

SmartOnline 208/240V 16kVA 14.4kW Double-Conversion UPS, N+1, 12U, Network Card Options, USB, DB9, Bypass, L6-30R, C19

MODEL NUMBER: SU16KRT



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.

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
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD (NOTE: Applications utilizing any supported network management card option, require the installation of two of the same model network card – install one card per included UPS power module)
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Battery independent restart ensures automatic UPS power-up after lengthy power outages, even with expired batteries
- Intelligent battery management system with temperature-compensated charging extends battery life

Highlights

- 16kVA / 16,000VA / 14,400W on-line double-conversion UPS; 0.9 power factor
- 200/208/220/230/240V 50/60Hz output
- Hot-swap power and battery modules, N+1 fault tolerance at loads up to 8kVA
- USB, RS232 & EPO ports; slot for network management 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

Package Includes

- Two SU8000RT3UPM UPS power modules
- Two BP240V10RT3U battery packs
- SUPDMB20K parallel PDU with Bypass switch
- 4 post rackmount installation rails
- USB, DB9 & EPO cables

- HID-compliant USB interface
- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from triplite.eaton.com/products/power-alert
- 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

| OVERVIEW | |
|------------------------------------|--|
| UPC Code | 037332158222 |
| UPS Type | On-Line |
| INPUT | |
| Input Phase | Single-Phase |
| 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) |
| OUTPUT | |
| Output Capacity (VA) | 16000 |
| Output Capacity (kVA) | 16 |
| Output Capacity (Watts) | 14400 |
| Output 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 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 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 |
| Nominal Output Voltage(s) Supported | 200V; 208V; 240V |
| Output Receptacles | (2) L6-30R; (8) C19 |
| Individually Controllable Load Banks | No |
| BATTERY | |
| Battery Type | Valve Regulated Lead Acid (VRLA) |
| Runtime Full Load (min.) | 5.5 min. (14.4kW) |
| Runtime Half Load (min.) | 13.5 min. (7200W) |
| Expandable Runtime | Yes |
| 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 |
| External Battery Pack Compatibility | BP240V10RT3U BP240V787C-1PH |
| 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 |
| VOLTAGE REGULATION | |
| 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 |
| USER INTERFACE, ALERTS & CONTROLS | |
| 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 |
| SURGE / NOISE SUPPRESSION | |
| UPS AC Suppression Joule Rating | 2565 |
| UPS AC Suppression Response Time | Instantaneous |
| EMI / RFI AC Noise Suppression | Yes |
| PHYSICAL | |
| Primary Form Factor | Rackmount |
| Rack Height | 12U |
| Cooling Method | Fans |
| Included Battery Pack Dimensions (hwd / in.) | 5.25 x 17.5 x 25 |
| Included Battery Pack Weight (lbs.) | 158.7 |
| Included Battery Pack Weight (kg) | 71.99 |
| Included Mounting Accessory Description | 4 sets of adjustable 4 post rack rails included (one for each included 3U module) |
| Installation Form Factors Supported with Included Accessories | 4 post 19 inch rackmount |
| Installation Form Factors Supported with Optional Accessories | 2 post rackmount (2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD); Tower (2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9UUSTAND); |
| Maximum Device Depth (cm) | 82.55 |
| Maximum Device Depth (in.) | 32.5 |
| Maximum Device Depth (mm) | 826 |
| Minimum Required Rack Depth (cm) | 96.52 |
| Minimum Required Rack Depth (inches) | 38 |
| Optional Mounting Accessory Notes | Qty 4 2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD ; Qty 2 2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9UUSTAND ; required |
| Primary UPS Depth (mm) | 656 |
| Primary UPS Height (mm) | 131 |
| Primary UPS Width (mm) | 445 |
| 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 |

| | |
|--|--|
| Unit Dimension Details | Includes 2 SU8000RT3UPM UPS/Power modules, 2 BP240V10RT3U Battery packs and SUPDMB20K 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 |
| UPS Housing Material | Steel |
| UPS Power Module Dimensions (hwd, cm) | 13.06 x 44.45 x 65.58 |
| UPS Power Module Dimensions (hwd, in.) | 5.14 x 17.5 x 25.82 |
| UPS Power Module Weight (kg) | 19.50 |
| UPS Power Module Weight (lbs.) | 43 |
| 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) | 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 |
| COMMUNICATIONS | |
| Network Management Cards | SNMPWEBCARD; TLNETCARD ; WEBCARDLX ; MODBUSCARD ; RELAYIOCARD |
| Network Monitoring Port Description | Applications utilizing any supported network management card option, require the installation of two of the same model network card – 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 software at https://tripplite.eaton.com/products/power-alert |
| Communications Cable | USB, DB9 serial and EPO cables included |
| WatchDog Compatibility | Supports Watchdog application, OS and hard-reboot restart options for remote applications |
| Network Management Card Description | Network management card optional |
| Communications Interface | DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled) |
| LINE / BATTERY TRANSFER | |
| 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 |
| FEATURES & SPECIFICATIONS | |
| Cold Start (Startup in Battery Mode During a Power Failure) | Cold-start operation supported |
| High Availability UPS Features | Auto Probe Monitoring (requires WEBCARDLX); Automatic inverter bypass; Expandable battery backup; Hot swappable UPS power module; Hot swappable batteries; Manual bypass switch; N+1 Redundant up to 50% capacity; On-Line/Double-Conversion; Remote management; Sine wave output; Surge/noise protection; Zero transfer time |
| Green Energy-Saving Features | Support for daily startup and shutoff |
| APPLICATIONS | |
| UPS Applications | Mission Critical Applications |
| STANDARDS & COMPLIANCE | |
| Product Certifications | IEC 61000; CSA (Canada); UL 1778 |
| Product Compliance | RoHS; FCC Part 15 Class A (USA) |
| WARRANTY & SUPPORT | |
| Product Warranty Period (Worldwide) | 2-year limited warranty |
| Connected Equipment Insurance (U.S., Canada & Puerto Rico) | \$250,000 Ultimate Lifetime Insurance |