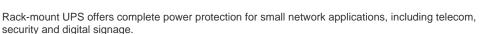# SmartPro 120V 2000VA 1920W Line-Interactive Sine Wave UPS, 2U, Extended Run, LCD, USB, DB9, 8 Outlets

MODEL NUMBER: **SMART2000RMXL2U**

Rack-mount UPS offers complete power protection for small network applications, including telecom, security and digital signage.

Features

2000VA/1920W/120V Battery Backup for PC Networks, Security Systems or Digital Signage The SmartPro® line-interactive SMART2000RMXL2U UPS system with AVR provides reliable battery backup and AC power protection against blackouts, brownouts, overvoltages, surges and line noise that can damage valuable electronics or destroy data. The eight-outlet 120V battery backup with an enhanced 0.96 power factor is ideal protection for small networks, wiring closets, security systems, telecom, high-end PC gaming, digital signage equipment and other professional applications, including retail, casino and hotel/motel management.

Allows Time to Back Up Critical Files During a Blackout Backup support allows you to work through short power failures and gives you enough time to safely save files and shut down your system in case of a prolonged blackout. Backup time varies according to load, but the line-interactive UPS system should keep a half load (960W) powered as long as 12 minutes and a full load (1920W) up to 4.5 minutes.

Supports an External Battery Pack for Extended Runtime In addition to the user-replaceable internal battery, the SMART2000RMXL2U supports connection of external battery packs, such as BP48V24-2U, BP48V60RT-3U and BP48V27-2US (sold separately). During normal operation, incoming utility power keeps the internal and external batteries fully charged, so backup power will always be available. Output is reduced to 1600W maximum with external battery packs.

8 NEMA Outlets Protect Your Connected Components Four 5-15R and four 5-15/20R outlets provide battery backup, 570 joules of surge protection and voltage regulation for your crucial components. Two independently switched single-outlet load banks (one 5-15R and one 5-15/20R) enable both scheduled and real-time remote rebooting and load shedding.

Automatic Voltage Regulation (AVR) Corrects Low- and High-Voltage ConditionsAVR protects your equipment from incremental hardware damage, data loss and performance problems caused by brownouts and overvoltages. The SMART2000RMXL2U can correct brownouts as low as 83V and overvoltages as high as 145V back to nominal 120V power continuously, all while keeping the battery fully charged and ready to take over in case of power failure.

Combats Line Noise That Can Harm EquipmentEMI (electromagnetic interference) and RFI (radio frequency interference) are common causes of performance problems and can lead to incremental

Highlights

- Protects equipment against blackouts, brownouts, overvoltages, surges and line noise
- Keeps AC power running during blackouts to allow time for file saves and safe shutdown
- Maintains continuous 120V nominal output during brownouts and overvoltages
- Enhanced 0.96 power factor increases system efficiency and reduces your energy costs
- Compatible with optional external battery pack for extended runtime operation

Applications

- Protect your small network server and other network components against power surges, line noise, brownouts, overvoltages and blackouts
- Operate essential equipment during short-term power outages using battery backup power
- Shut down desktop PCs and other equipment without data loss during long-term power outages
- Connect high-end security systems, casino gaming machines or digital signage in a small network
- Extend runtime for DVRs, wireless routers and other low-power home network equipment

Package Includes

- SMART2000RMXL2U 120V 2000VA 1920W Line-Interactive UPS with 8 Outlets
- USB cable
- DB9 cable
- EPO cable
- Rack-mounting hardware
- Owner's manual

hardware damage, data corruption and audio/video transmission problems. The SMART2000RMXL2U filters out this disruptive line noise on the AC line, so that it won't affect your equipment.

Designed for High Efficiency to Help You Save Money and Protect the EnvironmentA 96% efficiency rating reduces BTU emissions, energy consumption and, ultimately, your energy costs.

Silenceable Alarm and Easy-to-Read LCD Keep You Informed Around the Clock The LCD screen features seven selectable screens of detailed UPS and site power data, as well as advanced user setup and operating preferences. It rotates for comfortable viewing in both rack and tower configurations. The audible alarm sounds for power failure, low battery and overloads. You may silence it using the built-in switch or disable it.

Optional WEBCARDLX Network Interface Offers 24/7 Access An accessory slot accommodates the optional Java-free HTML5-based WEBCARDLX interface (sold separately), which 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. Automated alerts help prevent accidental overloads, power loss and downtime.

Advanced Communications Ports Allow for Automatic Saves and ShutdownsRS-232 and HID-compliant USB ports connect to a computer running free downloadable PowerAlert® software to enable safe unattended file saves and system shutdown in case of a prolonged power failure. Cables are included.

Versatile Installation Options Hardware is included for mounting the SmartPro UPS system in 2U of space in an EIA-standard 19-inch 4-post rack. Using optional mounting accessories (sold separately), you can adapt the SMART2000RMXL2U for 2-post, front-rail, 4-post short-depth, tower or wall mounting. The 10-ft. (3.05 m) power cord with NEMA 5-20P plug connects to any compatible AC outlet.

Specifications

OVERVIEW	
UPC Code	037332248152
UPS Type	Line-Interactive

INPUT	
Input Phase	Single-Phase
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)	3.1
Recommended Electrical Service	20A 120V

OUTPUT	
Output Capacity (VA)	2000
Output Capacity (kVA)	2
Output Capacity (Watts)	1920
Output Capacity (kW)	1.92

Output Capacity Details	Output is reduced to 1600 watts maximum when used with external battery packs
Power Factor	0.96
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%
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
Nominal Output Voltage(s) Supported	110V; 115V; 120V
Output Receptacles	(4) 5-15R; (4) 5-15/20R
Individually Controllable Load Banks	Yes

BATTERY	
Battery Type	Valve Regulated Lead Acid (VRLA)
Runtime Full Load (min.)	4.5 min. (1920W)
Runtime Half Load (min.)	12 min. (960W)
Expandable Runtime	Yes
Expandable Runtime Description	Maximum output capacity is 1600 watts when used with external battery packs
External Battery Pack Compatibility	BP48V24-2U (limit 1); BP48V60RT-3U (multi-pack compatible); BP48V27-2US (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	RBC94-2U
Battery Replacement Description	Hot-swappable, user replaceable batteries

VOLTAGE REGULATION	
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

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

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 (2POSTRMKITWM); 2-4 post front rail rackmount (UPSHDEARKIT); 4 post rackmount short-depth (4POSTRAILKITWM); Tower (2-9USTAND); Wallmount (2POSTRMKITWM)
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)	62
Minimum Required Rack Depth without External Battery Pack (in.)	24.5

Optional Mounting Accessory Notes	Optional 2-9USTAND enables upright tower UPS placement; 2POSTRMKITWM enables wall-mount and 2-post rackmount installation; 4POSTRAILKITWM enables installation in 4-post short-depth racks from 14.5 to 23.5 inches (368 to 597mm); UPSHDEARKIT enables installation in 2 or 4-post racks using front vertical rails only, without rear support
Primary UPS Depth (mm)	490
Primary UPS Height (mm)	88
Primary UPS Width (mm)	440
Shipping Dimensions (hwd / in.)	8.50 x 24.30 x 21.60
Shipping Weight (kg)	35.47
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, in.)	3.46 x 17.32 x 19.29
UPS Power Module Weight (kg)	26.13
UPS Power Module Weight (lbs.)	57.6
Unit Weight (lbs.)	57.600
Unit Weight (kg)	26.13

ENVIRONMENTAL

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)	306
AC Mode Efficiency Rating (100% Load)	96%
Battery Mode Heat Dissipation (BTU/Hr) @ Full Load	1157
Audible Noise	45 dBA maximum, front side 1m

COMMUNICATIONS

Network Management Cards	WEBCARDLXE
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 https://tripplite.eaton.com/products/power-alert
Communications Cable	USB and DB9 cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
Network UPS Tools (NUT) Compatibility	NUT compatible. See a full list of NUT compatible Tripp Lite UPS systems at https://networkupstools.org/stable-hcl.html?manufacturer=Tripp%20Lite
Network Management Card Description	Network management card optional

Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)

LINE / BATTERY TRANSFER

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

FEATURES & SPECIFICATIONS

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

APPLICATIONS

UPS Applications	Large Network

STANDARDS & COMPLIANCE

Product Certifications	CSA (Canada); NOM (Mexico); UL 1778
Product Compliance	RoHS; FCC Part 15 Class A (USA)

WARRANTY & SUPPORT

Product Warranty Period (Worldwide)	2-year warranty, 3 year with registration. Note: Registration is required for 3-year warranty.
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	$250,000 Ultimate Lifetime Insurance