

## SmartOnline 120V 1kVA 800W Double-Conversion UPS, 2U Rack/Tower, Extended Run, Pre-installed Network Management Card, USB, DB9 Serial

MODEL NUMBER: **SU1000RTXL2UN**



### Description

1000VA on-line, double-conversion UPS system for critical server, network and telecommunications equipment. 2U rackmount form factor with an installed depth of only 13.5 inches. Extended runtime available with optional [BP24V15RT2U](#) (limit 1), [BP24V28-2U](#) (limit 1), [BP24V70-3U](#) (multi-pack compatible) or [BP24V36-2US](#) (multi-pack compatible) external battery packs. Full-time sine wave 100, 110 or 120V output with +/-2% voltage regulation. Online, double-conversion Uninterruptible Power Supply (UPS) actively converts raw incoming AC power to DC, then re-converts output back to completely regulated, filtered AC output. Operates continuously without using battery power during brownouts to 65V and overvoltages to 150V. Highly efficient operation in optional economy mode saves BTU heat output and energy costs. NEMA 5-15P input plug; NEMA 5-15R output receptacles. Network-grade AC surge and noise suppression. Zero transfer time between AC and battery operation. Network management interfaces support simultaneous communications via USB port, [DB9](#) serial port and pre-installed Network Management Card. Built-in [DB9](#) port offers both enhanced RS-232 enabled monitoring data, plus 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. Supports simultaneous detailed monitoring of equipment load levels, self-test data and utility power conditions via all 3 network interfaces. PowerAlert UPS monitoring software is available via free download. Emergency Power Off (EPO) interface. Integrated two-bank PDU switching supports load shedding and remote reboot of connected equipment. 3-stage metered current monitoring and battery charge status LEDs. LED display panel easily rotates for viewing in rackmount or tower configurations. Dataline surge suppression for dialup, DSL or network Ethernet connection. Utility power and voltage regulation LEDs. Audible alarm. Self-test. Fault-tolerant auto-bypass mode. 4-post rackmount accessories included; [2-9USTAND](#) tower kit and [2-POSTRMKITWM](#) 2-post rack & wallmount accessories available. Field-replaceable, hot-swappable

### Highlights

- 1000VA / 1kVA / 800 watt on-line double-conversion 2U rack/tower UPS
- 100/110/120V +/-2% output at 50/60Hz, high efficiency economy mode option
- Expandable runtime, Hot-swap batteries; 13.5 in / 34.3cm installed depth
- USB, RS232 & EPO ports; Pre-installed Network Management Card
- Front panel status LEDs with detailed load and battery metering
- 2 independently switchable output load banks
- NEMA 5-15P input; 5-15R outlets

### Package Includes

- [SU1000RTXL2Ua](#) with PRE-INSTALLED [SNMPWEBCARD](#)
- USB, [DB9](#) and EPO cabling
- Mounting hardware for 4 post rack enclosures
- Instruction manual



internal batteries and external battery packs. \$250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only).

## Features

- SmartOnline high performance UPS system is ideal for critical voice, data, medical and industrial network applications
- True on-line, double-conversion UPS provides perfectly regulated sine wave output within 2% of 100/110/120V (user selectable) under all usage conditions
- Maintains continuous operation through blackouts, voltage fluctuations and surges with zero transfer time
- Highly efficient operation in optional economy mode setting, saving BTU heat output and energy costs
- Removes harmonic distortion, fast electrical impulses, frequency variations and other hard to solve power problems not addressed by other UPS types
- Corrects line voltage conditions as low as 65V and as high as 150V back to selectable 100/110/120V (+/-2%) values
- Standard internal battery set offers 14 minutes runtime at half load (400W) and 4.5 minutes at full load (800W)
- Extended runtime available with optional BP24V15RT2U (limit 1), BP24V28-2U (limit 1), BP24V70-3U (multi-pack compatible) and BP24V36-2US (multi-pack compatible) external battery packs
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Intelligent battery management system extends battery life
- Compact rackmount form factor installs using only 2 rack spaces (2U) with a maximum installed depth of only 13.5 inches
- Ships with all mounting accessories for 4 post rackmount installation
- Optional 2POSTRMKITWM enables 2 post rackmount or wallmount installation
- Optional 2-9USTAND accessory enables small-footprint upright tower placement
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- Network interfaces support simultaneous communications via built-in USB, DB9 serial / contact-closure and pre-installed Network Management Card
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from [www.tripplite.com/poweralert](http://www.tripplite.com/poweralert)
- Built-in Emergency Power Off (EPO) interface with cable
- NEMA 5-15P input plug/NEMA 5-15R output receptacles
- Integrated 2 bank switched PDU enables remote outlet management for load shedding or remote reboot of individual devices (each load bank consists of one outlet)



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- Front panel LEDs offer current monitoring and battery charge level information
- Single line TEL/DSL or network Ethernet line surge suppression
- \$250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only)

## Specifications

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 Output Voltage(s) Supported	100V; 110V; 120V
Nominal Voltage Details	120V default
Frequency Compatibility	50 / 60 Hz
Frequency Compatibility Details	Output frequency matches input nominal on startup, defaults to 60 Hz on cold-start
Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 2%
Output Receptacles	(6) 5-15R
Load Management Receptacles	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 (Maximum Load)	8.6A
Nominal Input Voltage(s) Supported	100V AC; 110V AC; 120V AC
UPS Input Connection Type	5-15P
Input Circuit Breakers	15A
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.0
Recommended Electrical Service	15A 120V



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Input Phase	Single-Phase
<b>BATTERY</b>	
Full Load Runtime (min.)	4.5 min. (800w)
Half Load Runtime (min.)	14 min. (400w)
Expandable Battery Runtime	Extended runtime supported via optional external battery packs
External Battery Pack Compatibility	<u>BP24V15RT2U</u> (limit 1); <u>BP24V28-2U</u> (limit 1); <u>BP24V70-3U</u> (multi-pack compatible); <u>BP24V36-2US</u> (multi-pack compatible)
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 Cartridge	<u>RBC92-2U</u>
Battery Access	Front panel battery access door
Battery Replacement Description	Hot-swappable, user replaceable batteries
Expandable Runtime	Yes
<b>VOLTAGE REGULATION</b>	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	2% output voltage regulation during overvoltages to 150
Undervoltage Correction	2% output voltage regulation during undervoltages to 80
Severe Undervoltage Correction	2% output voltage regulation during undervoltages to 65 (under 70% load only)
<b>USER INTERFACE, ALERTS &amp; CONTROLS</b>	
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
<b>SURGE / NOISE SUPPRESSION</b>	
UPS AC Suppression Joule Rating	510
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
<b>PHYSICAL</b>	



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Installation Form Factors Supported with Optional Accessories	2 post rackmount ( <u>2POSTRMKITWM</u> ); Wallmount ( <u>2POSTRMKITWM</u> ); Tower ( <u>2-9USTAND</u> )
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	3.5 x 17.5 x 13.5
UPS Power Module Dimensions (hwd, cm)	8.89 x 44.45 x 34.29
Rack Height (U Spaces)	2
Minimum Required Rack Depth (inches)	16.5
Minimum Required Rack Depth (cm)	41.91
UPS Power Module Weight (lbs.)	29
UPS Power Module Weight (kg)	13.15
UPS Shipping Dimensions (hwd / in.)	9.5 x 20 x 24
UPS Shipping Dimensions (hwd / cm)	24.13 x 50.80 x 60.96
Shipping Weight (lbs.)	41
Shipping Weight (kg)	18.6
Cooling Method	Fan
UPS Housing Material	Steel
Minimum Required Rack Depth (mm)	419
Primary UPS Height (mm)	89
Primary UPS Width (mm)	444
Primary UPS Depth (mm)	343
Shipping Height (mm)	241
Shipping Width (mm)	508
Shipping Depth (mm)	610
<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)	408
AC Economy Mode BTU / Hr. (Full Load)	84
Battery Mode BTU / Hr. (Full Load)	444



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AC Mode Efficiency Rating (100% Load)	87%
AC Economy Mode Efficiency Rating (100% Load)	97%
<b>COMMUNICATIONS</b>	
Communications Interface	Contact closure; DB9 Serial; EPO (emergency power off); Pre-installed network card; Slot for SNMP/Web interface; USB (HID enabled)
Network Monitoring Port Description	Includes pre-installed Network Management Card; DB9 port supports RS232 and contact closure communications; Economy-mode setting option is available using PowerAlert software and DB9 Serial cable connection OR installed Network Management Card
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 and DB9 cabling 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)	80V (100% load), 65V ( <70% load)
High Voltage Transfer to Battery Power (Setpoint)	150
<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
Green Energy-Saving Features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation
<b>CERTIFICATIONS</b>	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category B (EMI)
<b>WARRANTY</b>	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 <u>Ultimate Lifetime Insurance</u>

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