

Temank 3500W 24V

Temank PowMr 3500W Pure Sine Wave Power Inverter User Manual

MODEL: 3500W 24V DC TO 110V AC CONVERTER

1. INTRODUCTION

The Temank PowMr 3500W Pure Sine Wave Power Inverter converts 24V DC battery power to 110V AC household electricity. This inverter is designed to provide clean, stable power suitable for sensitive electronics, making it ideal for off-grid solar systems, recreational vehicles (RVs), trucks, and various off-grid applications. It features advanced safety protections and a remote control panel for convenient monitoring and operation.

2. WHAT'S IN THE BOX

Upon unpacking your PowMr 3500W Pure Sine Wave Power Inverter, please ensure all items listed below are present:

- Power Inverter Unit
- Battery Cables (4AWG)
- Remote Control Meter
- Spare Fuses
- Instruction Manual

WHAT'S IN THE BOX



Figure 1: Contents of the PowMr 3500W Pure Sine Wave Power Inverter package, including the inverter unit, battery cables, remote control, spare fuses, and manual.

3. SAFETY INFORMATION

Read all safety instructions carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Proper Ventilation:** Ensure the inverter is installed in a well-ventilated area to prevent overheating. Maintain at least 20cm of clear space around the inverter for adequate airflow.
- **Correct Polarity:** Always connect the battery cables with correct polarity (positive to positive, negative to negative). Reverse polarity can severely damage the inverter and battery.
- **Grounding:** The inverter must be properly grounded. Connect the grounding terminal to an appropriate earth ground.
- **Dry Environment:** Install the inverter in a dry, temperature-appropriate environment. Avoid exposure to water, moisture, or flammable materials.
- **Not Grid-Tie Compatible:** This inverter is designed for off-grid applications only. Do NOT connect it to a public utility grid.
- **Built-in Protections:** The inverter includes overload, short-circuit, over-temperature, and reverse polarity protection. It also features low/high voltage cut-off and automatic recovery to safeguard your

battery and connected devices.



Figure 2: The inverter is equipped with comprehensive protections including overload, low voltage, over voltage, high temperature, and short circuit protection.

4. SETUP AND INSTALLATION

4.1 Mounting the Inverter

Choose a suitable location for mounting the inverter. Ensure the surface is stable and can support the weight of the unit. Leave adequate space around the inverter for proper ventilation and heat dissipation.



MORE EFFICIENT AND STABLE OUTPUT

Pure Sine Wave Technology

Power rating of 3500W and a surge power of 7000W (10s) Protect Your Sensitive Appliances

Figure 3: The inverter should be mounted on a stable surface, ensuring sufficient clearance (e.g., 20cm on sides, 50cm top/bottom) for air circulation and heat dissipation.

4.2 DC Connection (Battery)

Connect the provided 4AWG battery cables to the inverter's DC input terminals and then to your 24V battery bank. Always ensure correct polarity: red cable to positive (+) terminal and black cable to negative (-) terminal. Tighten all connections securely using the included tools.

3500W Pure Sine Wave Inverter

Convert reliable, clean, and quiet AC energy to supply your off-grid living

3500W Continuous Output Power	7000W Peak Power Rating	> 85% Nominal Efficiency
 Advanced Pure Sine Wave	6 Types Comprehensive Protections	2 Cooling Fans Efficient Heat Dissipation

Figure 4: The rear panel of the inverter showing the positive (red) and negative (black) DC input terminals for battery connection.

For a visual guide on connecting your solar system, including the inverter, please refer to the video below:

Video 1: This video demonstrates the process of setting up a solar system, including the proper connection of the inverter to batteries and other components.

4.3 AC Connection (Output)

Once the DC connections are secure, you can connect your AC appliances to the 110V AC output ports on the inverter. The inverter provides a pure sine wave output, safe for sensitive electronics.

**MORE EFFICIENT
AND STABLE OUTPUT**

Pure Sine Wave Technology

DC-AC Pure Sine Wave
3500W Power Inverter

Power rating of 2500W and a surge power of 5000W (10s)
Protect Your Sensitive Appliances

Figure 5: The front panel of the inverter features multiple AC output ports and a 5V/2.4A USB port for charging devices.

For a detailed explanation of AC output modes and wiring, please refer to the video below:

Video 2: This video provides a detailed explanation of the AC dual output modes and wiring for PowMr inverters.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

After all connections are made and verified, flip the main power switch on the inverter to the 'ON' position. The LCD display will illuminate, showing real-time operational data.

5.2 Remote Control Panel

The included remote control panel allows you to monitor battery voltage, power output, and fault alerts from a convenient location. The LCD display on the remote provides real-time data for easy system management.



CONTROL YOUR POWERSYSTEM EASILY

15FT Remote Control Cable Makes Easily to Control Your Device Even if Installed in Another Room

Figure 6: The remote control panel allows for easy monitoring of the power system, displaying input/output voltage, power, and frequency.



Figure 7: Detailed description of the icons and information displayed on the LCD remote panel, including battery input voltage, AC output voltage, AC output power, AC output frequency, and inverter status.

6. SPECIFICATIONS

- **Continuous Output Power:** 3500W
- **Peak Power Rating:** 7000W
- **Nominal Efficiency:** > 85%
- **Input DC Voltage:** 24V
- **Output AC Voltage:** 110V
- **Output Frequency:** 50Hz/60Hz (selectable)
- **Output Waveform:** Pure Sine Wave
- **USB Port:** 5V/2.4A
- **Operating Temperature Range:** -25°C to 55°C
- **Item Weight:** 11.88 pounds
- **Package Dimensions:** 15.75 x 9.5 x 8.5 inches

7. TROUBLESHOOTING

If the inverter is not functioning as expected, check the following common issues:

- **No Power Output:** Verify battery connections are secure and polarity is correct. Check if the inverter's power switch is ON. Ensure battery voltage is within the operating range.
- **Overload Alarm:** Reduce the total load connected to the inverter. The inverter will automatically shut down if overloaded to prevent damage.
- **Low/High Voltage Alarm:** Check your battery voltage. Recharge or replace the battery if voltage is too low or too high.
- **Over-temperature Alarm:** Ensure the inverter is in a well-ventilated area and cooling fans are not obstructed. Allow the unit to cool down.
- **Short Circuit:** Disconnect all loads and check for any short circuits in your wiring or appliances.

For more detailed troubleshooting steps, please refer to the comprehensive instruction manual included with your product.

8. MAINTENANCE

The PowMr 3500W Pure Sine Wave Power Inverter requires minimal maintenance. Regularly inspect all cable connections for tightness and corrosion. Keep the inverter's ventilation openings clear of dust and debris to ensure efficient cooling. Operate the inverter within its specified temperature range (-25°C to 55°C) for optimal performance and longevity.

9. WARRANTY AND SUPPORT

This product may be eligible for extended protection plans. Please refer to the product packaging or contact your retailer for details on available 2-Year or 3-Year Protection Plans. For technical support or warranty claims, please consult the contact information provided in the detailed manual or on the manufacturer's website.