

# Model #: SU10KRT3U

## SmartOnline 10kVA On-Line Double-Conversion UPS, 9U Rack/Tower, 208/120V or 240/120V Hardwire output



## **Highlights**

- 10kVA / 10,000VA / 9000W on-line double-conversion UPS; 0.9 power factor
- 208/120V or 240/120V 50/60Hz output; Economy mode option
- 9U Rack / Tower compatible; Hot-swappable power and battery modules
- USB, RS232 & EPO ports; support for SNMP/WEB 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); Hardwire output

## **Description**

Tripp Lite SU10KRT3U 10,000VA / 10kVA / 9000 watt 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 stepdown transformer 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.

#### Package Includes

- SU10000RT3UPM 3U UPS power module
- BP240V10RT3U external battery pack
- SU10KXFMRRT3U step down transformer with manual bypass switch
- Four post compatible rack rail kit (3 sets)
- Tower stands for upright tower configuration
- PowerAlert software, complete data cabling and user manual

## **Features**

- Tripp Lite SU10KRT3U 10kVA / 10,000VA / 9000 watt on-line, double-conversion UPS system in 9U total rack/tower configuration (3U UPS power module, 3U external battery pack and 3U step-down transformer)
- Included stepdown transformer 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 and output connections
- 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 208/240 and 120V nominal at 50/60Hz during brownouts as low 100V and overvoltages as high as 300V
- Expandable runtime is supported with optional BP240V10RT3U; BP240V557C-1PH; BP240V787C-1PH; BP240V1037C-1PH; BP240V10037C-1PH; BP240V100
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see 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
- PowerAlert monitoring software offers detailed site power and UPS updates with support for safe auto-shutdown of connected systems as UPS batteries become depleted
- Includes Free PowerAlert monitoring software packages; PowerAlert LOCAL for desktops and small business networks, PowerAlert NSA (Network Shutdown Agent) for larger networks and PowerAlert NMS (Network Management System) for monitoring up to 250 SNMP-enabled UPS, PDU and other networking devices
- Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via built-in RS-232 and USB interfaces
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Optional SNMPWEBCARD offers communications and control via secure remote web and network interfaces
- Optional RELAYIOCARD supports six configurable hard contact closure outputs for custom event notification
- 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 9U 19 inch rackmount 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 rackmount 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 60Hz to 50Hz to 50Hz to 60Hz (no de-rating)
- External battery packs are field replaceable and hot swappable

## **Specifications**

OUTPUT		
Output Volt Amp Capacity (VA)	10000	
Output kVA capacity (kVA)	10	
Output Watt Capacity (watts)	9000	
Output kW capacity	9.0	
Output power factor	0.9	
Output Capacity Details	Supports up to 105% load continuously in double conversion mode, 106 to 125% for 1 minute, 126% to 150% for 3 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	
Nominal Output Voltage(s) Supported	120V; 208V; 240V	
Frequency compatibility	50/60 Hz (auto-selectable)	
Frequency compatibility details	Output frequency matches input nominal on startup; Frequency conversion mode enables conversion of 60Hz to 50Hz or 50Hz to 60Hz; 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 AC waveform (AC mode)	Pure Sine wave			
Output AC waveform (battery mode)	Pure Sine wave			
INPUT				
Rated input current (at maximum load)	54A (208V), 46.8A (240V)			
Nominal Input Voltage(s) Supported	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			
BATTERY				
Full load runtime (minutes)	4.3 min. (9000w)			
Half load runtime (minutes)	12.5 min. (4500w)			
Expandable battery runtime	Supports extended runtime with optional external battery packs			
External battery pack compatibility	BP240V10RT3U; BP240V557C-1PH; BP240V787C-1PH; BP240V1037C-1PH; BP240V1407C-1PH			
DC system voltage (VDC)	240			
Battery recharge rate (included batteries)	Inge Less than 6 hours from 10% to 90%			
Battery replacement description	Hot-swappable, user replaceable external battery packs			
VOLTAGE REGULATIO	DN			
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			
LEDS ALARMS & SWITCHES				
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			

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)			
Alarms	Unique audible alarms for all major UPS, environmental and power conditions (see manual)			
Alarm cancel operation	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			
SURGE / NOISE SUPP	RESSION			
UPS AC suppression response time	Instantaneous			
EMI / RFI AC noise suppression	Yes			
PHYSICAL				
Installation form factors supported with included accessories	4 post 19 inch rackmount (mounting rail kit included); Tower			
Included mounting accessory description	3 sets of adjustable 4 post rack rails included; 2-9USTAND tower kit included			
Installation form factors supported with optional accessories	2 post rackmount (2POSTRMKITHD)			
Optional mounting accessory notes	3 sets of 2POSTRMKITHD required for 2 post rackmount installation			
Primary form factor	Rackmount			
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	5.14 x 17.5 x 25.82			
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	13.1 x 44.4 x 65.6			
Installed whole system maximum rack depth (inches)	32.5			
Installed whole system maximum rack depth (cm)	82.6			
Installed whole system total rack space height (rack spaces)	9U			
Secondary form factor	Tower			
UPS / Power Module weight (Ibs)	43			

UPS / Power Module weight (kg)	19.5
Stepdown transformer dimensions (height x width x depth / inches)	5.25 x 17.5 x 26
Stepdown transformer dimensions (height x width x depth / cm)	13.3 x 44.4 x 66
Stepdown transformer weight (Ibs)	102
Stepdown transformer weight (kg)	46.3
Included battery pack dimensions (height x width x depth / inches)	5.25 x 17.5 x 25
Included battery pack dimensions (height x width x depth / cm)	13.3 x 44.4 x 63.5
Included battery pack weight (lbs)	158.7
Included battery pack weight (kg)	72
UPS Shipping dimensions (height x width x depth / inches)	48.25 x 40 x 48
UPS Shipping dimensions (height x width x depth / cm)	122.6 x 101.6 x 121.9
Shipping weight (lbs)	460
Shipping weight (kg)	208.8
UPS housing material	Steel
Cooling method	Fan
ENVIRONMENTAL	
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)	3415
AC economy mode BTU / hr. (full load)	1275

AC economy mode efficiency rating (100% load)	96%	
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	
COMMUNICATIONS		
Communications interface	USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface	
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	Included	
Communications cable	USB, DB9 serial and EPO cables included	
WatchDog compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications	
LINE / BATTERY TRAN	ISFER	
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)	100V	
High voltage transfer to battery power (setpoint)	300V	
SPECIAL FEATURES		
Cold Start (startup in battery mode during a power failure)	Cold-start operation supported	
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.	
High availability UPS features	Automatic inverter bypass; Manual bypass switch; Detachable hot-swap PDU; Hot swappable UPS power module; Hot swappable batteries	
Green & high efficiency features	High efficiency economy mode operation; Schedulable daily hours of economy mode operation	
CERTIFICATIONS		
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)	
UPS Certification details	IEC 61000-4-5 1995 B Surge Immunity	
WARRANTY		
Product Warranty Period (Worldwide)	2-year limited warranty	

### **Related Items**

#### **Optional Products**

Related Model	Description	Qty.
SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	1
SRSWITCH	Magnetic Door Switch Kit for front and rear doors; requires ENVIROSENSE	1
BP240V10RT3U	External Battery Pack and Cable. 3U, Expandable, Black 3-Point Connector	1
WEXT3-SU10K	3-Year Extended Warranty - For SU10K models	1
WEXT5-SU10K	5-Year Extended Warranty - For SU10K models	1
2POSTRMKITHD	Enables 2-Post Rackmount Installation of 3U and Larger UPS, Transformer and Battery Pack Components	1
RELAYIOMINI	3 Relay I/O Mini-module	1
RELAYIOCARD	Programmable Relay I/O Card	1
MODBUSCARD	For remote monitoring and control via MODBUS protocol	1
BP240V557C-1PH	External battery pack for use with select Tripp Lite UPS Systems	1
BP240V787C-1PH	External battery pack for use with select Tripp Lite UPS Systems	1
BP240V1037C-1PH	External battery pack for use with select Tripp Lite UPS Systems	1
BP240V1407C-1PH	External battery pack for use with select Tripp Lite UPS Systems	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?variables.txtModelID=2471.

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