

120V 2000VA 1600W Double-Conversion Smart Online UPS - 5 Outlets, Card Slot, LCD, USB, DB9, 1U Rack

MODEL NUMBER: SU2000LCD1U



True on-line double-conversion UPS provides pure sine wave output to server and network equipment in network closets and computer rooms.

Features

Double-Conversion UPS Protects Equipment Against Damage, Downtime and Data Loss

This 100/120/127V 50/60 Hz on-line double-conversion UPS system maintains perfect output by converting AC input to DC, then reconverting UPS output to fully regulated sine wave AC with +/-3% voltage regulation in on-line and battery modes. Featuring 1600W capacity, 540 joules of surge suppression, true on-line operation with pure sine wave output and zero transfer time between on-line and battery modes, the SmartOnline® SU2000LCD1U provides the highest level of AC power protection and battery backup for network equipment in your small- to medium-size data center or computer room.

Individually Controllable Load Banks Let You Access and Control Outlets Remotely

Five NEMA 5-20R outlets are split into two switchable load banks, allowing you to reboot select components or shed loads remotely. This UPS is recommended for any application supported by in-rack IT equipment, including servers, switches, phone systems, kiosks and high-end engineering and A/V computer systems.

Reliable, Expandable Battery Backup Keeps You Operational Through Power Outages

The field-replaceable, hot-swappable internal battery provides 10 minutes of support at half load (800W) and three minutes at full load (1600W), keeping protected equipment operational through power failures. 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 eight selectable screens of UPS data (including load, voltage and battery

Highlights

- Offers network-grade protection against power failures and voltage fluctuations
- Zero transfer time between on-line and battery modes for uninterrupted operation
- NEMA 5-20P input and 5 NEMA 5-20R outlets arranged in 2 switched load banks
- Optional WEBCARDLX network interface required to use Auto Probe feature
- ENERGY STAR-certified to save electricity, lower costs, and protect the environment

Applications

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

Package Includes

- SU2000LCD1U SmartOnline Double-Conversion UPS
- USB cable
- RS-232 cable
- Rack-mounting hardware
- Owner's manual

data) and multiple screens of configuration and setup options. LEDs indicate AC output availability and fault status. On-screen operational diagram offers an easy-to-grasp visual representation of on-line, battery and ECO/Bypass modes.

Advanced Communications Ports Allow for Automatic Shutdowns

RS-232 and HID-compliant USB ports connect to a computer running Tripp Lite's free downloadable PowerAlert® software to enable safe unattended system shutdown in case of a prolonged power failure. Wireable ports enable EPO (Emergency Power Off) and ROO (Remote Off/On) operation for UPS emergency and daily operation preferences. RS-232 and USB cables are included.

Optional WEBCARDLX Network Interface Offers 24/7 Remote Access

The SU2000LCD1U includes a slot for an optional 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.

Auto Probe Allows Autonomous UPS Management

WEBCARDLX allows use of Tripp Lite's IP-based Auto Probe feature, which ensures continuous network uptime by communicating with other network devices. If communication is lost, Auto Probe autonomously performs one or more user-configurable actions, including email notifications, which help you return the network devices to an operational state.

Requires Only One Rack Space in a 4-Post Rack

Hardware is included for mounting the SU2000LCD1U in just 1U of space in an EIA-standard 19-inch 4-post rack enclosure or open frame rack to allow for more variety and spacing of equipment. The six-foot (1.8-meter) power cord with NEMA 5-20P plug connects to a compatible AC outlet.

Specifications

| OVERVIEW | |
|------------------------------------|--|
| UPC Code | 037332238146 |
| UPS Type | On-Line |
| INPUT | |
| Input Phase | Single-Phase |
| Rated input current (Maximum Load) | 15.9A (100V); 14.7A (120V); 13.9A (127V) |
| Nominal Input Voltage(s) Supported | 100V AC; 120V AC; 127V AC |
| Nominal Input Voltage Description | 120V factory default |
| UPS Input Connection Type | 5-20P |
| Input Circuit Breakers | 20A |
| UPS Input Cord Length (ft.) | 6 |
| UPS Input Cord Length (m) | 1.8 |
| Recommended Electrical Service | 20A 120V |
| OUTPUT | |
| Output Capacity (VA) | 2000 |

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| Output Capacity (kVA) | 2 |
| Output Capacity (Watts) | 1600 |
| Output Capacity (kW) | 1.6 |
| Output Capacity Details | <p>ON LINE MODE: Maximum output capacity is reduced to 1440 watts at 100V nominal; FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 960 watts / 100V 864 watts)</p> <p>OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 106-115% load for 1 minute; 116-130% load for 12 seconds; 131-149% for 2 seconds and >150% load for 0 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)</p> |
| Power Factor | 0.8 |
| 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 | <p>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.</p> <p>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.</p> |
| Output Voltage Regulation (Line Mode) | +/- 3% |
| Output Voltage Regulation (Economy Line Mode) | +/- 10% |
| Output Voltage Regulation (Battery Mode) | +/- 3% |
| Load Management Receptacles | Two switchable NEMA 5-20R outlet banks (Bank 1: 2 outlets / Bank 2: 3 outlets) |
| Output AC Waveform (AC Mode) | Pure Sine wave |
| Output AC Waveform (Battery Mode) | Pure Sine wave |
| Nominal Output Voltage(s) Supported | 100V; 120V; 127V |
| Output Receptacles | (5) 5-15/20R |
| Individually Controllable Load Banks | Yes |
| BATTERY | |
| Battery Type | Valve Regulated Lead Acid (VRLA) |
| Runtime Full Load (min.) | 3 min. (1600W) |
| Runtime Half Load (min.) | 10 min. (800W) |
| Expandable Runtime | No |
| DC System Voltage (VDC) | 48 |
| Battery Recharge Rate (Included Batteries) | Less than 8 hours recharge to 90% (typical, full load discharge) |
| Battery Replacement Description | Hot-swappable, user replaceable batteries |

| VOLTAGE REGULATION | |
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| Voltage Regulation Description | Online, double-conversion power conditioning maintains 3% output voltage regulation during brownouts and overvoltages |
| Overvoltage Correction | Corrects overvoltages to 150V |
| Undervoltage Correction | Corrects undervoltages to 50V |
| USER INTERFACE, ALERTS & CONTROLS | |
| 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 (see manual) |
| 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 |
| Audible Alarm | Audible alarm indicates UPS startup, power-failure, low-battery, overload and UPS fault conditions |
| LED Indicators | Two front panel LEDs indicate AC Output status (green) and Shutdown / Fault condition (red) |
| SURGE / NOISE SUPPRESSION | |
| UPS AC Suppression Joule Rating | 540 |
| UPS AC Suppression Response Time | Instantaneous |
| EMI / RFI AC Noise Suppression | Yes |
| PHYSICAL | |
| Primary Form Factor | Rackmount |
| Rack Height | 1U |
| Cooling Method | Fan |
| Included Mounting Accessory Description | Includes 4 post rackmount installation accessories; Included mounting brackets support front-to-rear rail distances of 635 to 914mm |
| Installation Form Factors Supported with Included Accessories | 4 post 19 inch rackmount |
| Minimum Required Rack Depth (cm) | 78.74 |
| Minimum Required Rack Depth (inches) | 31 |
| Minimum Required Rack Depth without External Battery Pack (cm) | 79 |
| Minimum Required Rack Depth without External Battery Pack (in.) | 30.95 |
| Primary UPS Depth (mm) | 710 |
| Primary UPS Height (mm) | 44 |
| Primary UPS Width (mm) | 440 |
| Shipping Dimensions (hwd / in.) | 6.10 x 22.83 x 32.68 |

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| Shipping Weight (kg) | 24.00 |
| UPS Housing Material | Steel |
| UPS Power Module Dimensions (hwd, in.) | 1.73 x 17.32 x 27.950 |
| UPS Power Module Weight (kg) | 22.00 |
| UPS Power Module Weight (lbs.) | 48.5 |
| Unit Dimensions (hwd / in.) | 1.730 x 17.320 x 27.950 |
| Unit Weight (lbs.) | 48.500 |
| Unit Weight (kg) | 22.00 |
| ENVIRONMENTAL | |
| Operating Temperature Range | 32° to 104°F (0° to 40°C) |
| Storage Temperature Range | 5° to 122°F (-15° to 50°C) |
| Relative Humidity | 5% to 95%, non-condensing |
| AC Mode BTU / Hr. (Full Load) | 606.5 |
| AC Economy Mode BTU / Hr. (Full Load) | 111.4 |
| Battery Mode BTU / Hr. (Full Load) | 888.7 |
| AC Mode Efficiency Rating (100% Load) | 90% |
| AC Economy Mode Efficiency Rating (100% Load) | 98% |
| Audible Noise | 65 dBA at 1m front side |
| Operating Elevation (m) | Up to 3000m |
| COMMUNICATIONS | |
| Network Management Cards | WEBCARDLX </td> |
| Network Monitoring Port Description | Supports detailed monitoring of UPS and site power conditions |
| 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 RS232 cabling included |
| WatchDog Compatibility | Supports Watchdog application, OS and hard-reboot restart options for remote applications |
| Communications Interface | Contact closure; EPO (emergency power off); RS-232; Slot for SNMP/Web interface; USB (HID enabled) |
| LINE / BATTERY TRANSFER | |
| Transfer Time | Zero (0 milliseconds) in double-conversion mode; 4-7 milliseconds (AC to DC) / 4 milliseconds (DC to AC) economy mode |
| Low Voltage Transfer to Battery Power (Setpoint) | 50 |

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| High Voltage Transfer to Battery Power (Setpoint) | 150 |
| FEATURES & SPECIFICATIONS | |
| 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; Remote management; Surge/noise protection; Zero transfer time |
| Green Energy-Saving Features | High efficiency economy mode operation; Individually controllable load banks |
| Grounding Details | Includes back panel grounding lug |
| APPLICATIONS | |
| UPS Applications | Mission Critical Applications |
| STANDARDS & COMPLIANCE | |
| Product Certifications | CSA (Canada); NOM (Mexico); UL 1778 |
| Product Compliance | RoHS; ENERGY STAR Qualified; FCC Part 15 Class A (USA) |
| WARRANTY & SUPPORT | |
| Product Warranty Period (Worldwide) | 2-year limited warranty |
| Connected Equipment Insurance (U.S., Canada & Puerto Rico) | \$250,000 Ultimate Lifetime Insurance |