

## SmartPro 120V 2.2kVA 1.92kW Line-Interactive Sine Wave UPS, 2U, Extended Run, Network Card Options, LCD, USB, DB9, Energy Star

MODEL NUMBER: **SMART2200RML2U**



### 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. 96% line-mode efficiency offers reduced heat emissions and operating costs. Network management interfaces support communications via USB, RS-232 and slot for optional Network Management Card. HID-compliant USB port 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

- Tripp Lite SMART2200RML2U line interactive 2U rack/tower UPS with 2200VA / 2.2kVA / 1920W capacity and extended runtime options
- Line interactive UPS with Automatic Voltage Regulation (AVR) corrects brownouts and overvoltages from 83 to 145V
- NEMA 5-20P input plug; 4 NEMA 5-15/20R and 4 5-15R output receptacles, Two independently switched output load banks
- Maintains uninterrupted operation of connected networking equipment during blackouts, surges, brownouts and overvoltages
- High 96% efficiency rating in line-power mode offers reduced power consumption and BTU emissions
- Internal batteries offer 12 minutes at 50% load (960W) and 4.5 minutes at 100% load (1920W)
- Extended runtime is available with optional [BP48V24-2U](#) (limit 1), [BP48V60RT-3U](#) (multi-pack compatible) and [BP48V27-2US](#) (multi-pack compatible), Output is reduced to 1600 watts maximum with external battery packs

### Highlights

- 2.2kVA / 2200VA / 1920W line interactive 2U rack/tower UPS, Sine Wave
- 120V output, Corrects brownouts and overvoltages from 83V to 145V
- 0.9 Power Factor, Interactive LCD interface
- Extended runtime options up to 1600W
- 96% line-mode efficiency, 2 switched load banks
- USB, RS232, EPO and slot for Network Management Card options
- 120V NEMA 5-20P input, 4 NEMA 5-15R & 4 NEMA 5-15/20R outlets
- Energy Star qualified

### Package Includes

- SMART2200RML2U UPS system
- USB, Serial & EPO cabling
- 4 post installation kit
- Owner's manual



- 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 [2-9USTAND](#) enables tower placement
- Built-in USB, RS-232 and slot for Network Management Card option; Compatible with Tripp Lite UPS management card options [TLNETCARD](#), [WEBCARDLX](#) and [SNMPWEBCARD](#)
- HID-compliant USB port 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)
- Built-in Emergency Power Off (EPO) interface with cable
- Energy Star qualified

## Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	2200
Output kVA Capacity (kVA)	2.2
Output Watt Capacity (Watts)	1920
Output kW Capacity (kW)	1.92
Output Capacity Details	Output is reduced to 1600 watts maximum when used with external battery packs
Power Factor	0.87
Nominal Output Voltage(s) Supported	110V; 115V; 120V
Nominal Voltage Details	120v nominal output in battery mode
Frequency Compatibility	60 Hz
Output Voltage Regulation (Line Mode)	-14%, +6%
Output Voltage Regulation (Battery Mode)	+/- 5%
Output Receptacles	(4) 5-15R; (4) 5-15/20R
Load Management Receptacles	Two switched single outlet load banks (1 5-15/20R & 1 5-15R)
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	16.0A



Nominal Input Voltage(s) Supported	120V AC
UPS Input Connection Type	5-20P
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.0
Recommended Electrical Service	20A 120V
Input Phase	Single-Phase
<b>BATTERY</b>	
Full Load Runtime (min.)	4.5 min. (1920w)
Half Load Runtime (min.)	12 min. (960w)
Expandable Battery Runtime	Extended runtime supported via optional external battery packs
External Battery Pack Compatibility	<a href="#">BP48V24-2U</a> (limit 1); <a href="#">BP48V60RT-3U</a> (multi-pack compatible); <a href="#">BP48V27-2US</a> (multi-pack compatible)
Expandable Runtime Description	Maximum output capacity is 1600 watts when used with external battery packs
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="#">RBC94-2U</a>
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 83 to 145
Overvoltage Correction	Voltage reduction of 12% applies when input is between 127 and 145
Undervoltage Correction	Voltage boost of 12% applies when input voltage is between 96 and 108
Severe Undervoltage Correction	Voltage boost of 24% applies when input voltage is between 83 and 95
<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	570



UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
<b>PHYSICAL</b>	
Included Mounting Accessory Description	4 post rackmount installation accessories included
Installation Form Factors Supported with Optional Accessories	2 post rackmount(2POSTRMKITWM); Wallmount(2POSTRMKITWM); Tower(2-9USTAND); 2-4 post front rail rackmount(UPSHDEARKIT)
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	3.46 x 17.32 x 19.29
UPS Power Module Dimensions (hwd, cm)	8.79 x 43.99 x 49.00
Rack Height (U Spaces)	2
Minimum Required Rack Depth (inches)	26.3
Minimum Required Rack Depth (cm)	66.80
UPS Power Module Weight (lbs.)	57.6
UPS Power Module Weight (kg)	26.13
UPS Shipping Dimensions (hwd / in.)	9.1 x 22.44 x 24.2
UPS Shipping Dimensions (hwd / cm)	23.11 x 57.00 x 61.47
Shipping Weight (lbs.)	68.8
Shipping Weight (kg)	31.2
Cooling Method	Fan
UPS Housing Material	Steel
Minimum Required Rack Depth (mm)	668
Primary UPS Height (mm)	88
Primary UPS Width (mm)	440
Primary UPS Depth (mm)	490
Shipping Height (mm)	231
Shipping Width (mm)	570
Shipping Depth (mm)	615
<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



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AC Mode BTU / Hr. (Full Load)	306
Battery Mode BTU / Hr. (Full Load)	1157
AC Mode Efficiency Rating (100% Load)	96%
<b>COMMUNICATIONS</b>	
Communications Interface	USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
Network Management Cards	<a href="#">SNMPWEBCARD</a> ; <a href="#">TLNETCARD</a> ; <a href="#">WEBCARDLX</a>
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 Local software at <a href="http://www.tripplite.com/poweralert">http://www.tripplite.com/poweralert</a>
Communications Cable	USB and DB9 cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
Network UPS Tools Compatibility	NUT compatible. See the full list of Tripp Lite NUT compatible UPS systems at <a href="http://www.networkupstools.org/stable-hcl.html?manufacturer=Tripp+Lite">http://www.networkupstools.org/stable-hcl.html?manufacturer=Tripp Lite</a>
<b>LINE / BATTERY TRANSFER</b>	
Transfer Time	5 milliseconds (line to battery mode); 1 millisecond (battery to line mode)
Low Voltage Transfer to Battery Power (Setpoint)	83
High Voltage Transfer to Battery Power (Setpoint)	145
<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
Green Energy-Saving Features	Greater than 95% efficiency - GREEN UPS; Individually controllable load banks
<b>CERTIFICATIONS</b>	
UPS Certifications	ENERGY STAR Qualified; Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances); Tested to CSA (Canada); Tested to NOM (Mexico); Tested to UL1778 (USA)
<b>WARRANTY</b>	
Product Warranty Period (Worldwide)	2-year warranty, 3 year with registration. Note: <a href="#">Registration is required</a> for 3-year warranty.
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 <a href="#">Ultimate Lifetime Insurance</a>



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Tripp Lite uses primary and third-party agencies to test its products for compliance with standards. See a list of Tripp Lite's testing agencies:

<https://www.tripplite.com/products/product-certification-agencies>