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# SmartOnline 2.2kVA On-Line Double-Conversion UPS, 2U Rack/Tower, 200/220/230/240V C13/C19 outlets

### MODEL NUMBER: SUINT2200RTXL2UA





#### 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 SNMPWEBCARD slot. 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. Includes PowerAlert monitoring software and complete cabling. Emergency Power Off (EPO) interface. Integrated 2-bank PDU

#### **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; support for SNMP/WEB 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
- PowerAlert Software with 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

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
- 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 SNMPWEBCARD slot
- HID compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Included PowerAlert UPS monitoring software supports safe unattended shutdown, monitoring and control via local connected servers, plus any number of additional servers over IP
- UPS interface supports on-battery, low-battery, power-restored, AC-voltage, DC-voltage, output current monitoring, battery charge current, battery
  capacity, AC line frequency, timed inverter shutoff, activate self-test, load bank output power control and remote reboot, UPS nominal voltage adjustment
  and UPS line to battery power voltage setpoints
- 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**

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Output Volt Amp Capacity (VA)	2200
Output kVA capacity (kVA)	2.2
Output Watt Capacity (watts)	1600
Output kW capacity	1.6
Output power factor	0.7
Crest Factor	3:1
Nominal Output Voltage(s) Supported	200V; 220V; 230V; 240V
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%			
Built-in UPS output receptacles	4 C13 outlet(s); 2 C19 outlet(s)			
Included output power cables	Includes 2 C13 to C14 and 1 C20 to C19 output power cables			
Built-in controllable switched load banks	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			
INPUT				
Rated input current (at 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 breaker	15A			
Phase	Single-Phase			
BATTERY				
Full load runtime (minutes)	5 min. (1600w)			
Half load runtime (minutes)	14 min. (800w)			
Expandable battery runtime	Supports extended runtime with optional external battery packs			
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%			
Replacement battery cartridge (internal UPS battery replacement)	RBC94-2U			
Battery Access	Front panel battery access door			
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			
3/6				





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)
LEDS ALARMS & SWITCHES	
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
Alarms	Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions
Alarm cancel operation	Power-fail alarm can be silenced using alarm-cancel switch
Switches	2 Switches control off/on power status and alarm-cancel/self-test operation
SURGE / NOISE SUPPRESSION	
UPS AC suppression joule rating	660
UPS AC suppression response time	Instantaneous
EMI / RFI AC noise suppression	Yes
PHYSICAL	
Installation form factors supported with optional accessories	2 post rackmount (2POSTRMKITWM); Wallmount (2POSTRMKITWM); Tower (2-9USTAND)
Primary form factor	Rackmount
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	3.5 x 17.5 x 19
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	8.9 x 44.4 x 48.3
Rack Height	2U
Secondary form factor	Tower (requires 2-9USTAND)
UPS / Power Module weight (lbs)	47.5
UPS / Power Module weight (kg)	21.6
UPS Shipping dimensions (height x width x depth / inches)	9 x 20.3 x 23
UPS Shipping dimensions (height x width x depth / cm)	23 x 51.4 x 58.4
Shipping weight (lbs)	59.8
Shipping weight (kg)	27.1
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	0 to 95%, non-condensing
AC mode BTU / hr. (full load)	885.6
AC economy mode BTU / hr. (full load)	347.2
Battery mode BTU / hr. (full load)	885.6
AC mode efficiency rating (100% load)	86%
AC economy mode efficiency rating (100% load)	94%
Audible Noise	Audible Noise: 50dBA At Front Side 1 Meter
COMMUNICATIONS	
Communications interface	USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface
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	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
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 & high efficiency features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation
CERTIFICATIONS	
UPS Certifications	CE; Tested to SASO (Saudi Arabia)
UPS Certification details	Kuwait
WARRANTY	





Product Warranty Period (Worldwide)	2-year limited warranty
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## **Related Items**

## **Optional Products**

Model Number	Description	Qty.
BP48V27-2US	BP48V27-2US - 2U External 48V Rack/Tower Battery pack for select Tripp Lite UPS Systems	1
BP48V24-2U	BP48V242U - External Battery Pack for UPS System	1
BP48V60RT-3U	External Battery Pack and Cable. 3U, Expandable, Blue 2-Point Connector	1
AS400CABLE KIT	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	1
MODBUSCARD	For remote monitoring and control via MODBUS protocol	1
SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	1
UPSHDEARKIT	Heavy-Duty Mounting Ear Kit (Supports 2U cabinets up to 65 lb / 29 kg from front vertical rails in 4-post or 2-post racks and enclosures. )	1
2-9USTAND	Enables Tower Placement of Rackmount UPS Systems	1
2POSTRMKITWM	Enables 2-Post Rackmount or Wallmount Installation of Select Rackmount UPS Systems	1
2POSTRMKITHD	Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components	1
PDUBHV20	Single-Phase Hot-Swap PDU, 3.2-3.8kW 16A 200-240V, 2U Horizontal Rackmount, 6 C13 and 2 C19 outlets, set of 2 C20 inputs	1

More information, including related products, owner's manuals, and additional technical specifications, can be found online at: http://www.tripplite.com/sku/SUINT2200RTXL2UA.

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