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› AIMS Power European 300W 12VDC 220/230V Pure Sine Power Inverter Instruction Manual

## AIMS Power PE30012230S

# AIMS Power European 300W Pure Sine Power Inverter Instruction Manual

Model: PE30012230S

## 1. INTRODUCTION

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Thank you for choosing the AIMS Power European 300-Watt 12 VDC to 220/230 VAC Pure Sine Power Inverter. This device is designed to convert 12-volt DC power from your battery into clean, stable 220/230-volt AC power, suitable for a wide range of electronic devices and appliances. This manual provides essential information for safe and efficient operation, installation, and maintenance of your inverter.

## 2. SAFETY INFORMATION

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- **Read all instructions:** Before operating the inverter, read and understand all safety and operating instructions.
- **Ventilation:** Ensure adequate ventilation around the inverter. Do not block ventilation openings.
- **Avoid moisture:** Do not expose the inverter to rain, water, or excessive moisture.
- **Proper grounding:** The inverter must be properly grounded.
- **Battery connection:** Connect the inverter only to a 12V DC power source. Incorrect voltage can damage the inverter and connected devices.
- **Overload protection:** Do not exceed the inverter's rated power output (300W continuous, 600W surge). Overloading can cause damage or fire.
- **Children and pets:** Keep the inverter out of reach of children and pets.
- **Flammable materials:** Do not operate the inverter near flammable liquids or gases.

## 3. PRODUCT OVERVIEW

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The AIMS Power PE30012230S is a compact and efficient pure sine wave inverter, ideal for sensitive electronics. It features a robust design with multiple protection mechanisms.

### 3.1 Front Panel

Figure 1: Front view of the AIMS Power European 300W Pure Sine Power Inverter.

The front panel typically includes the AC output receptacle, USB port, and the main ON/OFF switch. The blue casing indicates the model and power specifications.

### 3.2 Rear Panel

Figure 2: Rear view of the AIMS Power European 300W Pure Sine Power Inverter.

The rear panel features the DC input terminals (positive and negative) for connecting to your 12V battery, along with a cooling fan that operates based on the load to maintain optimal temperature.

### 3.3 Key Features

- 300W continuous power, 600W surge peak power.
- USB port for charging small electronic devices.
- Load-based cooling fan for efficient temperature management.
- Single AC Receptacle Type C, E & F (European standard).
- On/Off switch for easy control.
- Includes DC battery alligator cables (22") and a cigarette lighter adapter cable (20").
- AC output short circuit protection.

## 4. SETUP AND INSTALLATION

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Proper installation is crucial for the safe and efficient operation of your inverter. Follow these steps carefully:

1. **Choose a location:** Select a dry, well-ventilated area away from direct sunlight, heat sources, and flammable materials. The inverter should be mounted securely.
2. **Prepare the battery:** Ensure your 12V DC battery is fully charged and in good condition. Turn off any loads connected to the battery.
3. **Connect DC cables:**
  - Connect the **red** (positive) battery cable to the **red** (positive) terminal on the inverter.
  - Connect the **black** (negative) battery cable to the **black** (negative) terminal on the inverter.
  - Connect the other end of the **red** cable to the **positive** terminal of your 12V battery.
  - Connect the other end of the **black** cable to the **negative** terminal of your 12V battery.

Alternatively, for lower power applications, use the provided cigarette lighter adapter cable by plugging it into your vehicle's 12V accessory socket and connecting the other end to the inverter's DC input.

4. **Grounding:** Connect the inverter's grounding terminal to a proper earth ground or vehicle chassis.
5. **Initial check:** Double-check all connections to ensure they are tight and correct.

## 5. OPERATING INSTRUCTIONS

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Once the inverter is properly installed, follow these steps to operate it:

1. **Turn on the inverter:** Press the ON/OFF switch on the front panel. The power indicator light should illuminate.
2. **Connect AC devices:** Plug your 220/230V AC appliances into the AC receptacle on the inverter. Ensure the total wattage of connected devices does not exceed 300W.
3. **Use the USB port:** Plug your USB-powered devices into the USB port for charging.
4. **Monitor operation:** The inverter's fan will activate automatically when a load is detected or if the internal temperature

rises. This is normal operation.

5. **Turn off the inverter:** When you are finished using the inverter, first turn off all connected appliances, then press the ON/OFF switch to power down the inverter.

## 5.1 Video: AIMS Power Inverters Overview

Your browser does not support the video tag.

*This video provides a general overview of AIMS Power Inverters, demonstrating their versatility and ease of use in various applications. It highlights how inverters convert DC battery power to AC electricity for everyday appliances, tools, and essential devices at home, on the job, or in RVs.*

## 6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your inverter:

- **Keep clean:** Periodically clean the exterior of the inverter with a dry cloth. Do not use liquid cleaners.
- **Check connections:** Regularly inspect battery and output connections for tightness and corrosion.
- **Ventilation:** Ensure the cooling fan and ventilation openings are free from dust and debris. Use compressed air to clear if necessary.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

## 7. TROUBLESHOOTING

If you encounter issues with your inverter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power output	Inverter not turned on; Loose battery connections; Low battery voltage; Overload protection activated; Internal fuse blown.	Ensure ON/OFF switch is pressed; Check and tighten battery cables; Recharge or replace battery; Reduce connected load; Contact support for fuse replacement.
Inverter shuts down	Overload; Over-temperature; Low battery voltage; High input voltage.	Reduce load; Ensure proper ventilation; Recharge battery; Check input voltage.
Fan not running	Normal operation (load-based fan); Fan malfunction.	The fan only runs when needed. If inverter is hot and fan is off, contact support.
Connected device not working	Device requires more power than inverter provides; Device malfunction.	Check device wattage; Test device with standard AC outlet.

## 8. SPECIFICATIONS

Feature	Specification
Continuous Power	300 Watts
Surge Peak Power	600 Watts
DC Input Voltage	10 to 15 Volts DC
Output Voltage	220/230 Volts AC

Feature	Specification
Output Voltage Regulation	+/- 3%
Output Frequency	50 Hz +/- 2Hz
AC Output Socket Type	Single Type C, E & F (16 amps) + USB Output
No Load Power Consumption	<0.7 DC Amps
Full Load Efficiency	90%
1/3 Load Efficiency	95%
Battery Low Voltage Alarm	10.5 +/- 0.5 Volts
Battery Low Voltage Shutdown	10.0 +/- 0.5 Volts
High Input Voltage Protection	15V
Low Input Voltage Shutdown	10V
Operating Temperature (Min)	50°F (No Load)
Operating Temperature (Max)	145°F (Automatic Shutdown)
Dimensions (DxWxH)	7.25" x 3.65" x 2.2"
Weight	2 lbs
Model Number	PE30012230S
UPC	840271003481

## 9. WARRANTY AND SUPPORT

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### 9.1 Warranty Information

This AIMS Power Inverter comes with a **1-Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage due to misuse, abuse, improper installation, or unauthorized modifications.

### 9.2 Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact AIMS Power customer support. You can find contact information on the official AIMS Power website or through your retailer.

When contacting support, please have your model number (PE30012230S) and purchase date available.