

# SmartOnline 208/240V 10kVA 9kW Double-Conversion UPS, 6U, Extended Run, Network Card Slot, USB, DB9, Bypass Switch, NEMA

MODEL NUMBER: SU10000RT3U











### Description

SU10000RT3U 10,000VA/9000W online, double-conversion UPS system offers complete power protection for critical network applications. This system delivers online, double-conversion UPS protection with zero transfer time, suitable for advanced networking applications. Fault-tolerant auto-bypass prevents unexpected service interruptions during UPS overload or internal fault conditions. Included detachable PDU with manual bypass switch enables hot-swappable replacement of entire UPS power module with no interruption to connected equipment. Enhanced availability, fault tolerance and simple hot-swap replacement options make this UPS ideal for advanced networking applications in data centers, computer rooms, network closets and rugged industrial locations.

#### **Features**

- SU10000RT3U 10kVA / 10,000VA / 9000 watt on-line, double-conversion UPS system in 6U total rack/tower configuration (3U UPS power module and 3U external battery pack)
- Detachable PDU with manual bypass switch enables hot-swappable UPS power module replacement with no interruption in output power to connected networking equipment
- Fault tolerant electronic bypass maintains utility output during a variety of UPS fault conditions
- Hardwire input; 2 L6-30R and 4 L6-20R outlets
- Maximum installed rack depth of only 32.5 in. / 82.6cm
- Full-time active power conditioning provides clean, continuous dual-conversion AC output free of voltage fluctuations, power interruptions and line noise
- 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
- Maintains full-time sine wave output within 2% of selectable 200/208/220/230/240V nominal during brownouts as low 100V and overvoltages as high as 300V
- Supports 50/60 Hz operation for worldwide frequency compatibility
- Expandable runtime is supported with optional BP240V10RT3U; BP240V787C-1PH external battery packs
- Intelligent battery management system with temperature-compensated charging extends battery life
- Some external battery configurations require the use of External Battery Configuration Software (see

## **Highlights**

- 10kVA / 10,000VA / 9000W online double-conversion UPS; 0.9 power factor; Extended runtime; Economy mode option
- 6U rack/tower configuration with hot-swappable power and battery modules; Maintenance bypass switch included
- USB, RS232 & EPO ports; Slot for network management card options; Front panel LCD monitoring and control screen
- Hardwire 200-240V 50/60Hz input (3 wire); L6-30R & L6-20R outlets; Configurable for 200/208/220/230/240V output

### **Package Includes**

- SU10000RT3UPM 3U UPS power module
- BP240V10RT3U external battery pack
- SUPDMB710 Detachable PDU with manual bypass switch
- Four post compatible rack rail kit (2 sets)
- Tower stands for upright tower configuration
- USB, DB9 and EPO Cabling



manual)

- Highly efficient operation in optional economy mode significantly reduces BTU heat output and operating energy costs
- Battery independent restart ensures automatic UPS power-up without user interaction after lengthy
  power outages, even when batteries are expired and require replacement
- USB & Serial ports enable data-saving unattended shutdown when used with PowerAlert software, available via FREE download from <u>tripplite.eaton.com/products/power-alert</u>
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and macOS
- · Slot for network management card options
- Compatible UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD support a wide variety of UPS control and monitoring capabilities
- Optional RELAYIOMINI interface module offers three configurable hard contact closure outputs for custom event notification (requires removal of USB interface module)
- Supports Emergency Power Off (EPO) via built-in interface
- Included rail kit supports 6U 19-inch rack-mount installation in 4-post racks
- Optional 2POSTRMKITHD supports installation in 2-post 19-inch racks
- Front panel LEDs and LCD readout with scroll controls and password option supports visual monitoring
  of all major UPS functions and advanced UPS settings for charge level, nominal voltage selection,
  frequency conversion and other operational parameters
- LED / LCD display panel rotates for viewing in rack-mount or tower configurations
- Network-grade AC surge and noise suppression
- Industrial mode option (factory preset) enables supports high-current startup loads by momentarily switching to bypass mode in response to short duration overload conditions
- Frequency conversion mode enables conversion of 60 Hz to 50Hz or 50Hz to 60 Hz (no de-rating)
- · External battery packs are field replaceable and hot swappable

# **Specifications**

OVERVIEW		
UPC Code	037332127372	
UPS Type	On-Line	
INPUT		
Input Phase	Single-Phase	
Rated input current (Maximum Load)	56.1A (200V), 54A (208V), 51A (220V), 48.8A (230V), 46.8A (240V)	
Nominal Input Voltage(s) Supported	200V AC; 208V AC; 240V AC	
UPS Input Connection Type	Hardwire	
UPS Input Connection Description	3 wire single phase input (L1, L2, G)	
Recommended Electrical Service	60A	
OUTPUT		
Output Capacity (VA)	10000	
Output Capacity (kVA)	10	



Output Capacity (Watts)	9000
Output Capacity (kW)	9
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 load levels are reduced to 95% or less
Power Factor	0.9
Crest Factor	3:1
Nominal Voltage Details	Voltage selection via front panel LCD interface
Frequency Compatibility	50 / 60 Hz; Supports 50 to 60 Hz and 60 to 50 Hz conversion
Frequency Compatibility Details	Output frequency matches input nominal on startup; Frequency conversion mode enables conversion of 60Hz to 50Hz or 50Hz to 60Hz (No de-rating); 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	20A double-pole (x2) protects 2 L6-20R outlets each, 30A double-pole (x2) protects 1 L6-30R outlet each
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	200V; 208V; 240V
Output Receptacles	(4) L6-20R; (2) L6-30R
Individually Controllable Load Banks	No
BATTERY	
Battery Type	Valve Regulated Lead Acid (VRLA)
Runtime Full Load (min.)	4.3 min. (9000W)
Runtime Half Load (min.)	12.5 min. (4500W)
Expandable Runtime	Yes
External Battery Pack Compatibility	<a class="productLink" href="//tripplite.eaton.com/external-240v-tower-battery-pack-tripp-lite-3-phase-ups-systems-3u~BP240V10RT3U">BP240V10RT3U</a> ; BP240V787C-1PH
DC System Voltage (VDC)	240
Battery Recharge Rate (Included Batteries)	Less than 6 hours from 10% to 90% (typical, full load discharge)
Battery Replacement Description	Hot-swappable, user replaceable external battery packs
VOLTAGE REGULATION	
Voltage Regulation Description	2% output voltage regulation in standard online, double-conversion mode
Overvoltage Correction	Corrects overvoltages up to 300V



Undervoltage Correction	Corrects undervoltages as low as 100V
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USER INTERFACE, ALERTS & CON	TRULS
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; LCD Display supports ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH and PORTUGUESE (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; bundled PDU includes bypass switch to enable hot-swap UPS power module replacement
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	2565
UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
PHYSICAL	
Primary Form Factor	Rackmount
Rack Height	6U
Cooling Method	Fan
Included Battery Pack Dimensions (hwd / in.)	5.25 x 17.5 x 25
Included Battery Pack Weight (lbs.)	158.7
Included Battery Pack Weight (kg)	71.99
Included Mounting Accessory Description	2 sets of adjustable 4 post rack rails included; 2-9USTAND tower kit included
Installation Form Factors Supported with Included Accessories	4 post 19 inch rackmount
Installation Form Factors Supported with Optional Accessories	2 post rackmount ( <a class="productLink" href="//tripplite.eaton.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD">2POSTRMKITHD</a> )
Maximum Device Depth (cm)	82.55
Maximum Device Depth (in.)	32.5
Maximum Device Depth (mm)	826
Minimum Required Rack Depth (cm)	96.52
Minimum Required Rack Depth (inches)	38
Optional Mounting Accessory Notes	2 sets of <a class="productLink" href="//tripplite.eaton.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD">2POSTRMKITHD</a> required for 2 post rackmount installation of separate power module and battery pack



Operating Elevation (m)	0-3000 m
Audible Noise	60 dBA at front side 1 meter
Operating Elevation (ft.)	0-3000m (0 to 10,000 ft.)
Battery Mode Heat Dissipation (BTU/Hr) @ Full Load	4593
Online Mode Heat Dissipation (BTU/Hr) @ Full Load	3415
AC Economy Mode Efficiency Rating (100% Load)	96%
AC Mode Efficiency Rating (100% Load)	91%
AC Economy Mode BTU / Hr. (Full Load)	1280
AC Mode BTU / Hr. (Full Load)	3415
Relative Humidity	0 to 95%, non-condensing
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
ENVIRONMENTAL	
Unit Weight (kg)	136.08
Unit Weight (lbs.)	300
UPS Power Module Weight (lbs.)	43
UPS Power Module Weight (kg)	19.50
UPS Power Module Dimensions (hwd, in.)	5.14 x 17.5 x 25.82
UPS Power Module Dimensions (hwd, cm)	13.06 x 44.45 x 65.58
UPS Housing Material	Steel
Unit Dimension Details	Includes 3U UPS/power module, 3U external battery pack plus SUPDMB710 PDU with bypass; MAXIMUM DEVICE DEPTH specification refers to the whole UPS installed depth with bypass PDU installed
Shipping Weight (kg)	136.08
Shipping Weight (lbs.)	300.00
Shipping Dimensions (hwd / cm)	78.74 x 66.04 x 104.14
Shipping Dimensions (hwd / in.)	31.00 x 26.00 x 41.00
Primary UPS Width (mm)	445
Primary UPS Height (mm)	131



Product Warranty Period (Worldwide)	2-year limited warranty
WARRANTY & SUPPORT	
Product Compliance	RoHS; FCC Part 15 Class A (USA)
Product Certifications	CSA (Canada); NOM (Mexico); UL 1778
STANDARDS & COMPLIANCE	
UPS Applications	Mission Critical Applications
APPLICATIONS	
Green Energy-Saving Features	High efficiency economy mode operation; Schedulable daily hours of economy mode operation
High Availability UPS Features	Auto Probe Monitoring (requires WEBCARDLXE); Automatic inverter bypass; Hot swappable UPS power module; Hot swappable batteries; Manual bypass switch; Remote management; Surge/noise protection; Zero transfer time
Economy Mode Operation	Optional economy mode enables high efficiency bypass operation with a maximum output voltage variation of +/- 10%. Double conversion mode is automatically restored as mains voltage varies beyond +/-10% with less than 1 millisecond transfer time between modes.
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
FEATURES & SPECIFICATIONS	
High Voltage Transfer to Battery Power (Setpoint)	300V
Low Voltage Transfer to Battery Power (Setpoint)	100V
Transfer Time (Economy Mode)	8 ms. typical power failure response in optional economy mode
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
LINE / BATTERY TRANSFER	
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface; USB (HID enabled)
Network Management Card Description	Network management card optional
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
Communications Cable	USB, DB9 serial and EPO cables included
PowerAlert Software	For local monitoring via the UPS's built-in communication ports, download PowerAlert software at https://tripplite.eaton.com/products/power-alert
Network Monitoring Port Description	Additional contact closure support with optional RELAYIOCARD and RELAYIOMINI interface cards. RELAYIOMINI installation requires removal of panel containing USB ports
Network Management Cards	<a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems-TLNETCARD">TLNETCARD</a> ; <a class="productLink" href="/tripplite.eaton.com/Network-Card-Eaton-Tripp-Lite-Series-UPS-Systems-WEBCARDLXE">WEBCARDLXE</a> ; <a class="productLink" href="//tripplite.eaton.com/MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control-MODBUSCARD">MODBUSCARD</a> ; <a class="productLink" href="//tripplite.eaton.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a>



Connected Equipment Insurance (U.S., Canada & Puerto Rico)

 $$250,000\ <a class="insuranceLink" href="//tripplite.eaton.com/support/insurance-policy">Ultimate Lifetime Insurance</a>$ 



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