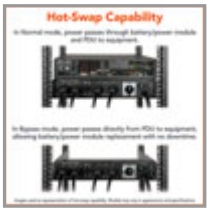
SmartOnline 208/240 & 120V 6kVA 5.4kW Double-Conversion UPS, 6U Rack/Tower, Extended Run, Network Card Options, USB, DB9 Serial, Bypass Switch, Hardwire

MODEL NUMBER: **SU6000RT4UTFHW**









Highlights

- 6kVA / 6000VA / 5400W on-line double-conversion UPS; 0.9 power factor
- 208/120V or 240/120V 60Hz output; Economy mode option
- 6U Rack/Tower installation; Hot-swappable power and battery modules
- USB, RS232 and EPO ports; Network management and contact-closure card options
- Front panel LEDs with detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs
- Hardwire input (3 wire); NEMA 5-15R, 5-15/20R and Hardwire outputs

Package Includes

- SU6000RT4UHVPM Hot-swappable UPS Power Module
- SUPDMB6KHW Detachable PDU with Maintenance Bypass Switch
- SU6000XFMR2U Low voltage transformer
- 1 x 6-ft. USB Cable
- 1 x 6-ft. Serial Cable
- 4 Post Rackmount Hardware (2 sets)

Description

The SU6000RT4UTFHW 6000VA/5400W on-line, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a 6U rack/tower compatible configuration. Full-time active power conditioning provides clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise. Fault-tolerant auto-bypass prevents unexpected service interruptions during UPS overload or internal fault conditions. Detachable back panel PDU with manual bypass switch supports hot-swappable UPS power module replacement with no interruption to connected equipment. 4U UPS power module and included 2U low-voltage transformer install in only 6U with a maximum installed depth of only 21.8 inches (553 millimeters). Maintains full-time sine wave output within 2% of selectable 208/240V and 120V nominal at 60 Hz during brownouts as low as 100V and overvoltages as high as 300V. Expandable runtime is supported with optional BP192V12-3U external battery packs. Battery independent restart ensures automatic UPS power-up without userinteraction after lengthy power outages, even when batteries are expired and require replacement. Double-conversion operation converts raw input from AC to DC, then resynthesizes output power back to perfect sine wave AC 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 significantly reduces BTU heat output and operating energy costs. Network-grade AC surge and noise suppression. Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via built-in RS-232 and USB interfaces. Optional network management card options. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and macOS. PowerAlert monitoring software offers detailed site power and UPS updates with support for safe auto-shutdown of connected systems as UPS batteries become depleted. Supports Emergency Power Off (EPO) via built-in interface. front-panel LEDs and LCD readout with scroll controls support front-panel visual monitoring of all major UPS for a variety of control options to support advanced UPS settings and configurations. LED / LCD display panel rotates for viewing in rack-mount or tower configurations. Hardwire input. Hardwire UPS output, plus one L6-30R, eight 5-15/20R and four 5-15R outlets. External battery packs are field replaceable and hot swappable.

Features

- SU6000RT4UTFHW 6000VA / 6kVA / 5400 watt on-line, double-conversion UPS system in a 6U rack/tower compatible configuration (4U power module plus 2U low-voltage transformer)
- Full-time active power conditioning maintains clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions

- Detachable back panel PDU contains input line cord connection, output receptacles and manual bypass switch to support hot-swappable whole UPS replacement with no interruption to connected equipment
- Hardwire input (208/240V L1, L2 + G)
- Hardwire high and low voltage output, plus 8 5-15/20R and 4 5-15R 120V outlets
- Included rail kit supports 4U 19-inch rack-mount installation in 4-post racks
- Optional 2POSTRMKITHD supports installation in 2-post 19-inch racks (2 required for SU6000RT4UTFHW)
- Optional 2-9USTAND supports upright tower placement (1 required for SU6000RT4UTFHW)
- Maximum installed rack depth of only 21.8 in. / 55.3 cm
- Maintains full-time sine wave output within 2% of selected 208/240V and 120V nominal at 60 Hz in double conversion mode
- Corrects brownouts to 156V at full load (100V at 50% load or less)
- Corrects overvoltages to 290V at full load (300V at 90% load or less)
- Double-conversion operation offers full-time AC to DC, then DC to AC conversion to maintain perfectly regulated 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
- High efficiency ECONOMY MODE operation significantly reduces BTU heat output and operating energy costs
- Network-grade AC surge and noise suppression
- Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via built-in RS-232, USB and optional SNMP card slot interfaces
- Compatible with UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD
- Optional RELAYIOMINI interface module offers three configurable hard contact closure outputs for custom event notification (requires removal of USB interface module)
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and macOS
- USB & Serial ports enable data-saving unattended shutdown when used with PowerAlert software, available via FREE download from tripplite.eaton.com/products/power-alert
- Front panel LEDs and LCD readout with scroll controls support front-panel visual monitoring of all major UPS functions with support for a variety of control options to support advanced UPS settings and configurations
- LED/LCD display panel rotates for viewing in rack-mount or tower configurations
- Supports Emergency Power Off (EPO) via built-in interface
- Battery independent restart ensures automatic UPS power-up without userinteraction after lengthy power outages, even when batteries areexpired and require replacement
- BP192V12-3U external battery packs are field replaceable and hot swappable
- Intelligent battery management system with temperature-compensated charging extends battery life
- Some external battery configurations require the use of External Battery Configuration Software (see manual)
- $250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only)

Specifications

OVERVIEW	
UPC Code	037332157225
UPS Type	On-Line
INPUT	

Input Phase	Single-Phase
Rated input current (Maximum Load)	31.9A (200V), 30.6A (208V), 29A (220V), 27.7A (230V), 26.6A (240V)
Nominal Input Voltage(s) Supported	208V AC; 240V AC
Nominal Input Voltage Description	Factory configured to 208V
UPS Input Connection Type	Hardwire
UPS Input Connection Description	3 wire single phase input (L1, L2, G)
Recommended Electrical Service	40A (200/208v); 30A (220/230/240v)
OUTPUT	
Output Capacity (VA)	6000
Output Capacity (kVA)	6
Output Capacity (Watts)	5400
Output Capacity (kW)	5.4
Output Capacity Details	Supports up to 105% load continuously in double conversion mode, 106 to 125% for 1 minute, 126% to 150% for 30 seconds; Loads over 150% trigger immediate bypass mode operation to support loads directly from mains power; Double conversion mode is automatically restored as the overload is cleared
Power Factor	0.9
Crest Factor	3:1
Nominal Voltage Details	This configuration requires the Power Module be set to 208 or 240V output voltage; included step-down transformer supports 120V output (when the voltage-selection switch on the transformer module is set to match the 208 or 240V power module setting)
Frequency Compatibility	60 Hz
Frequency Compatibility Details	Output frequency regulation +/- 0.05Hz (free running)
Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 2%
Output Receptacle Details	Hardwire input and output connections are mounted on a detachable PDU backplate with bypass switch to enable hot-swappable power module replacement
Output Circuit Breakers	Low voltage 20A breakers on the transformer module protect 4 5-15/20R outlets each; Low voltage 15A breakers protect 2 5-15/20R outlets each
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	120V; 208V; 240V
Output Receptacles	(4) 5-15R; (8) 5-15/20R; (1) L6-30R; Hardwire
Individually Controllable Load Banks	No
BATTERY	
Battery Type	Valve Regulated Lead Acid (VRLA)

Runtime Full Load (min.)	2 min. (5400W)
Runtime Half Load (min.)	8.5 min. (2700W)
Expandable Runtime	Yes
External Battery Pack Compatibility	BP192V1037C-1PH; BP192V12-3U ; BP192V1407C-1PH; BP192V557C-1PH; BP192V787C-1PH; BP192V5RT2U (limit 1)
DC System Voltage (VDC)	192
Battery Recharge Rate (Included Batteries)	6 hours from 10% to 90% (typical, full load discharge)
Battery Access	Front panel battery access door
Internal UPS Replacement Battery Cartridge	RBC5-192
Battery Replacement Description	Hot-swappable, user replaceable internal batteries
VOLTAGE REGULATION	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	Corrects overvoltages as high as 300V (<90% load) and 280V (full load)
Undervoltage Correction	Corrects undervoltages as low as 100 (<50% load) and 155V (full load); derates linearly
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LCD Display	Selectable LCD display with scroll and selection buttons enables UPS control and detailed monitoring options; LED/LCD panel rotates for viewing in rack/tower formats (see manual)
Switches	Includes main power off/on switch, plus 2 switches to set and execute scrollable LCD functions. A manual bypass switch featured on the detachable PDU allows for complete removal of the UPS during routine maintenance without disrupting power to connected loads
Alarm Cancel Operation	Alarm cancel switch
Audible Alarm	Unique audible alarms for all major UPS, environmental and power conditions (see manual)
LED Indicators	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
SURGE / NOISE SUPPRESSION	
UPS AC Suppression Joule Rating	2595
UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
PHYSICAL	
Primary Form Factor	Rackmount
Rack Height	6U
Cooling Method	Fans
Included Mounting Accessory Description	4 post rackmount installation accessories included (2 sets)

Installation Form Factors Supported with Included Accessories	4 post 19 inch rackmount
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND)
Maximum Device Depth (cm)	55.37
Maximum Device Depth (in.)	21.8
Maximum Device Depth (mm)	554
Minimum Required Rack Depth (cm)	63.50
Minimum Required Rack Depth (inches)	25
Minimum Required Rack Depth with External Battery Pack (cm)	74
Minimum Required Rack Depth with External Battery Pack (in.)	29
Minimum Required Rack Depth without External Battery Pack (cm)	65
Minimum Required Rack Depth without External Battery Pack (in.)	25.7
Optional Mounting Accessory Notes	2 sets of 2POSTRMKITHD required for 2 post rackmount installation of separate UPS and transformer components
Primary UPS Depth (mm)	526
Primary UPS Height (mm)	174
Primary UPS Width (mm)	445
Shipping Dimensions (hwd / in.)	22.20 x 23.60 x 29.10
Shipping Dimensions (hwd / cm)	56.39 x 59.94 x 73.91
Shipping Weight (lbs.)	232.10
Shipping Weight (kg)	105.28
Stepdown Transformer Dimensions (hwd / cm)	8.89 x 44.45 x 55.37
Stepdown Transformer Dimensions (hwd / in.)	3.5 x 17.5 x 21.8
Stepdown Transformer Height (mm)	89
Stepdown Transformer Width (mm)	445
Stepdown Transformer Depth (mm)	554
Stepdown Transformer Weight (kg)	32.93
Stepdown Transformer Weight (lbs.)	72.6
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, cm)	17.40 x 44.45 x 52.58
UPS Power Module Dimensions (hwd, in.)	6.85 x 17.5 x 20.7

UPS Power Module Weight (kg)	52.71
UPS Power Module Weight (lbs.)	116.2
Unit Dimensions (hwd / in.)	10.050 x 17.500 x 21.800
Unit Weight (lbs.)	188.800
Unit Weight (kg)	85.64
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	0 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	1767
AC Economy Mode BTU / Hr. (Full Load)	768
AC Mode Efficiency Rating (100% Load)	90%
AC Economy Mode Efficiency Rating (100% Load)	96%
Online Mode Heat Dissipation (BTU/Hr) @ Full Load	1767
Battery Mode Heat Dissipation (BTU/Hr) @ Full Load	2279
Operating Elevation	0-6562 ft. (0-2000 m)
Audible Noise	60 dBA at front side 1 meter
COMMUNICATIONS	
Network Management Cards	TLNETCARD ; WEBCARDLXE ; MODBUSCARD ; RELAYIOCARD
Network Monitoring Port Description	Additional contact closure support with optional RELAYIOCARD and RELAYIOMINI interface cards. RELAYIOMINI installation requires removal of panel containing USB ports
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, DB9 serial and EPO cables included
WatchDog Compatibility	Yes
Network Management Card Description	Network management card optional
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)
LINE / BATTERY TRANSFER	
Transfer Time	0 ms
Transfer Time (Economy Mode)	8ms. typical power failure response in optional economy mode

Low Voltage Transfer to Battery Power (Setpoint)	156V (full load) / 100V (50% load or less, derates linearly)
High Voltage Transfer to Battery Power (Setpoint)	280V (full load) / 300V (90% load or less)
FEATURES & SPECIFICATIONS	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Auto Probe Monitoring (requires WEBCARDLXE); Automatic inverter bypass; Hot swappable batteries; Hot swappable UPS power module; Manual bypass switch; Remote management; Surge/noise protection; Zero transfer time
Green Energy-Saving Features	High efficiency economy mode operation; Support for daily startup and shutoff; Schedulable daily hours of economy mode operation
APPLICATIONS	
UPS Applications	Mission Critical Applications
STANDARDS & COMPLIANCE	
Product Certifications	IEC 61000; CSA (Canada); UL 1778; NOM (Mexico)
Product Compliance	RoHS; 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

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