SmartOnline 230V 2.2kVA 1.6kW Double-Conversion UPS, 2U Rack/Tower, Extended Run, Network Card Options, USB, DB9 Serial

MODEL NUMBER: **SUINT2200RTXL2UA**

Highlights

- 2200VA / 2.2kVA / 1600 watt on-line double-conversion 2U rack/tower UPS
- 200/208/220/230/240V 50/60Hz output; High efficiency economy mode option
- Expandable runtime; Hot-swap batteries; 19 in / 48.3cm installed depth
- USB, RS232 & EPO ports; Network management card options
- Front panel status LEDs with detailed load and battery metering
- 2 independently switchable output load banks
- C20 inlet; C19 & C13 outlets, 1 C19 to C20 & 2 C13 to C14 power cables included

Package Includes

- SUINT2200RTXL2Ua SmartOnline Double-Conversion UPS System
- USB and serial cabling
- Mounting hardware for 4 post rack enclosures
- Power cables: (1) C19 to C20 and (2) C13 to C14
- Instruction manual with warranty information

Description

2200VA on-line, double-conversion UPS system for critical server, network and telecommunications equipment. 2U rackmount form factor with an installed depth of only 483 mm. Expandable battery runtime with optional BP48V24-2U and BP48V60RT-3U external battery packs. Full-time sine wave 200/208/220/230 or 240V +/-3% output. Online, double-conversion Uninterruptible Power Supply (UPS) actively converts raw incoming AC power to DC, then re-converts output back to completely regulated, filtered AC output. Operates continuously without using battery power during brownouts to 130V and overvoltages to 275V. Highly efficient operation in optional Economy Mode setting, saving BTU heat output and energy costs. C20 inlet input connection; 2 C19 and 4 C13 output receptacles. Network-grade AC surge and noise suppression. Zero transfer time between AC and battery operation. Network management interfaces support simultaneous communications via USB port, DB9 serial port and slot for network management card options. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Supports simultaneous detailed monitoring of equipment load levels, self-test data and utility power conditions via all 3 network interfaces. PowerAlert monitoring software is available via free download. Emergency Power Off (EPO) interface. Integrated 2-bank PDU switching supports load shedding and remote-reboot of connected equipment. 3-stage metered current monitoring and battery charge status LEDs. LED display panel easily rotates for better viewing in rackmount or tower configurations. Dataline surge suppression for dialup, DSL or network Ethernet connection. Utility power and voltage regulation LEDs. Audible alarm. Self-test. Fault-tolerant auto-bypass mode. 4-post rackmount accessories included; 2-9USTAND tower kit and 2POSTRMKITWM two post rack & wallmount accessories available. Field-replaceable, hot-swappable internal batteries and external battery packs. Attractive all-black color scheme.

Features

- SmartOnline high performance UPS system is ideal for critical voice, data, medical and industrial network applications
- True on-line, double-conversion UPS provides perfectly regulated sine wave output within 3% of

200/208/220/230/240V (user selectable) under all usage condition

- Maintains continuous operation through blackouts, voltage fluctuations and surges with zero transfer time
- Removes harmonic distortion, fast electrical impulses, frequency variations and other hard to solve power problems not addressed by other UPS types
- Corrects line voltage conditions as low as 130V and as high as 275V back to selectable 200/208/220/230/240V (+/-3%) values
- Highly efficient operation in optional Economy Mode setting, saving BTU heat output and energy costs.
- Standard internal battery set offers 14 minutes runtime at half load (800W) and 5 minutes at full load (1600W)
- Extended Runtime with BP48V24-2U (limit 1), BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible) external battery packs
- Intelligent battery management system extends battery life
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Compact rackmount form factor installs using only 2 rack spaces (2U) with a maximum installed depth of only 483 mm
- Ships with all mounting accessories for 4 post rackmount installation
- Optional 2POSTRMKITWM enables 2 post rackmount or wallmount installation
- Optional 2-9USTAND accessory enables small-footprint upright tower placement
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- Network interfaces support simultaneous communications via built-in USB, DB9 serial and slot for network management card options
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD
- 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 tripplite.eaton.com/products/power-alert
- Built-in Emergency Power Off (EPO) interface with cable
- C20 inlet power connection / C19 and C13 output receptacles
- C20 inlet accepts user-suppplied AC power cord with country-specific plug
- Includes 2 C13 to C14 and 1 C19 to C20 output power cables
- Integrated 2 bank switched PDU enables remote outlet management for load shedding or remote reboot of individual load banks (both of the C19 outlets are individually controllable)
- Front panel LEDs offer current monitoring and battery charge level information
- UPS ships fully assembled in full compliance with DOT regulations, no time consuming connection ofinternal batteries by user required
- Single line TEL/DSL or network ethernet line surge suppression

Specifications

OVERVIEW	
UPC Code	037332126511
UPS Type	On-Line

INPUT	
Input Phase	Single-Phase

Rated input current (Maximum Load)	9.7A (200V), 9.3A (208V), 8.8A (220V), 8.5A (230V), 8.1A (240V)
Nominal Input Voltage(s) Supported	200V AC; 220V AC; 230V AC; 240V AC
UPS Input Connection Type	C20 inlet
UPS Input Connection Description	C20 inlet accepts user-supplied AC power cord
Input Circuit Breakers	15A

OUTPUT

Output Capacity (VA)	2200
Output Capacity (kVA)	2.2
Output Capacity (Watts)	1600
Output Capacity (kW)	1.6
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)
Power Factor	0.7
Crest Factor	3:1
Nominal Voltage Details	230V default
Frequency Compatibility	50 / 60 Hz
Frequency Compatibility Details	Output frequency matches input nominal on startup, defaults to 50 Hz on cold-start
Output Voltage Regulation (Line Mode)	+/- 3%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 3%
Included Output Power Cables	Includes 2 C13 to C14 and 1 C20 to C19 output power cables
Load Management Receptacles	Two switchable single-outlet C19 load banks
Hot-Swap PDU options	PDUBHV20 (2U / 6 C13, 2 C19 outlets)
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	200V; 220V; 230V; 240V
Output Receptacles	(4) C13; (2) C19
Individually Controllable Load Banks	Yes

BATTERY

Runtime Full Load (min.)	5 min. (1600w)
Runtime Half Load (min.)	14 min. (800w)
Expandable Runtime	Yes

External Battery Pack Compatibility	BP48V24-2U (limit 1); BP48V60RT-3U (multi-pack compatible); BP48V27-2US (multi-pack compatible)
DC System Voltage (VDC)	48
Battery Recharge Rate (Included Batteries)	Less than 6 hours from 10% to 80% (typical, full load discharge)
Battery Access	Front panel battery access door
Internal UPS Replacement Battery Cartridge	RBC94-2U
Battery Replacement Description	Hot-swappable, user replaceable batteries

VOLTAGE REGULATION

Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	3% output voltage regulation during overvoltages to 275
Undervoltage Correction	3% output voltage regulation during undervoltages to 156
Severe Undervoltage Correction	3% output voltage regulation during undervoltages to 130 (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	660
UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes

PHYSICAL

Primary Form Factor	Rackmount
Rack Height	2U
Cooling Method	Fan
Included Mounting Accessory Description	4 post rackmount installation accessories included
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITWM); Wallmount (2POSTRMKITWM); Tower (2-9USTAND)

Minimum Required Rack Depth (cm)	66.04
Minimum Required Rack Depth (inches)	26
Primary UPS Depth (mm)	483
Primary UPS Height (mm)	89
Primary UPS Width (mm)	445
Shipping Dimensions (hwd / in.)	8.70 x 23.60 x 19.30
Shipping Dimensions (hwd / cm)	22.10 x 59.94 x 49.02
Shipping Weight (lbs.)	61.00
Shipping Weight (kg)	27.67
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)	21.55
UPS Power Module Weight (lbs.)	47.5

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 Mode Efficiency Rating (100% Load)	86%
AC Economy Mode Efficiency Rating (100% Load)	94%
Battery Mode Heat Dissipation (BTU/Hr) @ Full Load	889
Audible Noise	Audible Noise: 50dBA At Front Side 1 Meter

COMMUNICATIONS

Network Management Cards	SNMPWEBCARD; TLNETCARD ; WEBCARDLX; MODBUSCARD ; RELAYIOCARD
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions; DB9 port supports RS232 and contact closure communications; Economy-mode setting option is available using PowerAlert software and DB9 Serial cable connection OR via select Network Management Card options
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

Communications Interface	USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface

LINE / BATTERY TRANSFER

Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Low Voltage Transfer to Battery Power (Setpoint)	160V (100% load), 130V (<70% load)
High Voltage Transfer to Battery Power (Setpoint)	275

FEATURES & SPECIFICATIONS

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

WARRANTY & SUPPORT

Product Warranty Period (Worldwide)	2-year limited warranty