

Tripp Lite
1111 West 35th Street
Chicago, IL 60609 USA
Telephone: +(773) 869 1234
E-mail: saleshelp@tripplite.com

## Model #: SU1000RTXLCD2U

SmartOnline 1kVA On-Line Double-Conversion UPS, 2U Rack/Tower, Interactive LCD display, 100/110/120/127V NEMA outlets



## **Highlights**

- 1000VA / 1kVA / 900W on-line double-conversion 2U rack / tower UPS
- 100/110/120/127V 50/60Hz output; High efficiency economy mode option
- Interactive LCD with 9 selectable screens of UPS and site power data
- Expandable runtime, Hot-swap batteries, 12.5 in / 31.8cm depth
- USB, RS232 & EPO ports, support for SNMP/WEB card option
- 2 independently switched load banks
- NEMA 5-15P input; 6 NEMA 5-15R outlets
- This product is ENERGY STAR qualified for its ability to save customers money while helping to protect the environment

#### **Description**

Tripp Lite Smart Online UPS systems offer high performance power protection ideal for critical server and network equipment in datacenters, computer rooms and network closets. Online, double-conversion Uninterruptible Power Supply (UPS) maintains perfectly regulated output power by continuously converting raw AC input to DC, then re-converting output back to AC. Fully regulated sine wave AC output with +/-2% voltage regulation powers network equipment continuously, even during severe brownouts and overvoltages, all without depleting UPS battery reserves. Maintains battery-derived AC output during power failures with zero transfer time. Extended runtime options available. Interactive LCD interface reports UPS operating mode, detailed UPS and site-power data, plus enables a variety of UPS setup and configuration options. Highly efficient operation in optional economy mode saves BTU heat output and energy costs. Network management interfaces support communications via USB, RS-232, contact-closure and optional SNMPWEBCARD network interface. Built-in DB9 port offers both enhanced RS-232 data and basic contact closure monitoring ability. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Includes PowerAlert monitoring software and complete cabling. Emergency Power Off (EPO) interface. LED display reports UPS operating mode, line power availability, battery mode operation, inverter operation, ECO mode status and output power availability. LED/LCD display panel easily rotates for viewing in rackmount or tower configurations. Audible alarm with push-button momentary alarm-cancel and silent-mode LCD configuration options. Programmable self-test. Fault-tolerant auto-bypass mode. Battery independent restart. Field-replaceable, hot-swappable internal batteries and external battery packs.

#### Package Includes

- SU1000RTXLCD2U UPS System
- PowerAlert Software with USB, Serial & EPO cabling
- 4 post rackmount installation kit
- Instruction manual

#### **Features**

- Tripp Lite SU1000RTXLCD2U 1000VA / 1kVA / 900W on-line, double-conversion 2U rack / tower UPS
- Selectable 100/110/120/127V output (120V factory preset)
- NEMA 5-15P input, 6 NEMA 5-15R outlets
- Two switched outlets support remote reboot or programmable load shedding options
- Supports 2% output voltage regulation and zero transfer time in double conversion mode
- Economy mode option offers enhanced efficiency, reduced power consumption and lower BTU emissions
- 14 minutes runtime at 50% load (450W) and 4.8 minutes at 100% load (900W) with internal batteries
- BP24V15RT2U (limit 1), BP24V28-2U (limit 1) or BP24V70-3U (no limit) external battery packs available (some configurations require Tripp Lite's External Battery Configuration Software)
- LCD interface reports operating mode plus 9 selectable screens of UPS data (Load % & kW, Load % & kVA, Power factor, Input volts & Hz, Output volts & Hz, Battery volts and charge %, Minutes runtime, Capacity remaining, Kw/hr. consumption)
- LCD interface also supports 16 screens of UPS configuration and setup options

- 4 post installation hardware included, Optional 2POSTRMKITWM enables 2 post rack / wallmount installation, Optional 2-9USTAND enables tower placement
- Single line TEL / Network surge suppression
- Electronic bypass maintains utility output during a variety of UPS fault conditions
- Battery independent restart ensures automatic UPS power-up without user interaction after lengthy power outages, even when batteries are expired and require replacement
- Frequency regulation / conversion mode offers generator-compatible frequency correction or conversion of frequency from 50 to 60Hz or 60 to 50Hz
- Built-in USB, RS-232, contact-closure and optional SNMPWEBCARD accessory monitoring options
- 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

### **Specifications**

OUTPUT	
Output Volt Amp Capacity (VA)	1000
Output kVA capacity (kVA)	1
Output Watt Capacity (watts)	900
Output power factor	0.9
Output Capacity Details	ON LINE MODE: Maximum output capacity ratings are reduced for some nominal voltage settings (127/120/115/110V 900 watts, 100V 810 watts). FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120/115/110V 630 watts / 100V 567 watts).
Crest Factor	3:1
Nominal Output Voltage(s) Supported	100V; 110V; 115V; 120V; 127V
Nominal Voltage details	120V factory-default nominal voltage
Frequency compatibility	50/60 Hz (auto-selectable); Supports 50 to 60 Hz and 60 to 50 Hz conversion
Frequency compatibility details	ON LINE MODE: Output frequency is automatically configured to match nominal input frequency on startup; Output matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. BATTERY MODE: Output is regulated to +/-0.05Hz.
Output voltage regulation (line mode)	+/- 2%
Output voltage regulation (Economy line mode)	+/- 10%
Output voltage regulation (Battery mode)	+/- 3%
Built-in UPS output receptacles	6 5-15R outlet(s)

Built-in controllable switched load banks	Two switchable single-outlet 5-15R load banks	
Output AC waveform (AC mode)	Pure Sine wave	
Output AC waveform (battery mode)	Pure Sine wave	
INPUT		
Rated input current (at maximum load)	8.6A	
Nominal Input Voltage(s) Supported	100V AC; 110V AC; 115V AC; 120V AC; 127V AC	
Nominal input voltage description	120V factory default	
UPS input connection type	5-15P	
Input circuit breaker	15A	
UPS Input cord length (ft.)	10	
UPS Input cord length (m)	3	
Recommended Electrical Service	15A 120V	
BATTERY		
Full load runtime (minutes)	4.8 min. (900w)	
Half load runtime (minutes)	14 min. (450w)	
Expandable battery runtime	Extended runtime supported via optional external battery packs	
External battery pack compatibility	BP24V15RT2U (limit 1); BP24V28-2U (limit 1); BP24V70-3U (multi-pack compatible)	
Expandable runtime description	Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software, see manual for details	
DC system voltage (VDC)	24	
Battery recharge rate (included batteries)	Less than 3 hours recharge to 90%	
Replacement battery cartridge (internal UPS battery replacement)	RBC24V-LCD	
Battery Access	Front panel battery access	

Battery replacement description	Hot-swappable, user replaceable batteries				
VOLTAGE REGULATION					
Voltage regulation description	Online, double-conversion power conditioning maintains 2% output voltage regulation during brownouts and overvoltages				
Overvoltage correction	Corrects overvoltages to 150V (0-100% load)				
Undervoltage correction	Corrects undervoltages to 100V at full load (90V at 100V nominal)				
Severe undervoltage correction	Corrects brownouts to 70V (70% load) & 55V (33% load)				
LEDS ALARMS & SV	VITCHES				
LED Indicators	7 front panel LEDs indicate line power availability, AC to DC conversion, battery mode operation, inverter mode, eco mode operation, bypass mode operation and AC output status				
Front panel LCD display	Front panel LCD information and configuration screen offers detailed UPS and site power status and operating data, plus configuration of voltage, frequency, operating mode, alarm function and a variety of additional options				
Alarms	Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions				
Alarm cancel operation	Power-fail alarm can be temporarily silenced using alarm-cancel switch; silent mode alarm configuration option available				
Switches	2 switches control off/on power status and alarm-cancel operation; 2 additional scroll-down and scroll-up / select options enable LCD status viewing and configuration options				
SURGE / NOISE SUP	PRESSION				
UPS AC suppression joule rating	570				
UPS AC suppression response time	Instantaneous				
UPS Dataline suppression	1 line TEL/DSL (1 in / 1 out); 10/100Base T Ethernet				
EMI / RFI AC noise suppression	Yes				
PHYSICAL					
Installation form factors supported with optional accessories	2 post rackmount (2POSTRMKITWM); Wallmount (2POSTRMKITWM); Tower (2-9USTAND)				
Primary form factor	Rackmount				
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	3.5 x 17.5 x 12.5				
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	8.9 x 44.4 x 31.8				

Rack Height	2U
Secondary form factor	Tower (requires 2-9USTAND)
UPS / Power Module weight (lbs)	29
UPS / Power Module weight (kg)	13.2
UPS Shipping dimensions (height x width x depth / inches)	9.5 x 20 x 24
UPS Shipping dimensions (height x width x depth / cm)	24.1 x 50.8 x 61
Shipping weight (lbs)	41.5
Shipping weight (kg)	18.8
Cooling method	Fan
UPS housing material	Steel
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)	341
AC economy mode BTU / hr. (full load)	230
Battery mode BTU / hr. (full load)	585
AC economy mode efficiency rating (100% load)	93%
Operating Elevation (ft.)	0-3000m / 0-10,000 ft.
Audible Noise	45 dBA at 1m front side
COMMUNICATIONS	
Communications interface	USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface
Network monitoring port description	Supports detailed monitoring of UPS and site power conditions; DB9 port supports RS232 and contact closure communications
PowerAlert software	Included

Communications cable	USB and DB9 cabling included			
WatchDog compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications			
LINE / BATTERY TRA	ANSFER			
Transfer time	Zero (0 milliseconds) in double-conversion mode; 4 milliseconds economy mode			
Low voltage transfer to battery power (setpoint)	100V at full load (90V full load at 100V nominal setting); 70V at 70% load; 55V at 33% load			
High voltage transfer to battery power (setpoint)	150			
SPECIAL FEATURES				
Cold Start (startup in battery mode during a power failure)	Cold-start operation supported			
High availability UPS features	Automatic inverter bypass; Hot swappable batteries			
Green & high efficiency features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation			
CERTIFICATIONS				
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category B (EMI); ROHS (Restriction of Hazardous Substances); ENERGY STAR Qualified			
WARRANTY				
Product Warranty Period (Worldwide)	2-year limited warranty			
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance			

# **Related Items**

### **Optional Products**

Description	Qty.
3-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 1500VA or less	1
5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 1500VA or less	1
BP24V15RT2U - External Battery Pack for UPS System	1
BP24V28-2U - External Battery Pack for UPS System	1
BP24V70-3U - External Battery Pack for UPS System	1
2U UPS Replacement Battery Cartridge for select Tripp Lite UPS	1
Single-Phase Hot-Swap PDU, 15A 120V, 2U Horizontal Rackmount, NEMA 5-15R outlets, set of 2 NEMA 5-15P input plugs	1
Single-Phase Auto Transfer Switch / Metered PDU, 15A 120V, 1U Horizontal Rackmount, NEMA 5-15R outlets, 2 NEMA 5-15P inputs	1
	models, 1500VA or less  5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 1500VA or less  BP24V15RT2U - External Battery Pack for UPS System  BP24V28-2U - External Battery Pack for UPS System  BP24V70-3U - External Battery Pack for UPS System  2U UPS Replacement Battery Cartridge for select Tripp Lite UPS  Single-Phase Hot-Swap PDU, 15A 120V, 2U Horizontal Rackmount, NEMA 5-15R outlets, set of 2 NEMA 5-15P input plugs  Single-Phase Auto Transfer Switch / Metered PDU, 15A 120V, 1U Horizontal

PDUMNV15	Single-Phase Monitored PDU, 15A 120V, 0U Vertical Rackmount, NEMA 5-15R outlets, NEMA 5-15P input plug	1
PDUMV15	Single-Phase Metered PDU, 15A 120V, 0U Vertical Rackmount, NEMA 5-15R outlets, NEMA 5-15P input plug	1
PDUMV15NET	Single-Phase Switched PDU, 15A 120V, 0U Vertical Rackmount, NEMA 5-15R outlets, NEMA 5-15P input plug	1
2POSTRMKITWM	Enables 2-Post Rackmount or Wallmount Installation of Select Rackmount UPS Systems	1
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires UPS with SNMPWEBCARD, monitored PDU or switched PDU.)	1
SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
AS400CABLEKIT2	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	1
SRSWITCH	Magnetic Door Switch Kit for front and rear doors; requires ENVIROSENSE	1
2-9USTAND	Enables Tower Placement of Rackmount UPS Systems	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=4980.

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