

# Smart Pro 2U Rack/Tower Extended Run UPS

Line interactive, sine wave UPS with integrated switched PDU and current monitoring



## Model #: SMART2200RML2U

- ▶ 2200VA / 2.2kVA line interactive, extended-run 2U rack / tower UPS
- ▶ Maintains sine-wave 100/110/120V nominal output over an input range of 83 to 145V
- ▶ Network communications supported via HID enabled USB port, DB9 serial port, SNMP/Web card slot and EPO interface
- ▶ Current monitoring and switched PDU control via 3 individually controllable load banks
- ▶ Input: NEMA 5-20P (120V 20A / includes 5-15P plug 120V 15A) / Output: 4 NEMA 5-15/20R, 4 NEMA 5-15R (120V)
- ▶ 2 year product warranty / \$250,000 Ultimate Lifetime Insurance (USA, Puerto Rico & Canada only)

## DESCRIPTION

2200VA line interactive UPS system for server, network and telecommunications equipment. 2U rackmount or tower form factor with an installed depth of only 19 inches. Expandable battery runtime with optional BP48V24-2U and BP48V60RT-3U external battery packs. Uninterruptible Power Supply (UPS) switches to battery-derived AC output during power failures and extreme voltage variations. Line interactive Automatic Voltage Regulation (AVR) offers two levels of voltage boost during brownouts and one level of voltage cut during overvoltages to maintain regulated 100, 110, 120v selectable output over an input range of 83-145V. Includes NEMA 5-20P input plug (with NEMA 5-15P plug option) and both NEMA 5-15R and 5-15/20R output receptacles. Network-grade AC surge and noise suppression. Network management interfaces support simultaneous communications via USB port, DB9 serial port and SNMPWEBCARD slot. HID-compliant USB interface enables full integration with built-in power management and auto shutdown features of Windows and Mac OS X. Supports simultaneous detailed monitoring of equipment load levels, self-test data and utility power conditions via all 3 network interfaces. Includes PowerAlert monitoring software and complete cabling. Emergency Power Off (EPO) interface. Integrated 3-bank PDU switching supports load shedding and remote-reboot of connected equipment. 3-stage metered current monitoring and battery charge status LEDs. Utility power and voltage regulation LEDs. Audible alarm. Self-test. 4-post rackmount accessories included; 2-9USTAND tower kit and 2POSTRMKITWM two post rack & wallmount accessories available. Field-replaceable, hot-swappable internal batteries and external battery packs. Attractive all-black color scheme. 2-year warranty and \$250,000 connected equipment insurance; extended warranty and service contracts available

## KEY BUYING POINTS

- SmartPro line interactive UPS system is ideal for voice, data, medical and industrial networking applications
- Line interactive Automatic Voltage Regulation (AVR) offers two levels of voltage boost during brownouts and one level of voltage cut during overvoltages
- Maintains continuous operation through blackouts, voltage fluctuations and surges
- Corrects line voltage conditions as low as 83V and as high as 145 back to selectable 100/110/120V nominal values
- Standard internal battery set offers 16 minutes at half load (800w) and 6 minutes at full load (1600w)
- Optional BP48V24-2U and BP48V60RT3U external rack/tower battery packs enable extended runtime operation
- Compact rackmount form factor installs using only 2 rack spaces (2U) with a maximum installed depth of only 19 inches
- Ships with all mounting accessories for 4 post rackmount installation
- Optional 2POSTRMKITWM enables 2 post rackmount or wallmount installation
- Optional 2-9USTAND accessory enables small-footprint upright tower placement
- Network interfaces support simultaneous communications via built-in USB, DB9 serial and SNMPWEBCARD slot
- HID compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Included PowerAlert UPS monitoring software supports safe unattended shutdown, monitoring and control via local connected servers, with the built-in ability to shutdown any number of additional servers over IP
- UPS interface supports on-battery, low-battery, power-restored, AC-voltage, DC-voltage, output current monitoring, battery charge current, battery capacity, AC line frequency, timed inverter sutoff, activate self-test, load bank output power control and remote reboot
- Built-in Emergency Power Off (EPO) interface with cable
- NEMA 5-20P input plug (user-installable NEMA 5-15P replacement plug included) / NEMA 5-15R & NEMA 5-15/20R output receptacles

- Integrated 3 bank switched PDU enables remote outlet management for load shedding or remote reboot of individual load banks (Each bank controls 1 outlet per load bank)
- Front panel LEDs offer current monitoring and battery charge level information
- UPS ships fully assembled in full compliance with DOT regulations, no time consuming connection of internal batteries by user required
- 2 year manufacturer's product warranty, \$250,000 ULtimate Lifetime Insurance

## TYPICAL APPLICATIONS

- Ideal for protection of critical 120V equipment in server rooms, internetworking closets and telecommunications systems in rackmount or tower applications. Common applications include corporate or departmental servers, workstations, hubs, routers, bridges, CAD/CAM workstations, concentrators, IP telephony and traditional PBX switching systems.

## OPTIONS & ACCESSORIES

- External battery pack: [BP48V60RT-3U](#) or [BP48V24-2U](#)
- SNMP accessories: [SNMPWEBCARD](#), [ENVIROSENSE](#)
- Watchdog software: [WATCHDOGSW](#)
- USB Hubs-accessories: [U202-004-R](#), [U205-004-R](#), [U022-010](#)
- Dataline protectors: [DNET1](#), [DTEL2](#), [DCATV](#)
- Rack enclosures: [Rack Systems](#)
- Circuit Tester: [CT120](#)
- Power distribution: [PDU1220](#), [PS7224-20](#)
- Tower Stands: [2-9USTAND](#)
- Two Post Rackmount / Wallmount Kit: [2POSTRMKITWM](#)
- Extended warranties: 3 Year [WEXT3-2200-3000](#), 5 Year [WEXT5-2200-3000](#)

## PACKAGE INCLUDES

- SMART2200RMXL2U UPS system
- PowerAlert software CD-ROM
- USB, serial and EPO cabling
- Owner's manual with warranty information

## COMPLETE SPECIFICATIONS

### SYSTEM OVERVIEW

<b>System overview:</b>	2200VA Line-interactive UPS system with controllable load banks and user selectable input voltages
<b>Voltage compatibility:</b>	120V factory default (110V, 100V user selectable)
<b>Frequency compatibility:</b>	50 / 60 Hz

### OUTPUT

<b>Output volt amp capacity (VA):</b>	2200
<b>Output watt capacity (watts):</b>	1600
<b>Output nominal voltage:</b>	120V (110V, 100V) VAC
<b>Output voltage regulation:</b>	LINE MODE: Sine wave line voltage 120V (-18% / +8%)
<b>Output frequency regulation:</b>	LINE MODE: Passes line frequency of 60Hz +/-10%
<b>Outlet quantity / type:</b>	4 NEMA 5-15R and 4 NEMA 5-15/20R
<b>Customized load management receptacles:</b>	3 single outlet load banks

### INPUT

<b>Maximum input amps:</b>	13.3 (120V)/ 14.6 (110V)/ 16.0 (100V)
<b>Input connection type:</b>	NEMA 5-20P (optional, user-installable NEMA 5-15P included in box)
<b>Input cord length:</b>	10 ft./ 3m
<b>Recommended electrical service:</b>	20A 120V

## BATTERY

<b>Full load runtime:</b>	6
<b>Half load runtime:</b>	16
<b>DC system voltage:</b>	48V
<b>Typical battery lifespan:</b>	4-6 years typical
<b>Replacement Battery Cartridge:</b>	RBC94-2U

## VOLTAGE REGULATION

<b>Voltage regulation description:</b>	Automatic Voltage Regulation (AVR) circuits maintain clean, regulated computer-grade output, without using battery power, during brownouts to 83V and overvoltages to 145V
<b>Overvoltage correction:</b>	120V: Input voltages between 127 and 145 volts AC are reduced by 12% / 110V: Input voltages between 116 and 133 are reduced by 12% / 100V: Input voltages between 106 and 121 are reduced by 12%
<b>Brownout correction:</b>	120V: Input voltages between 96-108 are boosted by 12% / 110V: Input voltages between 87 and 99 are boosted by 12% / 100V: Input voltages between 83 and 90 are boosted by 12%
<b>Severe brownout correction:</b>	120V only: Input voltages between 83 and 95 are boosted by 24%

## LEDS ALARMS & SWITCHES

<b>Front panel LEDs:</b>	5 front panel LEDs — Green POWER LED, Green VOLTAGE CORRECTION LED, 3 color BATTERY CHARGE LED, 3 color OUTPUT LOAD LEVEL LED, red BATTERY WARNING LED.
<b>Alarms:</b>	3 function audible alarm indicates power failure conditions (4 short beeps every 10 seconds), overload (continuous short beeps) and low battery (continuous tone)
<b>Switches:</b>	Yes, includes 2 front panel mounted push-button switches for system enable, self-test and alarm cancel functions. Back panel includes voltage selection dip switches for 120 / 110 / 100 volts nominal

## SURGE / NOISE SUPPRESSION

<b>AC surge suppression:</b>	570
<b>AC suppression response time:</b>	Instantaneous
<b>EMI / RFI AC noise suppression:</b>	Yes

## PHYSICAL

<b>Shipping weight (lbs):</b>	72
<b>Shipping weight (kg):</b>	32.4
<b>Unit weight (lbs):</b>	64
<b>Unit weight (kg):</b>	28.8
<b>Unit Dimensions (HWD/in):</b>	3.5 x 17.5 x 19
<b>Unit Dimensions (HWD/cm):</b>	8.9 x 44.5 x 48.26
<b>Shipping Dimensions (HWD/in):</b>	9 x 23.5 x 20
<b>Shipping Dimensions (HWD/cm):</b>	23 x 59.7 x 50.8
<b>Material of construction:</b>	Steel
<b>Form factors supported:</b>	Rack (2U)
<b>Cooling method:</b>	Fan
<b>Battery Access:</b>	Battery access panel allows hot swap replacement without powering connected equipment off.

## ENVIRONMENTAL

**Operating Temperature:** +32 to +104 degrees Fahrenheit

**Storage Temperature:** +5 to +122 degrees Fahrenheit

**Relative Humidity:** 0 to 95%, non-condensing

## COMMUNICATIONS

**Network monitoring port:** HID-compliant USB port and RS232

**Software and cabling included:** Includes PowerAlert UPS monitoring software for all common network and standalone operating systems. Ships with 2 cables, 1-USB to USB & 1-DB9 to DB9

**SNMP compatibility:** Built-in accessory slot accommodates internal SNMPWEBCARD and other network accessories

**WatchDog compatibility:** Yes, compatible with Tripp Lite's WatchDog system service software to restore operation to locked equipment through soft reboot of application / OS or hard power off/on reboot of connected equipment - ideal for unattended kiosk applications

## LINE / BATTERY TRANSFER

**Transfer time from line power to battery mode:** 2-4 milliseconds

**Low voltage transfer to battery power:** Switches to battery power if line voltage decreases to 83 (120V), 87 (110V), or 83 (100V) volts or less. Resets back to line power as line voltage increases to 87 (120V), 92 (110V), or 87 (100V) volts or higher.

**High voltage transfer to battery power:** Switches to battery power as line voltage increases to 145 (120V), 133 (110V), or 121 (100V) volts or higher. Resets back to line power when line voltage decreases to 141 (120V), 129 (110V), or 118 (100V) volts or less.

## CERTIFICATIONS

**Certifications:** Tested to UL1778 (USA), CSA C22.2 No. 107.3 (Canada), RoHS compliant, Class A (Emissions), NOM (Mexico)

## WARRANTY

**Optional coverage:** 3 year, 5 year, next day and on-site warranty coverage available for select opportunities

**Product warranty:** 2 year product warranty

**Connected equipment insurance (USA and Canada Only):** \$250,000 connected equipment insurance (USA / Canada only)

## SPECIAL FEATURES

**EPO port:** Includes RJ11 EPO (emergency power off) port and interconnection cable

**TVSS grounding:** Includes back panel grounding point with thumbscrew for data line surge suppressors and other network accessories requiring a safe grounding point

**Cold Start:** Yes, inverter can be "cold started" to enable temporary AC output during a power failure

**Appearance:** Attractive all-black housing

## BATTERY PACK ACCESSORY (optional)

**Battery Pack Accessory (optional):** BP48V242U (limit 1) and BP48V60RT3U (multi-pack compatible)

*The policy of Tripp Lite is one of continuous improvement.  
Specifications are subject to change without notice.  
Therefore, your product may vary slightly from what is currently listed.*



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