.9
Output Capacity Details	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 load levels are reduced to 95% or less
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; Supports 50 to 60 Hz and 60 to 50 Hz conversion
Frequency compatibility details	Output frequency matches input nominal on startup; Frequency conversion mode enables 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%
Built-in UPS output receptacles	2 L6-30R outlet(s); 8 C19 outlet(s)
Output circuit breaker	Two built-in 30A breakers protect one L6-30R outlet each; Eight built-in 20A breakers protect one C19 outlet each
Output AC waveform (AC mode)	Sine wave
Output AC waveform (battery mode)	Pure Sine wave
INPUT	
Rated input current (at maximum load)	92A (200V), 88.4A (208V), 83.6A (220V), 80A (230V), 76.6A (240V)

<b>Nominal Input Voltage(s) Supported</b>	200V AC; 208V AC; 220V AC; 230V AC; 240V AC
<b>UPS input connection type</b>	Hardwire
<b>UPS input connection description</b>	3 wire single phase input (L1, L2, G)
<b>Recommended Electrical Service</b>	100A @ 200V-240V (L, N, PE), or 100A @ 200V, 208V, or 240V (L1, L2, G)
<b>Phase</b>	Single-Phase
<b>BATTERY</b>	
<b>Full load runtime (minutes)</b>	5.5 minutes (14,400 watts)
<b>Half load runtime (minutes)</b>	13.5 minutes (7200 watts)
<b>Expandable battery runtime</b>	Runtime is expandable with external battery packs
<b>External battery pack compatibility</b>	<a href="#">BP240V10RT3U</a> ; <a href="#">BP240V557C-1PH</a> ; <a href="#">BP240V787C-1PH</a> ; <a href="#">BP240V1037C-1PH</a> ; <a href="#">BP240V1407C-1PH</a>
<b>Expandable runtime description</b>	For best results, add external batteries in multiples of two so that both included 8kVA power modules have an equal number and type of connected battery packs
<b>DC system voltage (VDC)</b>	240
<b>Battery recharge rate (included batteries)</b>	Less than 8 hours from 10% to 90%
<b>Battery replacement description</b>	Hot-swappable, user replaceable external battery packs
<b>VOLTAGE REGULATION</b>	
<b>Voltage regulation description</b>	2% output voltage regulation in standard online, double-conversion mode
<b>Overvoltage correction</b>	Corrects overvoltages up to 300V
<b>Undervoltage correction</b>	Corrects undervoltages as low as 100V
<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>Front panel LCD display</b>	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; LCD Display supports ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH and PORTUGUESE (see manual)
<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
<b>Included mounting accessory description</b>	4 sets of adjustable 4 post rack rails included
<b>Installation form factors supported with optional accessories</b>	2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND)
<b>Optional mounting accessory notes</b>	Qty 4 <a href="#">2POSTRMKITHD</a> required; Qty 2 <a href="#">2-9USTAND</a> required
<b>Primary form factor</b>	Rackmount
<b>UPS / Power Module dimensions in primary form factor (height x width x depth / inches)</b>	5.14 x 17.5 x 25.82
<b>UPS / Power Module dimensions in primary form factor (height x width x depth / cm)</b>	13.1 x 44.5 x 65.6
<b>Installed whole system maximum rack depth (inches)</b>	32.5
<b>Installed whole system maximum rack depth (cm)</b>	82.6
<b>Rack Height</b>	12U
<b>Secondary form factor</b>	Tower
<b>UPS / Power Module weight (lbs)</b>	43
<b>UPS / Power Module weight (kg)</b>	19.5
<b>UPS dimensions details</b>	Includes 2 SU8000RT3UPM UPS/Power modules and 2 BP240V10RT3U Battery packs; Listed weights and dimensions for UPS/Power module and Included battery pack each refer to a single unit
<b>Included battery pack dimensions (height x width x depth / inches)</b>	5.25 x 17.5 x 25
<b>Included battery pack dimensions (height x width x depth / cm)</b>	13.3 x 44.5 x 63.5

Included battery pack weight (lbs)	158.7
Included battery pack weight (kg)	72
UPS Shipping dimensions (height x width x depth / inches)	36 x 40.25 x 51
UPS Shipping dimensions (height x width x depth / cm)	91.4 x 102.2 x 129.5
Shipping weight (lbs)	600
Shipping weight (kg)	272.4
Cooling method	Fans
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)	5464
AC economy mode BTU / hr. (full load)	2040
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
<b>COMMUNICATIONS</b>	
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	Supports Watchdog application, OS and hard-reboot restart options for remote applications
<b>LINE / BATTERY TRANSFER</b>	
Transfer time	No transfer time (0 ms.) in online, double-conversion mode

<b>Transfer time (economy mode)</b>	8 milliseconds typical power failure response in optional economy mode
<b>Low voltage transfer to battery power (setpoint)</b>	100V
<b>High voltage transfer to battery power (setpoint)</b>	300V
<b>SPECIAL FEATURES</b>	
<b>Cold Start (startup in battery mode during a power failure)</b>	Cold-start operation supported
<b>Economy mode operation</b>	Optional economy mode enables high efficiency bypass operation with a maximum output voltage variation of +/-10%. Double conversion mode is automatically restored as mains voltage varies beyond +/-10% with less than 1 millisecond transfer time between modes.
<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; Support for daily startup and shutoff; Schedulable daily hours of economy mode operation
<b>CERTIFICATIONS</b>	
<b>UPS Certifications</b>	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances)
<b>UPS Certification details</b>	IEC 61000-4-5 1995 B Surge Immunity
<b>WARRANTY</b>	
<b>Product Warranty Period (Worldwide)</b>	2-year limited warranty
<b>Connected Equipment Insurance (U.S., Canada &amp; Puerto Rico)</b>	\$250,000 <a href="#">Ultimate Lifetime Insurance</a>

## Related Items

### Optional Products

Related Model	Description	Qty.
<a href="#">SNMPWEBCARD</a>	For remote monitoring and control via SNMP, Web, or Telnet.	1
<a href="#">ENVIROSENSE</a>	Monitors temperature, humidity and contact-closure inputs. (Requires UPS with SNMPWEBCARD, monitored PDU or switched PDU.)	1
<a href="#">SRSWITCH</a>	Magnetic Door Switch Kit for front and rear doors; requires ENVIROSENSE	1
<a href="#">BP240V10RT3U</a>	External Battery Pack and Cable. 3U, Expandable, Black 3-Point Connector	1
<a href="#">WEXT3-SU16-20K</a>	3-Year Warranty (1-Year Extension) - For SU16K through SU20K Single-Phase UPS Models	1
<a href="#">WEXT5-SU16-20K</a>	5-Year Warranty (3-Year Extension) - For SU16K through SU20K Single-Phase UPS Models	1
<a href="#">2-9USTAND</a>	Enables Tower Placement of Rackmount UPS Systems	1
<a href="#">2POSTRMKITHD</a>	Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components	1
<a href="#">BP240V557C-1PH</a>	External battery pack for use with select Tripp Lite UPS Systems	1

BP240V787C-1PH	External battery pack for use with select Tripp Lite UPS Systems	1
BP240V1037C-1PH	External battery pack for use with select Tripp Lite UPS Systems	1
BP240V1407C-1PH	External battery pack for use with select Tripp Lite UPS Systems	1
PDUMV20HV	Metered 0U Vertical Rack PDU - Metered Power Distribution Unit for Network Applications	1
PDUMV30HV	Metered 0U Vertical Rack PDU - Metered Power Distribution Unit for Network Applications	1
PDUMNV20HV	Monitored PDU / Power Distribution Unit supports real-time remote monitoring of load level, voltage and frequency with options for remote environmental and security monitoring	1
PDUMNV30HV	Monitored PDU / Power Distribution Unit supports real-time remote monitoring of load level, voltage and frequency with options for remote environmental and security monitoring	1
PDUMV20HVNET	Switched, Metered PDU with Remote Monitoring - 0U Vertical Rackmount Power Distribution Unit for Networks with Individually Switchable Outlets, Current Metering, Remote Monitoring and Control	1
PDUMV30HVNET	Switched, Metered PDU with Remote Monitoring - 0U Vertical Rackmount Power Distribution Unit for Networks with Individually Switchable Outlets, Current Metering, Remote Monitoring and Control	1
RELAYIOCARD	Programmable Relay I/O Card	1
RELAYIOMINI	3 Relay I/O Mini-module	1
MODBUSCARD	For remote monitoring and control via MODBUS protocol	1
P041-001-2	1-ft. 10AWG Heavy Duty Power Splitter Cable (NEMA L6-30P to 2x NEMA L6-30R)	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?txtModelID=4675](http://www.tripplite.com/en/products/model.cfm?txtModelID=4675).

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