

# Model #: SMART2200VS

## SmartPro VS Tower UPS System - Intelligent, line-interactive power management system



## **Highlights**

- 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 floor space 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. \$250,000nnected equipment insurance.

#### 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.

#### Package Includes

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

#### **Features**

- 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 floor space 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

## **Specifications**

SYSTEM	<b>OVERVIEW</b>
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SYSTEM OVERVIEW		
Voltage compatibility	120V AC	
Frequency compatibility	60 Hz	
OUTPUT		
Output VA	2200	
Output 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 REGULATIO	ON
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 & SWI	TCHES
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
SURGE / NOISE SUPP	RESSION
AC surge suppression	480 joules
AC suppression response time	Instantaneous
EMI / RFI AC noise suppression	Yes
PHYSICAL	
Shipping weight (Ibs)	58.8
Shipping weight (kg)	26.7
Shipping Dimensions (HWD/in)	16 x 14.75 x 19.75
Shipping Dimensions (HWD/cm)	40.6 x 37.5 x 50.2
Unit weight (Ibs)	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
Material of construction	Polycarbonate
Form factors supported	Tower
Cooling method	Built-in cooling fan
Battery Access	Battery access door allows user battery replacement
ENVIRONMENTAL	
Relative Humidity	0 to 95%, non-condensing
Storage Temperature	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius

Operating Temperature	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Line mode BTU/hr. (Max.)	139.5
Battery mode BTU/hr. (Max.)	473.0
COMMUNICATIONS	
Network monitoring port	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
Software and cabling included	Includes PowerAlert UPS monitoring software for all common network and standalone operating systems. Ships with 2 USB and 2 DB9 serial cables
SNMP compatibility	Yes, internal accessory slot for use with accessory #SNMPWEBCARD
WatchDog compatibility	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 TRAI	NSFER
Transfer time from line power to battery mode	2-4 milliseconds
Low voltage transfer to battery power	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.
High voltage transfer to battery power	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.
SPECIAL FEATURES	
EPO port	Includes RJ11 EPO (emergency power off) port and interconnection cable
Appearance	Attractive gray tower UPS
CERTIFICATIONS	
Certifications	Tested to UL1778 (USA), cUL (Canada), Class A (emissions), NOM (Mexico)
WARRANTY	
Product Warranty Period	2 year product warranty
Connected Equipment Coverage	\$250,000 connected equipment insurance (USA / Canada only)
Optional Coverage	3-5 year warranties, plus next day and on-site warranty coverage available for select opportunities. Contact Tripp Lite for additional information

# **Related Items**

Extended Warranties		
WEXT3-2200-3000	3-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 2200-3000VA	Qty: [optional]
WEXT5-2200-3000	5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 2200-3000VA or less	Qty: [optional]
Power Distribution		
PS7224-20	Tripp Lite Power Strip - Multiple outlets wherever you need them	Qty: [optional]
PDU1220	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	Qty: [optional]
SNMP Accessories		
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	Qty: [optional]

Software				
WATCHDOGSW	WatchDog Service Monitoring / Reboot Software	Qty: [optional]		
Surge Protectors				
DTEL2	Network Surge Suppressor - Essential protection for data and communication lines	Qty: [optional]		
DNET1	Network Surge Suppressor - Essential protection for data and communication lines	Qty: [optional]		
DCATV	Network Surge Suppressor - Essential protection for TV/VCR coaxial lines	Qty: [optional]		
USB Hubs/Accessories				
U022-010	USB Cable - 10-ft. USB 2.0 AB Gold Device Cable	Qty: [optional]		

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/en/products/model.cfm?txtModeIID=2558.

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