Tripp Lite

# SmartOnline 120V 1.5kVA 1.2kW DoubleConversion UPS, 2U Rack/Tower, Extended Run, Pre-installed WEBCARDLX Network Interface, USB, DB9 Serial 

## MODEL NUMBER: SU1500RTXL2UN



## 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 $A C$ input to $D C$, then re-converting output back to $A C$. Fully regulated sine wave $A C$ 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. High $95 \%$ efficient operation in optional economy mode saves BTU heat output and energy costs. Network management interfaces support communications via USB port, DB9 serial port and pre-installed WEBCARDLX network management interface card. The Java-free HTML5-based WEBCARDLX interface enables full remote access for site power and UPS status monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH. It supports 10/100 Mbps auto-sensing for optimum communication with an Ethernet network. Optional EnviroSense2 modules (sold separately) provide a variety of environmental monitoring capabilities. Protocols supported include HTTP, HTTPS, SMTP, SNMPv1, SNMPv2, SNMPv3, telnet, SSH, FTP, DHCP and NTP. 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. PowerAlert UPS monitoring software is available via free download. Emergency Power Off (EPO) interface. LED display reports UPS operating mode, line power availability, battery mode operation, inverter operation and output power availability. Audible alarm with push-button momentary alarm-cancel. Programmable self-test. Fault-tolerant auto-bypass mode. Field-replaceable, hot-swappable internal batteries and external battery packs.

## Highlights

- 1500VA / 1.5kVA / 1200 watt on-line double-conversion 2 U rack/tower UPS
- $120 \mathrm{~V}+/-2 \%$ output at $50 / 60 \mathrm{~Hz}$,

High 95\% efficiency economy mode option

- Expandable runtime, Hot-swap batteries; 19 in / 48.3cm installed depth
- USB, RS232, EPO and preinstalled WEBCARDLX Network Interface
- Front panel status LEDs with detailed load and battery metering
- 2 independently switchable output load banks
- NEMA 5-15P input; 5-15R outlets
- To enable the Auto Probe
feature, this product requires $L X$ firmware update 15.5.2 or later to be installed


## Package Includes

- SU1500RTXL2UN UPS with

Pre-installed Network
Management Card interface

- USB, DB9 \& EPO Cables
- Mounting hardware for 4 post rack enclosures
- Instruction manual


## Features

- Tripp Lite SU1500RTXL2UN 1500VA / 1.5kVA / 1200W on-line, double-conversion 2U rackmount UPS
- 120V output (120V factory preset)
- NEMA 5-15P input, 6 NEMA 5-15R
- Two switched load banks 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 $95 \%$ efficiency operation, reduced power consumption and lower BTU emissions
- 14 minutes runtime at $50 \%$ load ( 600 W ) and 5 minutes at $100 \%$ load ( 1200 W ) with internal batteries
- BP48V24-2U (limit 1), BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible) external battery packs available (some configurations require Tripp Lite's External Battery Configuration Software)
- Intelligent battery management system extends battery life
- LED Display reports UPS operating mode, line power availability, battery mode operation, inverter status and output power availability
- Audible alarm with push-button momentary alarm-cancel
- 4 post installation hardware included, Optional 2POSTRMKITWM enables 2 post rack installation
- Single line TEL / Network surge suppression
- Electronic bypass maintains utility output during a variety of UPS fault conditions
- Network interfaces support communications via built-in USB, DB9 serial / contact-closure and preinstalled WEBCARDLX network management card
- WEBCARDLX interface allows full remote access for power monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH
- Optional E2 sensors enable site monitoring of temperature, humidity and contact-closure status
- Reduce Service Calls with Auto Probe Autonomous Device Management. Auto Probe feature (Firmware 15.5.2 and greater) of the LX Platform Interface checks the connectivity status of any networked device and automatically takes one or more user-configured actions if the device fails to respond; actions include outlet reboot, set SNMP traps, SNMP OID sets, and even script execution when used in conjunction with the Tripp Lite PowerAlert Network Shutdown Agent (PANSA)
- 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


## Specifications

## overview

## UPC Code

| UPS Type | On-Line |
| :---: | :---: |
| INPUT |  |
| Rated input current (Maximum Load) | 12A |
| Nominal Input Voltage(s) Supported | 120V AC |
| UPS Input Connection Type | 5-15P |
| Input Circuit Breakers | 20A |
| UPS Input Cord Length (ft.) | 10 |
| UPS Input Cord Length (m) | 3.1 |
| Recommended Electrical Service | 15A 120V |
| Input Phase | Single-Phase |
| OUTPUT |  |
| Output Volt Amp Capacity (VA) | 1500 |
| Output kVA Capacity (kVA) | 1.5 |
| Output Watt Capacity (Watts) | 1200 |
| Output kW Capacity (kW) | 1.2 |
| Output Capacity Details | OVERLOAD CAPACITY: Supports inverter operation up to $105 \%$ load continuously, $125 \%$ load for 3 minutes; $150 \%$ load for 30 seconds and $>150 \%$ load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits) |
| Power Factor | 0.8 |
| Crest Factor | 3:1 |
| Frequency Compatibility | $50 / 60 \mathrm{~Hz}$ |
| Frequency Compatibility Details | Output frequency matches input nominal on startup, defauls 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\% |
| Load Management Receptacles | Two switchable 5-15R load banks (bank 1 - two outlets, bank 2 - four outlets) |
| Output AC Waveform (AC Mode) | Sine wave |
| Output AC Waveform (Battery Mode) | Pure Sine wave |
| Nominal Output Voltage(s) Supported | 120V |
| Output Receptacles | (6) 5-15R |
| Individually Controllable Load Banks | Yes |
| BATTERY |  |

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| Battery Type | Valve Regulated Lead Acid (VRLA) |
| :---: | :---: |
| Full Load Runtime (min.) | $5 \mathrm{~min} .(1200 \mathrm{w})$ |
| Half Load Runtime (min.) | 14 min. (600w) |
| Expandable Battery Runtime | Extended runtime supported via optional external battery packs |
| Expandable Runtime | Yes |
| External Battery Pack Compatibility | \ <a class="productLink" href="//www.tripplite.com/External-48V-2U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V24-2U">BP48V24-2U</a>\  (limit 1); \ <a class="productLink" href="//www.tripplite.com/External-48V-3U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V60RT-3U">BP48V60RT-3U</a>\  (multi-pack compatible); \ <a class="productLink" href="/www.tripplite.com/External-48V-2U-Rack-Tower-Battery-Pack-for-UPS-Systems~BP48V27-2US">BP48V272US</a>\  (multi-pack compatible) |
| DC System Voltage (VDC) | 48 |
| Battery Recharge Rate (Included Batteries) | Less than 6 hours from 10\% to 80\% (typical, full load discharge) |
| Battery Access | Front panel battery access door |
| Internal UPS Replacement Battery Cartridge | \ <a class="productLink" href="//www.tripplite.com/2U-UPS-Replacement-48VDC-Battery-Cartridge-1-set-4-select-Tripp-Lite-SmartPro-UPS~RBC94-2U">RBC94-2U</a>\  |
| Battery Replacement Description | Hot-swappable, user replaceable batteries |
| VOLTAGE REGULATION |  |
| 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) |
| USER INTERFACE, ALERTS \& CONTROLS |  |
| Switches | 2 switches control off/on power status and alarm-cancel/self-test operation. LX Platform Interface: Recessed reset switch for interface reboot and factory reset |
| 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. Network Link/Activity (Green): Flashes for network activity. Network Speed (Yellow): 10 Mbps (Flashing), 100 Mbps (On steady). LX Platform Interface Status: Normal Operation (Solid Green); Software Update (Alternating Green/Orange $\sim 1 / \mathrm{sec}$ ); Factory Reset (Alternating Green/Orange $\sim 2 / \mathrm{sec}$ ). |
| SURGE / NOISE SUPPRESSION |  |
| UPS AC Suppression Joule Rating | 600 |
| 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 |

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| PHYSICAL |  |
| :---: | :---: |
| Cooling Method | Fan |
| Included Mounting Accessory Description | Included 4POSTRAILKIT mounting bracket enables installation in 4 post racks from 20.5 to 36 inches ( 521 to 914mm) |
| Installation Form Factors Supported with Included Accessories | 4 post 19 inch rackmount |
| Installation Form Factors Supported with Optional Accessories | 2 post rackmount (\ <a class="productLink" href="//www.tripplite.com/2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM">2POSTRMKITWM</a>\ ;); 2-4 post front rail rackmount (\ <a class="productLink" href="//www.tripplite.com/Heavy-Duty-2-post-Front-Mounting-EarKit~UPSHDEARKIT">UPSHDEARKIT</a>\ ); 4 post rackmount short-depth (\ <a class="productLink" Racks $\sim$ UW.tripplite.com/4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-MountRacks~4POSTRAILKITWM">4POSTRAILKITWM</a>\ ); Tower (\ <a class="productLink" href="//www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">29USTAND</a>\ ); Wallmount (\ <a class="productLink" href="//www.tripplite.com/2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM">2POSTRMKITWM</a>\ ) |
| Minimum Required Rack Depth with External Battery Pack (cm) | 66 |
| Minimum Required Rack Depth with External Battery Pack (in.) | 26 |
| Minimum Required Rack Depth without External Battery Pack (cm) | 56 |
| Minimum Required Rack Depth without External Battery Pack (in.) | 22 |
| Optional Mounting Accessory Notes | Optional \ <a class="productLink" href="//www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2-9USTAND</a>\  enables upright tower UPS placement; \ <a <br> class="productLink" href="//www.tripplite.com/2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPSSystems~2POSTRMKITWM">2POSTRMKITWM</a>\  enables wall-mount and 2-post rackmount installation; \ <a class="productLink" href="//www.tripplite.com/4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks \(\sim 4\) POSTRAILKITWM">4POSTRAILKITWM</a>\  enables installation in 4-post short-depth racks from 14.5 to 23.5 inches ( 368 to 597 mm ); \  <a class="productLink" href="/www.tripplite.com/Heavy-Duty-2-post-Front-Mounting-Ear-Kit~UPSHDEARKIT">UPSHDEARKIT</a>\  enables installation in 2 or 4-post racks using front vertical rails only, without rear support |
| Primary Form Factor | Rackmount |
| Primary UPS Depth (mm) | 483 |
| Primary UPS Height (mm) | 89 |
| Primary UPS Width (mm) | 445 |
| Rack Height | 2 U |
| Shipping Dimensions (hwd / cm) | $23.11 \times 50.80 \times 59.44$ |
| Shipping Dimensions (hwd / in.) | $9.10 \times 20.00 \times 23.40$ |
| Shipping Weight (kg) | 26.31 |
| Shipping Weight (lbs.) | 58.00 |
| UPS Housing Material | Steel |
| UPS Power Module Dimensions (hwd, cm) | $8.89 \times 44.45 \times 48.26$ |
| UPS Power Module Dimensions (hwd, in.) | $3.5 \times 17.5 \times 19$ |
| UPS Power Module Weight (kg) | 20.00 |
| UPS Power Module Weight (lbs.) | 44.1 |

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## 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) | 612 |
| AC Economy Mode BTU / Hr. (Full <br> Load) | 216 |
| Battery Mode BTU / Hr. (Full Load) | 667 |
| AC Economy Mode Efficiency Rating <br> (100\% Load) | $95 \%$ |
|  |  |
| COMMUNICATIONS |  |


| Network Management Cards | \ <a class="productLink" href="//www.tripplite.com/Web-Management-AccessoryCard~WEBCARDLX">WEBCARDLX</a>\  |
| :---: | :---: |
| Network Monitoring Port Description | Includes pre-installed WEBCARDLX 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 https://www.tripplite.com/poweralert |
| Communications Cable | USB and DB9 cabling included |
| WatchDog Compatibility | Supports Watchdog application, OS and hard-reboot restart options for remote applications |
| EPO Port | RJ11 interface jack with 4-meter cable included. Supports normally open and normally closed EPO systems |
| Communications Interface | Contact closure; DB9 Serial; EPO (emergency power off); Pre-installed network card; Slot for SNMP/Web interface; USB (HID enabled) |
| LINE / BATTERY TRANSFER |  |
| 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 |
| SPECIAL FEATURES |  |
| Cold Start (Startup in Battery Mode During a Power Failure) | Cold-start operation supported |
| High Availability UPS Features | Auto Probe Monitoring and Reboot (included); Automatic inverter bypass; Expandable battery backup; Hot swappable batteries; On-Line/Double-Conversion; Remote management; Sine wave output; Zero transfer time |
| Green Energy-Saving Features | High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation |
| STANDARDS \& COMPLIANCE |  |
| UPS Certifications | Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI) |

## WARRANTY

| Product Warranty Period <br> (Worldwide) | 2-year limited warranty |
| :--- | :--- |
| Connected Equipment Insurance <br> (U.S., Canada \& Puerto Rico) | \$250,000\ <a class="insuranceLink" href="//www.tripplite.com/support/insurance-policy">Ultimate Lifetime <br> Insurance</a>\  |

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