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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## SmartOnline 208/240V 16kVA UPS – On-Line Double Conversion, 14.4kW, N+1, 12U, Network Card Option, TAA Compliant

MODEL NUMBER: SU16KRATA



TAA-compliant N+1 UPS protects connected equipment against damage due to blackouts, brownouts, surges and line noise.

### Features

#### Protects Mission-Critical Rack-Mounted Equipment against Damage, Downtime and Data Loss

This N+1 UPS system protects connected equipment against damage, downtime and data loss due to power outages, voltage fluctuations and transient surges. Featuring a 14,400W capacity, high 0.9 power factor, true on-line operation with pure sine wave output and zero transfer time to battery, the SmartOnline® SU16KRATA provides the highest level of battery backup and AC power protection for critical server, network and telecom equipment. It offers automatic N+1 redundancy at load levels up to 8kVA and non-redundant operation from 8kVA all the way up to 16kVA.

#### Reliable, Expandable Battery Backup

UPS battery backup keeps connected equipment operational through short power failures, and provides time to save data and perform an orderly system shutdown in case of a prolonged blackout. The external battery provides 13.5 minutes of support at half load and 5.5 minutes at full load. During normal operation, incoming utility power keeps the battery fully charged so backup power will be available when needed. For mission-critical applications demanding continuous uptime, the TAA-compliant UPS can provide expandable runtime with optional external battery packs, such as Tripp Lite's field-replaceable, hot-swappable BP240V10RT3UTAA (sold separately). A battery-independent restart ensures automatic UPS power-up after lengthy power outages, even with expired batteries.

#### Easily Hot-Swappable with No Expensive Service Calls or Downtime Needed

With its parallel PDU, the SU16KRATA with manual bypass switching enables hot-swappable replacement of all major UPS system components in both N+1 and combined operating modes. In bypass mode, the PDU passes power to equipment without the use of the power and battery modules, allowing them to be removed while keeping your application in operation. When making repairs or replacing a battery, no lengthy service calls or downtime are necessary.

#### Intuitive Front-Panel Interface for Convenient UPS Operation and Monitoring

Front-panel LEDs indicate line power, online mode, bypass mode, on-battery, charger and AC output status at a glance. The LCD readout with scroll controls supports visual monitoring of a variety of control options to support advanced UPS settings and configurations. The panel rotates for comfortable viewing in rack-mount or tower configuration.

### Highlights

- Zero transfer time between AC power and battery for uninterrupted operation
- PDU keeps essential equipment powered during hot-swap battery replacement or repair
- Delivers complete N+1 redundancy when used with loads up to 8kVA
- Optional external batteries provide additional runtime for essential applications
- Complies with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases

### Applications

- Delivering perfectly regulated sine wave output to mission-critical equipment
- Protecting connected components from dangerous surges, spikes and line noise
- Keeping equipment operational through short power failures
- Allowing time to save data and safely shut down components in case of a prolonged blackout

### Package Includes

- (2) SU8000RT3UPMTAA hot-swappable UPS power modules
- SUPDMB20KTAA parallel PDU w/maintenance bypass switch
- (2) BP240V10RT3UTAA external battery packs



**Optional WEBCARDLX Network Interface Offers 24/7 Access**

An accessory slot accommodates the optional Java-free HTML5-based WEBCARDLX interface, which enables full remote access for site power and UPS status monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH. It supports 10/100 Mbps auto-sensing for optimum communication with an Ethernet network. Automated alerts help prevent accidental overloads, power loss and downtime.

**Advanced Communications Ports**

USB and DB9 ports (cables are included) enable data-saving unattended shutdown of connected systems when used with Tripp Lite's free downloadable PowerAlert® software. Capabilities include detailed monitoring of load levels, self-test data and utility power conditions.

**Versatile Installation Options**

Hardware is included for mounting the N+1 UPS system in 12U of space in an EIA-standard 19-inch 4-post rack. Use four optional 2POSTRMKITHD kits for 2-post rack mounting or two optional 2-9USTAND kits for mounting in an upright tower position.

**TAA-Compliant UPS for GSA Schedule Purchases**

The SU16KR TAA is compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases.

**2-Year Warranty, \$250K Ultimate Lifetime Insurance and Environmentally Responsible Design**

The SU16KR TAA comes with a 2-year warranty and \$250,000 of Ultimate Lifetime Insurance for any connected components damaged by a power surge (U.S., Canada and Puerto Rico only). It's manufactured in compliance with strict RoHS specifications, reflecting Tripp Lite's commitment to environmental responsibility.

- USB cable
- DB9 cable
- EPO cable
- Rack-mounting hardware
- Owner's manual

## Specifications

| OVERVIEW                            |  |
|-------------------------------------|--|
| UPC Code                            | 037332236227   |
| OUTPUT                              |  |
| Output Volt Amp Capacity (VA)       | 16000  |
| Output kVA Capacity (kVA)           | 16   |
| Output Watt Capacity (Watts)        | 14400  |
| Output kW Capacity (kW)             | 14.4   |
| 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 |
| Power Factor                        | 0.9  |
| Crest Factor                        | 3:1  |
| Nominal Output Voltage(s) Supported | 200V; 208V; 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 (Battery Mode)     | +/- 2%  |
| Output Receptacles                           | (2) L6-30R; (8) C19   |
| Output Circuit Breakers                      | 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)                 | Pure Sine wave  |
| Output AC Waveform (Battery Mode)            | Pure Sine wave  |
| <b>INPUT</b>                                 |   |
| Rated input current (Maximum Load)           | 92A (200V), 88.4A (208V), 76.6A (240V)  |
| Nominal Input Voltage(s) Supported           | 200V AC; 208V AC; 240V AC   |
| UPS Input Connection Type                    | Hardwire  |
| UPS Input Connection Description             | 3 wire single phase input (L1, L2, G)   |
| Recommended Electrical Service               | 100A @ 200V, 208V, or 240V (L1, L2, G)  |
| Input Phase                                  | Single-Phase  |
| <b>BATTERY</b>                               |   |
| Full Load Runtime (min.)                     | 5.5 minutes (14,400 watts)  |
| Half Load Runtime (min.)                     | 13.5 minutes (7200 watts)   |
| Expandable Battery Runtime                   | Runtime is expandable with external battery packs   |
| External Battery Pack Compatibility          | BP240V10RT3UTAA;&nbsp;<a class="productLink" href="//www.tripplite.com/External-240V-Tower-Battery-Pack-for-use-with-Select-Tripp-Lite-UPS-Systems-BP240V787C-1PH~BP240V787C-1PH">BP240V787C-1PH</a>&nbsp;&nbsp;  |
| Expandable Runtime Description               | 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  |
| DC System Voltage (VDC)                      | 240   |
| Battery Recharge Rate (Included Batteries)   | Less than 6 hours from 10% to 90% (typical, full load discharge)  |
| Battery Replacement Description              | Hot-swappable, user replaceable external battery packs  |
| Expandable Runtime                           | Yes   |
| <b>VOLTAGE REGULATION</b>                    |   |
| Voltage Regulation Description               | 2% output voltage regulation in standard online, double-conversion mode   |
| Overvoltage Correction                       | Corrects overvoltages up to 300V  |
| Undervoltage Correction                      | Corrects undervoltages as low as 100V   |
| <b>USER INTERFACE, ALERTS &amp; CONTROLS</b> |   |
| Front Panel LCD Display                      | 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) |



|   |  |
|---|--|
| 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, 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  |
| <b>PHYSICAL</b>   |  |
| Included Mounting Accessory Description                       | 4 sets of adjustable 4 post rack rails included (one for each included 3U module)  |
| Installation Form Factors Supported with Optional Accessories | 2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND)   |
| Optional Mounting Accessory Notes                             | Qty 4 <a href="http://www.tripplite.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD">2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD</a> required; Qty 2 <a href="http://www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND</a> required |
| Primary Form Factor   | Rackmount  |
| UPS Power Module Dimensions (hwd, in.)                        | 5.14 x 17.50 x 25.82   |
| UPS Power Module Dimensions (hwd, cm)                         | 13.06 x 44.45 x 65.58  |
| Rack Height (U Spaces)  | 12   |
| Maximum Device Depth (in.)                                    | 33   |
| Minimum Required Rack Depth (inches)                          | 38   |
| Maximum Device Depth (cm)                                     | 83.82  |
| Minimum Required Rack Depth (cm)                              | 96.52  |
| UPS Power Module Weight (lbs.)                                | 43   |
| UPS Power Module Weight (kg)                                  | 19.50  |
| UPS Dimensions Details  | Includes 2 SU8000RT3UPMTAA UPS/Power modules, 2 BP240V10RT3UTAA Battery packs and SUPDMB20KTAA parallel bypass PDU; Listed weights and dimensions for UPS/Power module and Included battery pack each refer to a single unit; MAXIMUM DEVICE DEPTH specification refers to the whole UPS installed depth with parallel bypass PDU installed  |
| Included Battery Pack Dimensions (hwd / in.)                  | 5.25 x 17.50 x 25.00   |
| Included Battery Pack Weight (lbs.)                           | 159  |
| Included Battery Pack Weight (kg)                             | 72.12  |
| Shipping Dimensions (hwd / in.)                               | 36.00 x 40.25 x 51.00  |
| Shipping Dimensions (hwd / cm)                                | 91.44 x 102.24 x 129.54  |



|   |   |
|---|---|
| Shipping Weight (lbs.)                            | 601.00  |
| Shipping Weight (kg)                              | 272.61  |
| Cooling Method                                    | Fans  |
| UPS Housing Material                              | Steel   |
| Maximum Device Depth (mm)                         | 838   |
| Primary UPS Height (mm)                           | 131   |
| Primary UPS Width (mm)                            | 445   |
| Primary UPS Depth (mm)                            | 656   |
| <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  |
| Battery Mode BTU / Hr. (Full Load)                | 4864  |
| 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  |
| <b>COMMUNICATIONS</b>                             |   |
| Communications Interface                          | USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface   |
| Network Management Cards                          | SNMPWEBCARD; TLNETCARD; WEBCARDLX; MODBUSCARD;&nbsp;<a class="productLink" href="//www.tripplite.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a>&nbsp;   |
| Network Monitoring Port Description               | Applications utilizing any supported network management card option, require the use of two network cards of the same-model (install one card per included UPS power module); RELAYIOMINI installation requires removal of panel containing USB ports on each included UPS power module |
| PowerAlert Software                               | For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at <a href="http://www.tripplite.com/poweralert">http://www.tripplite.com/poweralert</a>  |
| 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  |
| Low Voltage Transfer to Battery Power (Setpoint)  | 100V  |
| High Voltage Transfer to Battery Power (Setpoint) | 300V  |



**Tripp Lite**  
1111 W. 35th Street  
Chicago, IL 60609 USA  
Telephone: 773.869.1234  
www.tripplite.com

| <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; Hot swappable batteries; Hot swappable UPS power module; Manual bypass switch                                      |
| Green Energy-Saving Features                                | Support for daily startup and shutoff   |
| <b>CERTIFICATIONS</b>                                       |   |
| UPS Certifications  | Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances); TAA Compliant; Tested to CSA (Canada); Tested to UL1778 (USA) |
| UPS Certification Details                                   | IEC 61000-4-5 1995 B Surge Immunity   |
| <b>WARRANTY</b>   |   |
| Product Warranty Period (Worldwide)                         | 2-year limited warranty   |
| Connected Equipment Insurance (U.S., Canada & Puerto Rico)  | \$250,000 &nbsp;<a class="insuranceLink" href="//www.tripplite.com/support/insurance-policy">Ultimate Lifetime Insurance</a> &nbsp;           |

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