



## Model #: SU2200RTXL2UA

**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

- 2200VA / 2.2kVA on-line, double-conversion, extended-run 2U rack / tower UPS
- Maintains sine-wave 110/120V +/-2% output during overvoltages to 138 and brownouts as low as 65V (50/60Hz auto-sensing)
- Simultaneous 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 5-20P (120V) / Output: 6 NEMA 5-15/20R and 1 NEMA L5-20R (120V)
- 2 year product warranty



### Description

2200VA on-line, double-conversion UPS system for critical server, network and telecommunications equipment. 2U rackmount form factor with an installed depth of only 19 in. Expandable battery runtime with optional BP48V24-2U and BP48V60RT-3U external battery packs. Full-time sine wave 110 or 120V +/-2% output. 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 138V. NEMA 5-20P input plug; NEMA 5-15/20R and NEMA L5-20R 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 2-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

### 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

- SU2200RTXL2Ua On-line 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 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 110/120V (+/-2%) values

Standard internal battery set offers 14 minutes runtime at half load (800W) and 4.5 minutes at full load (1600W)

Extended Runtime with BP48V24-2U (limit 1) or BP48V60RT3U (multi-pack compatible) external battery packs

Compact rackmount form factor installs using only 2 rack spaces (2U) with a maximum installed depth of only 19 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 sutoff, activate self-test, load bank output power control and remote reboot, UPS nominal voltage adjustment and UPS line to battery power voltage setpoints

Built-in Emergency Power Off (EPO) interface with cable

NEMA 5-20P input plug (user-installable NEMA 5-15P replacement plug included)/NEMA 5-15/20R & NEMA L5-20R output receptacles

Integrated 2 bank switched PDU enables remote outlet management for load shedding or remote reboot of individual load banks (each bank has 3 outlets)

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

Single line TEL/DSL or network ethernet line surge suppression

2 year manufacturer's product warranty,

## Specifications

SYSTEM OVERVIEW	
Voltage compatibility	120V AC (110/120V)
Frequency compatibility	50/60 Hz compatible (auto-sensing)
OUTPUT	
Output VA	2200
Output watts	1600
Output nominal voltage	120V AC (110/120V)
Output voltage regulation	Maintains full-time sine wave output within 2% of selected nominal, less than 3% total harmonic distortion (linear load) / 5% total harmonic distortion (computer load) (Less than 5% THD on-line and on-battery)
Output frequency regulation	Regulates line frequency to 50/60Hz +/- 0.05Hz
Outlet quantity / type	6 NEMA 5-15/20R, 1 NEMA L5-20R
Customized load management receptacles	2 controllable load banks support load shedding and remote reboot on demand of locked network devices (each load bank has 3 outlets)
Overload protection	Via 30A input breaker

<b>INPUT</b>	
<b>Maximum input amps</b>	16A
<b>Input connection type</b>	NEMA 5-20P (NEMA 5-15P also included)
<b>Input cord length</b>	10ft / 3m
<b>Recommended Electrical Service</b>	120V 20A dedicated circuit
<b>BATTERY</b>	
<b>Full load runtime</b>	4.5 minutes with internal batteries (1600w)
<b>Half load runtime</b>	14 minutes with internal batteries (800w)
<b>Expandable battery runtime</b>	Supports extended runtime with optional external battery pack BP48V24-2U (limit 1) and BP48V60RT-3U (multi-pack compatible)
<b>DC system voltage</b>	48VDC
<b>Typical battery lifespan</b>	3-6 years, depending on usage
<b>Battery recharge rate</b>	Less than 5 hours to 90%
<b>Replacement Battery Cartridge</b>	RBC94-2U
<b>VOLTAGE REGULATION</b>	
<b>Voltage regulation description</b>	On-line, double-conversion power conditioning maintains output within 2% of 110/120 volts at all times
<b>Overvoltage correction</b>	Maintains output of selected nominal +/-2% during overvoltages to 138V AC
<b>Brownout correction</b>	Maintains output of selected nominal +/-2% during undervoltages to 65V AC (at loads greater than 70% undervoltage correction extends to 80V)
<b>LEDS ALARMS &amp; SWITCHES</b>	
<b>Front panel LEDs</b>	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.
<b>Alarms</b>	Multi-function audible alarm with distinctive ring patterns offer notification of backup operation (2 seconds on / 0.5 seconds 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)
<b>Switches</b>	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 functions require that the switch be pressed and held for longer than 2 seconds, but less than 4 seconds
<b>SURGE / NOISE SUPPRESSION</b>	
<b>AC surge suppression</b>	570 joules
<b>AC suppression response time</b>	Instantaneous
<b>Dataline suppression</b>	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
<b>EMI / RFI AC noise suppression</b>	Yes
<b>PHYSICAL</b>	
<b>Shipping weight (lbs)</b>	57.3
<b>Shipping weight (kg)</b>	26

<b>Shipping Dimensions (HWD/in)</b>	9.75 x 20.25 x 24
<b>Shipping Dimensions (HWD/cm)</b>	24.8 x 51.4 x 61
<b>Unit weight (lbs)</b>	47.4
<b>Unit weight (kg)</b>	21.5
<b>Unit Dimensions (HWD/in)</b>	3.5 x 17.5 x 19
<b>Unit Dimensions (HWD/cm)</b>	8.9 x 44.4 x 48.3
<b>Material of construction</b>	Steel
<b>Form factors supported</b>	Rack (2U)
<b>Cooling method</b>	Built-in cooling fan
<b>Battery Access</b>	User replaceable, hot swap battery replacement supported via front access panel
<b>ENVIRONMENTAL</b>	
<b>Operating Temperature</b>	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
<b>Storage Temperature</b>	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
<b>Relative Humidity</b>	0 to 95%, non-condensing
<b>Line mode BTU/hr. (Max.)</b>	812.9 BTU/hr. (worst case)
<b>Battery mode BTU/hr. (Max.)</b>	885.6 BTU/hr. (worst case)
<b>COMMUNICATIONS</b>	
<b>Network monitoring port</b>	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.
<b>Software and cabling included</b>	Yes, includes PowerAlert software CD-ROM and complete cabling
<b>SNMP compatibility</b>	Yes, includes slot for optional SNMPWEBCARD accessory (#SNMPWEBCARD)
<b>WatchDog compatibility</b>	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
<b>LINE / BATTERY TRANSFER</b>	
<b>Transfer time from line power to battery mode</b>	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.
<b>Low voltage transfer to battery power</b>	Maintains continuous operation during undervoltages as low as 65V (80V at load levels over 70%). Below this switchover point, output is supported from battery derived AC power.
<b>High voltage transfer to battery power</b>	Maintains continuous operation without using battery power during overvoltages to 138V. Above this point, output is supported from battery derived AC power.
<b>SPECIAL FEATURES</b>	
<b>EPO port</b>	Supports "Emergency Power Off" via dedicated built-in EPO jack
<b>Cold Start</b>	Yes, inverter can be "cold started" to enable temporary AC output during a power failure
<b>Appearance</b>	Attractive black steel rackmount housing
<b>BATTERY PACK ACCESSORY (optional)</b>	

<b>Battery Pack Accessory (optional)</b>	BP48V24-2U (limit 1), BP48V60RT3U (multi-pack compatible)
<b>CERTIFICATIONS</b>	
<b>Certifications</b>	Tested to UL1778 (USA), CSA C22.2 No. 107.3 (Canada), NOM (Mexico), Class A (emissions), FCC Part 68 / Industry Canada
<b>WARRANTY</b>	
<b>Product warranty</b>	2 year product warranty
<b>Optional coverage</b>	3-5 year warranties, plus next day and on-site warranty coverage available for select opportunities. Contact Tripp Lite for additional information.

## Related Items

<b>Extended Warranties</b>		
WEXT3-2200-3000	3-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 2200-3000VA	Qty: [optional]
WEXT5-2200-3000	5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 2200-3000VA or less	Qty: [optional]
<b>External Battery Packs</b>		
BP48V24-2U	BP48V242U - External Battery Pack for UPS System	Qty: [optional]
BP48V60RT-3U	External Battery Pack and Cable. 3U, Expandable, Blue 2-Point Connector	Qty: [optional]
<b>Power Distribution</b>		
PS7224	Tripp Lite Power Strip - Multiple outlets wherever you need them	Qty: [optional]
PDU1215	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	Qty: [optional]
<b>Rackmount/Wallmount Kits</b>		
2POSTRMKITWM	Allows for 2 post mounting of Tripp Lite 2U-4U rackmount UPS systems and battery packs	Qty: [optional]
<b>Shutdown Cable Kits</b>		
AS400CABLE KIT	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	Qty: [optional]
<b>SNMP Accessories</b>		
ENVIROSENSE	Power Management Tools - Environmental Sensor	Qty: [optional]
SNMPWEBCARD	Power Management Tools - Internal SNMP/Web Card	Qty: [optional]
<b>Surge Protectors</b>		
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]
DCATV	Network Surge Suppressor - Essential protection for TV/VCR coaxial lines	Qty: [optional]
<b>Tower Stands</b>		
2-9USTAND	Tower Stand - Expandable Tower Base Stand UPS Accessory	Qty: [optional]