

SmartOnline 120V 2.2kVA 1.8kW Double-Conversion UPS, 2U Rack/Tower, Extended Run, WEBCARDLX Network Interface

MODEL NUMBER: SU2200RTXLCDN



Protects connected mission-critical equipment against damage, downtime and data loss due to blackouts, brownouts, power surges and line noise. Pre-installed WEBCARDLX network interface permits remote UPS management.

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 Java-free HTML5-based WEBCARDLX interface enables full remote access for site power and UPS status monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH. It supports 10/100 Mbps auto-sensing for optimum communication with an Ethernet network. Optional EnviroSense2 modules (sold separately) provide a variety of environmental monitoring capabilities. Protocols supported include HTTP, HTTPS, SMTP, SNMPv1, SNMPv2, SNMPv3, telnet, SSH, FTP, DHCP and NTP.

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.

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
Battery independent restart ensures automatic UPS power-up after lengthy power outages, even with expired batteries

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
- Pre-installed WEBCARDLX network interface
- 12 min. runtime at half load; 4 min. at full load
- To enable the Auto Probe feature, this product requires LX firmware update 15.5.2 or later to be installed

Package Includes

- SU2200RTXLCDN SmartOnline 120V 2.2kVA 1.8kW On-Line Double-Conversion UPS
- Pre-installed WEBCARDLX network interface
- USB cable
- DB9 cable
- EPO cable
- Mounting hardware
- Owner's manual



Pre-Installed WEBCARDLX Network Interface Allows full remote access for power monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH
Optional EnviroSense2 sensors (sold separately) enable site monitoring of temperature, humidity and contact-closure status

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 enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software (available via free download at www.tripplite.com/poweralert)
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 2POSTRMKITWMMounts in upright tower position with optional 2-9USTAND

Specifications

OVERVIEW	
UPC Code	037332182982
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
Individually Controllable Load Banks	Yes
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)	3.1
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 <small>(limit 1)</small> BP48V60RT-3U <small>(multi-pack compatible)</small> BP48V27-2US <small>(multi-pack compatible)</small>
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 <small>(multi-pack compatible)</small>
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	
Installation Form Factors Supported with Included Accessories	4 post 19 inch rackmount
Included Mounting Accessory Description	Included 4POSTRAILKIT mounting bracket enables installation in 4 post racks from 20.5 to 36 inches (521 to 914mm)
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITWM); 2-4 post front rail rackmount (UPSHDEARKIT); 4 post rackmount short-depth (4POSTRAILKITWM); Tower (2-9USTAND); Wallmount (2POSTRMKITWM)
Optional Mounting Accessory Notes	Optional 2-9USTAND enables upright tower UPS placement; 2POSTRMKITWM enables wall-mount and 2-post rackmount installation; 4POSTRAILKITWM enables installation in 4-post short-depth racks from 14.5 to 23.5 inches (368 to 597mm); UPSHDEARKIT enables installation in 2 or 4-post racks using front vertical rails only, without rear support
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	3.5 x 17.5 x 19
UPS Power Module Dimensions (hwd, cm)	8.89 x 44.45 x 48.26



Rack Height	2U
Minimum Required Rack Depth without External Battery Pack (cm)	61
Minimum Required Rack Depth with External Battery Pack (cm)	66
Minimum Required Rack Depth without External Battery Pack (in.)	24
Minimum Required Rack Depth with External Battery Pack (in.)	26
UPS Power Module Weight (lbs.)	48.5
UPS Power Module Weight (kg)	22.00
Shipping Dimensions (hwd / in.)	8.90 x 19.90 x 23.50
Shipping Dimensions (hwd / cm)	22.61 x 50.55 x 59.69
Shipping Weight (lbs.)	63.00
Shipping Weight (kg)	28.58
Cooling Method	Fan
UPS Housing Material	Steel
Primary UPS Height (mm)	89
Primary UPS Width (mm)	445
Primary UPS Depth (mm)	483
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)	684
AC Economy Mode BTU / Hr. (Full Load)	392
Battery Mode BTU / Hr. (Full Load)	1085
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	Includes pre-installed WEBCARDLX Network Management Card interface; 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 Local software at http://www.tripplite.com/poweralert
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

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