



# Model #: SU2200RMNAFTA

#### SmartOnline Expandable 2U Rack / Tower UPS System - NAFTA assembled version of SU2200RTXL2Ua



## **Highlights**

- 2200VA / 2.2kVA on-line, double-conversion, extended-run 2U rack / tower UPS
- Maintains sine-wave 100/110/120V +/-2% output during overvoltages to 138 and brownouts as low as 65V (50/60Hz auto-sensing)
- Simultaneous communications via HID compliant USB port, serial port, SNMP/Web card slot and EPO interface
- Fault tolerant auto-bypass mode, current monitoring and switched PDU control via 2 switchable output load banks
- Input: NEMA 5-20P (120V) / Output: 6 NEMA 5-15/20R and 1 NEMA L5-20R (120V)
- 2 year product warranty / \$250,000 Ultimate Lifetime Insurance (USA & Canada only)

#### **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 19 in. Expandable battery runtime with optional BP48V60-3UNAFTA external battery packs. Full-time sine wave 100, 110 or 120V +/-2% 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 65V and overvoltages to 138V. NEMA 5-20P input plug; NEMA 5-15/20R and NEMA L5-20R 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 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. 2-year warranty and \$250,00@connected connected equipment insurancextended warranty and service contracts available.

### Package Includes

- SU2200RMNAFTA On-line Double-Conversion UPS System
- PowerAlert Software and cabling
- Mounting hardware for 4 post rack enclosures
- Instruction manual with warranty information

### **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 2% of 100/110/120V (user selectable) under all usage conditions
- · 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 65V and as high as 138V back to selectable 100/110/120V (+/-2%) values
- Standard internal battery set offers 18 minutes runtime at half load (800W) and 6 minutes at full load (1600W)
- Optional BP48V60-3UNAFTA external battery pack increases runtime to 132 minutes at half load (800W) and 61 minutes at full load (1600W/multi-pack compatible)
- Compact rackmount form factor installs using only 2 rack spaces (2U) with a maximum installed depth of only 19 inches
- 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 auto-bypass maintains continuous utility output to connected equipment, even in cases where the UPS suffers internal failure and requires maintenance
- · 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
- NEMA 5-20P input plug /NEMA 5-15/20R & NEMA L5-20R output receptacles
- Integrated 2 bank switched PDU enables remote outlet management for load shedding or remote reboot of individual load banks (bank 1 has two outlets/bank two has four outlets)
- 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 of internal batteries by user required
- Single line TEL/DSL or network ethernet line surge suppression
- 2 year manufacturer's product warranty, \$250,000 Ultimate Lifetime Insurance

#### **Specifications**

OUTPUT		
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	100V; 110V; 120V	
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%				
Built-in UPS output receptacles	6 5-15/20R outlet(s); 1 L5-20R outlet(s)				
Built-in controllable switched load banks	Two switchable three-outlet 5-15/20R load banks				
Basic PDU options	PDUNV (1U / 2 C19, 12 C13 outlets); PDU1420T (0U / 14 5-15/20R outlets); PDU40TDUAL (0U / 40 5-15/20R outlets)				
Metered PDU options	PDUMH20 (1U / 13 5-15/20R outlets); PDUMH20AT (1U / 16 5-15/20R outlets)*; PDUMV20 (0U / 16 5-15/20R outlets); PDUMV40 (0U / 32 5-15/20R outlets)				
Switched PDU options	PDUMH20ATNET (1U / 16 5-15/20R outlets)*; PDUMV20NET (0U / 24 5-15/20R outlets)				
External PDU redundancy options	*ATS switch options PDUMH20AT & PDUMH20ATNET support dual UPS and hot-swappable UPS configurations				
Output AC waveform (AC mode)	Sine wave				
Output AC waveform (battery mode)	Pure Sine wave				
INPUT					
Rated input current (at maximum load)	16A				
Nominal Input Voltage(s) Supported	100V AC; 110V AC; 120V AC				
UPS input connection type	5-20P				
Input circuit breaker	30A				
UPS Input cord length (ft.)	10				
UPS Input cord length (m)	3				
Recommended Electrical Service	20A 120V				
Input cord length (m)	3				
BATTERY					
Full load runtime (minutes)	6 min. (1600w)				
Half load runtime (minutes)	18 min. (800w)				
Expandable battery runtime	Extended runtime supported via optional external battery packs				
External battery pack compatibility	BP48V24-2U (limit 1); BP48V60RT3U (multi-pack compatible); BP48V60-3UNAFTA (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 REGULATIO	N .			
Voltage regulation description	Online, double-conversion power conditioning			
Overvoltage correction	2% output voltage regulation during overvoltages to 138			
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)			
LEDS ALARMS & SWIT	CHES			
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 SUPPR	ESSION			
UPS AC suppression joule rating	1320			
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 (mounting rail kit included)			
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				
Installed whole system total rack space height (rack spaces)	2U				
Secondary form factor	ver (requires 2-9USTAND)				
Installed whole system dimensions in secondary form factor (height x width x depth / inches)	7.5 x 3.5 x 19				
UPS dimensions in secondary form factor (height x width x depth / cm)	44.4 x 8.9 x 48.3				
UPS / Power Module weight (lbs)	47.4				
UPS / Power Module weight (kg)	21.5				
UPS Shipping dimensions (height x width x depth / inches)	9.8 x 20.2 x 24				
UPS Shipping dimensions (height x width x depth / cm)	24.8 x 51.4 x 61				
Shipping weight (lbs)	57.3				
Shipping weight (kg)	26				
UPS housing material	Steel				
Cooling method	Fan				
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)	812.9				
AC economy mode BTU / hr. (full load)	347.2				
Battery mode BTU / hr. (full load)	885.6				
AC economy mode efficiency rating (100% load)	94%				
COMMUNICATIONS					

Communications interface	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	DB9 cable included				
WatchDog compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications				
LINE / BATTERY TRANS	SFER				
Transfer time	No transfer time (0 ms.) in online, double-conversion mode				
Low voltage transfer to battery power (setpoint)	80V (100% load), 65V (				
High voltage transfer to battery power (setpoint)	138				
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	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI); Meets FCC Part 68 / Industrie Canada (telecommunications); ROHS (Reduction of Hazardous Substances)				
WARRANTY					
Product Warranty Period (U.S., Canada & Puerto Rico)	2-year limited warranty				
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance				

## **Related Items**

## **Optional Products**

Product Type	Related Model	Description	Qty.
External Battery Packs	BP48V24-2U	BP48V242U - External Battery Pack for UPS System	-
External Battery Packs	BP48V60RT-3U	External Battery Pack and Cable. 3U, Expandable, Blue 2-Point Connector	-
Surge Protectors	DNET1	Network Surge Suppressor - Essential protection for data and communication lines	-
Surge Protectors	DTEL2	Network Surge Suppressor - Essential protection for data and communication lines	-
Power Distribution	PDU1215	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	-

Power Distribution	PS7224	Tripp Lite Power Strip - Multiple outlets wherever you need them	-
Tower Stands	2-9USTAND	Enables Tower Placement of Rackmount UPS Systems	-
Shutdown Cable Kits	AS400CABLE KIT	Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers	-
SNMP Accessories	SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	-
SNMP Accessories	ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	-
Rackmount/Wallmount Kits	2POSTRMKITWM	Enables 2-Post Rackmount or Wallmount Installation of Select Rackmount UPS Systems	-
Audio Cables	CT120	Instant-Read- AC Outlet Circuit Tester	-
UPS Accessories	MODBUSCARD	For remote monitoring and control via MODBUS protocol	-

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/en/products/model.cfm?txtModelID=3546.

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