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## Model #: SU12000RT4UHW

**SmartOnline 12kVA On-Line Double-Conversion UPS, 8U Rack/Tower, 208/120 or 240/120V Hardwire output, Split phase input**



### Highlights

- 12kVA / 12,000VA / 8400W on-line double-conversion UPS
- 208/120V or 240/120V +/-3% output at 60Hz
- 8U Rack / Tower compatible; Hot-swappable power and battery modules
- USB, RS232 & EPO ports; support for SNMP/WEB card options
- Front panel LEDs with detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs
- Hardwire input (4 wire split phase); Hardwire output

### Description

Tripp Lite's SU12000RT4UHW SmartOnline Hot-Swappable Modular Rack/Tower UPS System provides 12,000VA (12kVA) on-line, double-conversion UPS support for server, network and telecommunications equipment. Maintains battery-derived AC output during blackouts with active, full-time power conditioning. Fault-tolerant auto-bypass prevents unexpected service interruptions during overload or internal fault conditions. 4U power module and 4U external battery pack installs in 8 rack spaces (8U). Upright tower and two-post rackmount installation supported with optional accessories. Maintains full-time sine wave output within 3% of selectable 208/120 or 240/120V AC. Corrects brownouts and overvoltages from 65V to 140V (L-N). Expandable runtime with optional external battery packs. Converts raw input from AC to DC, then resynthesizes output power back to perfect sine wave AC output with enhanced protection from harmonic distortion, fast electrical impulses and other hard-to-solve power problems not addressed by other UPS types. Highly efficient operation in optional economy mode setting, saving BTU heat output and energy costs. Network-grade AC surge and noise suppression. Network management interfaces include combination DB9 RS-232 enabled and dry contact serial port, enhanced USB 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 three network interfaces. Includes PowerAlert monitoring software and complete cabling. Supports Emergency Power Off (EPO) via built-in interface. Front panel LEDs and LCD readout with scroll controls support visual monitoring of all major UPS functions. LED/LCD display panel easily rotates for viewing in rackmount or tower configurations. Split-phase, four-conductor hardwire input. UPS supports hardwire output. Output hardwire connections are mounted on a detachable backplate with manual bypass switch to enable hot-swappable UPS replacement without powering off connected equipment. External battery packs are field replaceable and hot swappable. Attractive all-black color scheme. \$250,000 [connected equipment insurance](#);

### Package Includes

- SU12000RT4UHWPM UPS Power Module
- BP192V18-4U External battery pack
- SUPDMB16KHW Detachable PDU with manual bypass switch
- External 4U battery pack
- 4-post rackmount installation brackets

### Features

- True on-line, double-conversion UPS provides pure, full-time sine wave AC output free of surges, voltage fluctuations and line noise
- 12,000VA / 8400W output power capacity with dual voltage output of 208/120V or 240/120V
- 4U high power density power module and 4U external battery pack support rackmount installation in 8 rack spaces (8U)
- Dual conversion UPS actively converts raw input from AC to DC, then back to perfect sine wave AC output with enhanced protection from harmonic distortion, fast electrical impulses and other hard-to-solve power problems not addressed by other UPS types
- Hardwire input and output terminals are mounted on a detachable backplate with manual bypass switch to enable hot-swappable UPS replacement without powering off connected equipment
- Provides perfectly regulated, sine wave output power free of line noise, transient surges and frequency variation for the most efficient operation of critical servers, networking and telecommunications equipment

- Maintains output within 3% of selected 208/120V or 240/120V nominal voltage during brownouts and overvoltages
- Supports connected equipment during blackouts for 20/7 min. at half/full load levels; runtime is further expandable with optional external battery packs (Model BP192V18-4U)
- Some external battery configurations require the use of Tripp Lite's [External Battery Configuration Software](#) (see manual)
- Network interfaces support simultaneous communications via DB9 port, USB port and SNMPWEBCARD slot. DB9 port supports RS-232 and dry contact messaging. 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
- Communications ports support 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 and output power control
- Built-in Emergency Power Off (EPO) interface with cable
- Supports hardwire output at 208V and 120V
- Split phase, four-conductor hardwire input connection on included detachable PDU
- Front panel LEDs and LCD readout with scroll button enables visual confirmation of all major UPS functions and current site electrical conditions
- Front panel switches enable power on/off control, self-test and alarm cancel functions
- Included adjustable mounting rails support installation in 4-post 19-in. rack enclosures
- Optional 2-9USTAND tower stand set supports upright tower installation
- Optional 2POSTRMKITWM accessory enables 2-post rackmount installation
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- \$250,000 [Ultimate Lifetime Insurance](#) (USA and Canada Only)

## Specifications

| OUTPUT                                        |                                                              |
|-----------------------------------------------|--------------------------------------------------------------|
| Output Volt Amp Capacity (VA)                 | 12000                                                        |
| Output kVA capacity (kVA)                     | 12                                                           |
| Output Watt Capacity (watts)                  | 8400                                                         |
| Output kW capacity                            | 8.4                                                          |
| Output power factor                           | 0.7                                                          |
| Output Capacity Details                       | 12,000 VA (240V) / 10,395 VA (208V) / 8,400 watts (208/240V) |
| Crest Factor                                  | 3:1                                                          |
| Nominal Output Voltage(s) Supported           | 120V; 208V; 240V                                             |
| Nominal Voltage details                       | 240/120V or 208/120V split phase output                      |
| Frequency compatibility                       | 60 Hz                                                        |
| Output voltage regulation (line mode)         | +/- 3%                                                       |
| Output voltage regulation (Economy line mode) | +/- 10%                                                      |
| Output voltage regulation (Battery mode)      | +/- 3%                                                       |

|                                                   |                                                                                                                                                                      |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Built-in UPS output receptacles</b>            | Hardwire                                                                                                                                                             |
| <b>Output AC waveform (AC mode)</b>               | Sine wave                                                                                                                                                            |
| <b>Output AC waveform (battery mode)</b>          | Pure Sine wave                                                                                                                                                       |
| <b>INPUT</b>                                      |                                                                                                                                                                      |
| <b>Rated input current (at maximum load)</b>      | 50A                                                                                                                                                                  |
| <b>Nominal Input Voltage(s) Supported</b>         | 208V AC / 120V AC (4 wire split single phase); 240V AC /120V AC (4 wire split single phase)                                                                          |
| <b>UPS input connection type</b>                  | Hardwire                                                                                                                                                             |
| <b>UPS input connection description</b>           | 4 wire split-phase input (L1, L2, N, G)                                                                                                                              |
| <b>Recommended Electrical Service</b>             | 50A 208/240-120 Split Phase                                                                                                                                          |
| <b>Phase</b>                                      | Single-Phase                                                                                                                                                         |
| <b>BATTERY</b>                                    |                                                                                                                                                                      |
| <b>Full load runtime (minutes)</b>                | 7 min. (8400w)                                                                                                                                                       |
| <b>Half load runtime (minutes)</b>                | 20 min. (2400w)                                                                                                                                                      |
| <b>Expandable battery runtime</b>                 | Supports extended runtime with optional external battery packs                                                                                                       |
| <b>External battery pack compatibility</b>        | <a href="#">BP192V18-4U</a> ; <a href="#">BP192V557C-16K</a> ; <a href="#">BP192V787C-16K</a> ; <a href="#">BP192V1037C-16K</a> ; <a href="#">BP192V1407C-16K</a>    |
| <b>DC system voltage (VDC)</b>                    | 192                                                                                                                                                                  |
| <b>Battery recharge rate (included batteries)</b> | Less than 6 hours from 10% to 80%                                                                                                                                    |
| <b>Battery replacement description</b>            | Hot-swappable, user replaceable batteries                                                                                                                            |
| <b>VOLTAGE REGULATION</b>                         |                                                                                                                                                                      |
| <b>Voltage regulation description</b>             | Online, double-conversion power conditioning                                                                                                                         |
| <b>Overvoltage correction</b>                     | 3% output voltage regulation during overvoltages to 140 (measured L1-N : L2-N)                                                                                       |
| <b>Undervoltage correction</b>                    | 3% output voltage regulation during undervoltages to 65 (measured L1-N : L2-N)                                                                                       |
| <b>LEDS ALARMS &amp; SWITCHES</b>                 |                                                                                                                                                                      |
| <b>LED Indicators</b>                             | 6 LEDs indicate line power, online mode, economy/bypass mode, on-battery, charger and AC output status; LCD screen offers additional information and control options |
| <b>Alarms</b>                                     | Unique audible alarms for all major UPS, environmental and power conditions (see manual)                                                                             |
| <b>Alarm cancel operation</b>                     | Alarm cancel switch                                                                                                                                                  |

|                                                                                        |                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switches                                                                               | 2 Switches control off/on power status and alarm-cancel/self-test operation; 2 additional switches support set and execute scrolling LCD functions; bundled PDU includes bypass switch to enable hot-swap UPS power module replacement |
| <b>SURGE / NOISE SUPPRESSION</b>                                                       |                                                                                                                                                                                                                                        |
| UPS AC suppression response time                                                       | Instantaneous                                                                                                                                                                                                                          |
| EMI / RFI AC noise suppression                                                         | Yes                                                                                                                                                                                                                                    |
| <b>PHYSICAL</b>                                                                        |                                                                                                                                                                                                                                        |
| Installation form factors supported with included accessories                          | 4 post 19 inch rackmount (mounting rail kit included)                                                                                                                                                                                  |
| Included mounting accessory description                                                | 2 sets of adjustable 4 post rack rails included                                                                                                                                                                                        |
| Installation form factors supported with optional accessories                          | 2 post rackmount (2POSTRMKITWM); Tower (2-9USTAND)                                                                                                                                                                                     |
| Optional mounting accessory notes                                                      | 2 sets of <a href="#">2POSTRMKITWM</a> required for 2 post rackmount installation                                                                                                                                                      |
| Primary form factor                                                                    | Rackmount                                                                                                                                                                                                                              |
| UPS / Power Module dimensions in primary form factor (height x width x depth / inches) | 7 x 17.5 x 40.5                                                                                                                                                                                                                        |
| UPS / Power Module dimensions in primary form factor (height x width x depth / cm)     | 17.8 x 44.4 x 102.9                                                                                                                                                                                                                    |
| Installed whole system maximum rack depth (inches)                                     | 40.5                                                                                                                                                                                                                                   |
| Installed whole system maximum rack depth (cm)                                         | 102.9                                                                                                                                                                                                                                  |
| Rack Height                                                                            | 8U                                                                                                                                                                                                                                     |
| Secondary form factor                                                                  | Tower (requires <a href="#">2-9USTAND</a> )                                                                                                                                                                                            |
| UPS / Power Module weight (lbs)                                                        | 86                                                                                                                                                                                                                                     |
| UPS / Power Module weight (kg)                                                         | 39                                                                                                                                                                                                                                     |
| UPS dimensions details                                                                 | Includes 4U power module and 4U battery pack                                                                                                                                                                                           |
| Included battery pack dimensions (height x width x depth / inches)                     | 7 x 17.5 x 27.8                                                                                                                                                                                                                        |
| Included battery pack dimensions (height x width x depth / cm)                         | 17.7 x 44.4 x 70.6                                                                                                                                                                                                                     |
| Included battery pack weight (lbs)                                                     | 239                                                                                                                                                                                                                                    |

|                                                             |                                                                                                        |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Included battery pack weight (kg)                           | 108.5                                                                                                  |
| UPS Shipping dimensions (height x width x depth / inches)   | 45.5 x 23.5 x 34.3                                                                                     |
| UPS Shipping dimensions (height x width x depth / cm)       | 115.6 x 59.7 x 87.1                                                                                    |
| Shipping weight (lbs)                                       | 448.8                                                                                                  |
| Shipping weight (kg)                                        | 203.8                                                                                                  |
| Cooling method                                              | Fan                                                                                                    |
| UPS housing material                                        | Steel                                                                                                  |
| <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)                               | 4286                                                                                                   |
| Battery mode BTU / hr. (full load)                          | 3187                                                                                                   |
| Operating Elevation (ft.)                                   | 0-3000m (0 to 10,000 ft.)                                                                              |
| Audible Noise                                               | 60 dBA at front side 1 meter                                                                           |
| Operating Elevation (m)                                     | 0-3000 m                                                                                               |
| <b>COMMUNICATIONS</b>                                       |                                                                                                        |
| Communications interface                                    | USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface |
| Network monitoring port description                         | RS232 and contact closure communications are supported on one DB9 port                                 |
| PowerAlert software                                         | Included                                                                                               |
| Communications cable                                        | USB and DB9 cabling included                                                                           |
| <b>LINE / BATTERY TRANSFER</b>                              |                                                                                                        |
| Transfer time                                               | No transfer time (0 ms.) in online, double-conversion mode                                             |
| Low voltage transfer to battery power (setpoint)            | 65V (L1-N:L2-N)                                                                                        |
| High voltage transfer to battery power (setpoint)           | 140V (L1-N:L2-N)                                                                                       |
| <b>SPECIAL FEATURES</b>                                     |                                                                                                        |
| Cold Start (startup in battery mode during a power failure) | Cold-start operation supported                                                                         |

|                                                                       |                                                                                                                                   |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>High availability UPS features</b>                                 | Automatic inverter bypass; Manual bypass switch; Detachable hot-swap PDU; Hot swappable UPS power module; Hot swappable batteries |
| <b>Green &amp; high efficiency features</b>                           | High efficiency economy mode operation; Schedulable daily hours of economy mode operation                                         |
| <b>CERTIFICATIONS</b>                                                 |                                                                                                                                   |
| <b>UPS Certifications</b>                                             | Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)                        |
| <b>WARRANTY</b>                                                       |                                                                                                                                   |
| <b>Product Warranty Period (Worldwide)</b>                            | 2-year limited warranty                                                                                                           |
| <b>Connected Equipment Insurance (U.S., Canada &amp; Puerto Rico)</b> | \$250,000 <a href="#">Ultimate Lifetime Insurance</a>                                                                             |

## Related Items

### Optional Products

| Related Model                  | Description                                                                                         | Qty. |
|--------------------------------|-----------------------------------------------------------------------------------------------------|------|
| <a href="#">SNMPWEBCARD</a>    | For remote monitoring and control via SNMP, Web, or Telnet.                                         | 1    |
| <a href="#">ENVIROSENSE</a>    | Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)  | 1    |
| <a href="#">SR SWITCH</a>      | Magnetic Door Switch Kit for front and rear doors; requires ENVIROSENSE                             | 1    |
| <a href="#">BP192V18-4U</a>    | BP192V18-4U - External Battery Pack for UPS System                                                  | 1    |
| <a href="#">WEXT3-SU12000</a>  | 3-Year Extended Warranty - For SU12000 High/Low Voltage UPS Models                                  | 1    |
| <a href="#">WEXT5-SU12000</a>  | 5-Year Extended Warranty - For SU12000 High/Low Voltage UPS Models                                  | 1    |
| <a href="#">2-9U STAND</a>     | Enables Tower Placement of Rackmount UPS Systems                                                    | 1    |
| <a href="#">2POSTRMKITHD</a>   | Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components | 1    |
| <a href="#">MODBUSCARD</a>     | For remote monitoring and control via MODBUS protocol                                               | 1    |
| <a href="#">AS400CABLE KIT</a> | Power Management Tools - UPS Communication Cable Kit for System i / AS400 / iSeries Servers         | 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=4664](http://www.tripplite.com/en/products/model.cfm?txtModelID=4664).

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