



## 120V 2000VA 1.8kW Double-Conversion UPS - 7 Outlets, Extended Run, Card Slot, LCD, USB, DB9, 2U

MODEL NUMBER: SU2000RTXLCD2U



On-line double-conversion UPS provides pure sine wave AC output to server and network equipment in data centers and computer rooms.

### Features

**Double-Conversion UPS Protects Equipment against Damage, Downtime and Data Loss** This 100/110/120/127V 50/60 Hz UPS system with IGBT technology maintains perfect output by converting AC input to DC, then reconverting UPS output to fully regulated sine wave AC with +/-2% voltage regulation in online and battery modes. Featuring an 1800W capacity, high 0.9 power factor, 570 joules of surge suppression, true on-line operation with pure sine wave output and zero transfer time to battery mode in on-line double-conversion mode, the SmartOnline® SU2000RTXLCD2U double-conversion UPS provides the highest level of AC power protection and battery backup for critical network closet, computer room and data center equipment.

**Individually Controllable Load Banks Let You Access and Control Outlets Remotely** Six NEMA 5-15/20R outlets are split evenly into two switchable three-outlet load banks, allowing you to reboot select components or shed loads remotely. In addition to those six outlets, this UPS provides one unswitched NEMA L5-20R outlet for powering a critical component or in-rack PDU.

**Reliable, Expandable Battery Backup Keeps You Operational Through Power Outages** The field-replaceable, hot-swappable internal battery provides 13.3 minutes of support at half load (900W) and 4.3 minutes at full load (1800W), keeping protected equipment operational through power failures. For mission-critical applications demanding scalable extended runtime, the UPS supports external battery packs, such as Tripp Lite's BP48V27-2US (sold separately). The intelligent battery management system with temperature-compensated charging extends battery life.

**ENERGY STAR-Certified Economy Mode Helps You Save Money and Protect the Environment** By meeting strict EPA efficiency guidelines, this ENERGY STAR-certified UPS system helps you save money and energy. A power-saving Economy mode setting option offers enhanced efficiency and reduced BTU output when utility power is already high quality.

**Set Output Frequency to Match That of Your Connected Equipment** Using the UPS in Frequency Conversion mode will correct or convert the incoming frequency of 50 Hz to output 60 Hz (and vice versa).

**Intuitive Front-Panel Interface for Convenient UPS Operation and Monitoring** The front-panel LCD features nine selectable screens of UPS data (including load, voltage and battery data) and 16 screens of configuration and setup options. LEDs indicate line power availability, AC to DC conversion, battery mode operation, inverter mode, ECO mode operation, bypass mode operation and AC output status.

**Advanced Communications Ports Allow for Automatic Saves and Shutdowns** RS-232 and HID-compliant USB ports connect to a computer running Tripp Lite's free downloadable PowerAlert® software to enable safe unattended file saves and system shutdown in case of a prolonged power failure. An EPO port connects the UPS to a contact closure switch to enable emergency inverter shutdown. Cables are included.

### Highlights

- Offers network-grade protection against power failures and voltage fluctuations
- Zero transfer time between on-line and battery modes for uninterrupted operation
- Optional external battery packs provide additional runtime for applications requiring it
- Optional WEBCARDLX network interface required to use Auto Probe feature
- ENERGY STAR-certified to save electricity, lower costs, and protect the environment

### Applications

- Deliver perfectly regulated sine wave output to mission-critical equipment
- Protect connected components from dangerous surges, spikes and line noise
- Keep equipment operational through power failures
- Allow time to save data and safely shut down components in case of a prolonged blackout

### Package Includes

- SU2000RTXLCD2U SmartOnline Double-Conversion UPS
- USB cable
- RS-232 cable
- EPO cable
- 4-post rack-mounting hardware
- Owner's manual



**Optional WEBCARDLX Network Interface Offers 24/7 Access**The SU2000RTXLCD2U includes a slot for an optional Java-free HTML5-based WEBCARDLX (sold separately) that 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. Automated alerts help prevent accidental overloads, power loss and downtime. WEBCARDLX 15.5.2 or later is required to use the Auto Probe feature, which can prevent costly service calls by automatically rebooting non-responsive network devices.

**Versatile Installation Options**Hardware is included for mounting the UPS system in 2U of space in an EIA-standard 19-inch 4-post rack. Use the optional 2POSTRMKITWM (sold separately) for 2-post rack mounting or the optional 2-9USTAND (sold separately) for mounting in an upright tower position. The 10-foot power cord with NEMA 5-20P plug connects to any compatible AC outlet.

## Specifications

OVERVIEW	
UPC Code	037332248534
UPS Type	On-Line
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
OUTPUT	
Output Volt Amp Capacity (VA)	2000
Output kVA Capacity (kVA)	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	0.9
Crest Factor	3:1



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%
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
Nominal Output Voltage(s) Supported	100V; 110V; 115V; 120V; 127V
Output Receptacles	(6) 5-15/20R; (1) L5-20R
Individually Controllable Load Banks	Yes
<b>BATTERY</b>	
Full Load Runtime (min.)	4.3 min. (1800w)
Half Load Runtime (min.)	12.3 min. (900w)
Expandable Battery Runtime	Extended runtime supported via optional external battery packs
External Battery Pack Compatibility	<a href="#">External-48V-2U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V24-2U</a> >BP48V24-2U</a>&nbsp; (limit 1); &nbsp; <a href="#">External-48V-3U-Rack-Tower-Battery-Pack-Enclosure-DC-Cabling-select-UPS-Systems~BP48V60RT-3U</a> >BP48V60RT-3U</a>&nbsp; (multi-pack compatible); &nbsp; <a href="#">External-48V-2U-Rack-Tower-Battery-Pack-for-UPS-Systems~BP48V27-2US</a> >BP48V27-2US</a>&nbsp; (multi-pack compatible)
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	<a href="#">2U-UPS-Replacement-48VDC-Battery-Cartridge-1-set-4-select-Tripp-Lite-SmartPro-UPS~RBC94-2U</a> >RBC94-2U</a>&nbsp;
Battery Access	Front panel battery access
Battery Replacement Description	Hot-swappable, user replaceable batteries
Expandable Runtime	Yes
<b>VOLTAGE REGULATION</b>	



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)
<b>USER INTERFACE, ALERTS &amp; CONTROLS</b>	
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
<b>SURGE / NOISE SUPPRESSION</b>	
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
<b>PHYSICAL</b>	
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 ( <a href="#">2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM</a> ); 2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM; 2-4 post front rail rackmount ( <a href="#">4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks~4POSTRAILKITWM</a> ); 4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks~4POSTRAILKITWM; Heavy-Duty-2-post-Front-Mounting-Ear-Kit~UPSHDEARKIT; UPSHDEARKIT; 4 post rackmount short-depth ( <a href="#">2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND</a> ); 2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9USTAND; Wallmount ( <a href="#">2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM</a> ); 2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~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 <a href="#">2U-9U-Tower-Stand-Kit-select-Rack-Mount-UPS-Systems~2-9UUSTAND</a> enables upright tower UPS placement; <a href="#">2-Post-Rack-Mount-Wall-Mount-Adapter-Kit-select-Rack-Mount-UPS-Systems~2POSTRMKITWM</a> enables wall-mount and 2-post rackmount installation; <a href="#">4-Post-1U-Universal-Adjustable-Rack-Mount-Shelf-Kit-for-Wall-Mount-Racks~4POSTRAILKITWM</a> enables installation in 4-post short-depth racks from 14.5 to 23.5 inches (368 to 597mm); <a href="#">Heavy-Duty-2-post-Front-Mounting-Ear-Kit-UPSHDEARKIT</a> 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 / in.)	9.10 x 23.20 x 19.30
Shipping Weight (kg)	27.22
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, in.)	3.5 x 17.5 x 19
UPS Power Module Weight (kg)	22.00
UPS Power Module Weight (lbs.)	48.5
<b>ENVIRONMENTAL</b>	
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)	684
AC Economy Mode BTU / Hr. (Full Load)	392
Battery Mode BTU / Hr. (Full Load)	1087
AC Economy Mode Efficiency Rating (100% Load)	94%
Audible Noise	57 dBA at 1m front side
Operating Elevation (m)	Up to 3000m
<b>COMMUNICATIONS</b>	
Network Management Cards	<a href="#">SNMP-Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~SNMPWEBCARD</a> ; <a href="#">Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD</a> ; <a href="#">Web-Management-Accessory-Card~WEBCARDLX</a> ; <a href="#">MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control~MODBUSCARD</a> ; <a href="#">Programmable-Relay-I-O-Card~RELAYIOCARD</a>
Network Monitoring Port Description	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 <a href="http://poweralert">http://poweralert</a>
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
<b>LINE / BATTERY TRANSFER</b>	
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
<b>SPECIAL FEATURES</b>	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Auto Probe Monitoring and Reboot (requires WEBCARDLX); Automatic inverter bypass; Hot swappable batteries; Zero transfer time; On-Line/Double-Conversion; Individually Controllable Load Banks; Battery Independent Restart
Green Energy-Saving Features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation
<b>STANDARDS &amp; COMPLIANCE</b>	
UPS Certifications	ENERGY STAR Qualified; Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances); Tested to CSA (Canada); Tested to NOM (Mexico); Tested to UL1778 (USA)
Certification Details	Series number AGPS7952; CAN/CSA-C22.2 No. 107.3-14 (3rd Ed); UL1778:2014 (5th Ed) R8.15
<b>WARRANTY</b>	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000&nbsp;<a class="insuranceLink" href="/support/insurance-policy">Ultimate Lifetime Insurance</a>&nbsp;</td>

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