

## SmartOnline 120V 2.2kVA 1.8kW Double-Conversion UPS, Tower, Extended Run, Network Management Card Slot, LCD, USB, DB9

MODEL NUMBER: SU2200XLCD











#### Description

Do you need to protect medium- to large-size servers, networking equipment and telecom systems against data loss, downtime and equipment damage due to power outages, voltage fluctuations and transient surges? Tripp Lite's SU2200XLCD SmartOnline® Tower UPS System is the solution! Featuring a 2200VA/1800W capacity and true on-line operation with pure sine wave output and zero transfer time to battery, it provides the highest level of power protection for mission-critical equipment. The SU2200XLCD's large internal battery set supports connected equipment during blackouts, and runtime is expandable with optional external battery packs BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible), sold separately. The SU2200XLCD has 7 AC outlets (6 5-15/20R, 1 L5-20R), including 2 load banks of 3 outlets each that are individually controllable to reboot select equipment on demand or maximize battery runtime for mission-critical equipment. USB and DB9 communication ports support messaging of detailed UPS operational parameters and line power status. PowerAlert UPS management software is available via free download. The SU2200XLCD also accepts an optional network management card option. It comes backed by \$250,000 of Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only).

#### **Features**

Ideal for Protection of Mission-Critical EquipmentThe SU2200XLCD provides true on-line operation, reliable battery backup and comprehensive power management capability in a compact tower form factor. Featuring a 2200VA/1800W capacity, 7 AC outlets (6 5-15/20R, 1 L5-20R), a 10-ft. cord with 5-20P plug, USB/DB9 ports and a slot for an optional network management card option, the SU2200XLCD offers a complete power protection solution for medium- to large-size servers, storage devices, telecom systems and other mission-critical equipment.

True On-Line Operation with Pure Sine Wave Output and Zero Transfer TimeThe SU2200XLCD provides the highest level of protection available for mission-critical equipment. It actively converts raw incoming AC power to DC, then re-converts it back to regulated, filtered AC output with a pure sine wave, completely isolating connected components from all power problems. Zero transfer time between AC and battery operation maintains continuous output and further protects connected equipment from the disruptive effects of blackouts and severe low-voltage conditions. Sine wave output guarantees compatibility with all equipment types.

**Individually Controllable Outlets**The SU2200XLCD includes 2 load banks of 3 outlets each that are individually controllable via a software interface for remote reboot of locked-up equipment or load

## **Highlights**

- 2200VA / 2.2kVA / 1800 watt on-line double-conversion tower
- 100/110/120/127V 50/60Hz output, 97% efficiency economy mode option
- Interactive LCD with 10 selectable screens of UPS and site power data
- Expandable runtime, Hotswappable batteries
- USB, RS232 & EPO ports, slot for network management card options
- 2 independently switched load banks
- NEMA 5-20P input; 6 5-15/20R
   1 L5-20R outlets
- To use the Auto Probe feature, this product requires a WEBCARDLX network interface (sold separately) running LX firmware update 15.5.2 or later

## **Package Includes**

- SU2200XLCD SmartOnline® Tower UPS System
- USB, DB9 and EPO Cables
- Owner's Manual



shedding to maximize battery backup time for mission-critical equipment.

Reliable, Expandable Battery BackupUPS battery backup keeps connected equipment operational through short power failures, and provides time to save data and perform an orderly system shutdown in case of a prolonged blackout. The SU2200XLCD features a large internal battery set that provides 13 minutes of battery support for a half load (900 watts) and 4.5 minutes for a full load (1800 watts). During normal operation, incoming utility power keeps the UPS battery fully charged so that backup power will always be available if needed. Intelligent battery management system extends battery life. For mission-critical applications demanding continuous uptime, the fully scalable SU2200XLCD can provide expandable runtime with optional external battery packs BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible), sold separately.

**High Power Factor and Highly Efficient Operation Reduces BTU Output**The SU2200XLCD features a high 0.82 power factor and an optional, highly efficient economy mode setting that can significantly reduce a facility's energy costs. In economy mode, the UPS operates with 97% efficiency, minimizing heat output, reducing cooling requirements and consuming less electricity.

**AC Line and Tel/Ethernet Surge Suppression**A sudden power surge or spike can damage or destroy electronic components and wipe out irreplaceable data. The SU2200XLCD features a 570-joule surge suppression rating to protect connected components and data from the harmful effects of power surges. One set of tel/Ethernet (RJ45) jacks provides surge protection for a standard phone or network connection (cable not included).

**EMI/RFI Line Noise Filtering**Various electrical and radio sources can cause disruptive interference on the AC line. This line noise is a common cause of incremental hardware damage, data corruption and audio/video performance problems. The SU2200XLCD incorporates technology that filters out disruptive line noise, preventing it from affecting your equipment.

**LCD Screen and Audible Alarm**The SU2200XLCD features a front-panel LCD screen that enables IT personnel to monitor line power, on-line mode, bypass mode, on-battery, overload, battery low, replace battery and fault status information. It is supplemented by an audible alarm that signals UPS startup, power failure, low battery, overload, UPS fault and remote shutdown conditions.

**Emergency Power Off (EPO) Capability**The SU2200XLCD features an EPO interface port that supports emergency shutoff in large facilities (cable included).

USB/DB9 Ports, Management Card Options and Included PowerAlert SoftwareSU2200XLCD includes HID-compliant USB interface that enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. USB and DB9 ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from <a href="mailto:tripplite.eaton.com/products/power-alert">tripplite.eaton.com/products/power-alert</a>. Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD.

**Peace of Mind**The SU2200XLCD comes with \$250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only) for connected equipment.

# **Specifications**

OVERVIEW		
UPC Code	037332174659	
UPS Type	On-Line	
INPUT		
Input Phase	Single-Phase	



Rated input current (Maximum Load)	16A	
Nominal Input Voltage(s) Supported	100V AC; 110V AC; 120V AC; 127V AC	
Nominal Input Voltage Description	120V factory default	
UPS Input Connection Type	5-20P	
Input Circuit Breakers	30A	
UPS Input Cord Length (ft.)	10	
UPS Input Cord Length (m)	3.1	
Recommended Electrical Service	20A 120V	
OUTPUT		
Output Capacity (VA)	2200	
Output Capacity (kVA)	2.2	
Output Capacity (Watts)	1800	
Output Capacity (kW)	1.8	
Output Capacity Details	ON LINE MODE: Maximum output capacity rating is reduced to 1620W (115V), 1530W (110V) and 1440W (100V); FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 1260 watts, 115V 1134 watts, 110V 1071 watts, 100V 1008 watts)	
	OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits)	
Power Factor	0.82	
Crest Factor	3:1	
Nominal Voltage Details	120V default	
Frequency Compatibility	50 / 60 Hz; Supports 50 to 60 Hz and 60 to 50 Hz conversion	
Frequency Compatibility Details	ON LINE MODE: Output frequency is automatically configured to match nominal input frequency on startup; Output matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.	
Frequency Compatibility Details  Output Voltage Regulation (Line Mode)	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.	
Output Voltage Regulation (Line	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.	
Output Voltage Regulation (Line Mode) Output Voltage Regulation	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.  +/- 2%	
Output Voltage Regulation (Line Mode)  Output Voltage Regulation (Economy Line Mode)  Output Voltage Regulation (Battery	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.  +/- 2%  +/- 10%	
Output Voltage Regulation (Line Mode)  Output Voltage Regulation (Economy Line Mode)  Output Voltage Regulation (Battery Mode)	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.  +/- 2%  +/- 10%	
Output Voltage Regulation (Line Mode) Output Voltage Regulation (Economy Line Mode) Output Voltage Regulation (Battery Mode) Load Management Receptacles	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.  +/- 2%  +/- 10%  Two switchable three-outlet load banks	
Output Voltage Regulation (Line Mode)  Output Voltage Regulation (Economy Line Mode)  Output Voltage Regulation (Battery Mode)  Load Management Receptacles  Output AC Waveform (AC Mode)  Output AC Waveform (Battery	matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency when input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz.  BATTERY MODE: Output is regulated to +/-0.05Hz of selected nominal.  +/- 2%  +/- 10%  Two switchable three-outlet load banks  Pure Sine wave	



Individually Controllable Load Banks	Yes	
BATTERY		
Battery Type	Valve Regulated Lead Acid (VRLA)	
Runtime Full Load (min.)	4.5 min. (1800W)	
Runtime Half Load (min.)	13 min. (900W)	
Expandable Runtime	Yes	
Expandable Runtime Description	External battery configurations require the use of Tripp Lite's External Battery Configuration Software, see manual for details	
External Battery Pack Compatibility	<a class="productLink" href="//tripplite.eaton.com/External-48V-2U-Rack-Tower-Battery-Pack-for-UPS-Systems~BP48V27-2US">BP48V27-2US</a> (multi-pack compatible); <a class="productLink" href="//tripplite.eaton.com/External-48V-3U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V60RT-3U">BP48V60RT-3U</a> (multi-pack compatible)	
DC System Voltage (VDC)	48	
Battery Recharge Rate (Included Batteries)	Less than 3 hours from 10% to 90%	
Battery Access	Battery access door	
Internal UPS Replacement Battery Cartridge	<a class="productLink" href="//tripplite.eaton.com/UPS-Replacement-48VDC-Battery-Cartridge~RBC48-SUTWR">RBC48-SUTWR</a>	
Battery Replacement Description	Hot-swappable, user replaceable batteries	
VOLTAGE REGULATION		
Voltage Regulation Description	Online, double-conversion power conditioning	
Overvoltage Correction	2% output voltage regulation during overvoltages to 150	
Undervoltage Correction	2% output voltage regulation during undervoltages to 55V (33% load), 70V (70% load), 100V (100% load)	
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, frequency, operating mode, alarm function and a variety of additional options	
Switches	2 switches control off/on power status and alarm-cancel/self-test operation	
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	
UPS Dataline Suppression	1 line TEL/DSL (1 in / 1 out); 10/100Base T Ethernet	
EMI / RFI AC Noise Suppression	Yes	
PHYSICAL		



Primary Form Factor	Tower	
Cooling Method	Fan	
Installation Form Factors Supported with Included Accessories	Tower	
Primary UPS Depth (mm)	495	
Primary UPS Height (mm)	259	
Primary UPS Width (mm)	229	
Shipping Dimensions (hwd / in.)	14.70 x 13.50 x 23.10	
Shipping Dimensions (hwd / cm)	37.34 x 34.29 x 58.67	
Shipping Weight (lbs.)	60.00	
Shipping Weight (kg)	27.22	
UPS Housing Material	Steel	
UPS Power Module Dimensions (hwd, cm)	25.91 x 22.86 x 49.53	
UPS Power Module Dimensions (hwd, in.)	10.2 x 9 x 19.5	
UPS Power Module Weight (kg)	24.00	
UPS Power Module Weight (lbs.)	52.9	
Unit Weight (lbs.)	52.9000	
Unit Weight (kg)	24.00	
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)	684	
AC Economy Mode BTU / Hr. (Full Load)	190	
Battery Mode BTU / Hr. (Full Load)	1087	
AC Mode Efficiency Rating (100% Load)	92%	
AC Economy Mode Efficiency Rating (100% Load)	97%	
Audible Noise	< 50.5 dB at front side 1m	
Operating Elevation (m)	Up to 3000m	
COMMUNICATIONS		



Network Management Cards	SNMPWEBCARD; <a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD">TLNETCARD</a> ; <a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card~WEBCARDLX">WEBCARDLX</a> ; <a class="productLink" href="//tripplite.eaton.com/MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control~MODBUSCARD">MODBUSCARD</a> ; <a class="productLink" href="//tripplite.eaton.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a>
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions; DB9 port supports RS232 and contact closure communications
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 Management Card Description	Network management card optional
Communications Interface	Contact closure; DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)
LINE / BATTERY TRANSFER	
Transfer Time	Zero transfer time (0 ms.) in online, double-conversion and frequency regulation / conversion modes;
Low Voltage Transfer to Battery Power (Setpoint)	55V (33% load), 70V (70% load), 100V (100% load)
High Voltage Transfer to Battery Power (Setpoint)	150
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 inverter bypass; Hot swappable batteries; Remote management; Surge/noise protection; Zero transfer time
Green Energy-Saving Features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation
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 limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 <a class="insuranceLink" href="//tripplite.eaton.com/support/insurance-policy">Ultimate Lifetime Insurance</a>
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