

- To protect against high-current draw that may occur during inverter failure, a fuse link rated at 200A should be positioned no more than 18 in. from the APS1012SW's battery in the positive line.
- Do not install the Inverter/Charger in the same compartment as non-sealed batteries, when applicable.

Powerverter APS 1000W 12VDC 120V Inverter/Charger with Pure Sine Wave Output, Hardwired

MODEL NUMBER: **APS1012SW**



Description

Tripp Lite's APS1012SW Inverter/Charger is a 3-function, DC-to-AC pure sine wave inverter, featuring an automatic line-to-battery transfer switch and an integral charging system that allows the unit to function as either an extended-run UPS, a standalone AC power source or an automotive/vehicular inverter. The APS1012SW is ideal as a reliable power source for a wide variety of heavy-duty tools, saws, pumps, portable lighting, appliances and computer equipment. The unit can deliver 1000W of continuous power or 2000W of peak power for brief periods of time for handling equipment startup or cycling requirements without shutting down. It has an unlimited amount of runtime with any number of user-supplied batteries (sold separately). Designed for easy installation in RVs, fleet vehicles and emergency vehicles, the unit converts stored battery power to standard household current. When external 120V AC power is supplied, the Inverter/Charger keeps the user-supplied batteries charged while simultaneously delivering conditioned, pure sine wave AC power to connected equipment. In the UPS mode, the APS1012SW responds to blackouts and brownouts with an uninterrupted transfer to battery-derived, pure sine wave AC inverter power. Its reliable large transformer design, efficient sine wave output and frequency control powers resistive electronic loads, large inductive motors, compressors and other loads with high startup currents.

Features

Reliable Backup Power for Mobile, Emergency and Remote Sites

- DC-to-AC inverter generates a 120V pure sine wave output from a 12V battery bank
- Designed to work in heavy-load conditions, so de-rating is unnecessary
- Battery runtime is unlimited with any number of user-supplied, wet- or gel-type batteries

Highlights

- Heavy-duty, DC-to-AC inverter generates a 120V pure sine wave output from user-supplied batteries
- Operates as either a battery charger or an inverter when external 120V AC power is supplied
- 1000W continuous power output; 2000W peak power output for momentary startup/cycling surge power demands without shutting down
- 4/40 amp, high-power, fast DC charger with selectable profiles for vented wet cell and sealed gel cell batteries

Applications

- Versatile inverter/charger system with seamless transfer switching serves as an automotive inverter for RVs, over-the road trucking, conversion vans and fleet service vehicles
- Standalone alternative power source for off-grid, alternative energy or export applications
- Uninterruptible power supply (UPS) for items compatible with a 16 millisecond transfer time.

System Requirements

- To operate as a UPS, the APS1012SW requires both single-phase 120V AC, 15A and 12V DC, rated at full continuous capacity
- To operate as a standalone AC power source, the APS1012SW requires only a 12V DC input
- A sturdy, horizontal surface is required for secure mounting via the unit's integral mounting slots



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Pure Sine Wave Power for Normal and Peak Power Demands

- 1000W of continuous, pure sine wave power to ensure maximum compatibility with sensitive electronics
- 2000W of peak power for up to 10 seconds to accommodate surge power demands during equipment startup and cycling

Automatic Transfer Switching for High Availability

- When external 120V AC power is supplied, the Inverter/Charger operates as a battery charger with connected equipment powered by the external power source.
- During a blackout, an automatic transfer relay switches the unit to inverter power in a near-instantaneous 16.6 milliseconds

Double Overload Protection

- Automatically detects output overloads and disables the inverter to prevent damage
- Additional overload protection is provided by a resettable, AC circuit breaker

3-Stage Fast Battery Charger

- Recharges batteries faster than conventional chargers
- Protects batteries against over-charge and over-discharge

Battery Protective Features

- Battery temperature-sensing cable (sold separately) prolongs battery life by adjusting the charge float voltage level based on battery temperature
- Low battery protection prevents excessive battery depletion

Remote Control Capability

- Remote control module (Tripp Lite APSRMSW, sold separately) provides remote monitoring/control of the unit

Indicators

- On/Off switch powers the unit on or off
- Battery level LED indicates battery charge level
- Mode indicator LEDs indicate the status of inverter operation
- Battery charger dip switches configure the battery charging profiles

Rugged Enclosure Design

- Rugged, moisture-resistant, steel housing with integral mounting feet/flanges withstand vibration, impact and high-humidity environments

The unit's integral mounting slots

Package Includes

- APS1012SW Inverter/Charger
- Instruction manual
- Warranty information

Specifications

OUTPUT	
Frequency Compatibility	50 / 60 Hz
Output Receptacles	Hardwire
Output (Watts)	1000
Continuous Output Capacity (Watts)	1000
Peak Output Capacity (Watts)	2000



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Output Nominal Voltage	120V
Output Voltage Regulation	LINE POWER (AC): Maintains 120V nominal sine wave output. INVERTER POWER (AC): Maintains sine wave output voltage of 120-150VAC (+/-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
Pure Sine Wave Output	Yes
INPUT	
Nominal Input Voltage(s) Supported	120V AC
Recommended Electrical Service	DC INPUT: Requires 12VDC input source capable of delivering 120A for the required duration (when used at full continuous capacity). For automotive applications, professional hardwire installation with 225A minimum battery system fusing is recommended.
Maximum Input Amps / Watts	DC INPUT: Full continuous load - 120A at 12VDC. AC INPUT: 15 amps at 120VAC with full inverter and charger load.
Input Connection Type	DC INPUT: Set of 2 DC bolt-down terminals. AC INPUT: Hardwire
Voltage Compatibility (VAC)	120
Voltage Compatibility (VDC)	12
BATTERY	
Expandable Battery Runtime	Runtime is expandable with any number of user supplied wet or gel type batteries
DC System Voltage (VDC)	12
Battery Charge	Includes 4/40 amp DC charging system with selectable profiles for vented wet cell and sealed gel cell batteries.
Expandable Runtime	Yes
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LEDs	Set of front panel LED's display inverter status, charger status, as well as battery voltage status
Switches	The inverter provides a RJ-45 port for optional APSRMSW remote control. RJ45 port operates with standard RJ485 interface (APSRMSW sold separately)
Audible Alarm	Audible status indicators
PHYSICAL	
Unit Dimensions (hwd / in.)	7.25 x 8.75 x 18
Unit Dimensions (hwd / cm)	18.41 x 22.22 x 45.72
Unit Weight (lbs.)	35.5
Unit Weight (kg)	16.10
Cooling Method	Fan
Material of Construction	Powder coated Steel
Form Factors Supported	Mounting slots enable permanent placement of inverter on any horizontal surface (see manual for additional mounting information)



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ENVIRONMENTAL	
Relative Humidity	0-95% non-condensing
SPECIAL FEATURES	
Remote Control Capability	Yes
WARRANTY	
Product Warranty Period (U.S. & Canada)	2-year limited warranty
Product Warranty Period (International)	2-year limited warranty
Product Warranty Period (Mexico)	2-year limited warranty
Product Warranty Period (Puerto Rico)	2-year limited warranty

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