SmartPro 120V 2.2kVA 1.92kW Line-Interactive Sine Wave UPS, Lithium Iron Phosphate (LiFePO4) Batteries, 2U, LCD, USB, DB9

MODEL NUMBER: **SMART2200RM2UL**

Highlights

- LiFePO4 battery offers longer life, more cycles and faster recharge
- 97% line-mode efficiency rating saves money in energy costs
- 8 NEMA 5-15R outlets—2 switchable via network interface
- Compatible with Tripp Lite network management cards
- 11.7 min. runtime at half load; 5.1 min. at full load

Package Includes

- SMART2200RM2UL SmartPro 120V 2.2kVA 1.92kW Line-Interactive Sine Wave UPS
- USB cable
- DB9 cable
- EPO cable
- Rack-mounting hardware
- Owner's manual

Description

The SMART2200RM2UL SmartPro® 120V 2.2kVA 1.92kW Line-Interactive Sine Wave UPS provides battery backup and AC power protection against blackouts, brownouts, power surges and line noise that can damage electronics or destroy data. Ideal for backing up servers and network storage devices, the SMART2200RM2UL switches to 2.2kVA/1.92kW battery mode in milliseconds to keep your connected equipment running long enough to save files and shut down safely with no data loss.

The innovative lithium iron phosphate (LiFePO4) internal battery more than doubles the service life of an equivalent lead acid battery, and offers up to three times more charge/discharge cycles. It recharges to 100-percent capacity in less than two hours, making the SMART2200RM2UL an ideal backup in case of power outage. It provides 11.7 minutes of support at half load and 5.1 minutes at full load.

Featuring eight NEMA 5-15R outlets (two switchable) and a 10-foot power cord with NEMA 5-20P input, the SMART2200RM2UL maintains 120V nominal output over an input range of 83V to 147V without using battery power. EMI/RFI noise filtering improves your equipment's performance and prevents damage. A 570-joule surge suppression rating protects your equipment from harmful power surges. With Tripp Lite's PowerAlert® software (available via free download), the SMART2200RM2UL enables safe unattended system shutdown and file saves in case of a prolonged power failure.

Features

Protects Mission-Critical Rack-Mounted Equipment

- Provides fully regulated sine wave AC output for servers, network storage devices, telecom hardware and other applications where long battery lifespan is critical
- Audible alarm signals loss of utility power, overload and low battery
- 8 NEMA 5-15R outlets
- 10 ft. power cord with 120V NEMA 5-20P input
- 570-joule surge suppression rating
- 0.9 power factor rating
- 97% line-mode efficiency rating saves money in energy costs

Superior LiFePO4 Battery Backup Compared to Equivalent Lead Acid Battery

- More than 2x the service life
- Up to 3x more charge/discharge cycles
- Recharges to 100% capacity in less than 2 hr.
- Weighs 60% less, reducing overall UPS weight
- Designed for hot-swap field replacement
- Supports half load up to 11.7 min. and full load up to 5.1 min.

2 Load Banks with Switchable Outlets

- Can control 2 outlets remotely to reboot equipment or shed nonessential loads

Automatic Voltage Regulation (AVR)

- Maintains 120V nominal output over input range of 83V–145V without using battery power

EMI/RFI Line Noise Filtering

- Removes electromagnetic and radio frequency interference that can disrupt or damage equipment's performance

Interactive LCD Screen

- Front-panel LCD with detailed UPS and site power status and operating data
- Rotates for easy viewing in rack-mount or tower configurations

Optional Network Management Cards

- Compatible with Tripp Lite UPS management cards TLNETCARD, WEBCARDLX, SNMPWEBCARD and RELAYIOCARD

Communications Ports

- USB and DB9 ports enable data-saving unattended shutdown when used with Tripp Lite PowerAlert software (available via free download at www.tripplite.com/poweralert)
- EPO port supports emergency shutdown in large facilities

Versatile Installation Options

- Hardware included for 4-post mounting in 2U of EIA-standard 19 in. rack
- Mounts on wall or 2-post rack with optional 2POSTRMKITWM accessory
- Mounts in upright tower position with optional 2-9USTAND accessory

Backed by Tripp Lite's Ultimate Lifetime Insurance

- $250,000 Ultimate Lifetime Insurance covers any connected components (U.S., Canada and Puerto Rico only)

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
Power Factor	.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 switchable single-outlet load banks
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave

INPUT	
Rated input current (Maximum Load)	16A (120V)
Nominal Input Voltage(s) Supported	120V AC
UPS Input Connection Type	5-20P
Input Circuit Breakers	20A
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.0
Recommended Electrical Service	20A 120V
Input Phase	Single-Phase

BATTERY	
Full Load Runtime (min.)	5.1 min. (1920w)
Half Load Runtime (min.)	11.7 min. (960w)
DC System Voltage (VDC)	48
Battery Recharge Rate (Included Batteries)	1.4 hours from 10% to 90% (typical, full load discharge)
Expandable Runtime	No

VOLTAGE REGULATION	
Voltage Regulation Description	Automatic voltage regulation (AVR) maintains line power operation with an input voltage range of 83 to 145
Overvoltage Correction	Input voltages between 127 and 145 are reduced by 12%
Undervoltage Correction	Input voltages between 108 and 96 are boosted by 12%

Severe Undervoltage Correction	Input voltages between 83 and 95 are boosted by 24%

USER INTERFACE, ALERTS & CONTROLS	
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

SURGE / NOISE SUPPRESSION	
UPS AC Suppression Joule Rating	570
UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes

PHYSICAL	
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.)	3.43 x 17.32 x 19.46
UPS Power Module Dimensions (hwd, cm)	8.71 x 43.99 x 49.43
Rack Height (U Spaces)	2
Minimum Required Rack Depth (inches)	24.5
Minimum Required Rack Depth (cm)	62.23
UPS Power Module Weight (lbs.)	41.78
UPS Power Module Weight (kg)	18.95
UPS Shipping Dimensions (hwd / in.)	8.9 x 21.3 x 24.3
UPS Shipping Dimensions (hwd / cm)	22.61 x 54.10 x 61.72
Shipping Weight (lbs.)	24.84
Shipping Weight (kg)	11.28
Cooling Method	Fan
UPS Housing Material	Steel
Minimum Required Rack Depth (mm)	622

Primary UPS Height (mm)	87
Primary UPS Width (mm)	440
Primary UPS Depth (mm)	494
Shipping Height (mm)	226
Shipping Width (mm)	541
Shipping Depth (mm)	617

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)	221
Battery Mode BTU / Hr. (Full Load)	1343
AC Mode Efficiency Rating (100% Load)	97%
Audible Noise	45 dBA Max @ 1m front side

COMMUNICATIONS

Communications Interface	USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
Network Management Cards	SNMPWEBCARD; TLNETCARD; WEBCARDLX; RELAYIOCARD
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions
PowerAlert Software	Included
Communications Cable	USB, DB9 and EPO 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 http://www.networkupstools.org/stable-hcl.html?manufacturer=Tripp Lite

LINE / BATTERY TRANSFER

Transfer Time	5 milliseconds (AC to battery mode), 1 millisecond (Battery to AC mode)
Low Voltage Transfer to Battery Power (Setpoint)	83
High Voltage Transfer to Battery Power (Setpoint)	145

SPECIAL FEATURES

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
CERTIFICATIONS	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances)
WARRANTY	
Product Warranty Period (Worldwide)	5-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	$250,000 Ultimate Lifetime Insurance