

SmartOnline 208/240 & 120V 10kVA 9kW Double-Conversion UPS, 9U, Extended Run, Network Card Slot, USB, DB9, Bypass, Hardwire

MODEL NUMBER: SU10KRT3U



Description

The SU10KRT3U 10kVA/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 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.

Features

- 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 50/60 Hz during brownouts as low 100V and overvoltages as high as 300V
- Expandable runtime is supported with optional BP240V10RT3U; BP240V787C-1PH external battery packs
- Some external battery configurations require the use of External Battery Configuration Software (see manual)
- Intelligent battery management system with temperature-compensated charging extends battery life
- Highly efficient operation in optional economy mode significantly reduces BTU heat output and

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; Slot for Network Management 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

Package Includes

- SU10000RT3UPM 3U UPS power module
- BP240V10RT3U external battery pack
- SU10KXFMRR3U step down transformer with manual bypass switch
- Four post compatible rack rail kit (3 sets)
- Tower stands for upright tower configuration
- USB, DB9 and EPO cables

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 triplite.eaton.com/products/power-alert
- 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 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)
- Supports Emergency Power Off (EPO) via built-in interface
- Included rail kit supports 9U 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	037332121509
UPS Type	On-Line
INPUT	
Input Phase	Single-Phase
Rated input current (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
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 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	Hardwire
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	 BP240V10RT3U ; 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
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; 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 transformer module 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	9U
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	3 sets of adjustable 4 post rack rails included; 2-9U STAND 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 (https://tripplite.eaton.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD)
Maximum Device Depth (cm)	82.55
Maximum Device Depth (in.)	32.5
Maximum Device Depth (mm)	826
Minimum Required Rack Depth (cm)	83.82
Minimum Required Rack Depth (inches)	33
Optional Mounting Accessory Notes	3 sets of https://tripplite.eaton.com/2-Post-Rack-Mount-Installation-Kit-3U-Larger-UPS-Transformer-Battery-Pack-Components~2POSTRMKITHD ; required for 2 post rackmount installation of each included component
Primary UPS Depth (mm)	656
Primary UPS Height (mm)	131
Primary UPS Width (mm)	445
Shipping Dimensions (hwd / in.)	40.00 x 25.50 x 41.00
Shipping Dimensions (hwd / cm)	101.60 x 64.77 x 104.14
Shipping Weight (lbs.)	469.00



Powering Business Worldwide



Shipping Weight (kg)	212.73
Stepdown Transformer Dimensions (hwd / cm)	13.34 x 44.45 x 66.04
Stepdown Transformer Dimensions (hwd / in.)	5.25 x 17.5 x 26
Stepdown Transformer Height (mm)	133
Stepdown Transformer Width (mm)	445
Stepdown Transformer Depth (mm)	660
Stepdown Transformer Weight (kg)	46.27
Stepdown Transformer Weight (lbs.)	102
Unit Dimension Details	Includes 3U UPS/power module, 3U transformer module with bypass switch and 3U battery pack; MAXIMUM DEVICE DEPTH specification refers to the whole UPS installed depth with hardwire PDU installed
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, cm)	13.06 x 44.45 x 65.58
UPS Power Module Dimensions (hwd, in.)	5.14 x 17.5 x 25.82
UPS Power Module Weight (kg)	19.50
UPS Power Module Weight (lbs.)	43
Unit Weight (lbs.)	469
Unit Weight (kg)	212.73

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)	3415
AC Economy Mode BTU / Hr. (Full Load)	1280
AC Mode Efficiency Rating (100% Load)	91%
AC Economy Mode Efficiency Rating (100% Load)	96%
Online Mode Heat Dissipation (BTU/Hr) @ Full Load	3415
Battery Mode Heat Dissipation (BTU/Hr) @ Full Load	4593
Operating Elevation	0-10000 ft. (0-3000 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	Supports Watchdog application, OS and hard-reboot restart options for remote applications
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)	100V
High Voltage Transfer to Battery Power (Setpoint)	300V
FEATURES & SPECIFICATIONS	
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	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
Green Energy-Saving Features	High efficiency economy mode operation; Schedulable daily hours of economy mode operation
APPLICATIONS	
UPS Applications	Mission Critical Applications
STANDARDS & COMPLIANCE	
Product Certifications	IEC 61000; CSA (Canada); NOM (Mexico); UL 1778
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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