SmartOnline 208 & 120V 5kVA 4.5kW Double-Conversion UPS, 6U Rack/Tower, Extended Run, Network Card Slot, USB, DB9 Serial

MODEL NUMBER: **SU5000RT4UTF**





Highlights

- 5kVA / 5000VA / 4500 watt on-line double-conversion UPS; 0.9 power factor
- 208/120V 60Hz output; high efficiency economy mode option
- 6U Rack/Tower compatible; Hot swappable battery modules
- USB, RS232 & EPO ports; Slot for network management card options
- Front panel LEDs with detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs
- NEMA L6-30P input (3 wire); L6-30R, L6-20R & 5-15/20R outputs

Package Includes

- SU5000RT4UHV UPS Power Module
- SU5000XFMRT2U Stepdown Transformer
- 4 Post Rackmount Installation Rails
- USB, DB9 and EPO cables

Description

The SU5000RT4UTF 5000VA/4500W on-line, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in a 6U rack/tower 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. 4U UPS power module with internal batteries and 2U step-down transformer installs in a total of 6U with a maximum installed depth of only 20.75 inches (527 millimeters). Maintains full-time sine wave output within 2% of 208 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 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 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 communications card accessories available. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and macOS. PowerAlert monitoring software, available via free download, 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 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. L6-30P input, plus two L6-30R, two L6-20R and 12 NEMA 5-15/20R outlets. External battery packs are field replaceable and hot swappable.

Features

- SU5000RT4UTF 5000VA / 5kVA / 4500 watt on-line, double-conversion UPS system in a 6U rack/tower configuration (4U UPS power module with internal batteries + 2U step-down 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
- L6-30P input plug, plus 2 L6-30R, 2 L6-20R and 12 5-15/20R outlets
- Included rail kits support rack-mount installation of both included modules in 4-post racks

- Optional 2POSTRMKITHD supports installation in 2-post 19-inch racks (2 required for SU5000RT4UTF)
- Optional 2-9USTAND supports upright tower placement (1 required for SU5000RT4UTF)
- Maximum installed rack depth of only 20.75 in. / 52.7 cm
- Maintains full-time sine wave output within 2% of 208V & 120V at 60 Hz 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)
- 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
- UPS card slot supports one card-based network interface options
- 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 user interaction after lengthy power outages, even when batteries are expired and require replacement
- 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 connected equipment insurance

Specifications

OVERVIEW	
UPC Code	037332157140
UPS Type	On-Line
INPUT	
Input Phase	Single-Phase
Rated input current (Maximum Load)	24A (208V)
Nominal Input Voltage(s) Supported	208V AC

UPS Input Connection Type	L6-30P
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.1
Recommended Electrical Service	30A
OUTPUT	
Output Capacity (VA)	5000
Output Capacity (kVA)	5
Output Capacity (Watts)	4500
Output Capacity (kW)	4.5
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	208V default power module setting; This configuration requires the Power Module be set to 208V output voltage; Included step-down transformer supports 120V output
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 Circuit Breakers	High voltage 20A breaker protects L6-20R outlets, L6-30R outlets are unbreakered; Low voltage 20A breakers protect 3 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
Output Receptacles	(12) 5-15/20R; (2) L6-20R; (2) L6-30R
Individually Controllable Load Banks	No
BATTERY	
Battery Type	Valve Regulated Lead Acid (VRLA)
Runtime Full Load (min.)	3.5 min. (4500W)
Runtime Half Load (min.)	11 min. (2250W)
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 (qty 1)
Battery Replacement Description	Hot-swappable, user replaceable batteries
VOLTAGE REGULATION	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	2% output voltage regulation during overvoltages to 280V (full load) / 300V (90% load or less)
Undervoltage Correction	2% output voltage regulation during undervoltages to 156V (full load) / 100V (50% load or less)
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	2 Switches control off/on power status and alarm-cancel/self-test operation; 2 additional switches support set and execute scrolling LCD functions
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	Fan
Included Mounting Accessory Description	2 sets of adjustable 4 post rack rails included
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)	52.70
Maximum Device Depth (in.)	20.75
Maximum Device Depth (mm)	527
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)	65
Minimum Required Rack Depth without External Battery Pack (in.)	25.75
Optional Mounting Accessory Notes	2 sets of 2POSTRMKITHD required for 2 post rackmount installation of separate 4U power module and 2U transformer
Primary UPS Depth (mm)	525
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.)	227.80
Shipping Weight (kg)	103.33
Stepdown Transformer Dimensions (hwd / cm)	8.89 x 44.45 x 52.70
Stepdown Transformer Dimensions (hwd / in.)	3.5 x 17.5 x 20.75
Stepdown Transformer Height (mm)	89
Stepdown Transformer Width (mm)	445
Stepdown Transformer Depth (mm)	527
Stepdown Transformer Weight (kg)	34.47
Stepdown Transformer Weight (lbs.)	76
UPS Housing Material	Sheet metal
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)	51.53
UPS Power Module Weight (lbs.)	113.6
Unit Dimensions (hwd / in.)	10.050 x 17.500 x 20.750
Unit Weight (lbs.)	189.600

Unit Weight (kg)	86.00
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 90% (non-condensing)
AC Mode BTU / Hr. (Full Load)	1767
AC Economy Mode BTU / Hr. (Full Load)	640
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	1708
Operating Elevation	0 to 6560 ft. / 0 to 2000 m
Audible Noise	65 dB at 1m front side
COMMUNICATIONS	
Network Management Cards	TLNETCARD ; WEBCARDLXE ; MODBUSCARD ; RELAYIOCARD
Network Monitoring Port Description	Two contact closure monitoring options available - RELAYIOCARD with six configurable contact closure outputs (uses UPS card slot) and RELAYIOMINI with 3 configurable contact closure outputs (requires removal of USB port module)
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
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; 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
Product Compliance	RoHS; FCC Part 15 Class B (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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