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# Model #: SMART2200VS

#### SmartPro 2.2kVA Line Interactive UPS, SNMPWEBCARD option, Tower, USB, Serial, 120V



# **Highlights**

- 2.2kVA / 2200VA line interactive tower UPS system
- 120V nominal output during brownouts to 79V and overvoltages to 147V
- Front panel status LEDs with load and battery capacity level display
- USB, RS232, EPO and optional SNMP/Web card are available for simultaneous use
- NEMA 5-20P input; 2 NEMA 5-15/20R & 7 5-15R outlets

### **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 VAV 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.

#### Package Includes

• SMART 2200VS UPS System, PowerAlert Software and cabling, 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
- 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
- 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 without powering off connected equipment
- 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)

# **Specifications**

Output Volt Amp Capacity (VA)         220           Output VAVA capacity (VA)         1800           Output WAV Capacity (Watts)         160           Output Durby Watt Capacity (Watts)         16           Output power factor (Durby Deported Compatibility (Watts)         120V           Frequency compatibility (Watts)         188 / + 8%           Output voltage regulation (Wine mode)         189 / + 8%           Output voltage regulation (Wine mode)         7 5 - 18R outlet(s): 2 5 - 18/20R outlet(s)           Built-In controllable switched load banks         Three switchable two-outlet 5 - 15R load banks           Output AC waveform (Acc) (Salte wave mode)         180 / Watts in wave (Watter) (Watte	OUTPUT	
Output Watt Capacity (wats) 1600 Output Wotrape(s) 16 Output power factor 0.7 Nominal Dutput Vottage(s) 120V Urbut vottage regulation (line mode) 7.5-15R outlet(s): 2.5-15/20R outlet(s) 100 parks witched load banks witched		2200
Output kW capacity     1.6       Output power factor     0.7       Nominal Output Voltage(s) Supported     120V       Frequency compatibility     60 Hz       Output voltage regulation (line mode)     -18% / +8%       Output voltage regulation (Battery mode)     +/- 5%       Built-in UPS output receptacles     7 5-15R outlet(s): 2 5-15/20R outlet(s)       Built-in controllable switchable two-outlet 5-15R load banks     Three switchable two-outlet 5-15R load banks       Output AC waveform (AC mode)     Sine wave       Output AC waveform (battery mode)     PWM sine wave       INPUT     IBA       Rated input current (at maximum load)     120V AC supported       UPS input connection type     5-20P       Input circuit breaker     20A       UPS Input cord length (ft.)     8       UPS Input cord length (ft.)     24       Recommended Electrical service     20A 120V       BATTERY     7 min. (1600w)	Output kVA capacity (kVA)	2.2
Nominal Output Voltage(s) Supported Frequency compatibility 60 Hz Output voltage regulation (line mode) V-5% Built-in UPS output receptacles  Built-in Controllable switchad load banks Switchad load banks  Dutput AC waveform (AC charter mode)  Nominal Input Current (at maximum load)  Nominal Input Voltage(s) Supported  Description of the same wave output total output total pattern total output total pattern total output total pattern total output AC waveform (AC charter)  Nominal Input Voltage(s) Supported  Description output AC waveform (AC charter) Suppo		1600
Nominal Output Voltage(s) Supported  Frequency compatibility 60 Hz  Output voltage regulation (line mode) Output voltage regulation (line mode)  Output voltage regulation (line mode)  Frequency compatibility Output voltage regulation Output voltage regulation Output voltage regulation Output voltage regulation Output Ac Water of the switchable two-outlet (s)	Output kW capacity	1.6
Frequency compatibility  Frequency compatibility  Output voltage regulation (line mode)  Output voltage regulation (Battery mode)  Built-in UPS output receptacles  Built-in controllable switched load banks  Output AC waveform (AC mode)  Output AC waveform (AC mode)  INPUT  Rated input current (at maximum load)  Nominal Input Voltage(s) Supported  UPS input connection type  I-20A  UPS Input cord length (ft.)  8  UPS Input cord length (m)  2.4  Recommended Electrical Service  BATTERY  Full load runtime (minutes)  7 min. (1600w)	Output power factor	0.7
Output voltage regulation (line mode)  Output voltage regulation (Battery mode)  Built-in UPS output receptacles  For 5-15R outlet(s): 2 5-15/20R outlet(s)  Three switchable two-outlet 5-15R load banks  switched load banks  Output AC waveform (AC mode)  Output AC waveform (AC mode)  Output AC waveform (AC mode)  INPUT  Rated input current (at maximum load)  Nominal Input Voltage(s)  Supported  UPS input connection type  5-20P  Input circuit breaker  UPS Input cord length (ft.)  8  UPS Input cord length (m)  2.4  Recommended Electrical services  BATTERY  Full load runtime (minutes)  7 min. (1600w)	Nominal Output Voltage(s) Supported	120V
Qutput voltage regulation (Battery mode)     +/- 5%       Built-In UPS output receptacles     7 5-15R outlet(s); 2 5-15/20R outlet(s)       Built-In UPS output receptacles     Three switchable two-outlet 5-15R load banks       Built-In controllable switched load banks     Three switchable two-outlet 5-15R load banks       Output AC waveform (AC mode)     Sine wave       Output AC waveform (act waveform (act languard current (at maximum load)     16A       Nominal Input Voltage(s)     120V AC       UPS input connection type     5-20P       Input circuit breaker     20A       UPS Input cord length (ft.)     8       UPS Input cord length (m)     2.4       Recommended Electrical services     20A 120V       BATTERY     7 min. (1600w)	Frequency compatibility	60 Hz
Built-in UPS output receptacles 75-15R outlet(s); 25-15/20R outlet(s) receptacles 8 witched load banks 75-15R outlet(s); 25-15/20R outlet(s) 8 witched load banks 75-15R load banks 75-15R load banks 75-15R load banks 8 witched load banks 75-15R lo		-18% / +8%
Bullt-in controllable switched load banks Output AC waveform (AC mode)  PWM sine wave  PWM sine	Output voltage regulation (Battery mode)	+/- 5%
Switched load banks  Output AC waveform (AC mode)  Output AC waveform (battery mode)  NOUT  Rated input current (at maximum load)  Nominal Input Voltage(s) supported  UPS input connection type  5-20P  Input circuit breaker  UPS Input cord length (ft.) 8  UPS Input cord length (m) 2.4  Recommended Electrical service  BATTERY  Full load runtime (minutes)  Sine wave  Sine wave  Accommended Electrical service  Sine wave  Sine wave  Accommended Electrical service  Sine wave  Sine wave  Accommended Electrical service  To min. (1600w)		7 5-15R outlet(s); 2 5-15/20R outlet(s)
mode)     PWM sine wave       Output AC waveform (battery mode)     PWM sine wave       INPUT       Rated input current (at maximum load)     16A       Nominal Input Voltage(s) Supported     120V AC       UPS input connection type     5-20P       Input circuit breaker     20A       UPS Input cord length (ft.)     8       UPS Input cord length (m)     2.4       Recommended Electrical Service     20A 120V       BATTERY       Full load runtime (minutes)     7 min. (1600w)		Three switchable two-outlet 5-15R load banks
Chartery mode)   INPUT   Rated input current (at maximum load)   16A   16A   120V AC		Sine wave
Rated input current (at maximum load)  Nominal Input Voltage(s) Supported  UPS input connection type 5-20P  Input circuit breaker 20A  UPS Input cord length (ft.) 8  UPS Input cord length (m) 2.4  Recommended Electrical Service  BATTERY  Full load runtime (minutes) 7 min. (1600w)		PWM sine wave
Nominal Input Voltage(s) Supported     120V AC       UPS input connection type     5-20P       Input circuit breaker     20A       UPS Input cord length (ft.)     8       UPS Input cord length (m)     2.4       Recommended Electrical Service     20A 120V       BATTERY     7 min. (1600w)	INPUT	
Supported  UPS input connection type 5-20P  Input circuit breaker 20A  UPS Input cord length (ft.) 8  UPS Input cord length (m) 2.4  Recommended Electrical Service 20A 120V  Full load runtime (minutes) 7 min. (1600w)		16A
Input circuit breaker 20A  UPS Input cord length (ft.) 8  UPS Input cord length (m) 2.4  Recommended Electrical Service 20A 120V  Full load runtime (minutes) 7 min. (1600w)	Nominal Input Voltage(s) Supported	120V AC
UPS Input cord length (ft.) 8  UPS Input cord length (m) 2.4  Recommended Electrical Service 20A 120V  Full load runtime (minutes) 7 min. (1600w)	UPS input connection type	5-20P
UPS Input cord length (m)  Recommended Electrical Service  BATTERY  Full load runtime (minutes)  7 min. (1600w)	Input circuit breaker	20A
Recommended Electrical Service 20A 120V  BATTERY  Full load runtime (minutes) 7 min. (1600w)	UPS Input cord length (ft.)	8
Service  BATTERY  Full load runtime (minutes) 7 min. (1600w)	UPS Input cord length (m)	2.4
Full load runtime (minutes) 7 min. (1600w)		20A 120V
	BATTERY	
Half load runtime (minutes) 19 min. (800w)	Full load runtime (minutes)	7 min. (1600w)
	Half load runtime (minutes)	19 min. (800w)

DC system voltage (VDC)	48	
Battery recharge rate (included batteries)	Less than 4 hours from 10% to 90%	
Replacement battery cartridge (internal UPS battery replacement)	RBC54	
Battery Access	Battery access door	
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 79V to 147V	
Overvoltage correction	Input voltages between 128 and 147 are reduced by 12%	
Undervoltage correction	Input voltages between 95 and 104 are boosted by 12%	
Severe undervoltage correction	Input voltages between 79 and 94 are boosted by 24%	
LEDS ALARMS & SWITCHES	S Company of the comp	
LED Indicators	5 LEDs indicate line power, battery power, overload, voltage regulation and battery low/replace status	
Alarms	Audible alarm indicates power-failure, overload and low-battery conditions	
Alarm cancel operation	Power-fail alarm can be silenced using alarm-cancel switch; once silenced, alarm will re-sound to indicate low-battery status	
Switches	2 Switches control off/on power status and alarm-cancel/self-test operation	
SURGE / NOISE SUPPRESSI	ON	
UPS AC suppression joule rating	480	
UPS AC suppression response time	Instantaneous	
EMI / RFI AC noise suppression	Yes	
PHYSICAL		
Installation form factors supported with included accessories	Tower	
Primary form factor	Tower	
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	14.2 x 9.2 x 12	
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	36.2 x 23.5 x 30.5	
UPS / Power Module weight (lbs)	52.4	
UPS / Power Module weight (kg)	23.8	

UPS Shipping dimensions (height x width x depth / inches)	16 x 14.8 x 19.8
UPS Shipping dimensions (height x width x depth / cm)	40.6 x 37.5 x 50.2
Shipping weight (lbs)	58.8
Shipping weight (kg)	26.7
UPS housing material	Polycarbonate
Cooling method	Fan
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)	347.2
Battery mode BTU / hr. (full load)	812.9
Audible Noise	Audible Noise < 47dBA At Front Side 1 Meter
COMMUNICATIONS	
Communications interface	USB; DB9 Serial; Contact closure
Network monitoring port description	Supports detailed monitoring of UPS and site power conditions; 2 USB ports, 1 DB9 serial and 1 DB9 contact closure port (4 total)
PowerAlert software	Included
Communications cable	2 USB and 2 DB9 cables included
WatchDog compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
LINE / BATTERY TRANSFER	
Transfer time	2-4 milliseconds
Low voltage transfer to battery power (setpoint)	79
High voltage transfer to battery power (setpoint)	147
SPECIAL FEATURES	
Cold Start (startup in battery mode during a power failure)	Cold-start operation supported
High availability UPS features	Hot swappable batteries
Green & high efficiency features	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)
WARRANTY	
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

# **Related Items**

### **Optional Products**

Related Model	Description	Qty.
DCATV	Network Surge Suppressor - Essential protection for TV/VCR coaxial lines	1
DNET1	Network Surge Suppressor - Essential protection for data and communication lines	1
DTEL2	Network Surge Suppressor - Essential protection for data and communication lines	1
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	1
PDU1220	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	1
PS7224-20	Tripp Lite Power Strip - Multiple outlets wherever you need them	1
SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
U022-010	10-ft. USB2.0 A/B Gold Device Cable (A Male to B Male)	1
WATCHDOGSW	WatchDog Service Monitoring / Reboot Software	1
WEXT5-2200-3000	5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 2200-3000VA or less	1

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

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