Important Note

Position a 300A fuse link less than 18 in. from the battery in the positive line to protect against high-current draw that may occur during inverter failure.

2400W PowerVerter APS 24VDC 120V Inverter/Charger with Auto-Transfer Switching, Hardwired

MODEL NUMBER: **APS2424**



Portable 2400W power source for any type of equipment from power tools to computers as a vehicle inverter, standalone AC power source or extended-run UPS. Ideal for RVs, commercial and fleet vehicles and emergency vehicles.

Highlights

- Delivers clean 120V AC power from AC or DC power source
- 2400W continuous output power; 4800W peak power
- Auto-transfer switching option for UPS operation
- Protects against blackouts, surges and EMI/RFI line noise
- Rugged polycarbonate housing resists moisture and impact

Package Includes

- APS2424 2400W PowerVerter APS 24V DC 120V AC Inverter/Charger
- Owner’s manual

Description

The APS2424 2400W PowerVerter APS 24V DC 120V AC Inverter/Charger is a reliable power source for a wide variety of equipment ranging from power tools and pumps to portable lighting and computer equipment in heavy-load conditions. With no fumes, fuel or excess noise, it’s an excellent alternative to generator power.

The DC-to-AC inverter features an automatic line-to-battery transfer switch and integrated charging system that allow it to work as a vehicle inverter, standalone AC power source or extended-run UPS. It delivers 2400W of continuous power, 3600W up to one hour, or 4800W of peak power up to 10 seconds during equipment startup or cycling. An automatic overload detector, cooling fan and resettable AC circuit breakers protect the unit from damage.

Designed for easy installation in RVs, commercial and fleet vehicles, emergency vehicles and construction equipment, the APS2424 converts stored power from any 24V battery or automotive DC source to safe, stable, computer-grade AC power for unlimited runtime. When hardwired to an external 120V AC source, the unit keeps the user-supplied battery charged via a three-stage 14/55A selectable charging system while simultaneously delivering AC power to connected equipment.

When used as a UPS, the APS2424 responds to blackouts and brownouts with an automatic, instantaneous transfer to battery-derived AC output. LEDs on the unit indicate AC/DC operational modes, overload status, DC voltage level, shutdown status and system fault status.

Features

Reliable Power for Mobile, Emergency and Remote Sites

- Generates safe, stable, computer-grade 120V AC power from 24V battery bank
- Ideal for powering tools, saws, motors, pumps, portable lighting, appliances and computer equipment in heavy-load conditions
- Designed for easy installation in RVs, commercial and fleet vehicles, emergency vehicles and construction equipment

- Functions as vehicle inverter, standalone AC power source or extended-run UPS
- Unlimited runtime with variety of user-supplied batteries

Meets Normal and Peak Power Demands
- 2400W of continuous power
- 3600W of reserve power up to 1 hr.
- 4800W of peak power up to 10 sec. to accommodate surge power demands during equipment startup and cycling
- Automatic overload detector, built-in cooling fan and resettable AC circuit breakers protect unit from damage
- High-current DC input terminals for simple hardwired installation

Automatic Transfer Switching
- Transfer relay switches to inverter power during blackout in 16.6 ms
- 3-position switch enables Auto, Charge Only or System Off mode
- DIP switches configure high and low voltage auto-transfer

3-Stage 14/55A Selectable Battery Charger
- Serves as battery charger when external 120V AC power is supplied and powering connected equipment
- Protects battery from overcharging and overdischarging
- Low-battery protection prevents excessive battery depletion
- DIP switches configure wet/gel charging profiles

Optional Remote Control Capability
- RJ45 communication port allows connection of optional remote control module, such as APSRM4

Front-Panel LEDs
- Indicate AC/DC operational modes, overload status, DC voltage level, shutdown status and system fault status

Rugged Polycarbonate Housing
- Resists moisture, vibration and impact
- Built-in mounting feet for installation on any rigid horizontal surface

Specifications

OVERVIEW	
UPC Code	037332090256
INPUT	
Nominal Input Voltage(s) Supported	120V AC
Maximum Input Amps / Watts	DC INPUT: Full continuous load - 112A at 24VDC. AC INPUT: 44 amps at 120VAC with full inverter and charger load (24A max charger-only / combined input load to support charger and AC output is automatically controllable to 66%-33%-0% based on AC output load

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 Over-Power and Double-Boost operation).
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
OUTPUT	
Frequency Compatibility	60 Hz
Pure Sine Wave Output	No
Output (Watts)	2400
Nominal Output Voltage(s) Supported	120V
Output Receptacles	Hardwire
Continuous Output Capacity (Watts)	2400
Peak Output Capacity (Watts)	4800
Output Voltage Regulation	LINE POWER (AC): Maintains 120V nominal sine wave output from line power source. INVERTER POWER (AC): Maintains PWM sine wave output voltage of 120 V AC (+/-5%).
Output Frequency Regulation	60 Hz (+/- 0.3 Hz)
Overload Protection	Includes 30A input breaker dedicated to the charging system and 20A output breaker for AC output loads
BATTERY	
Expandable Runtime	Yes
Expandable Battery Runtime	Runtime is expandable with any number of user supplied wet or gel type batteries
Expandable Runtime Description	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	14A / 55A (selectable)
USER INTERFACE, ALERTS & CONTROLS	
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.
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.
SURGE / NOISE SUPPRESSION	
AC Suppression Joule Rating	600
PHYSICAL	
Material of Construction	Polycarbonate

Cooling Method	Multi-speed fan
Form Factors Supported	Mounting slots enable permanent placement of inverter on any horizontal surface (see manual for additional mounting information)
Shipping Dimensions (hwd / in.)	12.90 x 14.80 x 21.40
Shipping Dimensions (hwd / cm)	32.77 x 37.59 x 54.36
Shipping Weight (lbs.)	44.00
Shipping Weight (kg)	19.96
Unit Dimensions (hwd / in.)	7.250 x 8.500 x 16.250
Unit Dimensions (hwd / cm)	18.42 x 21.59 x 41.28
Unit Weight (lbs.)	39
Unit Weight (kg)	17.69
ENVIRONMENTAL	
Relative Humidity	0-95% non-condensing
LINE / BATTERY TRANSFER	
Transfer Time (Line Power to Battery Mode)	16.6 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 75V (user adjustable to 85, 95, 105V - see manual)
High Voltage Transfer to Battery Power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage increases to 135V (user adjustable to 145 - see manual)
FEATURES & SPECIFICATIONS	
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.
STANDARDS & COMPLIANCE	
Product Compliance	RoHS
WARRANTY & SUPPORT	
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

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