

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

# SmartOnline 230V 1kVA 800W Double-Conversion UPS, 2U Rack/Tower, Extended Run, Network Card Options, USB, DB9 Serial

## MODEL NUMBER: SUINT1000RTXL2UA





### Description

1000VA online, double-conversion UPS system for critical server, network and telecommunications equipment. 2U rackmount form factor with an installed depth of only 13.5 in (34.3 cm). Expandable battery runtime with optional external battery packs: BP24V15RT2U, BP24V28-2U (maximum of 1 per UPS) or BP24V70-3U (multiple battery packs can be daisy-chained). Full-time sine wave 200, 208, 220, 230 or 240V +/-2% output. Uninterruptible Power Supply (UPS) continuously converts raw incoming AC power to DC, then re-converts output back to completely regulated, filtered AC output. Corrects brownouts as low as 130V and overvoltages as high as 275V without draining battery power. IEC-320-C14 inlet input connection; IEC-320-C13 output receptacles. Network-grade AC surge and noise suppression. Zero transfer time between AC and battery operation. Highly efficient operation in optional Economy Mode setting, saving BTU heat output and energy costs. Network management interfaces support simultaneous communications via USB port, DB9 serial port and slot for network management card options. HIDcompliant 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 communications interfaces. PowerAlert monitoring software is available via free download. Emergency Power Off (EPO) interface. 3-stage metered current monitoring and battery charge status LEDs. LED display panel easily rotates for more convenient viewing in rackmount or tower configurations. Data-line surge suppression for dialup, DSL or Ethernet network connection. Utility power and voltage regulation LEDs. Audible alarm. Self-test. Fault-tolerant auto bypass mode. 4-post rackmount accessories included; optional 2-9USTAND tower stand kit and 2POSTRMKITWM 2-post rack & wall-mount accessories available. Field-replaceable, hot-swappable internal batteries and external battery packs. Attractive all-black color scheme.

### Highlights

- 1000VA / 1kVA / 800 watt online double-conversion 2U rack/tower UPS
- 200/208/220/230/240V 50/60Hz output; High efficiency economy mode option
- Expandable runtime; Hot-swap batteries; 13.5 in / 34.3cm installed depth
- USB, RS232 & EPO ports; Network management card options
- Front panel status LEDs with detailed load and battery metering
- C14 inlet, C13 outlets, 2 C13 to C14 power cables included

#### **Package Includes**

- SUINT1000RTXL2Ua
  Rack/Tower UPS System
- USB & DB9 Cabling
- 4-Post Rackmount Installation Hardware
- Warranty Information and Owner's Manual
- 2 IEC C13 to C14 interconnection cables

#### Features

• True online, double-conversion power conditioning offers network-grade pure sine wave AC power for



critical fileservers, internetworking equipment and other sensitive electronics

- Maintains output within 2% of selectable 200/208/220/230/240V at 50/60Hz (+/-0.05Hz)
- Neutralizes hard-to-solve problems like frequency variations, fast electrical impulses, harmonics and other power problems not addressed by other UPS types
- Zero transfer time, on-line, double-conversion and economy-mode operation supported
- Versatile rack/tower format requires only 2 rack spaces (2U) in rackmount applications
- Maintains AC output at near perfect levels even during extended-duration brownouts as low as 130V and overvoltages to 275V without using battery power. (For loads under 70%, brownout support extends to 130V; for loads over 70%, brownout support extends to 160V)
- During power failures, internal batteries support connected equipment for 12 minutes at half load (500VA / 400W) and 4 minutes at full load (1000VA / 800W)
- Battery backup runtime is expandable with the addition of external 2U or 3U rack/tower battery packs (Part Number BP24V15RT2U (limit 1), BP24V28-2U (limit 1), BP24V70-3U (multi-pack compatible) and BP24V36-2US (multi-pack compatible)
- Intelligent battery management system extends battery life
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Built-in USB port, DB9 serial port and slot for network management card options are simultaneously addressable and support comprehensive network management features; USB and DB9 serial cables included
- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from <u>www.tripplite.com/poweralert</u>
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD and MODBUSCARD
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Includes 6 UPS supported IEC-320-C13 output receptacles and two C13 to C14 interconnection cables (additional interconnection cables available - Part Number P004-006)
- IEC320-C14 input connection accepts a variety of detachable cordsets to match country or site-specific wall receptacles
- · Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- Compatible with Tripp Lite's WatchDog software
- Front panel LEDs and audible alarm offer notification of power conditions and full UPS status information
- Optional tower stands allow vertical tower configuration (Part Number 2-9USTAND)
- Optional 2POSTRMKITWM enables 2 post rack / wallmount installation
- Built-in Emergency Power Off (EPO) interface with cable
- Optional PDUBHV10 bypass PDU enables hot-swappable UPS replacement with no disruption to connected equipment



# **Specifications**

| OVERVIEW   |  |  |
|--|--|--|
| UPC Code   | 037332126504   |  |
| UPS Type   | On-Line  |  |
| OUTPUT   |  |  |
| Output Volt Amp Capacity (VA)                    | 1000   |  |
| Output kVA Capacity (kVA)                        | 1  |  |
| Output Watt Capacity (Watts)                     | 800  |  |
| Power Factor                                     | 0.8  |  |
| Crest Factor                                     | 3:1  |  |
| Nominal Voltage Details                          | 230V default   |  |
| Frequency Compatibility                          | 50 / 60 Hz   |  |
| Frequency Compatibility Details                  | Output frequency matches input nominal on startup, defaults to 50 Hz on cold-start   |  |
| Output Voltage Regulation (Line Mode)            | +/- 2%   |  |
| Output Voltage Regulation<br>(Economy Line Mode) | +/- 10%  |  |
| Output Voltage Regulation (Battery Mode)         | +/- 2%   |  |
| Included Output Power Cables                     | Includes 2 C13 to C14 power cables   |  |
| Hot-Swap PDU options                             | PDUBHV10 (2U / 8 C13 outlets)  |  |
| Output AC Waveform (AC Mode)                     | Sine wave  |  |
| Output AC Waveform (Battery Mode)                | Pure Sine wave   |  |
| Output Capacity Details                          | OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits) |  |
| Nominal Output Voltage(s)<br>Supported           | 200V; 220V; 230V; 240V   |  |
| Output Receptacles                               | (6) C13  |  |
| Individually Controllable Load Banks             | No   |  |
| INPUT  |  |  |
| Rated input current (Maximum Load)               | 5.1A (200V), 4.9A (208V), 4.6A (220V), 4.4A (230V), 4.2A (240V)  |  |
| Nominal Input Voltage(s) Supported               | 200V AC; 220V AC; 230V AC; 240V AC   |  |
| UPS Input Connection Type                        | C14 inlet  |  |



| UPS Input Connection Description              | IEC320-C14 input connection accepts a variety of detachable cordsets to match country or site-specific wall receptacles   |  |
|---|---|--|
| Input Circuit Breakers                        | 8A  |  |
| Input Phase                                   | Single-Phase  |  |
| BATTERY                                       |   |  |
| Full Load Runtime (min.)                      | 4 min. (800w)   |  |
| Half Load Runtime (min.)                      | 12 min. (400w)  |  |
| Expandable Battery Runtime                    | Extended runtime supported via optional external battery packs  |  |
| External Battery Pack Compatibility           | <a class="productLink" href="//www.tripplite.com/External-24V-2U-Rack-Tower-Battery-Pack-for-select-Tripp-&lt;br&gt;Lite-UPS-Systems-BP24V15RT2U~BP24V15RT2U">BP24V15RT2U</a> (limit 1); <a<br>class="productLink" href="//www.tripplite.com/External-24V-2U-Rack-Tower-Battery-Pack-select-Tripp-Lite-UPS-<br/>Systems-BP24V28-2U=BP24V28-2U"&gt;BP24V28-2U=/a&gt;  (limit 1);  <a <br="" class="productLink">href="//www.tripplite.com/External-24V-2U-Rack-Tower-Battery-Pack-select-Tripp-Lite-UPS-<br/>Systems-BP24V28-2U=BP24V28-2U"&gt;BP24V28-2U=/a&gt;  (limit 1);  <a <br="" class="productLink">href="//www.tripplite.com/External-24V-3U-Rack-Tower-Battery-Pack-select-Tripp-Lite-UPS-Systems-BP24V70-<br/>3U~BP24V70-3U"&gt;BP24V70-3U</a>  (multi-pack compatible);  <a <br="" class="productLink">href="//www.tripplite.com/external-24v-2u-rack-mount-battery-pack-for-tripp-lite-ups-systems-SMART750-SU750-<br/>SU1000-SUINT1000-and-more~BP24V36-2US"&gt;BP24V36-2US</a>  (multi-pack compatible);  <a <="" class="productLink" td=""></a></a></a<br> |  |
| DC System Voltage (VDC)                       | 24  |  |
| Battery Recharge Rate (Included Batteries)    | Less than 6 hours from 10% to 80% (typical, full load discharge)  |  |
| Internal UPS Replacement Battery<br>Cartridge | <a class="productLink" href="//www.tripplite.com/2U-UPS-Replacement-24VDC-Battery-Cartridge-1-set-2-select-Tripp-Lite-SmartPro-UPS~RBC92-2U">RBC92-2U</a>   |  |
| Battery Access                                | Front panel battery access door   |  |
| Battery Replacement Description               | Hot-swappable, user replaceable batteries   |  |
| Expandable Runtime                            | Yes   |  |
| VOLTAGE REGULATION                            |   |  |
| Voltage Regulation Description                | Online, double-conversion power conditioning  |  |
| Overvoltage Correction                        | 2% output voltage regulation during overvoltages to 275   |  |
| Undervoltage Correction                       | 2% output voltage regulation during undervoltages to 156  |  |
| Severe Undervoltage Correction                | 2% output voltage regulation during undervoltages to 130 (under 70% load only)  |  |
| USER INTERFACE, ALERTS & CON                  | ITROLS  |  |
| Switches                                      | 2 Switches control off/on power status and alarm-cancel/self-test operation   |  |
| Alarm Cancel Operation                        | Power-fail alarm can be silenced using alarm-cancel switch  |  |
| Audible Alarm                                 | Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions   |  |
| LED Indicators                                | 14 LEDs indicate line power, online mode, economy/bypass mode, on-battery, overload, battery low, replace battery and fault status information; 4-LED meter displays load and battery charge levels; LED panel rotates for viewing in rack/tower formats  |  |
| SURGE / NOISE SUPPRESSION                     |   |  |
| UPS AC Suppression Joule Rating               | 1225  |  |



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| UPS AC Suppression Response<br>Time                                | Instantaneous  |  |
|--|--|--|
| UPS Dataline Suppression   | 1 line TEL/DSL (1 in / 1 out); 10/100Base T Ethernet   |  |
| EMI / RFI AC Noise Suppression                                     | Yes  |  |
| PHYSICAL   |  |  |
| Cooling Method   | Fan  |  |
| Included Mounting Accessory<br>Description                         | 4 post rackmount installation accessories included   |  |
| Installation Form Factors Supported with Optional Accessories      | 2 post rackmount ( <a class="productLink" href="//www.tripplite.com/2-Post-Rack-Mount-Wall-Mount-Adapter-&lt;br&gt;Kit-select-Rack-Mount-UPS-Systems-2POSTRMKITWM">2POSTRMKITWM</a> ); Wallmount ( <a<br>class="productLink" href="//www.tripplite.com/2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-<br/>Systems~2POSTRMKITWM"&gt;2POSTRMKITWM ); Tower ( <a <br="" class="productLink">href="//www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND"&gt;2-9USTAND"&gt;2-9USTAND"&gt;2-9USTAND"&gt;2-9USTAND"&gt;2-9USTAND"&gt;2-9USTAND</a></a<br> |  |
| Minimum Required Rack Depth with<br>External Battery Pack (cm)     | 42   |  |
| Minimum Required Rack Depth with External Battery Pack (in.)       | 16.5   |  |
| Minimum Required Rack Depth<br>without External Battery Pack (cm)  | 40   |  |
| Minimum Required Rack Depth<br>without External Battery Pack (in.) | 15.75  |  |
| Primary Form Factor  | Rackmount  |  |
| Primary UPS Depth (mm)   | 343  |  |
| Primary UPS Height (mm)  | 89   |  |
| Primary UPS Width (mm)   | 445  |  |
| Rack Height  | 2U   |  |
| Shipping Dimensions (hwd / cm)                                     | 22.10 x 50.29 x 59.69  |  |
| Shipping Dimensions (hwd / in.)                                    | 8.70 x 19.80 x 23.50   |  |
| Shipping Weight (kg)   | 18.96  |  |
| Shipping Weight (lbs.)   | 41.80  |  |
| UPS Housing Material   | Steel  |  |
| UPS Power Module Dimensions (hwd, cm)                              | 8.89 x 44.45 x 34.29   |  |
| UPS Power Module Dimensions (hwd, in.)                             | 3.5 x 17.5 x 13.5  |  |
| UPS Power Module Weight (kg)                                       | 12.70  |  |
| UPS Power Module Weight (lbs.)                                     | 28   |  |
| 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)                                  | 408   |  |
| Battery Mode BTU / Hr. (Full Load)                             | 444   |  |
| AC Mode Efficiency Rating (100% Load)                          | 87%   |  |
| AC Economy Mode Efficiency Rating (100% Load)                  | 94%   |  |
| COMMUNICATIONS   |   |  |
| Network Management Cards                                       | <a class="productLink" href="//www.tripplite.com/SNMP-Web-Management-Accessory-Card-SmartPro-&lt;br&gt;SmartOnline-UPS-Systems~SNMPWEBCARD">SNMPWEBCARD</a> ; <a <br="" class="productLink">href="//www.tripplite.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-<br/>Systems~TLNETCARD"&gt;TLNETCARD</a> ; <a class="productLink" href="//www.tripplite.com/Web-&lt;br&gt;Management-Accessory-Card-WEBCARDLX">WEBCARDLX</a> ; <a class="productLink" href="//www.tripplite.com/Web-&lt;br&gt;Management-Accessory-Card-UPS-Remote-Monitoring-&lt;br&gt;Control~MODBUSCARD">MODBUSCARD</a> |  |
| Network Monitoring Port Description                            | Supports detailed monitoring of UPS and site power conditions; DB9 port supports RS232 and contact closure<br>communications; Economy-mode setting option is available using PowerAlert software and DB9 Serial cable<br>connection OR via select Network Management Card options   |  |
| PowerAlert Software  | For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at<br>http://www.tripplite.com/poweralert   |  |
| Communications Cable   | USB and DB9 cabling included  |  |
| WatchDog Compatibility   | Supports Watchdog application, OS and hard-reboot restart options for remote applications   |  |
| Communications Interface                                       | USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface  |  |
| LINE / BATTERY TRANSFER  |   |  |
| Transfer Time  | No transfer time (0 ms.) in online, double-conversion mode  |  |
| Low Voltage Transfer to Battery<br>Power (Setpoint)            | 160V (100% load), 130V ( <70% load)   |  |
| High Voltage Transfer to Battery<br>Power (Setpoint)           | 275   |  |
| SPECIAL FEATURES   |   |  |
| Cold Start (Startup in Battery Mode<br>During a Power Failure) | Cold-start operation supported  |  |
| High Availability UPS Features                                 | Automatic inverter bypass; Hot swappable batteries  |  |
| Green Energy-Saving Features                                   | High efficiency economy mode operation; Schedulable daily hours of economy mode operation   |  |
| CERTIFICATIONS   |   |  |
| UPS Certifications   | CE; Tested to SASO (Saudi Arabia)   |  |
| UPS Certification Details                                      | Kuwait  |  |
| WARRANTY   |   |  |
| Product Warranty Period<br>(Worldwide)                         | 2-year limited warranty   |  |



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