

# 2000W 24VDC 230V Sine Wave Solar Inverter/Charger - 60A MPPT Solar Charge Controller, C13 Outlets, Wired Remote, Hardwire Input/Output

MODEL NUMBER: APSWX2K24VMPPT



Converts solar energy into usable electricity, manages the flow of energy between solar panels, batteries, and the electrical grid, and provides backup power during outages.

## Features

### Provides Reliable, Independent Power for Home or Business

This pure sine wave hybrid inverter/charger intelligently manages power coming from your solar panels, batteries, and the utility grid all at the same time. It can allow for grid-tied operation and efficiently converts DC power from solar panels into AC power for immediate use or for energy storage in batteries, and vice versa. It converts stored power from any 24V DC battery source to network-grade AC power for sensitive electronics, including computers and laptops, network and audio/video equipment or office and household appliances. Recommended for rural and residential environments, telecommunications, gas and oil exploration, mining, forestry and other industries with remote sites. The APSWX2K24VMPPT is an excellent solution for energy savings in grid-tied and off-grid environments.

### Optimal Performance of The Solar Energy System

With built-in MPPT (Maximum Power Point Tracking) the APSWX2K24VMPPT tracks and adjusts to the optimal point of power generation, resulting in increased energy production from the solar panels. This also improves the overall efficiency of the solar system, even in low-light conditions, resulting in consistent energy production throughout the day.

### Priority Source Selection Allows Automatic Switching to Optimal Power Sources

The APSWX2K24VMPPT uses priority source selection to alternate between utility and solar power when charging batteries, depending on which is optimal at that time. When powering a 230V connected load, the inverter will alternate between utility and battery power. - An automatic overload detector, cooling fan and resettable AC circuit breakers help protect the unit from damage.

### Works as an Inverter, Standalone Power Source or UPS System

An automatic line-to-battery transfer switch and built-in maximum power point tracking (MPPT) charge controller allow the APSWX2K24VMPPT to function as an inverter, standalone AC power source or extended-run UPS in environments with weak or unreliable solar or utility power. It delivers 2000W of continuous power and 4000W of peak power to handle high power draw during equipment startup or cycling. When used as a UPS, the APSWX2K24VMPPT responds to blackouts and brownouts with an automatic transfer to battery-derived AC output.

### Input Terminals Allow Hardwired Installation

## Highlights

- Delivers pure sine wave 230V AC power from AC or DC sources.
- Ideal for installation in rural or remote sites including residential, leisure, gas/oil and forestry
- Priority source selection alternates to deliver whichever power is optimal at the time
- Built-in Maximum Power Point Tracking (MPPT) solar charge controller that optimizes power generation from the solar panels.
- Auto-transfer switching option allows the unit to function as an extended-run UPS

## Package Includes

- APSWX2K24VMPPT Sine Wave Solar Inverter/Charger
- Wired on/off remote
- Owner's manual



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High-current DC input terminals allow hardwired connection to an external energy storage battery system. Designed for easy installation in rural or remote sites including residential, leisure, gas/oil and forestry the APSWX2K24VMPPT keeps the battery charged via the built-in AC and solar hybrid charging system while simultaneously delivering AC power to connected equipment. Pure sine wave power has less electrical noise and static for a clean signal that won't damage equipment.

#### Enhanced Management and Safety Features

The front control panel with LCD provides real-time readout of all system functions and robust configuration options to meet the needs of your application. An on/off switch allows instant one-touch control over connected devices. A wired remote control is included, which lets you control the APSWX2K24VMPPT from up to 10 meters away. Five-way fault protection (high voltage, overload, overheat, short circuit, locked fan), an audible alarm and LEDs help increase operational safety.

#### Compatible with Photovoltaic Solar Panels

This pure sine wave solar inverter/charger works with photovoltaic (PV) solar panels, including single-crystalline, poly-crystalline with Class A rating and CIGS. For optimal performance, use "deep cycle" batteries with the APSWX2K24VMPPT, preferably wet-cell (vented), gel-cell/absorbed glass mat (sealed) or Lithium batteries.

## Specifications

OVERVIEW	
UPC Code	037332256454
INPUT	
Solar Panel	Non-isolated system. Compatible with Mono-crystalline, Poly-crystalline with Grade A rating, and CIGS solar panels.
Nominal Input Voltage(s) Supported	220V AC; 230V AC; 240V AC
Recommended Electrical Service	230VAC 30A input circuit breaker (40A for Max AC Charge rate usage). DC INPUT: Requires 24VDC input source capable of delivering the required amperage when used at full continuous capacity - DC requirements increase during overload and peak output operation). PV MPPT INPUT: 30-115VDC Input (145VDC Max Open Circuit Voltage) 1600W Max Solar Panel Configuration
Maximum Input Amps	12.0
Input Connection Type	DC INPUT: Set of DC bolt-down terminals. AC/PV INPUT: Hardwire via built in terminal strip with cover plate
Voltage Compatibility (VAC)	220; 230; 240
Voltage Compatibility (VDC)	24
OUTPUT	
Frequency Compatibility	50 / 60 Hz
Frequency Compatibility Details	47-65Hz
Pure Sine Wave Output	Yes
Nominal Output Voltage(s) Supported	220V; 230V; 240V
Output Receptacles	(2) C13; Hardwire
Continuous Output Capacity (Watts)	2000
Peak Output Capacity (Watts)	4000
Output Voltage Regulation	LINE POWER (AC): Maintains 220/230/240V nominal sine wave output from line power source. INVERTER POWER (AC): Maintains sine wave output voltage of 220/230/240 VAC (+/-10%).



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Output Frequency Regulation	50/60Hz. Battery Mode: 50/60Hz +/- 0.3 Hz
<b>BATTERY</b>	
Expandable Runtime	Yes
Expandable Battery Runtime	User-supplied 24V DC battery system
Expandable Runtime Description	Runtime is expandable with any number of user-supplied wet-cell, gel-cell, or lithium (with integrated BMS) type batteries.
DC System Voltage (VDC)	BATTERY: 24; MPPT PV: 30-115VDC
Battery Pack Accessory (Optional)	Wet/Gel/AGM/SLA/LFP (User Supplied)
Battery Charge	Hybrid selectable 90A max charging system. 30A AC / 60A MPPT Solar Charger Controller
<b>USER INTERFACE, ALERTS &amp; CONTROLS</b>	
Front Panel LCD Display	Multi-function LCD displays Input, Output, Configuration, Battery Level, Charging Status, Load status. Left segment displays Input Voltage, Input Frequency, Battery Voltage, PV1 Voltage and Charger Current. Middle display: program settings, flash warning codes, fault codes, parallel system quantity (if configured). Right display segment displays Output Voltage, Output Frequency, Load Percentage, Load Current (VA), Load (watts), DC Discharge Current. Graphical icons for battery and load level (0-24%, 25%-49%, 50-74%, 75-100%), operation mode, and mute operation.
Front Panel LEDs	3 LEDs for Operation (Green), Charge (Amber), Fault (Red) Alarm Status. See manual for sequences.
Switches	3 position on/off/bypass switch. 4 push buttons up/down/left/right/enter. Remote control provides distant on/off control and monitoring of the inverter system when used in conjunction with included remote accessory.
<b>PHYSICAL</b>	
Material of Construction	Metal
Cooling Method	Thermal-controlled fan system
Shipping Dimensions (hwd / in.)	24.40 x 16.92 x 14.17
Shipping Weight (kg)	32.43
Unit Dimensions (hwd / in.)	20.000 x 13.750 x 7.244
Unit Dimensions (hwd / cm)	50.80 x 34.92 x 18.40
Unit Weight (lbs.)	54.500
Unit Weight (kg)	24.72
<b>ENVIRONMENTAL</b>	
Storage Temperature Range	-15° to 60°C
Relative Humidity	0-95% non-condensing
Operating Elevation	0-6562 ft. (0-2000 m)
Audible Noise	60dB front side @ 1 meter
Operating Temperature	0° to 50°C
<b>COMMUNICATIONS</b>	
Output Dry Contact Ports	Normally open dry contacts provide 5 output alerts for UPS Fault, Overload, AC Fault, Battery Low voltage



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LINE / BATTERY TRANSFER	
Transfer Time (Line Power to Battery Mode)	10 milliseconds
Low Voltage Transfer to Battery Power	In 230V AC "auto" mode, inverter/charger switches to battery mode as line voltage drops to 154V AC (user adjustable to 194V).
High Voltage Transfer to Battery Power	In 230V AC "auto" mode, inverter/charger switches to battery mode as line voltage increases to 264V+/-7V (user adjustable to 254V - see manual).
FEATURES & SPECIFICATIONS	
Grounding	Main grounding lug connects inverter/charger to earth or vehicle chassis ground
Generator Start Compatibility	Contact relay signal (NO and NC) contacts
STANDARDS & COMPLIANCE	
Product Certifications	EN 61000; IEC 62109-1; IEC 62109-2
Product Compliance	CE (Europe); REACH; RoHS; UKCA
WARRANTY & SUPPORT	
Product Warranty Period (International)	2-year limited warranty

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