



Tripp Lite
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PowerVerter APS Inverter/Charger - Reliable Power Source for Uninterruptible Emergency Backup Applications

MODEL NUMBER: **APS1524**

Description

Tripp Lite's APS1524 3-function DC-to-AC inverter with auto line-to-battery transfer and integrated charging system serves as an extended run UPS, a standalone power source or an automotive inverter.

PowerVerter APS Inverters accommodate "peak surge" demands by delivering more output power than their continuous rating. PowerVerter APS Inverters supply up to double their output to easily handle equipment start up and motor cycling requirements. A DoubleBoost feature provides up to 200% of the continuous output for up to 10 seconds, providing the extra power needed to cold start heavy-duty tools and equipment. An OverPower feature delivers up to 150% of the continuous output for up to 1 hour. When hardwire input AC cable is energized, commercial power passes through to connected equipment and the battery set is recharged via 3 stage, 10/30 amp selectable charging system. In UPS mode, the APS system responds to blackouts and brownouts with an uninterrupted transfer to battery-derived AC output. Includes a set of high current DC input terminals for simple installation (user supplies batteries and cabling). Reliable large transformer design with efficient PWM sine wave output and frequency control powers resistive electronic loads or large inductive motors, compressors and other items with high current needs on startup. Supports an unlimited amount of runtime with any number of user-supplied batteries connected. Highly adaptable to a variety of applications and site conditions with adjustable charger settings for wet/gel battery types and selectable line to battery power transfer voltages.

Features

- Functions as an extended run UPS system, standalone power source and automotive inverter
- Includes hardwire AC input and auto-transfer to enable battery charging and automatic UPS support for blackouts and brownouts
- 1500 watts continuous output power; 2250 watts power for up to an hour; 3000 watts peak power for up to 10 seconds
- Battery runtime is dependent upon the size and number of user-supplied batteries in 24V configuration
- Hardwire input and output connections supported, DC input terminals for 24V battery connection
- Converts 24V DC to 120V AC
- Frequency control for operating stability
- Advanced 10/30 amp selectable, 3-stage battery charger and selector switch for gel or wet cell batteries
- Resettable circuit breaker protects APS against system overload
- Switch allows user to select between off, auto-invert and charge-only settings
- 6 diagnostic LEDs indicate AC present, on battery, overload, & battery voltage level (high, medium, & low)
- Configuration switches to allow the user to select the high and low voltage for the unit to automatically transfer from AC power to battery backup
- Coated internal circuit boards offer continuous operation in humid environments (0-95%, non condensing)
- RJ45 port allows connection of APS remote switch (part# [APSRM4](#))
- Allows unlimited runtime capability by allowing the use any number of user-supplied batteries

Highlights

- 24V DC input; 120V AC output
- Hardwired
- 1500 watts continuous output
- 3000 watts peak output for an extended period
- Advanced battery charger
- Fast load switching with less transfer time

Applications

- Extended Run UPS - Configure as a UPS for long-term battery support of telecom systems, security alarms, computer systems and various other motorized and electronic loads.
- Standalone Power - Alternative power source for use in off-grid, backwoods, alternative energy and export applications where commercial power is not continuously available.
- Automotive - Connect to an automotive electrical system to run power tools, computers, electronic test equipment, home entertainment and other AC appliances in fleet service vehicles, over-the-road trucks, campers, RVs, minivans and more.

Package Includes

- APS1524 Inverter/Charger
- Instruction manual with warranty information



Specifications

OUTPUT	
Frequency Compatibility	60 Hz
Output (Watts)	Continuous - 1500 watts, Overpower (up to 1 hour) - 2250 watts, Double-Boost wattage (up to 10 seconds) - 3000 watts
Output Nominal Voltage	AC OUTPUT: 120VAC nominal, DC CHARGER OUTPUT (DC): 24VDC nominal
Output Voltage Regulation	LINE POWER (AC): Maintains 120V nominal sine wave output. INVERTER POWER (AC): Maintains PWM sine wave output voltage of 120 VAC (+/-5%). DC CHARGER OUTPUT (See battery recharge rate section)
Output Frequency Regulation	60 Hz (+/- 0.3 Hz)
Overload Protection	Includes 15A input breaker dedicated to the charging system and 15A output breaker for AC output loads
Outlet Quantity / Type	Hardwire AC output
INPUT	
Recommended Electrical Service	DC INPUT: Requires 24VDC input source capable of delivering 70A for the required duration (when used at full continuous capacity). For automotive applications, professional hardwire installation with 125A minimum battery system fusing is recommended.
Maximum Input Amps / Watts	DC INPUT: Full continuous load - 70A at 24VDC. AC INPUT: 26 amps at 120VAC with full inverter and charger load
Input Connection Type	DC INPUT: Set of 2 DC bolt-down terminals. AC INPUT: Hardwire via built in junction box with cover plate
Voltage Compatibility (VAC)	120
Voltage Compatibility (VDC)	24
BATTERY	
Expandable Battery Runtime	Runtime is expandable with any number of user supplied wet or gel type batteries
DC System Voltage (VDC)	30
Battery Pack Accessory (Optional)	98-121 sealed lead acid battery (optional)
Battery Charge	Includes selectable 9 / 36 amp DC charging system with selectable profiles for vented wet cell and sealed gel cell batteries. Optional use battery equalize charge function equalizes the charge level when used with multiple batteries (see manual for detailed charger information).
LEDS ALARMS & SWITCHES	
Switches	3 position on/off/remote switch enables simple on/off power control plus "auto/remote" setting that enables distant on/off control of the inverter system when used in conjunction with optional APSRM4 accessory when used in inverter mode. In AC uninterruptible power mode, "auto/remote" setting enables automatic transfer from line power to battery power - to maintain continuous AC power to connected loads.
Front Panel LEDs	Set of 6 LEDs offer continuous status information on load percentage (6 levels reported) and battery charge level (7 levels reported). See manual for sequences.
PHYSICAL	
Shipping Dimensions (hwd / in.)	13.5 x 15 x 21.5
Shipping Dimensions (hwd / cm)	34.3 x 38.1 x 54.6



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Shipping Weight (lbs.)	27
Shipping Weight (kg)	12.3
Unit Dimensions (hwd / in.)	7.25 x 8.5 x 16
Unit Dimensions (hwd / cm)	18.4 x 21.6 x 40.6
Unit Weight (lbs.)	26.6
Unit Weight (kg)	12.1
Cooling Method	Fan
Material of Construction	Polycarbonate
Form Factors Supported	Mounting slots enable permanent placement of inverter on any horizontal surface (see manual for additional mounting information)
ENVIRONMENTAL	
Relative Humidity	0-95% non-condensing
LINE / BATTERY TRANSFER	
Transfer Time (Line Power to Battery Mode)	4-6 milliseconds
Low Voltage Transfer to Battery Power	User configurable to 75V, 85V, 95V & 105V
High Voltage Transfer to Battery Power	User configurable to 135V, 145V
SPECIAL FEATURES	
Load Sensing	Optional load sense function enables automatic inverter shutoff and startup as connected equipment is powered off and on. Front panel load sense potentiometer can be set to shutoff or turn on inverter power in response to loads of any level, up to 150 watts.
WARRANTY	
Product Warranty Period (Worldwide)	1-year limited warranty

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