

# PowerVerter APS INT 2400W 24VDC 230V Inverter/Charger with Auto Transfer Switching, Hardwired

MODEL NUMBER: **APSINT2424**



## Description

Tripp Lite's APSINT2434 DC-to-AC inverter with automatic line-to-battery transfer and integrated charging system serves as an extended run UPS, a standalone power source or an automotive inverter. Supplies up to 2400 watts of continuous 230V AC power from any 24V battery or automotive DC source. When hardwire AC input is energized, commercial power passes through to connected equipment and the battery set is recharged via 3 stage, 30 amp charging system. In UPS mode, the APS system responds to blackouts and voltage fluctuations with a near instantaneous automatic transfer to battery-derived AC output. Includes a set of high current DC input terminals for simple installation (user supplies batteries and cabling - see owner's manual for recommendations). Passes sine wave utility or generator power during battery charging and UPS line power operation, plus efficient PWM sine wave AC output in inverter and UPS backup modes. Reliable large transformer design, with frequency control powers resistive electronic loads or large inductive motors, compressors and other items with high current needs on startup. Optional APSRM4 wired remote power switch with full status LEDs provides remote power inverter on/off switching and continuous status information (APSRM4 sold separate). 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

- Supports 230V AC output from a 230V AC line power source or 12V DC battery source
- 20 millisecond automatic transfer between line and battery power supports UPS protection during blackouts and voltage fluctuations for equipment compatible with a one cycle transfer time
- Double Boost inverter output supports momentary startup loads up to 200% of the continuous rating for up to 10 seconds (see specification chart)
- OverPower inverter output supports longer duration overloads to 150% for 1-60 minutes under ideal battery and temperature conditions.
- 3 stage, 30 amp battery charger with adjustable settings for wet/gel battery types offers fast, reliable battery recharging
- 3 position operating mode switch supports "AUTO" mode to enable automatic transfer between DC and AC modes, CHARGE-ONLY to maintain a full

## Highlights

- 24V DC or 230V AC input; 230V, 50 Hz output (hardwired)
- 2400 watts continuous, 3600 watts OverPower™ and 4800 watts DoubleBoost™ inverter output (see specifications)
- 3 stage, 30 amp selectable wet/dry cell battery charger
- Auto Transfer Switching option for battery backup / UPS operation
- Reliability enhanced large-transformer design with protected DC and AC wiring terminals

## Applications

- Versatile inverter/charger system with auto-transfer switching serves as an automotive inverter for RVs, over-the-road trucking, conversion vans, marine environments and fleet service vehicles; a standalone alternative power source for off-grid, alternative energy or export applications and as an uninterruptible power supply (UPS) for items compatible with a 20 millisecond transfer time. NOTE: For sump pump applications, Tripp Lite recommends its "UT" Utility Truck Inverter/Chargers.

## Package Includes

- APSINT2424 Inverter/Charger
- Instruction manual with warranty information

battery charge when AC is present without auto transfer and SYSTEM OFF settings

- Set of six front panel LEDs display AC/DC operational modes, overload status, DC voltage level, shutdown status and system fault status
- Set of 4 configuration dipswitches support wet/gel battery charging profiles, adjustable 259/264V high voltage auto transfer during overvoltages and selectable 144/163/182/201V AC low voltage auto transfer during brownouts
- Set of 4 additional configuration dip switches support 4 levels of charger limiting relative to output load size
- Resettable 10A charger AC input breaker and resettable 15A AC output breaker and automatic 2 speed cooling fan protect the inverter from load and temperature related failures
- Automatic overload and thermal shutoff safely turns off inverter as excessive loads or overheating conditions develop
- Front panel remote control connector enables remote off/on switching (requires APSRM4 switch accessory)

## Specifications

OVERVIEW	
Style	Heavy-duty with built-in battery charger
OUTPUT	
Frequency Compatibility	50 Hz
Output Receptacles	Hardwire
Output (Watts)	2400
Continuous Output Capacity (Watts)	2400
Peak Output Capacity (Watts)	4800
Output Nominal Voltage	230V
Output Voltage Regulation	LINE POWER (AC): Maintains 230V nominal sine wave output from line power source. INVERTER POWER (AC): Maintains PWM sine wave output voltage of 230 VAC (+/-5%).
Output Frequency Regulation	50 Hz (+/- 0.3 Hz)
Overload Protection	Includes 10A input breaker dedicated to the charging system and 15A output breaker for AC output loads.
INPUT	
Nominal Input Voltage(s) Supported	230V AC
Recommended Electrical Service	DC INPUT: Requires 24VDC input source capable of delivering 112A for the required duration (when used at full continuous capacity - DC requirements increase during OverPower and DoubleBoost operation). For automotive applications, professional hardwire installation with 300A minimum battery system fusing is recommended.
Maximum Input Amps / Watts	DC INPUT: Full continuous load - 112A at 24VDC. AC INPUT: 17 amps at 230VAC with full inverter and charger load (7A max charger-only / combined input load to support charger and AC output is automatically controllable to 66%-33%-0% based on AC output loading using the charger limiting set points - see manual for setting instructions)
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)	230
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)	24
Battery Pack Accessory (Optional)	98-121 sealed lead acid battery (optional)
Battery Charge	30 amp
<b>LEDS ALARMS &amp; SWITCHES</b>	
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.
<b>PHYSICAL</b>	
Shipping Dimensions (hwd / in.)	13.5 x 15 x 21.5
Shipping Dimensions (hwd / cm)	34.29 x 38.1 x 54.61
Shipping Weight (lbs.)	42
Shipping Weight (kg)	19.5
Unit Dimensions (hwd / in.)	7.25 x 8.5 x 16.25
Unit Dimensions (hwd / cm)	18.42 x 21.59 x 41.28
Unit Weight (lbs.)	38.2
Unit Weight (kg)	17.3
Cooling Method	Multi-speed 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)
<b>ENVIRONMENTAL</b>	
Relative Humidity	0-95% non-condensing
<b>LINE / BATTERY TRANSFER</b>	
Transfer Time (Line Power to Battery Mode)	20 milliseconds (typical - compatible with many computers, servers and networking equipment - verify transfer time compatibility of loads for UPS applications)
Low Voltage Transfer to Battery Power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage drops to 144V (user adjustable to 163, 182, 201V - see manual)
High Voltage Transfer to Battery Power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage increases to 259V (user adjustable to 264 - see manual)
<b>SPECIAL FEATURES</b>	

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.
Remote Control Capability	Yes
<b>CERTIFICATIONS</b>	
Certifications	RoHS Compliant
<b>WARRANTY</b>	
Product Warranty Period (U.S. & Canada)	1-year limited warranty
Product Warranty Period (International)	2-year limited warranty
Product Warranty Period (Mexico)	2-year limited warranty
Product Warranty Period (Puerto Rico)	1-year limited warranty