

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

MODEL NUMBER: **SMX2200XLRT2U**



## Description

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. This 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 macOS. 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 rack-mount 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, 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 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

## 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
- Optional WEBCARDLX with latest version of PADM20 supports Auto Probe feature

## Package Includes

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

- 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 rack-mount installation hardware; Optional 2POSTRMKITWM enables 2-post rack-mount/wallmount installation; Optional 2-9USTAND enables tower placement
- Built-in USB, RS-232 and optional network management card options
- Compatible with UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD and RELAYIOCARD
- Optional WEBCARDLX (sold separately) with the latest version of PowerAlert Device Manager firmware (PADM20) provides enhanced remote management capabilities
- PADM20 and PowerAlert Element Manager (PAEM) form a powerful tool for expanding maintenance functions in large installations, including firmware update checks and backup and restoration of device configurations
- IP-based Auto Probe detects lost connectivity and restores service autonomously
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and macOS
- USB & Serial ports enable data-saving unattended shutdown when used with PowerAlert software, available via FREE download from [triplite.eaton.com/products/power-alert](http://triplite.eaton.com/products/power-alert)
- 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	
Input Phase	Single-Phase
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
Input Circuit Breakers	15A
OUTPUT	
Output Capacity (VA)	2200
Output Capacity (kVA)	2.2
Output Capacity (Watts)	1920
Output 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>	
Battery Type	Valve Regulated Lead Acid (VRLA)
Runtime Full Load (min.)	5 min. (1920W)
Runtime Half Load (min.)	11.9 min. (960W)
Expandable Runtime	Yes
External Battery Pack Compatibility	&nbsp;<a class="productLink" href="//tripplite.eaton.com/External-48V-2U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V24-2U">BP48V24-2U</a>&nbsp; (limit 1); BP48V60RT-3U (multi-pack compatible); &nbsp;<a class="productLink" href="//tripplite.eaton.com/External-48V-2U-Rack-Tower-Battery-Pack-for-UPS-Systems~BP48V27-2US">BP48V27-2US</a>&nbsp; (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)
Battery Access	Front panel battery access door
Internal UPS Replacement Battery Cartridge	&nbsp;<a class="productLink" href="//tripplite.eaton.com/2U-UPS-Replacement-48VDC-Battery-Cartridge-1-set-4-select-Tripp-Lite-SmartPro-UPS~RBC94-2U">RBC94-2U</a>&nbsp;
Battery Replacement Description	Hot-swappable, user replaceable batteries
<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>	
Primary Form Factor	Rackmount
Rack Height	2U
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://tripplite.eaton.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://tripplite.eaton.com/Heavy-Duty-2-post-Front-Mounting-Ear-Kit-UPSHDEARKIT">UPSHDEARKIT</a> ); 4 post rackmount short-depth ( <a href="http://tripplite.eaton.com/4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks~4POSTRAILKITWM">4POSTRAILKITWM</a> ); Tower ( <a href="http://tripplite.eaton.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2-9USTAND</a> ); Wallmount ( <a href="http://tripplite.eaton.com/2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM">2POSTRMKITWM</a> );
Minimum Required Rack Depth (cm)	58.42
Minimum Required Rack Depth (inches)	23
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
Minimum Required Rack Depth without External Battery Pack (in.)	21.75
Optional Mounting Accessory Notes	Optional <a href="http://tripplite.eaton.com/2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND">2-9USTAND</a> ; enables upright tower UPS placement; <a href="http://tripplite.eaton.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://tripplite.eaton.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://tripplite.eaton.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 UPS Depth (mm)	495
Primary UPS Height (mm)	89
Primary UPS Width (mm)	445
Shipping Dimensions (hwd / in.)	8.70 x 24.20 x 21.50
Shipping Dimensions (hwd / cm)	22.10 x 61.47 x 54.61
Shipping Weight (lbs.)	81.05
Shipping Weight (kg)	36.76
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
Unit Weight (lbs.)	68.750
Unit Weight (kg)	31.18
<b>ENVIRONMENTAL</b>	
Operating Temperature Range	32° to 104°F (0° to 40°C)
Storage Temperature Range	5° to 122°F (-15° to 50°C)
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	&nbsp;<a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD">TLNETCARD</a>&nbsp;; &nbsp;<a class="productLink" href="//tripplite.eaton.com/Network-Card-Eaton-Tripp-Lite-Series-UPS-Systems~WEBCARDLXE">WEBCARDLXE</a>&nbsp;; &nbsp;<a class="productLink" href="//tripplite.eaton.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a>&nbsp;;
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions
PowerAlert Software	For local monitoring via the UPS's built-in communication ports, download PowerAlert software at <a href="https://tripplite.eaton.com/products/power-alert">https://tripplite.eaton.com/products/power-alert</a>
Communications Cable	USB, DB9 and EPO cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
Network Management Card Description	Network management card optional
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)
<b>LINE / BATTERY TRANSFER</b>	



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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>FEATURES &amp; SPECIFICATIONS</b>	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Auto Probe Monitoring and Reboot (requires WEBCARDLX); Automatic Voltage Regulation (AVR); Hot swappable batteries; Remote management; Surge/noise protection
Green Energy-Saving Features	Greater than 95% efficiency - GREEN UPS; Individually controllable load banks
Grounding Details	Back panel grounding lug
<b>APPLICATIONS</b>	
UPS Applications	Large Network; High-End Desktop/Small Network
<b>STANDARDS &amp; COMPLIANCE</b>	
Product Certifications	GOST (Russia)
Product Compliance	RoHS; CE (Europe)
<b>WARRANTY &amp; SUPPORT</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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