

# SmartPro VS Tower UPS System

Intelligent, line-interactive power management system



## Model #: SMART2200VS

- ▶ 2200VA / 2.2kVA line interactive tower UPS
- ▶ Maintains 120V nominal output over an input range of 79 to 147V
- ▶ Network communications supported via 2 USB ports, 2 serial ports, SNMP/Web card slot and EPO interface
- ▶ Current monitoring and switched PDU control via 3 two-outlet load banks
- ▶ Input: NEMA 5-20P (120V 20A / includes 5-15P plug 120V 15A) / Output: 2 NEMA 5-15/20R, 7 NEMA 5-15R (120V)
- ▶ 2 year product warranty / \$250,000 Ultimate Lifetime Insurance (USA, Puerto Rico & Canada only)

## DESCRIPTION

Tripp Lite's SMART 2200VS intelligent, line interactive UPS protects server, networking and telecommunications equipment from blackouts, voltage fluctuations and transient surges. Small footprint, tower UPS system occupies only 106 square inches of floorspace with a height of only 14.25 inches. Large capacity 2200 VA / 1600 watt rated UPS system offers 7 minutes runtime at full load and 19 minutes at half load during power failures. Line interactive voltage regulation corrects brownouts as low as 79V and overvoltages as high as 147V to fully regulated 120V nominal output for smooth continuous operation of connected equipment. Includes a total of 9 outlets, 3 pairs of which can be individually powered off and back on via software interface to selectively reboot remote equipment or shed less critical loads to extend battery runtime for more critical loads. Includes slot for internal SNMPWEBCARD, plus 2 DB9 and 2 USB enhanced monitoring ports for unattended shutdown, remote control and monitoring of UPS system and power data. Ships in attractive gray color scheme. Compatible with Tripp Lite's PowerAlert and Watchdog service software. 2 year warranty. \$250,000 connected equipment insurance.

## KEY BUYING POINTS

- 2200VA / 1600 watt output capacity accommodates a variety of server, networking and telecom devices
- High power density 2.2kVA UPS system occupies only 106 square inches of floorspace with a height of only 14.25 inches
- Compatible with North American 120V / 60 Hz power as found in the USA, Canada and Mexico
- Offers 7 minutes runtime with a full load of 2200VA and 19 minutes with a half load of 1100VA
- Line interactive voltage regulation corrects severe brownouts and overvoltages from 79 to 147v back to normal 120v levels without using battery power
- 9 total outlets (7 NEMA5-15R; 2 NEMA5-15/20R)
- Includes NEMA 5-20 straight blade 20 amp input plug connection; package includes optional user installable NEMA 5-15 input plug to enable connection to a 15A circuit
- Notification of system status via 5 LEDs and multi-function audible alarms
- Included PowerAlert Software provides e-mail notification of power problems and the simultaneous automatic unattended shutdown of multiple servers
- 4 built-in communications ports (2-DB9, 2-USB) for remote monitoring and unattended shutdown
- Slot for SNMP/web card (part#: SNMPWEBCARD) and environmental sensor (part#: ENVIROSENSE) for remote communications in large IP environments
- Supports Tripp Lite's WatchDog software application to restore unresponsive programs by automatically restarting them and rebooting completely locked computers by automatically switching UPS power off and back on again
- Communication ports support on battery, low battery, power restored, AC line voltage, DC battery voltage, load percentage, battery charge current, battery capacity, internal UPS temperature and line frequency status messaging. Interface supports timed inverter shutoff after unattended shutdown, activate self-test and 10 second reboot of connected equipment
- 3 pairs of customized load management receptacles can be individually powered off and back on again via software interface to reboot remote equipment or shed less critical loads to extend battery runtime for the most critical equipment
- Built-in Emergency Power Off (EPO) interface supports emergency shutoff in large facilities
- Hot-swappable / user replaceable batteries allow on-site battery replacement through the front panel without powering off connected

- equipment or removing the UPS from the rack
- UPS battery set ships fully assembled and ready for use, no time consuming, connection of individual internal batteries by user is necessary
- UL (USA), cUL (Canada), NOM (Mexico), Class A (Emissions)
- \$250,000 Ultimate Lifetime Insurance. No warranty cards required for coverage!
- 2 year manufacturers product warranty

## TYPICAL APPLICATIONS

- Ideal for protection of sensitive electronics in any application calling for upright tower UPS protection. Common applications include any mix of servers, workstations, hubs, routers, concentrators, IP telephony and traditional PBX switching systems.

## OPTIONS & ACCESSORIES

- SNMP accessories: [SNMPWEBCARD](#), [ENVIROSENSE](#)
- Watchdog software: [WATCHDOGSW](#)
- USB Hubs-accessories: [U202-004-R](#), [U205-004-R](#), [U022-010](#)
- Dataline protectors: [DNET1](#), [DTEL2](#), [DCATV](#)
- Circuit Tester: [CT120](#)
- Power distribution: [PDU1220](#), [PS7224-20](#)
- Extended warranties: 3 Year [WEXT3-2200-3000](#), 5 Year [WEXT5-2200-3000](#)

## PACKAGE INCLUDES

- SMART 2200VS UPS System, PowerAlert Software and cabling, Warranty information, Instruction manual

## COMPLETE SPECIFICATIONS

### SYSTEM OVERVIEW

#### System overview:

"Line interactive tower UPS protects internetworking and telecommunications equipment from blackouts, brownouts, overvoltages, surges and line noise. Maintains AC output during blackouts and continuously corrects brownouts and overvoltages. Supports enhanced monitoring of UPS and line power conditions via two USB and two DB9 serial ports, included PowerAlert monitoring software and complete cabling. Includes three individually controllable output load banks. SNMP compatible. "

**Voltage compatibility:** 120V AC

**Frequency compatibility:** 60 Hz

### OUTPUT

**Output volt amp capacity (VA):** 2200

**Output watt capacity (watts):** 1600

**Output nominal voltage:** 120V AC

**Output voltage regulation:** LINE MODE: Sine wave line voltage 120V (-18% / +8%), BATTERY MODE: PWM sine wave output 115V +/-5%

**Output frequency regulation:** LINE MODE: Passes line frequency of 60Hz +/-10% BATTERY MODE: Inverter output regulated to 60Hz +/-0.5Hz

**Outlet quantity / type:** 7 NEMA 5-15R and 2 NEMA 5-15/20R

**Customized load management receptacles:** "3 individually controllable outlet pairs support automated load shedding and remote reboot on demand of locked network devices. Configurable via PowerAlert software to automatically switch off optional loads, like monitors, to increase available runtime for servers and other critical devices. "

**Overload protection:** 20A input breaker

## INPUT

**Maximum input amps:** 16A / 1600 watts

**Input connection type:** NEMA 5-20P

**Input cord length:** 8 ft., 12 gauge

**Recommended electrical service:** 20A 120V

## BATTERY

**Full load runtime:** 7 minutes (2200VA)

**Half load runtime:** 19 minutes (1100VA)

**DC system voltage:** 48V DC

**Typical battery lifespan:** 3 - 6 years, depending on usage

**Battery recharge rate:** 2-4 hours to 90%

**Replacement Battery Cartridge:** RBC54

## VOLTAGE REGULATION

**Voltage regulation description:** Automatic Voltage Regulation (AVR) circuits maintain clean, regulated computer-grade 120V nominal output, without using battery power, during brownouts to 79V and overvoltages to 147V

**Overvoltage correction:** Input voltages between 128 and 147VAC are reduced by 12%

**Direct pass through:** Input voltages between 105 and 127VAC are passed on to connected equipment unchanged

**Brownout correction:** Input voltages between 95 and 104VAC are boosted by 12%

**Severe brownout correction:** Input voltages between 79 and 94VAC are boosted by 24%

## LEDS ALARMS & SWITCHES

**Front panel LEDs:** Includes 5 front panel LEDs to indicate BATTERY CHARGE LEVEL, AC LINE POWER STATUS, VOLTAGE REGULATION STATUS, UPS LOAD LEVEL and BATTERY LOW / REPLACE information

**Alarms:** Audible alarm indicates power failure conditions (4 short beeps every 10 seconds), overload (continuous short beeps) and low battery (continuous tone)

**Switches:** Yes, includes 2 front panel mounted push-button switches for system enable, self-test and alarm cancel functions

## PHYSICAL

**Shipping weight (lbs):** 58.8

**Shipping weight (kg):** 26.7

**Unit weight (lbs):** 52.4

**Unit weight (kg):** 23.8

**Unit Dimensions (HWD/in):** 14.25 x 9.25 x 12.00

**Unit Dimensions (HWD/cm):** 36.2 x 23.5 x 29.8

**Shipping Dimensions (HWD/in):** 16 x 14.75 x 19.75

**Shipping Dimensions (HWD/cm):** 40.6 x 37.5 x 50.2

**Material of construction:** Polycarbonate

**Form factors supported:** Tower

**Cooling method:** Built-in cooling fan

**Battery Access:** Battery access door allows user battery replacement

## ENVIRONMENTAL

**Operating Temperature:** +32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius

<b>Storage Temperature:</b>	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
<b>Relative Humidity:</b>	0 to 95%, non-condensing
<b>Line mode BTU/hr. (Max.):</b>	139.5
<b>Battery mode BTU/hr. (Max.):</b>	473.0

## COMMUNICATIONS

<b>Network monitoring port:</b>	Includes 4 built-in monitoring ports, 2-USB & 2-DB9. Each supports on battery, low battery, power restored, AC line voltage, DC battery voltage, load percentage, battery charge current, battery capacity, internal UPS temperature and line frequency status
<b>Software and cabling included:</b>	Includes PowerAlert UPS monitoring software for all common network and standalone operating systems. Ships with 2 USB and 2 DB9 serial cables
<b>SNMP compatibility:</b>	Yes, internal accessory slot for use with accessory #SNMPWEBCARD
<b>WatchDog compatibility:</b>	Yes, compatible with Tripp Lite's Watchdog system service 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

<b>Transfer time from line power to battery mode:</b>	2-4 milliseconds
<b>Low voltage transfer to battery power:</b>	Switches to battery power as line voltage decreases to 79 volts or less. Resets back to line power mode as line voltage increases to 82V or higher.
<b>High voltage transfer to battery power:</b>	Switches to battery power as line voltage increases to 147 volts or higher. Resets back to line power mode as line voltage decreases to 143V or less.

## CERTIFICATIONS

<b>Certifications:</b>	UL1778 (USA), cUL (Canada), Class A (emissions), NOM (Mexico)
------------------------	---

## WARRANTY

<b>Product warranty:</b>	2 year product warranty
<b>Connected equipment insurance (USA and Canada Only):</b>	\$250,000 connected equipment insurance (USA / Canada only)
<b>Optional coverage:</b>	3-5 year warranties, plus next day and on-site warranty coverage available for select opportunities. Contact Tripp Lite for additional information

## SPECIAL FEATURES

<b>EPO port:</b>	Includes RJ11 EPO (emergency power off) port and interconnection cable
<b>Appearance:</b>	Attractive gray tower UPS

*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.*



**Tripp Lite World Headquarters**  
1111 W. 35th Street  
Chicago, IL 60609 USA

**Customer Support**  
(773) 869-1234

© 2007 Tripp Lite. All Rights Reserved.