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Model #: HTR22-3U

Audio/Video Pure Sine Wave UPS - On-Line, Double-Conversion, Pure Sine Wave Power Management System

Highlights

- 2200VA/1600W on-line, double-conversion, extended-run UPS; rackmount hardware included
- 9 outlets; 2 switchable load banks
- IP remote access, control and diagnostics capability with email notification (built-in accessory slot, SNMPWEBCARD available separately)
- Zero transfer time to battery takes incoming AC power and remakes it into perfect output power with a pure sine wave
- Maintains sine wave 100/110 or 120V +/-2% output during overvoltages to 138 and brownouts as low as 65V (50/60Hz auto-sensing)
- Pure Sine Wave operation completely isolates connected components from power problems
- Drivers written for Crestron, AMX and Savant for seamless integration
- 2-year warranty; \$250,000 [Ultimate Lifetime Insurance](#) (USA & Canada only)



Description

Tripp Lite's HTR22-3U Pure Sine Wave 2200VA/1600W on-line, double-conversion UPS system prevents media data loss, equipment freeze-ups, downtime and equipment damage due to power outages, voltage fluctuations and transient surges. Provides full-time sine wave 100, 110 or 120V +/-2% output with zero transfer time between AC and battery operation. Actively converts raw incoming AC power to DC, then re-converts output back to completely regulated, filtered AC output. Operates continuously without using battery power during brownouts to 65V and overvoltages to 138V. Network-grade AC surge and EMI/RFI line noise suppression. Requires only 3 rack spaces (3U). Large internal batteries provide 18 min. half-load runtime and 6 min. full load runtime; runtime is expandable with optional BP72V15-2U and BP72V28RT-3U external battery packs. 2200VA/1600W power handling capacity is compatible with audio/video components and other sensitive electronic applications. Includes 9 UPS-supported outlets arranged in two switchable load banks that can be individually controlled via software interface to reboot selected equipment on demand or automatically shed less significant loads to extend battery runtime for more critical equipment. Supports real time UPS communications via DB9 serial port or SNMPWEBCARD slot for the ultimate in IP remote access, control and diagnostics capability with email notification. Supports detailed monitoring of equipment load levels, self-test data and utility power conditions via both network interfaces. Includes PowerAlert monitoring software and complete cabling. Multi-function audible alarms and front-panel LEDs provide at-a-glance notification of UPS and line power status. Attractive all-black color scheme. 2-year warranty; \$250,000 [connected equipment insurance](#) (USA & Canada only)

Applications

- Ideal for protection of AV systems, Crestron, AMX, HD sources, boardrooms, studios, houses of worship - FOH and other sensitive electronic equipment

Package Includes

- HTR22-3U Audio/Video Pure Sine Wave UPS System
- PowerAlert Software and cabling
- Optional-use NEMA 5-15P Plug
- Mounting hardware for 4-post rack enclosures
- Instruction manual with warranty information

Features

- HTR22-3U Pure Sine Wave UPS provides perfectly regulated sine wave output within 2% of 120V under all usage conditions
- 2200VA/1600W power handling capacity compatible with control systems, HD sources, Audio/Video editing suites, digital consoles, DVD/music/PCs/servers, RAIDs, media centers, PVRs/DVRs, boardrooms, digital processors/EFX, racks and other sensitive electronics
- Removes harmonic distortion, fast electrical impulses, frequency variations and other hard-to-solve power problems not addressed by other UPS types

- Corrects line voltage conditions as low as 65V and as high as 138V back to 120V (+/-2%) values
- 2 switchable load banks (each with 4 outlets) enable remote outlet management for load shedding or remote reboot of individual devices from anywhere in the world
- Standard internal battery set offers 18 min. runtime at half load (800W) and 6 min. at full load (1600W)
- Optional BP72V15-2U external battery pack increases runtime to 98 min. at half load (800W) and 41 min. at full load (1600W); limit 1
- Optional BP72V28RT-3U external battery pack increases runtime to 160 min. at half load (800W) and 69 min. at full load (1600W); multi-pack compatible
- Fault-tolerant auto-bypass maintains continuous utility output to connected equipment, even in cases where the UPS suffers internal failure and requires maintenance
- Offers complete UPS monitoring through included DB9 interface or SNMP interface (requires optional SNMPWEBCARD), or the monitoring of any number of additional UPS systems over IP with included PowerAlert monitoring software
- PowerAlert UPS monitoring and unattended shutdown software enables configurable network broadcast messaging, pager and email notification, event logging and running user-defined script commands
- Front panel LEDs offer current monitoring and battery charge level information
- UPS ships fully assembled in full compliance with DOT regulations; no time-consuming connection of internal batteries by user required
- 2-year warranty; \$250,000 [Ultimate Lifetime Insurance](#) (USA & Canada only)

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	2200
Output Watt Capacity (watts)	1600
Nominal Output Voltage(s) Supported	120V
Frequency compatibility	50 / 60 Hz
Frequency compatibility details	Output frequency matches input nominal on startup
Output voltage regulation (line mode)	+/- 2%
Built-in UPS output receptacles	4 5-15R outlet(s); 4 5-15/20R outlet(s); 1 L5-20R outlet(s)
Built-in controllable switched load banks	Two switchable four-outlet load banks (bank 1 - four 5-15R outlets, bank 2 - four 5-15/20R outlets)
Output circuit breaker	15A branch rated breakers (x2) protect 4 outlets each, L5-20R outlet is unbreakered
INPUT	
Rated input current (at maximum load)	16A
UPS input connection type	5-20P
UPS Input cord length (ft.)	10 ft.
Recommended Electrical Service	120V 20A dedicated circuit
Voltage compatibility (VAC)	120
BATTERY	

Full load runtime (minutes)	7 min. (1600w)
Half load runtime (minutes)	18 min. (800w)
Expandable battery runtime	Supports extended runtime with optional external battery packs BP72V15-2U (limit 1) and BP72V28RT-3U (multi-pack compatible)
External battery pack compatibility	BP72V15-2U (limit 1); BP72V28RT-3U (multi-pack compatible)
DC system voltage (VDC)	72
Battery recharge rate (included batteries)	Less than 6 hours from 10% to 80%
Replacement battery cartridge (internal UPS battery replacement)	RBC96-3U (quantity 1)
Battery Access	Hot-swap battery replacement supported via front access panel
Typical battery lifespan	3-6 years, depending on usage
VOLTAGE REGULATION	
Voltage regulation description	On-line, double-conversion power conditioning maintains output within 2% of 100/110/120 volts at all times
Overvoltage correction	Maintains output of selected nominal +/-2% during overvoltages to 138V AC
Undervoltage correction	2% output voltage regulation during undervoltages to 80
Severe undervoltage correction	Maintains output within 2% of nominal during undervoltages to 65 (under 70% load only)
LEDS ALARMS & SWITCHES	
LED Indicators	14 LEDs indicate line power, online mode, economy/bypass mode, on-battery, overload, battery low, replace battery and fault status information; 4-LED meter displays load and battery charge levels; LED panel rotates for viewing in rack/tower formats
Alarms	Multi-function audible alarm with distinctive ring patterns offer notification of backup operation (2 sec. on / 0.5 sec. off), low battery warning (1.25 sec. on / 0.5 sec. off), overload (sounds continuously), UPS fault (4.2 sec. on / 1 sec. off), input voltage out of frequency (2.1 sec. on / 0.14 sec. off) and high input voltage (2.1 sec. on / 0.07 sec. off)
Switches	Power off/on switch and battery charge/load level display select switch
SURGE / NOISE SUPPRESSION	
UPS AC suppression joule rating	1014 joules
EMI / RFI AC noise suppression	Yes
AC suppression response time	Instantaneous
PHYSICAL	
Installation form factors supported with optional accessories	2 post rackmount (2POSTRMKITWM); Tower (2-9USTAND)

UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	5.2 x 17.5 x 20.5
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	13.3 x 44.4 x 52.1
UPS / Power Module weight (lbs)	74.9
UPS / Power Module weight (kg)	34
UPS Shipping dimensions (height x width x depth / inches)	13.5 x 24 x 25.8
UPS Shipping dimensions (height x width x depth / cm)	34.3 x 61 x 65.4
Shipping weight (lbs)	90.3
Shipping weight (kg)	41.0
UPS housing material	Steel
Cooling method	Built-in cooling 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)	812.9
Battery mode BTU / hr. (full load)	885.6
COMMUNICATIONS	
Communications interface	DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface
WatchDog compatibility	Compatible with Tripp Lite's Watchdog system service to restore operation to locked equipment through soft reboot of application / OS or hard power off/on reboot of connected equipment - ideal for unattended kiosk applications
EPO port	Supports Emergency Power Off function via set of dedicated built-in EPO jacks
SNMP compatibility	Slot for optional SNMPWEBCARD accessory (Tripp Lite Model # SNMPWEBCARD)
Software and cabling included	PowerAlert Software CD-ROM and complete cabling
LINE / BATTERY TRANSFER	
Transfer time	No transfer time (0 ms.) in online, double-conversion mode

Low voltage transfer to battery power (setpoint)	80V (100% load), 65V (
High voltage transfer to battery power (setpoint)	138
SPECIAL FEATURES	
Cold Start (startup in battery mode during a power failure)	Cold-start operation supported
Appearance	Attractive all-black color scheme
CERTIFICATIONS	
Certifications	Tested to UL1778 (USA), cUL (Canada), NOM (Mexico), FCC Class A (emissions)
WARRANTY	
Product Warranty Period (U.S., Canada & Puerto Rico)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance
Optional Coverage	3- and 5-year extended warranties, plus next day and on-site warranty coverage available for select opportunities. Contact Tripp Lite for additional information.

Related Items

Optional Products

Product Type	Related Model	Description	Qty.
External Battery Packs	BP72V15-2U	BP72V15-2U - External Battery Pack for UPS System	1
External Battery Packs	BP72V28RT-3U	BP72V28RT-3U - External Battery Pack for UPS System	1
Power Distribution	PDU1215	Basic PDU / Power Distribution Unit - Safe, reliable power distribution for critical networking equipment	1
Rackmount/Wallmount Kits	2POSTRMKITWM	Enables 2-Post Rackmount or Wallmount Installation of Select Rackmount UPS Systems	1
SNMP Accessories	ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	1
SNMP Accessories	SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	1
Surge Protectors	DCATV	Network Surge Suppressor - Essential protection for TV/VCR coaxial lines	1
Surge Protectors	DNET1	Network Surge Suppressor - Essential protection for data and communication lines	1
Surge Protectors	DTEL2	Network Surge Suppressor - Essential protection for data and communication lines	1
Tower Stands	2-9USTAND	Enables Tower Placement of Rackmount 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?txtModelID=3342.

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