#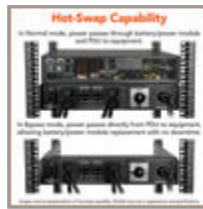 SmartOnline 208/240, 230V 6kVA 5.4kW Double-Conversion UPS, 4U Rack/Tower, Extended Run, Network Card Options, USB, DB9 Serial, Bypass Switch, C19

MODEL NUMBER: **SU6000RT4UHVG**

Highlights

- 6000VA / 6kVA / 5400W on-line double-conversion 4U rack/tower UPS, Sine Wave
- Included maintenance bypass switch enables live replacement of UPS with zero downtime
- Extended runtime options, Interactive LCD interface, Economy-mode option, 0.9 power factor
- Add optional WEBCARDLX with latest version of PADM20 for enhanced remote management
- Hardwire 200-240V 50/60Hz input; C19 outlets; Configurable for 200/208/220/230/240V 50/60Hz output

Package Includes

- SU6000RT4UHVPM Hot-swappable UPS Power Module
- SUPDMB6KIEC Detachable PDU with Maintenance Bypass Switch
- 1 x 6-ft. USB Cable
- 1 x 6-ft. DB9 Cable
- 4-Post Rackmount Hardware

Description

The SU6000RT4UHVG 6000VA/5400W on-line, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a single 4U rack/tower compatible housing. 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 whole UPS replacement with no interruption to connected equipment. Single all-in-one rack / tower housing installs in only 4U with a maximum installed depth of only 20.7 inches (526 millimeters). Maintains full-time sine wave output within 2% of selectable 200/208/220/230/240V nominal 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 user interaction after lengthy power outages, even when batteries are expired and require replacement. Double-conversion operation converts raw input from AC to DC, then re-synthesizes 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 available. 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 and four C19 outlets. Support for optional North American and International cordsets. External battery packs are field replaceable and hot swappable.

Features

- SU6000RT4UHVG 6000VA / 6kVA / 5400 watt on-line, double-conversion UPS system in a single 4U rack/tower compatible housing (output is limited to 4992 watts when used at 208V with L6-30P input plug)

- 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 hardwire 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 and 4 C19 output receptacles

- Included rail kit supports 4U 19-inch rack-mount installation in 4-post racks

- Optional 2POSTRMKITHD supports installation in 2-post 19-inch racks (1 required for SU6000RT4UHVG)

- Optional 2-9USTAND supports upright tower placement (1 required for SU6000RT4UHVG)

- Maximum installed rack depth of only 20.7 in. / 52.6cm

- Maintains full-time sine wave output within 2% of selected 200/208/220/230/240V nominal 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)

- Supports 50/60 Hz operation for worldwide frequency compatibility

- 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 network management card options

- Compatible with UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD

- Optional WEBCARDLX (sold separately) with the latest version of PowerAlert Device Manager firmware (PADM20) provides enhanced remote management capabilities

- PADM20 and PowerAlert Element Manager (PAEM) form a powerful tool for expanding maintenance functions in large installations, including firmware update checks and backup and restoration of device configurations

- 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 user interaction after lengthy power outages, even when batteries are expired 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)

- Frequency conversion mode enables conversion of 60 Hz to 50Hz or 50Hz to 60 Hz (no de-rating)

Specifications

OVERVIEW	
UPC Code	037332157232
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	200V AC; 208V AC; 220V AC; 230V AC; 240V AC
Nominal Input Voltage Description	Factory configured to 208V
UPS Input Connection Type	Hardwire
UPS Input Connection Description	Supports North American 208/240V input (L1,L2,G) or International 230/220/240V (L,N,PE) input wiring; Optional SU30ACORD offers NEMA L6-30P input
Recommended Electrical Service	40A (200/208v); 30-32A (220/230/240v)

OUTPUT	
Output Capacity (VA)	6000
Output Capacity (kVA)	6
Output Capacity (Watts)	5400
Output Capacity (kW)	5.4
Output Capacity Details	Output capacity de-rates to 4992 watts when used at 208V with optional L6-30P line cord; 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	Voltage selection via front panel LCD interface
Frequency Compatibility	50 / 60 Hz
Frequency Compatibility Details	Output frequency matches input nominal on startup; Frequency conversion mode enable conversion of 60Hz to 50Hz or 50Hz to 60Hz (no de-rating)
Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 2%
Output Receptacle Details	Output receptacle and input connections are mounted on a detachable PDU backplate with bypass switch to enable hot-swappable power module replacement
Output Circuit Breakers	Two 20A breakers protect 2 C19 outlets each
Output AC Waveform (AC Mode)	Pure Sine wave

Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	200V; 208V; 220V; 230V; 240V
Output Receptacles	(4) C19
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	BP192V12-3U ; BP192V5RT2U (limit 1); BP192V787C-1PH
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
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	4U
Cooling Method	Fans
Included Mounting Accessory Description	Includes 4 post rackmount installation accessories
Installation Form Factors Supported with Included Accessories	4 post 19 inch rackmount
Maximum Device Depth (cm)	52.58
Maximum Device Depth (in.)	20.7
Maximum Device Depth (mm)	526
Minimum Required Rack Depth (cm)	60.96
Minimum Required Rack Depth (inches)	24
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)	62
Minimum Required Rack Depth without External Battery Pack (in.)	24.25
Primary UPS Depth (mm)	525
Primary UPS Height (mm)	174
Primary UPS Width (mm)	445
Shipping Dimensions (hwd / in.)	30.00 x 34.00 x 24.00
Shipping Dimensions (hwd / cm)	76.20 x 86.36 x 60.96
Shipping Weight (lbs.)	190.00
Shipping Weight (kg)	86.18
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, cm)	17.40 x 44.45 x 52.50
UPS Power Module Dimensions (hwd, in.)	6.85 x 17.5 x 20.67
UPS Power Module Weight (kg)	48.99
UPS Power Module Weight (lbs.)	108
Unit Dimensions (hwd / in.)	6.850 x 17.500 x 20.670

Unit Weight (lbs.)	116.200
Unit Weight (kg)	52.71

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 (ft.)	Up to 6500 ft.
Audible Noise	60 dBA at front side 1 meter
Operating Elevation (m)	0-2000m

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	No transfer time (0 ms.) in online, double-conversion mode
Transfer Time (Economy Mode)	8 ms. 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

APPLICATIONS	
UPS Applications	Mission Critical Applications

STANDARDS & COMPLIANCE	
Product Certifications	CSA (Canada); UL 1778
Product Compliance	RoHS; CE (Europe); 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