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Model #: SMART2200RML2U

SmartPro 2.2kVA Line Interactive Sine Wave UPS, Extended-run & SNMPWEBCARD options, 2U Rack/Tower, USB, Serial, EPO, 100/110/120V

Highlights



- 2.2kVA / 2200VA line interactive 2U rack / tower UPS
- 100/110/120V output, Corrects brownouts and overvoltages from 83V to 145V
- USB, RS232, EPO and slot for optional SNMP/WEB card, Sine wave output
- Front panel status LEDs with load level and battery capacity display
- Expandable runtime, 97% line-mode efficiency, 3 switched output load banks
- NEMA 5-20P input, 4 5-15/20R & 4 5-15R outlets

Description

2200VA line interactive UPS system for server, network and telecommunications equipment. 2U rackmount or tower form factor with an installed depth of only 19 inches. Expandable battery runtime with optional BP48V24-2U and BP48V60RT-3U external battery packs. Uninterruptible Power Supply (UPS) switches to battery-derived AC output during power failures and extreme voltage variations. Line interactive Automatic Voltage Regulation (AVR) offers two levels of voltage boost during brownouts and one level of voltage cut during overvoltages to maintain regulated 100, 110, 120v selectable output over an input range of 83-145V. Includes NEMA 5-20P input plug and both NEMA 5-15R and 5-15/20R output receptacles. Network-grade AC surge and noise suppression. Network management interfaces support simultaneous communications via USB port, DB9 serial port and SNMPWEBCARD slot. HID-compliant USB interface enables full 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 3-bank PDU switching supports load shedding and remote-reboot of connected equipment. 3-stage metered current monitoring and battery charge status LEDs. Utility power and voltage regulation LEDs. Audible alarm. Self-test. 4-post rackmount accessories included; 2-9U STAND 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.

Package Includes

SMART2200RML2U UPS system
PowerAlert software CD-ROM
USB, serial and EPO cabling
Owner's manual

Features

- SmartPro line interactive UPS system is ideal for voice, data, medical and industrial networking applications
- Line interactive Automatic Voltage Regulation (AVR) offers two levels of voltage boost during brownouts and one level of voltage cut during overvoltages
- Maintains continuous operation through blackouts, voltage fluctuations and surges
- Corrects line voltage conditions as low as 83V and as high as 145 back to selectable 100/110/120V nominal values
- Standard internal battery set offers 16 minutes at half load (800w) and 6 minutes at full load (1600w)
- Optional BP48V24-2U and BP48V60RT3U external rack/tower battery packs enable extended runtime operation
- 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 19 inches
- Ships with all mounting accessories for 4 post rackmount installation
- Optional 2POSTRMKITWM enables 2 post rackmount or wallmount installation
- Optional 2-9U STAND accessory enables small-footprint upright tower placement
- 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, with

the built-in ability to shutdown 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
- Built-in Emergency Power Off (EPO) interface with cable
- NEMA 5-20P input plug / NEMA 5-15R & NEMA 5-15/20R output receptacles
- Integrated 3 bank switched PDU enables remote outlet management for load shedding or remote reboot of individual load banks (Each bank controls 1 outlet per load bank)
- 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

Specifications

| OUTPUT | |
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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 |
| Nominal Output Voltage(s) Supported | 100V; 110V; 120V |
| Nominal Voltage details | 120V default (voltage selection via back panel dipperswitches) |
| Frequency compatibility | 50 / 60 Hz |
| Output voltage regulation (line mode) | -14%, +6% |
| Output voltage regulation (Battery mode) | +/- 5% |
| Built-in UPS output receptacles | 4 5-15R outlet(s); 4 5-15/20R outlet(s) |
| Built-in controllable switched load banks | Three switchable single-outlet 5-15R load banks |
| Output AC waveform (AC mode) | Sine wave |
| Output AC waveform (battery mode) | Pure Sine wave |
| INPUT | |
| Rated input current (at maximum load) | 13.3A (120V), 14.6A (110V), 16.0A (100V) |
| Nominal Input Voltage(s) Supported | 120V AC |
| UPS input connection type | 5-20P |
| Input circuit breaker | 20A |
| UPS Input cord length (ft.) | 10 |
| UPS Input cord length (m) | 3 |

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| Recommended Electrical Service | 20A 120V |
| BATTERY | |
| Full load runtime (minutes) | 6 min. (1600w) |
| Half load runtime (minutes) | 16 min. (800w) |
| Expandable battery runtime | Extended runtime supported via optional external battery packs |
| External battery pack compatibility | BP48V24-2U (limit 1); BP48V60RT-3U (multi-pack compatible) |
| DC system voltage (VDC) | 48 |
| Battery recharge rate (included batteries) | Less than 4.5 hours from 10% to 90% |
| 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 | Automatic voltage regulation (AVR) maintains line power operation with an input voltage range of 79 to 147 |
| Overvoltage correction | Voltage reduction of 12% applies when input is between 127 and 145 (120V), 116 and 133 (110V), 106 and 121 (100V) |
| Undervoltage correction | Voltage boost of 12% applies when input voltage is between 96 and 108 (120V), 87 and 99 (110V), 83 and 90 (100V) |
| Severe undervoltage correction | Voltage boost of 24% applies when input voltage is between 83 and 95 (120V only) |
| LEDS ALARMS & SWITCHES | |
| LED Indicators | 5 LEDs indicate line power, battery power, overload, voltage regulation and battery low/replace status |
| Alarms | Audible alarm indicates power-failure, overload and low-battery conditions |
| Alarm cancel operation | Power-fail alarm can be silenced using alarm-cancel switch; once silenced, alarm will re-sound to indicate low-battery status |
| Switches | 2 Switches control off/on power status and alarm-cancel/self-test operation; rear panel protected switches support nominal voltage selection |
| SURGE / NOISE SUPPRESSION | |
| UPS AC suppression joule rating | 570 |
| UPS AC suppression response time | Instantaneous |
| EMI / RFI AC noise suppression | Yes |
| PHYSICAL | |
| Included mounting accessory description | Adjustable mounting rail kit included |

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| 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 | Tower (requires 2-9USTAND) |
| UPS / Power Module weight (lbs) | 64 |
| UPS / Power Module weight (kg) | 29.1 |
| UPS Shipping dimensions (height x width x depth / inches) | 9 x 23.5 x 20 |
| UPS Shipping dimensions (height x width x depth / cm) | 22.9 x 59.7 x 50.8 |
| Shipping weight (lbs) | 72 |
| Shipping weight (kg) | 32.7 |
| 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) | 168.2 |
| Battery mode BTU / hr. (full load) | 604.4 |
| COMMUNICATIONS | |
| Communications interface | USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface |
| Network monitoring port description | Supports detailed monitoring of UPS and site power conditions |
| PowerAlert software | Included |
| Communications cable | USB and DB9 cabling included |

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| WatchDog compatibility | Supports Watchdog application, OS and hard-reboot restart options for remote applications |
| LINE / BATTERY TRANSFER | |
| Transfer time | 2-4 milliseconds |
| Low voltage transfer to battery power (setpoint) | 83 (120V), 87 (110V), 83 (100V) |
| High voltage transfer to battery power (setpoint) | 145 (120V), 133 (110V), 121 (100V) |
| SPECIAL FEATURES | |
| Grounding lug | Back panel grounding lug |
| Cold Start (startup in battery mode during a power failure) | Cold-start operation supported |
| High availability UPS features | Hot swappable batteries |
| Green & high efficiency features | Greater than 95% efficiency - GREEN UPS; Individually controllable load banks |
| CERTIFICATIONS | |
| UPS Certifications | Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI) |
| WARRANTY | |
| Product Warranty Period (U.S., Canada & Puerto Rico) | 2-year warranty, 3 year with registration . Note: registration is required for 3-year warranty. |
| Connected Equipment Insurance (U.S., Canada & Puerto Rico) | \$250,000 Ultimate Lifetime Insurance |

Related Items

Optional Products

| Product Type | Related Model | Description | Qty. |
|--------------------------|---------------------------------|--|------|
| Extended Warranties | WEXT5-2200-3000 | 5-Year Extended Warranty - For Smart Line-Interactive and Online Tower or Rack models, 2200-3000VA or less | 1 |
| External Battery Packs | BP48V24-2U | BP48V242U - External Battery Pack for UPS System | 1 |
| External Battery Packs | BP48V60RT-3U | External Battery Pack and Cable. 3U, Expandable, Blue 2-Point Connector | 1 |
| Power Distribution | PDU1220 | Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment | 1 |
| Power Distribution | PS7224-20 | Tripp Lite Power Strip - Multiple outlets wherever you need them | 1 |
| Rackmount/Wallmount Kits | 2POSTRMKITWM | Enables 2-Post Rackmount or Wallmount Installation of Select Rackmount UPS Systems | 1 |
| SNMP Accessories | ENVIROSENSE | Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.) | 1 |
| SNMP Accessories | SNMPWEBCARD | For remote monitoring and control via SNMP, Web, or Telnet. | 1 |
| Software | WATCHDOGSW | WatchDog Service Monitoring / Reboot Software | 1 |
| Surge Protectors | DCATV | Network Surge Suppressor - Essential protection for TV/VCR coaxial lines | 1 |

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| Surge Protectors | DNET1 | Network Surge Suppressor - Essential protection for data and communication lines | 1 |
| Surge Protectors | DTEL2 | Network Surge Suppressor - Essential protection for data and communication lines | 1 |
| Tower Stands | 2-9USTAND | Enables Tower Placement of Rackmount UPS Systems | 1 |
| UPS Accessories | MODBUSCARD | For remote monitoring and control via MODBUS protocol | 1 |
| USB Hubs/Accessories | U022-010 | 10-ft. USB2.0 A/B Gold Device Cable (A Male to B Male) | 1 |

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=3264.

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