Tripp Lite
1111 W. 35th Street
Chicago, IL 60609 USA
Telephone: 773.869.1234
www.tripplite.com

SmartOnline 200-240V 12kVA 10.8kW Double-Conversion UPS, N+1, 8U, Extended Run, Network Card Slot, USB, DB9, Bypass, Hardwire

MODEL NUMBER: **SU12KRT4UHW**







Highlights

- 12kVA / 12,000VA / 10,800 watt on-line double-conversion 8U rack/tower UPS
- 200/208/220/230/240V +/-2% 50/60Hz output, Economy mode option
- Hot-swap power & battery modules, N+1 fault tolerance at loads up to 6kVA
- USB, RS232, EPO ports, Slot for Network Management Card options
- Front panel LEDs, Detailed LCD monitoring and control screen
- Expandable runtime with optional external battery packs

Package Includes

- 2 SU6000RT4UHVPM UPS Power Modules
- SUPDMB12KHW Detachable PDU with manual bypass switch
- 4 post compatible rack rail kit (2 sets)
- USB, DB9 and EPO cables

Description

Tripp Lite SU12KRT4UHW 12,000VA / 12Kva / 10,800 watt online, double-conversion UPS system offers complete power protection for critical server, network and telecommunications equipment in an 8U rack/tower configuration. This system delivers complete N+1 redundancy when used at loads up to 6kVA, and non-redundant operation at loads between 6 and 12kVA. Fault-tolerant auto-bypass prevents unexpected service interruptions during UPS overload or internal fault conditions. Included parallel PDU with manual bypass switching enables hot-swappable replacement of all major UPS system components in both N+1 and combined operating modes. 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

- Tripp Lite SU12KRT4UHW 12kVA, 12,000VA / 10,800 watt on-line, double-conversion UPS system in 8U total rack/tower configuration
- Unique configuration offers 12kVA non-redundant operation and automatic N+1 redundancy at load levels of 6kVA and under
- Included Parallel PDU with manual bypass switch enables hot-swap replacement of power modules at any supported load level
- Hardwire input and output connections
- Maintains sine wave output within 2% of selectable 200/208/220/230/240V nominal
- Supports 50/60Hz operation for worldwide frequency compatibility
- Expandable runtime with optional external battery packs
- Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Intelligent battery management system with temperature-compensated charging extends battery life
- Battery independent restart
- Highly efficient economy mode option
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD
- Optional RELAYIOMINI interface modules available (requires removal of USB interface module)
- Applications utilizing the optional network communications card require two SNMPWEBCARD accessories (install one per included power module)

- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from www.tripplite.com/poweralert
- Optional 2POSTRMKITHD supports installation in 2 post 19 inch racks (2 required)
- Optional 2-9USTAND supports upright tower placement (1 required)
- Supports Emergency Power Off (EPO) via built-in interface
- Front panel LEDs and LCD readout with scroll controls
- LED / LCD display panel rotates for viewing in rackmount or tower configurations
- External battery packs are field replaceable and hot swappable
- Frequency conversion mode enables conversion of 60Hz to 50Hz or 50Hz to 60Hz (no de-rating)
- $250,000 Ultimate Lifetime Insurance (U.S., Canada, and Puerto Rico only)

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	12000
Output kVA Capacity (kVA)	12
Output Watt Capacity (Watts)	10800
Output kW Capacity (kW)	10.8
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 Output Voltage(s) Supported	200V; 208V; 220V; 230V; 240V
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 Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 2%
Output Receptacles	Hardwire
Output Receptacle Details	Supports North American 208/240V* output (L1,L2,G) and International 230/220/240V (L,N,PE) hardwire output; *For 120V output with 208/240V (L1,L2,G) input wiring, use optional SU6000XFMR2U transformer
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave

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INPUT	
Rated input current (Maximum Load)	63.8A (200V), 61.2A (208V), 58A (220V), 55.4A (230V), 53.2A (240V)
Nominal Input Voltage(s) Supported	200V AC; 208V AC; 220V AC; 230V AC; 240V AC
UPS Input Connection Type	Hardwire
UPS Input Connection Description	Supports North American 208/240V input (L1,L2,G) and International 230/220/240V (L,N,PE) input wiring
Recommended Electrical Service	70A
Input Phase	Single-Phase
BATTERY	
Full Load Runtime (min.)	2 minutes (10,800 watts)
Half Load Runtime (min.)	8.5 minutes (5400 watts)
Expandable Battery Runtime	Runtime is expandable with external battery packs
External Battery Pack Compatibility	BP192V12-3U; BP192V557C-1PH; BP192V787C-1PH; BP192V1037C-1PH; BP192V1407C-1PH
Expandable Runtime Description	For best results, add external batteries in multiples of two so that both included 6kVA power modules have an equal number and type of connected battery packs
DC System Voltage (VDC)	192
Battery Recharge Rate (Included Batteries)	Less than 6 hours from 10% to 90% (typical, full load discharge)
Internal UPS Replacement Battery Cartridge	Each of the two included 6kVA power modules contain one RBC5-192 internal replacement battery cartridge
Battery Access	Front panel battery access door
Battery Replacement Description	Hot-swappable, user replaceable internal battery cartridges and external battery packs
Expandable Runtime	Yes
VOLTAGE REGULATION	
Voltage Regulation Description	+/-2% output voltage regulation in standard online, double-conversion mode
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 (see manual)
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 Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
PHYSICAL	
Included Mounting Accessory Description	Includes 4 post mounting accessories for each included component
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITHD); Tower (2-9USTAND)
Optional Mounting Accessory Notes	Qty 2 2POSTRMKITHD required for 2 post rackmount installation of all included components
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	6.85 x 17.5 x 20.7
UPS Power Module Dimensions (hwd, cm)	17.40 x 44.45 x 52.58
Rack Height (U Spaces)	8
Maximum Device Depth (in.)	24
Minimum Required Rack Depth (inches)	35.2
Maximum Device Depth (cm)	60.96
Minimum Required Rack Depth (cm)	89.41
UPS Power Module Weight (lbs.)	108
UPS Power Module Weight (kg)	48.99
UPS Dimensions Details	Includes two 4U UPS/power modules plus SUPDMB12HW detachable parallel bypass PDU; UPS Power Module Dimensions are for one of the two included UPS/power modules; MAXIMUM DEVICE DEPTH specification refers to the whole UPS installed depth with bypass PDU installed
UPS Shipping Dimensions (hwd / in.)	41 x 24 x 34
UPS Shipping Dimensions (hwd / cm)	104.14 x 60.96 x 86.36
Shipping Weight (lbs.)	342
Shipping Weight (kg)	155.3
Cooling Method	Fans
UPS Housing Material	Steel
Maximum Device Depth (mm)	610
Minimum Required Rack Depth (mm)	894
Primary UPS Height (mm)	174
Primary UPS Width (mm)	444
Primary UPS Depth (mm)	526

Shipping Height (mm)	1041
Shipping Width (mm)	610
Shipping Depth (mm)	864
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)	3534
AC Economy Mode BTU / Hr. (Full Load)	1535
Battery Mode BTU / Hr. (Full Load)	4558
AC Mode Efficiency Rating (100% Load)	90%
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 Management Cards	SNMPWEBCARD; TLNETCARD; WEBCARDLX; MODBUSCARD; RELAYIOCARD
Network Monitoring Port Description	Applications utilizing any supported network management card option, require the use of two network cards of the same-model (install one card per included UPS power module); RELAYIOMINI installation requires removal of panel containing USB ports on each included UPS power module
PowerAlert Software	For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at http://www.tripplite.com/poweralert
Communications Cable	USB, DB9 serial and EPO cables included
WatchDog Compatibility	Yes
LINE / BATTERY TRANSFER	
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Transfer Time (Economy Mode)	8 milliseconds typical 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)
SPECIAL FEATURES	

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Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Hot swappable batteries; Hot swappable UPS power module; Manual bypass switch
Green Energy-Saving Features	High efficiency economy mode operation; Support for daily startup and shutoff; Schedulable daily hours of economy mode operation
CERTIFICATIONS	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances)
UPS Certification Details	IEC 61000-4-5 1995 B Surge Immunity
WARRANTY	
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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