



Model #: SU1000RTXL2UA

SmartOnline Expandable 2U Rack / Tower UPS System - On-line, double-conversion, sine wave UPS with PDU switching, current monitoring and fault tolerant auto-bypass



# **Highlights**

1000VA / 1kVA on-line, double-conversion, extended-run 2U rack / tower UPS Maintains sine-wave 100/110 or 120V +/-2% output during overvoltages to 138 and brownouts as low as 65V (50/60Hz auto-sensing)

Simultaneous use communications via HID compliant USB port, serial port,

SNMP/Web card slot and EPO interface

Fault tolerant auto-bypass mode, current monitoring and switched PDU control via 2 switchable output load banks

Input: NEMA 5-15P (120V 15A) / Output: 6 NEMA 5-15R (120V)

2 year product warranty / \$250,000 Ultimate Lifetime Insurance (USA & Canada only)

## **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 in. Extended runtime available with optional BP24V15RT2U, BP24V28-2U (limit of one per UPS) or BP24V70-3U (multi-pack compatible) external battery packs. Full-time sine wave 100, 110 or 120V +/-2% output. 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 138V. 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 SNMPWEBCARD slot. 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. Includes PowerAlert monitoring software and complete cabling. 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 better 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 2POSTRMKITWM two post rack & wallmount accessories available. Field replaceable, hot-swappable internal batteries and external battery packs. Attractive all-black color scheme. 2-year warranty and \$250,000nnected equipment insurance; extended warranty and service contracts av

## **Applications**

Ideal for protection of critical 120v equipment in server rooms, internetworking closets and telecommunications systems in rackmount or tower applications. Common applications include corporate or departmental servers, workstations, hubs, routers, bridges, CAD/CAM workstations, concentrators, IP telephony and traditional PBX switching systems.

#### Package Includes

SU1000RTXL2Ua Online Double-Conversion UPS System PowerAlert Software and cabling Mounting hardware for 4 post rack enclosures Instruction manual with warranty information

### **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

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 138V 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, BP24V28-2U (limit of one per UPS) or BP24V70-3U (multi-pack compatible) external battery packs

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 auto-bypass maintains continuous utility output to connected equipment, even in cases where the UPS suffers internal failure and requires maintenance

Network interfaces support simultaneous communications via built-in USB, DB9 serial and SNMPWEBCARD slot

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 supports safe unattended shutdown, monitoring and control via local connected servers, plus any number of additional servers over IP

UPS interface supports on-battery, low-battery, power-restored, AC-voltage, DC-voltage, output current monitoring, battery charge current, battery capacity, AC line frequency, timed inverter shutoff, activate self-test, load bank output power control and remote reboot, UPS nominal voltage adjustment and UPS line to battery power voltage set points

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)

Front panel LEDs offer current monitoring and battery charge level information

UPS ships fully assembled in full compliance with DOT regulations, no time consuming connection of internal batteries by user required Supports 2 post rackmount installation with optional 2POSTRMKITWM accessory

Single line TEL/DSL or network Ethernet line surge suppression

2 year manufacturer's product warranty, \$250,000 Ultimate Lifetime Insurance

## **Specifications**

SYSTEM OVERVIEW		
Voltage compatibility	120V AC (100/110/120V)	
Frequency compatibility	50/60 Hz compatible (auto-sensing)	
OUTPUT		
Output VA	1000	
Output watts	800	
Output nominal voltage	120V AC (100/110/120V)	
Output voltage regulation	Maintains full-time sine wave output within 2% of selected nominal, less than 3% total harmonic distortion (linear load) / 6% total harmonic distortion (computer load)	
Output frequency regulation	Regulates line frequency to 50/60Hz +/- 0.05Hz	
Outlet quantity / type	6 NEMA 5-15R	
Customized load management receptacles	2 single outlet controllable load banks support load shedding and remote reboot on demand of locked network devices.	

Overload protection	15A input breaker	
INPUT		
-		
Maximum input amps	8.6A	
Input connection type	NEMA 5-15P	
Input cord length	10 ft. 14 gauge	
Recommended Electrical Service	15A 120V	
BATTERY		
Full load runtime	4.5 minutes with internal batteries (800 watts)	
Half load runtime	14 minutes with internal batteries (400 watts)	
Expandable battery runtime	Supports extended runtime with optional external battery packs BP24V15RT2U (limit 1), BP24V28-2U (limit 1) and BP24V70-3U (multi-pack compatible)	
DC system voltage	24VDC	
Typical battery lifespan	3-6 years, depending on usage	
Battery recharge rate	Less than 6 hours to 80%	
Replacement Battery Cartridge	RBC92-2U	
VOLTAGE REGULAT	ION	
Voltage regulation description	On-line, double-conversion power conditioning maintains output within 2% of 100/110/120 volts at all times	
Overvoltage correction	Maintains output of selected nominal +/-2% during overvoltages to 138V AC	
Brownout correction	Maintains output of selected nominal +/-2% during undervoltages to 65V AC (at loads greater than 70% undervoltage correction extends to 80V)	
LEDS ALARMS & SW	/ITCHES	
Front panel LEDs	LED STATUS DISPLAY: line power (green), online (green), bypass (yellow), on battery (green), overload (red), battery low (yellow) - 4 LED LOAD / BATTERY LEVEL DISPLAY (100%, 75%, 50%, 25%). LED display panel easily rotates for better viewing in rackmount or tower configurations.	
Alarms	Multi-function audible alarm with distinctive ring patterns offer notification of backup operation (2 seconds on / 0.5 second off), low battery warning (1.25 seconds on / 0.5 seconds off), overload (sounds continuously), UPS fault (4.2 seconds on 1 second off), input voltage out of frequency (2.1 seconds on / 0.14 seconds off) and high input voltage (2.1 seconds on 0.07 seconds off)	
Switches	Includes power off/on switch to enable system turn on (press ON switch), UPS battery test (press ON switch during normal AC operation), buzzer silence (press ON switch during battery operation) and OFF (press OFF switch) - all switch function require that the switch be pressed and held for longer than 2 seconds, but less than 4 seconds	
SURGE / NOISE SUP	PRESSION	
AC surge suppression	480 joules	
AC suppression response time	Instantaneous	
Dataline suppression	Set of 8 wire RJ style interface jacks offer surge suppression for network ethernet or TEL/DSL connection. Pins 1,2,3 and 6 offer ethernet protection starting at 7.5V and the center two wires, pins 4 & 5, offer TEL/DSL line suppression starting at 260V	
EMI / RFI AC noise suppression	Yes	
PHYSICAL		
Shipping weight	41	

Shipping weight (kg)	18.5		
Shipping Dimensions (HWD/in)	9.5 x 20 x 24		
Shipping Dimensions (HWD/cm)	24.1 x 50.8 x 61		
Unit weight (lbs)	29		
Unit weight (kg)	13.1		
Unit Dimensions (HWD/in)	3.5 x 17.5 x 13.5		
Unit Dimensions (HWD/cm)	8.9 x 44.5 x 34.3		
Material of construction	Steel		
Form factors supported	Rack (2U)		
Cooling method	Built-in cooling fan		
Battery Access	User replaceable, hot swap battery replacement supported via front access panel		
ENVIRONMENTAL			
Relative Humidity	0 to 95%, non-condensing		
Storage Temperature	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius		
Operating Temperature	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius		
COMMUNICATIONS			
Network monitoring port	Includes USB and DB9 serial ports. 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.		
Software and cabling included	Yes, includes PowerAlert software CD-ROM and complete cabling		
SNMP compatibility	Yes, includes slot for optional SNMPWEBCARD accessory (#SNMPWEBCARD)		
WatchDog compatibility	Yes, compatible with Tripp Lite's Watchdog system service to restore operation to locked equipment through soft reboot of application / OS or hard power off/on reboot of connected equipment—ideal for unattended kiosk applications		
LINE / BATTERY TRA	ANSFER		
Transfer time from line power to battery mode	Zero, online UPS continuously converts incoming AC to DC, then back to AC. When commercial power is interrupted, UPS maintains continuous output from battery reserves with absolutely no disruption in output AC power.		
Low voltage transfer to battery power	Maintains continuous operation during undervoltages as low as 65V (80V at load levels over 70%). Below this switchov point, output is supported from battery derived AC power.		
High voltage transfer to battery power	Maintains continuous operation without using battery power during overvoltages to 138V. Above this point, output is supported from battery derived AC power.		
SPECIAL FEATURES			
EPO port	Supports "Emergency Power Off" via dedicated built-in EPO jack		
Cold Start	Yes, inverter can be "cold started" to enable temporary AC output during a power failure		
Appearance	Attractive black steel rackmount housing		
BATTERY PACK ACC	CESSORY (optional)		
Battery Pack Accessory (optional)	BP24V15RT2U, BP24V28-2U (limit of one per UPS) or BP24V70-3U (multi-pack compatible) external battery packs		

CERTIFICATIONS	
Certifications	Tested to UL1778 (USA), CSA C22.2 No. 107.3 (Canada), NOM (Mexico), Class B (EMI), FCC Part 68 / Industry Canada (Telecommunications)
WARRANTY	
Product Warranty Period	2 year product warranty
Connected Equipment Coverage	\$250,000 connected equipment insurance (USA and Canada only)
Optional Coverage	3-5 year warranties, plus next day and on-site warranty coverage available for select opportunities. Contact Tripp Lite for additional information.

# **Related Items**

Extended Warranties		
	2 Veer Extended Warrenty For Smort Line Interactive and Online Tower or Deak models	Oty [antional]
WEXT3-500-1500	3-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 1500VA or less	Qty: [optional]
WEXT5-500-1500	5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 1500VA or less	Qty: [optional]
External Battery Packs		
BP24V28-2U	BP24V28-2U - External Battery Pack for UPS System	Qty: [optional]
BP24V70-3U	BP24V70-3U - External Battery Pack for UPS System	Qty: [optional]
BP24V15RT2U	BP24V15RT2U - External Battery Pack for UPS System	Qty: [optional]
Power Distribution		
PDU1215	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	Qty: [optional]
PDU1415	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	Qty: [optional]
PDUMH15AT	Metered PDU with ATS - Power Distribution Unit with dual-input Auto Transfer Switching	Qty: [optional]
PDUMH15	Metered PDU / Power Distribution Unit - Safe, reliable power distribution with digital current meter	Qty: [optional]
PDUMV15	Metered PDU / Power Distribution Unit - Safe, reliable power distribution with digital current meter	Qty: [optional]
PDUMH15ATNET	Switched, Metered PDU with ATS - Power Distribution Unit with dual-input Auto Transfer Switching, individual outlet control and remote network interface	Qty: [optional]
Rackmount/Wallmount	Kits	
2POSTRMKITWM	Universal 2-Post Rackmount Kit (Supports 2U to 4U UPS systems and battery packs.)	Qty: [optional]
Shutdown Cable Kits		
AS400CABLE KIT	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	Qty: [optional]
SNMP Accessories		
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	Qty: [optional]
SNMPWEBCARD	For remote monitoring and control via SNMP, Web or telnet.	Qty: [optional]
Surge Protectors		
DTEL2	Network Surge Suppressor - Essential protection for data and communication lines	Qty: [optional]
DNET1	Network Surge Suppressor - Essential protection for data and communication lines	Qty: [optional]

Tower Stands				
2-9USTAND	Tower Stand - Expandable Tower Base Stand UPS Accessory	Qty: [optional]		

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=2948.

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