

# SmartOnline Expandable 2U Rack/Tower UPS System

On-line, double-conversion, sine wave UPS with PDU switching, current monitoring and fault tolerant auto-bypass



## Model #: SU1500RTXL2Ua

- ▶ 1500VA/1.5kVA online, double-conversion, extended-run 2U rack/tower UPS
- ▶ Maintains sine-wave 100/110 or 120V +/-2% output during overvoltages to 138V 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 5-15P (120V). Output: 6 NEMA 5-15R (120V).
- ▶ 2-year product warranty; \$250,000 Ultimate Lifetime Insurance (USA & Canada only)

## DESCRIPTION

1500VA online, 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 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 and 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 simultaneously. 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. Three-stage metered current monitoring and battery charge status LEDs. LED display panel easily rotates for better viewing in rackmount or tower configurations. Data-line 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; 2-9U STAND tower kit and 2POSTRMKITWM 2-post rack & wallmount accessories available. Field replaceable, hot-swappable internal batteries and external battery packs. Attractive all-black color scheme. Two-year warranty and \$250,000 connected equipment insurance; extended warranty and service contracts available.

## KEY BUYING POINTS

- 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 min. runtime at half load (600W) and 5 min. at full load (1200W)
- Optional BP48V24-2U external battery pack increases runtime (limit 1)
- Optional BP48V60RT3U external battery pack increases runtime (multi-pack compatible)
- Compact rackmount form factor installs using only 2 rack spaces (2U) with a maximum installed depth of only 19 in.
- Ships with all mounting accessories for 4-post rackmount installation
- Optional 2POSTRMKITWM enables 2-post rackmount or wallmount installation
- Optional 2-9U STAND 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 setpoints
- 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 load banks (bank one has 2 outlets, bank two has 4 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
- Supports 2-post rackmount installation with optional 2POSTRMKITWM accessory
- Single-line tel/DSL or network Ethernet surge suppression
- 2-year manufacturer's product warranty; \$250,000 ULtimate Lifetime Insurance

## TYPICAL 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.

## OPTIONS & ACCESSORIES

- External battery pack: [BP48V24-2U](#), [BP48V60RT-3U](#)
- SNMP accessories: [SNMPWEBCARD](#), [ENVIROSENSE](#)
- AS400/iSeries Shutdown Cable Kit: [AS400 CABLE KIT](#)
- Dataline protectors: [DNET1](#), [DTEL2](#), [DCATV](#)
- Circuit Tester: [CT120](#)
- Rack enclosures: [Rack Systems](#)
- Power distribution: [PDU1215](#), [PS7224](#)
- Two Post Rackmount/Wallmount Kit: [2POSTRMKITWM](#)
- Tower Stands: [2-9USTAND](#)
- Extended warranties: 3 Year [WEXT3-500-1500](#), 5 Year [WEXT5-500-1500](#)

## PACKAGE INCLUDES

- SU1500RTXL2Ua Online Double-Conversion UPS System
- PowerAlert Software and cabling
- Mounting hardware for 4 post rack enclosures
- Instruction manual with warranty information

## COMPLETE SPECIFICATIONS

### SYSTEM OVERVIEW

|                                 |  |
|---------------------------------|--|
| <b>System overview:</b>         | On-line, double conversion 2U rack/tower UPS |
| <b>Voltage compatibility:</b>   | 120V AC (100/110/120V)                       |
| <b>Frequency compatibility:</b> | 50/60 Hz compatible (auto-sensing)           |

### OUTPUT

|                                       |      |
|---------------------------------------|------|
| <b>Output volt amp capacity (VA):</b> | 1500 |
| <b>Output watt capacity (watts):</b>  | 1200 |

|  |   |
|--|---|
| <b>Output nominal voltage:</b>                 | 120V AC (100/110/120V)  |
| <b>Output voltage regulation:</b>              | 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) |
| <b>Output frequency regulation:</b>            | Regulates line frequency to 50/60Hz +/- 0.05Hz  |
| <b>Outlet quantity / type:</b>                 | 6 x NEMA 5-15R  |
| <b>Customized load management receptacles:</b> | 2 controllable load banks support load shedding and remote reboot on demand of locked network devices (bank one has 2 outlets, bank two has 4 outlets)  |
| <b>Overload protection:</b>                    | 20A input breaker   |

## INPUT

|  |            |
|--|------------|
| <b>Maximum input amps:</b>             | 12A        |
| <b>Input connection type:</b>          | NEMA 5-15P |
| <b>Input cord length:</b>              | 10 ft./3m  |
| <b>Recommended electrical service:</b> | 120V 15A   |

## BATTERY

|                                       |   |
|---------------------------------------|---|
| <b>Full load runtime:</b>             | 5 min. with internal batteries (1200W)  |
| <b>Half load runtime:</b>             | 14 min. with internal batteries (600W)  |
| <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  |

## VOLTAGE REGULATION

|  |  |
|--|--|
| <b>Voltage regulation description:</b> | On-line, double-conversion power conditioning maintains output within 2% of 100/110/120 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) |

## LEDS ALARMS & SWITCHES

|                          |  |
|--------------------------|--|
| <b>Front panel LEDs:</b> | LED STATUS DISPLAY: line power (green), on-line (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   |

## SURGE / NOISE SUPPRESSION

|                                      |  |
|--------------------------------------|--|
| <b>AC surge suppression:</b>         | 480 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

**EMI / RFI AC noise suppression:**

Yes

## PHYSICAL

**Shipping weight (lbs):**

54

**Shipping weight (kg):**

24.5

**Unit weight (lbs):**

44.1

**Unit weight (kg):**

20

**Unit Dimensions (HWD/in):**

3.5 x 17.5 x 19

**Unit Dimensions (HWD/cm):**

8.9 x 44.4 x 48.3

**Shipping Dimensions (HWD/in):**

9.75 x 20.25 x 24

**Shipping Dimensions (HWD/cm):**

24.8 x 51.4 x 61

**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

**Operating Temperature:**

+32 to +104 degrees Fahrenheit; 0 to +40 degrees Celsius

**Storage Temperature:**

+5 to +122 degrees Fahrenheit; -15 to +50 degrees Celsius

**Relative Humidity:**

0 to 95%, non-condensing

**Line mode BTU/hr. (Max.):**

612 btu/hr. (87% efficiency line mode)

**Battery mode BTU/hr. (Max.):**

667 btu/hr. (86% efficiency battery mode)

## 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 TRANSFER

**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 switchover 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

## CERTIFICATIONS

**Certifications:**

Tested to UL1778 (USA), CSA C22.2 No. 107.3 (Canada), NOM (Mexico), Class A (emissions), FCC Part 68 / Industry Canada (telecommunications)

## WARRANTY

**Product warranty:**

2-year product warranty

**Connected equipment insurance (USA and Canada Only):**

\$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.

**SPECIAL FEATURES**

**EPO port:** Supports "Emergency Power Off" via set of dedicated built-in EPO jacks

**Cold Start:** Inverter can be cold started to enable temporary AC output during a power failure

**Appearance:** Attractive all-black color scheme

**BATTERY PACK ACCESSORY (optional)**

**Battery Pack Accessory (optional):** BP48V24-2U, BP48V60RT3U (optional)

*The policy of Tripp Lite is one of continuous improvement.  
Specifications are subject to change without notice.  
Therefore, your product may vary slightly from what is currently listed.*



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