

## SmartPro 230V 2.2kVA 1.92kW Line-Interactive Sine Wave UPS, 2U, Extended Run, Network Card Options, LCD, USB, DB9

MODEL NUMBER: **SMX2200XLRT2U**



### Description

Tripp Lite SmartPro Line Interactive UPS with enhanced LCD interface offers network-grade power protection for critical server, network and telecommunications equipment. Line Interactive Uninterruptible Power Supply (UPS) with built-in Auto-Voltage Regulation (AVR) actively corrects brownouts and overvoltages back to usable levels while maintaining a full battery charge in case of power failure. Tripp Lite's unique configuration excels in exceptionally poor-power environments with two separate levels of voltage boost to correct both slight undervoltages and severe brownout conditions. Interactive LCD interface reports UPS operating mode, detailed UPS and site-power data, plus enables a variety of UPS setup and configuration options. Super-fast switchover from line to battery power occurs within milliseconds to maintain operation of connected equipment without interruption or reboot. 98% line-mode efficiency offers reduced heat emissions and operating costs. Network management interfaces support communications via USB, RS-232 and optional network management card option. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Network communications ports enable detailed monitoring of equipment load levels, self-test data and utility power conditions. PowerAlert UPS monitoring software is available via free download. Switched output load banks enable scheduled and real-time remote reboot and load shedding of select outlets. Emergency Power Off (EPO) interface. LCD display panel easily rotates for viewing in rackmount or tower configurations. Audible alarm with push-button momentary alarm-cancel and silent-mode configuration options. Programmable self-test. Field-replaceable, hot-swappable battery modules.

### Features

- Line interactive UPS with Automatic Voltage Regulation (AVR) corrects brownouts and overvoltages from 158 to 278V
- C20 AC power inlet; 8 C13 output receptacles, Two independently switchable output load banks
- Maintains uninterrupted operation of connected networking equipment during blackouts, surges,

### Highlights

- 2.2kVA / 2200VA / 1920W line interactive 2U rack/tower UPS, Sine Wave
- Extended runtime options up to 1600W, 0.9 Power Factor, Interactive LCD interface
- 98% line-mode efficiency, 2 switched load banks, 4 post mounting kit
- USB, RS232, EPO and slot for network management card options
- 230V C20 inlet, 8 C13 outlets
- To use the Auto Probe feature, this product requires a WEBCARDLX network interface (sold separately) running LX firmware update 15.5.2 or later

### Package Includes

- SMX2200XLRT2U UPS system
- USB, Serial & EPO cabling
- 4 post rackmount installation kit
- Set of 3 C13/C14 power cables
- Instruction manual



brownouts and overvoltages

- High 98% efficiency rating in line-power mode offers reduced power consumption and BTU emissions
- Internal batteries offer 11.9 minutes at 50% load (960W) and 5 minutes at 100% load (1920W)
- Extended runtime is available with optional BP48V24-2U (limit 1), BP48V60RT3U (no limit) or BP48V27-2US (no limit) external battery packs (max output is reduced to 1600w with external battery packs connected)
- External battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Hot-swappable, user-replaceable internal batteries and external battery packs can be replaced with no disruption to connected equipment
- Intelligent battery management system extends battery life
- Front panel LCD monitoring screen with MODE and ENTER buttons reports operating mode with 5-bar battery charge graphic, plus 7 selectable screens of detailed UPS and site power information
- LCD interface also supports a number of advanced user setup and operating preferences
- Ships with 4 post rackmount installation hardware; Optional 2POSTRMKITWM enables 2 post rackmount/wallmount installation; Optional 2-9U STAND enables tower placement
- Built-in USB, RS-232 and optional network management card options
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD and RELAYIOCARD
- 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)
- Optional PDUBHV20 bypass PDU enables hot-swappable UPS replacement with no disruption to connected equipment

## Specifications

| OVERVIEW                           |   |
|------------------------------------|---|
| UPC Code                           | 037332124562  |
| UPS Type                           | Line-Interactive  |
| INPUT                              |   |
| Rated input current (Maximum Load) | 10.7A   |
| Nominal Input Voltage(s) Supported | 230V AC   |
| UPS Input Connection Type          | C20 inlet   |
| UPS Input Connection Description   | IEC320-C20 input connection accepts a variety of detachable cordsets to match country or site-specific wall receptacles |



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| Input Circuit Breakers                     | 15A  |
| Input Phase                                | Single-Phase   |
| <b>OUTPUT</b>                              |  |
| Output Volt Amp Capacity (VA)              | 2200   |
| Output kVA Capacity (kVA)                  | 2.20   |
| Output Watt Capacity (Watts)               | 1920   |
| Output kW Capacity (kW)                    | 1.92   |
| Power Factor                               | 0.87   |
| Nominal Voltage Details                    | 230V nominal output in battery mode  |
| Frequency Compatibility                    | 50 / 60 Hz   |
| Frequency Compatibility Details            | Automatic frequency selection  |
| Output Voltage Regulation (Line Mode)      | -15%, +6%  |
| Output Voltage Regulation (Battery Mode)   | +/- 5%   |
| Included Output Power Cables               | Includes 3 C13 to C14 output power cables  |
| Load Management Receptacles                | Two switchable single-outlet C13 load banks  |
| Hot-Swap PDU options                       | PDUBHV20 (2U / 6 C13, 2 C19 outlets)   |
| Output AC Waveform (AC Mode)               | Sine wave  |
| Output AC Waveform (Battery Mode)          | Pure Sine wave   |
| Nominal Output Voltage(s) Supported        | 220V; 230V; 240V   |
| Output Receptacles                         | (8) C13  |
| Individually Controllable Load Banks       | Yes  |
| <b>BATTERY</b>                             |  |
| Full Load Runtime (min.)                   | 5 min. (1920w)   |
| Half Load Runtime (min.)                   | 11.9 min. (960w)   |
| Expandable Battery Runtime                 | Extended runtime supported via optional external battery packs   |
| External Battery Pack Compatibility        | <a href="http://www.tripplite.com/External-48V-2U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V24-2U">BP48V24-2U</a> (limit 1); <a href="http://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 href="http://www.tripplite.com/External-48V-2U-Rack-Tower-Battery-Pack-for-UPS-Systems~BP48V27-2US">BP48V27-2US</a> (multi-pack compatible) |
| DC System Voltage (VDC)                    | 48   |
| Battery Recharge Rate (Included Batteries) | Less than 4.5 hours from 10% to 90% (typical, full load discharge)   |
| Internal UPS Replacement Battery Cartridge | <a href="http://www.tripplite.com/2U-UPS-Replacement-48VDC-Battery-Cartridge-1-set-4-select-Tripp-Lite-SmartPro-UPS~RBC94-2U">RBC94-2U</a>   |



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| 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                                 | Automatic voltage regulation (AVR) maintains line power operation with an input voltage range of 158 to 278   |
| Overvoltage Correction   | Voltage reduction of 12% applies when input is between 244-278V   |
| Undervoltage Correction  | Voltage boost of 12% applies when input voltage is between 183-206V   |
| Severe Undervoltage Correction                                 | Voltage boost of 24% applies when input voltage is between 158-182V   |
| <b>USER INTERFACE, ALERTS &amp; CONTROLS</b>                   |   |
| Front Panel LCD Display  | Front panel LCD information and configuration screen offers detailed UPS and site power status and operating data, plus configuration of voltage, operating mode, alarm function and a variety of additional options (see manual for detailed LCD configuration and monitoring options)   |
| Switches   | 3 pushbutton switches control OFF / ON power status, MODE selection and MUTE / ENTER control functions  |
| Alarm Cancel Operation   | Power-fail alarm can be temporarily silenced using alarm-cancel switch; silent mode alarm configuration option available  |
| Audible Alarm  | Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions   |
| <b>SURGE / NOISE SUPPRESSION</b>                               |   |
| UPS AC Suppression Joule Rating                                | 350   |
| UPS AC Suppression Response Time                               | Instantaneous   |
| EMI / RFI AC Noise Suppression                                 | Yes   |
| <b>PHYSICAL</b>  |   |
| 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 href="http://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 href="http://www.tripplite.com/Heavy-Duty-2-post-Front-Mounting-Ear-Kit~UPSHDEARKIT">UPSHDEARKIT</a> ); 4 post rackmount short-depth ( <a href="http://www.tripplite.com/4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks~4POSTRAILKITWM">4POSTRAILKITWM</a> ); Tower ( <a href="http://www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2-9USTAND</a> ); Wallmount ( <a href="http://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)    | 67  |
| Minimum Required Rack Depth with External Battery Pack (in.)   | 26.5  |
| Minimum Required Rack Depth without External Battery Pack (cm) | 55  |



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| Minimum Required Rack Depth without External Battery Pack (in.) | 21.75  |
| Optional Mounting Accessory Notes                               | Optional <a href="http://www.tripplite.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2-9USTAND</a> enables upright tower UPS placement; <a href="http://www.tripplite.com/2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM">2POSTRMKITWM</a> enables wall-mount and 2-post rackmount installation; <a href="http://www.tripplite.com/4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks~4POSTRAILKITWM">4POSTRAILKITWM</a> enables installation in 4-post short-depth racks from 14.5 to 23.5 inches (368 to 597mm); <a href="http://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)  | 495  |
| Primary UPS Height (mm)   | 89   |
| Primary UPS Width (mm)  | 445  |
| Rack Height   | 2U   |
| Shipping Dimensions (hwd / cm)                                  | 22.10 x 61.47 x 54.61  |
| Shipping Dimensions (hwd / in.)                                 | 8.70 x 24.20 x 21.50   |
| Shipping Weight (kg)  | 36.76  |
| Shipping Weight (lbs.)  | 81.05  |
| UPS Housing Material  | Steel  |
| UPS Power Module Dimensions (hwd, cm)                           | 8.89 x 44.45 x 49.53   |
| UPS Power Module Dimensions (hwd, in.)                          | 3.50 x 17.50 x 19.50   |
| UPS Power Module Weight (kg)                                    | 31.18  |
| UPS Power Module Weight (lbs.)                                  | 68.75  |
| <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)                                   | 161  |
| AC Mode Efficiency Rating (100% Load)                           | 98%  |
| Audible Noise   | 45 dBA maximum, front side 1m  |
| <b>COMMUNICATIONS</b>   |  |
| Network Management Cards  | <a href="http://www.tripplite.com/SNMP-Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~SNMPWEBCARD">SNMPWEBCARD</a> ; <a href="http://www.tripplite.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD">TLNETCARD</a> ; <a href="http://www.tripplite.com/Web-Management-Accessory-Card~WEBCARDLX">WEBCARDLX</a> ; <a href="http://www.tripplite.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a>   |
| Network Monitoring Port Description                             | Supports detailed monitoring of UPS and site power conditions  |



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| 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, DB9 and EPO cabling included  |
| WatchDog Compatibility                                      | Supports Watchdog application, OS and hard-reboot restart options for remote applications  |
| Communications Interface                                    | DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)  |
| <b>LINE / BATTERY TRANSFER</b>                              |  |
| Transfer Time   | 6 ms. (AC to DC) / 1 ms. (DC to AC)  |
| Low Voltage Transfer to Battery Power (Setpoint)            | 158V   |
| High Voltage Transfer to Battery Power (Setpoint)           | 278V   |
| <b>SPECIAL FEATURES</b>                                     |  |
| Grounding Lug   | Back panel grounding lug   |
| Cold Start (Startup in Battery Mode During a Power Failure) | Cold-start operation supported   |
| High Availability UPS Features                              | Hot swappable batteries; Auto Probe Monitoring and Reboot (requires WEBCARDLX)   |
| Green Energy-Saving Features                                | Greater than 95% efficiency - GREEN UPS; Individually controllable load banks  |
| <b>STANDARDS &amp; COMPLIANCE</b>                           |  |
| UPS Certifications  | CE   |
| Certification Details                                       | IEC 62040-1, IEC 62040-2 Class A EMI, GOST   |
| <b>WARRANTY</b>   |  |
| Product Warranty Period (International)                     | 2-year limited warranty  |
| Product Warranty Period (Mexico)                            | 2-year limited warranty  |
| Product Warranty Period (Puerto Rico)                       | 2-year limited warranty  |

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