SmartOnline 120V 2.2kVA 1.8kW Double-Conversion UPS, 2U Rack/Tower, Extended Run, Pre-Installed SNMP Card, LCD, USB, DB9

MODEL NUMBER: **SU2200RTXLCDN**

Highlights

- Zero transfer time suitable for advanced network applications
- 2% output voltage regulation in online and battery modes
- Expandable runtime with optional external battery packs
- SNMPWEBCARD comes pre-installed
- 12 min. runtime at half load; 4 min. at full load

Package Includes

- SU2200RTXLCDN SmartOnline 120V 2.2kVA 1.8kW On-Line Double-Conversion UPS
- SNMPWEBCARD web management card
- USB cable
- DB9 cable
- EPO cable
- PowerAlert® software
- Mounting hardware
- Owner's manual

Description

The SU2200RTXLCDN SmartOnline® 120V 2.2kVA 1.8kW On-Line Double-Conversion UPS provides battery backup and AC power protection against blackouts, brownouts, power surges and line noise that can damage electronics or destroy data. It converts AC input to DC power, and then converts DC to fully regulated sine wave AC output with +/-2% voltage regulation in online and battery modes.

Featuring six NEMA 5-15/20R outlets in two switchable numbered load backs, as well as one L5-20R outlet and a 5-20P input, the SU2200RTXLCDN has an internal battery that provides 12 minutes of support at half load and four minutes at full load. Adding external battery packs, such as BP48V24-2U (sold separately), provides extended runtime.

The pre-installed SNMPWEBCARD accessory card permits remote management, including reboots, configuration, updates and activity logs. An interactive front-panel LCD interface displays operating conditions and diagnostic data, such as load, voltage and battery levels. You can set operating modes to reflect your protection priorities, including an optional economy mode that saves heat output and energy costs.

EMI/RFI noise filtering improves your equipment's performance and prevents damage. A 570-joule surge suppression rating protects your equipment from harmful power surges. With Tripp Lite's included POWERALERT12 software, the SU2200RTXLCDN enables safe unattended system shutdown and file saves in case of a prolonged power failure.

Features

Protects Mission-Critical Rack-Mounted Equipment

- Provides fully regulated sine wave AC output for servers, network storage devices and telecom hardware
- +/-2% voltage regulation in online and battery modes
- Selectable 100/110/120/127V output voltage
- 6 NEMA 5-15/20R and 1 L5-20R outlets
- 10 ft. power cord with NEMA 5-20P input

- 570-joule surge suppression rating

Reliable Battery Backup with Expandable Runtime
- Supports half load for 12 min. and full load for 4 min.
- Zero transfer time suitable for advanced network applications
- Expandable runtime with optional external battery packs, such as Tripp Lite's BP48V24-2U
- Restarts automatically after lengthy power outages

Included SNMP/Web Capability
- Pre-installed SNMPWEBCARD permits remote management of UPS, including reboots, configuration, updates and activity logs

Switchable Numbered Load Banks
- Outlets are divided into 2 numbered load banks, each of which may be individually powered on and off remotely to reset or reboot connected equipment

Interactive LCD Screen
- Reports detailed status information, including load, voltage and battery levels
- Offers advanced configuration and setup options, including output voltage and operating mode

EMI/RFI Line Noise Filtering
- Removes electromagnetic and radio frequency interference that can disrupt or damage equipment's performance

Audible Alarm
- Indicates startup/shutdown, power failure, low battery, overload and fault conditions

Communications Ports
- USB and DB9 ports combine with included POWERALERT12 software to monitor operating conditions, monitor AC power, and enable safe unattended system shutdown and file saves in case of a prolonged power failure
- EPO port supports emergency shutdown in large facilities

Versatile Installation Options
- Hardware included for 4-post mounting in 2U of EIA-standard 19 in. rack
- Mounts on wall or 2-post rack with optional 2POSTRMKITWM
- Mounts in upright tower position with optional 2-9USTAND

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	2200
Output kVA Capacity (kVA)	2.2
Output Watt Capacity (Watts)	1800
Output kW Capacity (kW)	1.8

Output Capacity Details	ON LINE MODE: Maximum output capacity is reduced to 1620 watts at 115V nominal and 1440 watts at 100V nominal; 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 Output Voltage(s) Supported	100V; 110V; 115V; 120V; 127V
Nominal Voltage Details	120V factory-default nominal voltage
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 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.
Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 3%
Output Receptacles	(6) 5-15/20R; (1) L5-20R
Load Management Receptacles	Two switchable three-outlet 5-15/20R load banks
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	16A
Nominal Input Voltage(s) Supported	100V AC; 110V AC; 115V 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
Recommended Electrical Service	20A 120V
Input Phase	Single-Phase
BATTERY	
Full Load Runtime (min.)	4 min. (1800w)

Half Load Runtime (min.)	12 min. (900w)
Expandable Battery Runtime	Extended runtime supported via optional external battery packs
External Battery Pack Compatibility	BP48V24-2U(limit 1); BP48V60RT-3U(multi-pack compatible); BP48V27-2US(multi-pack compatible)
Expandable Runtime Description	Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software, see manual for details
DC System Voltage (VDC)	48
Battery Recharge Rate (Included Batteries)	Less than 3 hours recharge to 90% (typical, full load discharge)
Internal UPS Replacement Battery Cartridge	RBC94-2U
Battery Access	Front panel battery access
Battery Replacement Description	Hot-swappable, user replaceable batteries
Expandable Runtime	Yes

VOLTAGE REGULATION

Voltage Regulation Description	Online, double-conversion power conditioning maintains 2% output voltage regulation during brownouts and overvoltages
Overvoltage Correction	Corrects overvoltages to 150V (0-100% load)
Undervoltage Correction	Corrects undervoltages to 100V at full load (90V at 100V nominal)
Severe Undervoltage Correction	Corrects brownouts to 70V (70% load) & 55V (33% 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 operation; 2 additional scroll-down and scroll-up / select options enable LCD status viewing and configuration options
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
LED Indicators	7 front panel LEDs indicate line power availability, AC to DC conversion, battery mode operation, inverter mode, eco mode operation, bypass mode operation and AC output status

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

Included Mounting Accessory Description	Includes 4 post rackmount installation accessories
Installation Form Factors Supported with Optional Accessories	2 post rackmount(2POSTRMKITWM); Tower(2-9USTAND); Wallmount(2POSTRMKITWM)
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	3.5 x 17.5 x 19
UPS Power Module Dimensions (hwd, cm)	8.9 x 44.4 x 48.3
Rack Height (U Spaces)	2
UPS Power Module Weight (lbs.)	48.5
UPS Power Module Weight (kg)	22
UPS Shipping Dimensions (hwd / in.)	8.6 x 23.5 x 19.9
UPS Shipping Dimensions (hwd / cm)	21.84 x 59.69 x 50.55
Shipping Weight (lbs.)	62.5
Shipping Weight (kg)	28.38
Cooling Method	Fan
UPS Housing Material	Steel

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	5 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	683
AC Economy Mode BTU / Hr. (Full Load)	390
Battery Mode BTU / Hr. (Full Load)	1087
AC Economy Mode Efficiency Rating (100% Load)	94%
Operating Elevation (ft.)	0-10,000 ft.
Audible Noise	57 dBA at 1m front side
Operating Elevation (m)	0-3000 m

COMMUNICATIONS

Communications Interface	Contact closure; DB9 Serial; EPO (emergency power off); Pre-installed network card; Slot for SNMP/Web interface; USB (HID enabled)
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions; DB9 port supports RS232 and contact closure communications
PowerAlert Software	Included

Communications Cable	USB and DB9 cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications

LINE / BATTERY TRANSFER	
Transfer Time	Zero (0 milliseconds) in double-conversion mode; 4 milliseconds economy mode
Low Voltage Transfer to Battery Power (Setpoint)	100V at full load (90V full load at 100V nominal setting); 70V at 70% load; 55V at 33% load
High Voltage Transfer to Battery Power (Setpoint)	150

SPECIAL FEATURES	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Hot swappable batteries
Green Energy-Saving Features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation

CERTIFICATIONS	
UPS Certifications	Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances); Tested to CSA (Canada); Tested to UL1778 (USA)

WARRANTY	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	$250,000 Ultimate Lifetime Insurance