SmartOnline 120V 2.2kVA 1.6kW Double-Conversion UPS, 2U Rack/Tower, Extended Run, Pre-installed WEBCARDLX network interface, USB, DB9 Serial

MODEL NUMBER: SU2200RTXL2UN

Description

Tripp Lite Smart Online UPS systems offer high performance power protection ideal for critical server and network equipment in datacenters, computer rooms and network closets. Online, double-conversion Uninterruptible Power Supply (UPS) maintains perfectly regulated output power by continuously converting raw AC input to DC, then re-converting output back to AC. Fully regulated sine wave AC output with +/-2% voltage regulation powers network equipment continuously, even during severe brownouts and overvoltages, all without depleting UPS battery reserves. Maintains battery-derived AC output during power failures with zero transfer time. Extended runtime options available. Highly efficient operation in optional economy mode saves BTU heat output and energy costs. Network management interfaces support communications via USB port, DB9 serial port and pre-installed WEBCARDLX network management interface card. 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. Built-in DB9 port offers both enhanced RS-232 data and basic contact closure monitoring ability. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. PowerAlert UPS monitoring software is available via free download. Emergency Power Off (EPO) interface. LED display reports UPS operating mode, line power availability, battery mode operation, inverter operation and output power availability. Audible alarm with push-button momentary alarm-cancel. Programmable self-test. Fault-tolerant auto-bypass mode. Field-replaceable, hot-swappable internal batteries and external battery packs.

Highlights

- 2200VA / 2.2kVA / 1600 watt on-line double-conversion 2U rack/tower UPS
- 110/120V +/-2% output at 50/60Hz, high efficiency economy mode option
- Expandable runtime, Hot-swap batteries; 19 in / 48.3cm installed depth
- USB, RS232, EPO ports and Pre-installed WEBCARDLX network interface
- Front panel status LEDs with detailed load and battery metering
- 2 independently switchable output load banks
- NEMA 5-20P input; L5-20R & 5-15/20R outlets
- To enable the Auto Probe feature, this product requires LX firmware update 15.5.2 or later to be installed

Package Includes

- SU2200RTXL2UN UPS with Pre-installed Network Management Card interface
- USB, DB9 and EPO cabling
- Mounting hardware for 4 post rack enclosures
- Instruction manual

Features

- Tripp Lite SU2200RTXL2UN 2200VA / 2.2kVA / 1600W on-line, double-conversion 3U rackmount UPS

- Selectable 110/120V output (120V factory preset)

- NEMA 5-20P input, 6 NEMA 5-15/20R & 1 L5-20R

- Two switched 3-outlet load banks support remote reboot or programmable load shedding options

- Supports 2% output voltage regulation and zero transfer time in double conversion mode

- Economy mode option offers enhanced efficiency operation, reduced power consumption and lower BTU emissions

- 14 minutes runtime at 50% load (800W) and 4.5 minutes at 100% load (1600W) with internal batteries

- BP48V24-2U (limit 1), BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible) external battery packs available (some configurations require Tripp Lite's External Battery Configuration Software)

- Intelligent battery management system extends battery life

- LED Display reports UPS operating mode, line power availability, battery mode operation, inverter status and output power availability

- Audible alarm with push-button momentary alarm-cancel

- 4 post installation hardware included, Optional 2POSTRMKITWM enables 2 post rack installation

- Single line TEL / Network surge suppression

- Electronic bypass maintains utility output during a variety of UPS fault conditions

- Network interfaces support communications via built-in USB, DB9 serial / contact-closure and pre-installed WEBCARDLX network management card

- WEBCARDLX interface allows full remote access for power monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH

- Optional E2 sensors enable site monitoring of temperature, humidity and contact-closure status

- Reduce Service Calls with Auto Probe Autonomous Device Management**.** Auto Probe feature (Firmware 15.5.2 and greater) of the LX Platform Interface checks the connectivity status of any networked device and automatically takes one or more user-configured actions if the device fails to respond; actions include outlet reboot, set SNMP traps, SNMP OID sets, and even script execution when used in conjunction with the Tripp Lite PowerAlert Network Shutdown Agent (PANSA)

- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X

- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from www.tripplite.com/poweralert

Specifications

OVERVIEW	
UPC Code	037332181480

UPS Type	On-Line
INPUT	
Rated input current (Maximum Load)	16A
Nominal Input Voltage(s) Supported	110V AC; 120V AC
UPS Input Connection Type	5-20P
Input Circuit Breakers	30A
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.1
UPS Input Cord Length Details	Built-in
Recommended Electrical Service	20A 120V
Input Phase	Single-Phase
OUTPUT	
Output Volt Amp Capacity (VA)	2200
Output kVA Capacity (kVA)	2.2
Output Watt Capacity (Watts)	1600
Output kW Capacity (kW)	1.6
Power Factor	0.7
Crest Factor	3:1
Nominal Voltage Details	120V default
Frequency Compatibility	50 / 60 Hz
Frequency Compatibility Details	Output frequency matches input nominal on startup, defaults to 60 Hz on cold-start
Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 2%
Load Management Receptacles	Two switchable three-outlet 5-15/20R load banks
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Output Capacity Details	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)
Nominal Output Voltage(s) Supported	110V; 120V
Output Receptacles	(6) 5-15/20R; (1) L5-20R

Individually Controllable Load Banks	Yes

BATTERY	
Full Load Runtime (min.)	4.5 min. (1600w)
Half Load Runtime (min.)	14 min. (800w)
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	BP48V24-2U (limit 2 w/ 48VDCSPLITTER)
DC System Voltage (VDC)	48
Battery Recharge Rate (Included Batteries)	Less than 6 hours from 10% to 80% (typical, full load discharge)
Internal UPS Replacement Battery Cartridge	RBC94-2U
Battery Access	Front panel battery access door
Battery Replacement Description	Hot-swappable, user replaceable sealed, flame retardant, non-spillable batteries
Expandable Runtime	Yes

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 80
Severe Undervoltage Correction	2% output voltage regulation during undervoltages to 65 (under 70% load only)

USER INTERFACE, ALERTS & CONTROLS	
Switches	2 switches control off/on power status and alarm-cancel/self-test operation
Alarm Cancel Operation	Power-fail alarm can be silenced using alarm-cancel switch
Audible Alarm	Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions
LED Indicators	14 LEDs indicate line power, online mode, economy/bypass mode, on-battery, overload, battery low, replace battery and fault status information; 4-LED meter displays load and battery charge levels; LED panel rotates for viewing in rack/tower formats

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	
Cooling Method	Fan
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 Included Accessories	4 post 19 inch rackmount
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)
Minimum Required Rack Depth with External Battery Pack (cm)	66
Minimum Required Rack Depth with External Battery Pack (in.)	26
Minimum Required Rack Depth without External Battery Pack (cm)	61
Minimum Required Rack Depth without External Battery Pack (in.)	24
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
Primary UPS Depth (mm)	483
Primary UPS Height (mm)	89
Primary UPS Width (mm)	445
Rack Height	2U
Shipping Dimensions (hwd / cm)	23.11 x 51.31 x 59.69
Shipping Dimensions (hwd / in.)	9.10 x 20.20 x 23.50
Shipping Weight (kg)	27.22
Shipping Weight (lbs.)	60.00
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, cm)	8.89 x 44.45 x 48.26
UPS Power Module Dimensions (hwd, in.)	3.5 x 17.5 x 19

UPS Power Module Weight (kg)	21.50
UPS Power Module Weight (lbs.)	47.4

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)	816
AC Economy Mode BTU / Hr. (Full Load)	349
Battery Mode BTU / Hr. (Full Load)	889
AC Economy Mode Efficiency Rating (100% Load)	94%
Audible Noise	< 45dB at 1m

COMMUNICATIONS

Network Management Cards	WEBCARDLX
Network Monitoring Port Description	Includes pre-installed WEBCARDLX Network Management Card; DB9 port supports RS232 and contact closure communications; Economy-mode setting option is available using PowerAlert software and DB9 Serial cable connection OR installed Network Management Card
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
EPO Port	RJ11 interface jack with 4-meter cable included. Supports normally open and normally closed EPO systems
Communications Interface	Contact closure; DB9 Serial; EPO (emergency power off); Pre-installed network card; Slot for SNMP/Web interface; USB (HID enabled)

LINE / BATTERY TRANSFER

Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Low Voltage Transfer to Battery Power (Setpoint)	80V (100% load), 65V (<70% 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; Auto Probe Monitoring and Reboot (included); Zero transfer time; On-Line/Double-Conversion
Green Energy-Saving Features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation

STANDARDS & COMPLIANCE	
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 limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	$250,000 Ultimate Lifetime Insurance