

## VEVOR Pure Sine Wave Power Inverter 3000W 12V

# VEVOR 3000W Pure Sine Wave Inverter User Manual

Model: Pure Sine Wave Power Inverter 3000W 12V

## 1. INTRODUCTION

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Thank you for choosing the VEVOR 3000W Pure Sine Wave Inverter. This manual provides essential information for the safe and efficient operation, installation, and maintenance of your inverter. Please read this manual thoroughly before use and retain it for future reference. This inverter is designed to convert 12V DC power to 220V AC pure sine wave power, suitable for a wide range of applications.

## 2. SAFETY INSTRUCTIONS

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Always observe the following safety precautions to prevent personal injury or damage to the inverter and connected equipment:

- **Electrical Safety:** Ensure all connections are secure and correctly polarized. Incorrect wiring can cause severe damage or fire.
- **Ventilation:** Install the inverter in a well-ventilated area. Do not block ventilation openings.
- **Environment:** Avoid exposure to water, moisture, direct sunlight, heat sources, or flammable materials. Operate within specified temperature and humidity ranges.
- **Grounding:** The inverter must be properly grounded to prevent electric shock.
- **Qualified Personnel:** Installation and maintenance should be performed by qualified personnel.
- **Disconnect Power:** Always disconnect power from the battery and AC source before performing any maintenance or troubleshooting.
- **Overload:** Do not exceed the inverter's rated power capacity. Overloading can damage the unit and connected appliances.

## 3. PRODUCT OVERVIEW

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### 3.1 Key Features

- **Pure Sine Wave Output:** Provides high-quality AC power, suitable for sensitive electronics, with an inversion

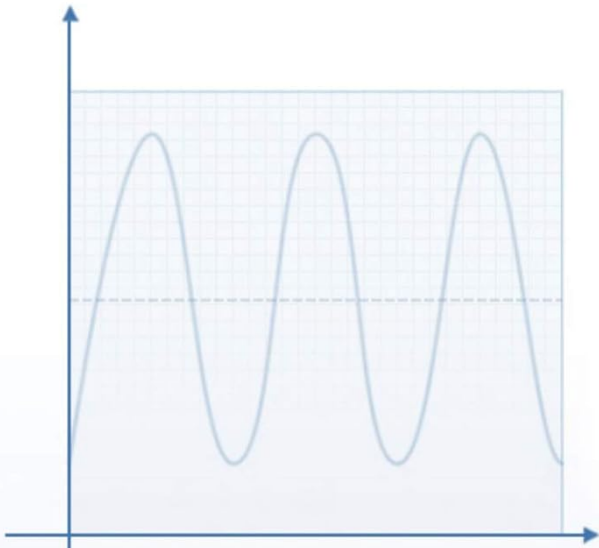
efficiency of 91%. Converts 12V DC to 220V AC.

- **Optimized Protection:** Includes comprehensive protection against overcurrent, short circuit, low voltage, overvoltage, and over-temperature.
- **Smart Cooling Fan:** Temperature-controlled fan operates quietly and efficiently, activating only when the internal temperature reaches 55°C.
- **Simplified Control:** Features an LCD screen for direct display of various parameters, including output voltage and battery charge status.
- **Integrated Design:** Multifunctional unit that combines inverter and AC charger capabilities, eliminating the need for separate components.
- **Premium Components:** Constructed with high-precision PCBs and robust MOS transistors for stable voltage, high safety, and extended lifespan.
- **Wide Application:** Compatible with a broad range of office equipment and household appliances, such as computers, printers, TVs, air conditioners, induction cookers, water heaters, and washing machines.

## 3.2 Product Components

The VEVOR 3000W Pure Sine Wave Inverter includes the following main components:

- **DC Input Terminals:** For connecting to a 12V battery bank.
- **AC Output Sockets:** For connecting 220V AC appliances.
- **LCD Display:** Shows operational status, input/output voltage, and battery charge.
- **Control Buttons:** For navigating menus and setting parameters.
- **Cooling Fan:** Automatically activates to dissipate heat.
- **AC Input for Charging:** For connecting to grid power to charge batteries.



PURE SINE  
WAVE



This image illustrates the pure sine wave output characteristic of the inverter, ensuring stable and clean power for sensitive electronics. The VEVOR 3000W Pure Sine Wave Inverter is shown from a rear-side angle, highlighting its robust construction and connection points.



The LCD screen provides real-time monitoring of various parameters, including input voltage, output voltage, and frequency, allowing users to easily observe the inverter's status. The display shows numerical values and status indicators.

## 4. SETUP

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### 4.1 Unpacking and Inspection

Carefully unpack the inverter and inspect it for any shipping damage. If any damage is found, contact your supplier immediately. Ensure all accessories listed in the packing list are present.

### 4.2 Placement

Choose a suitable location for the inverter:

- **Ventilation:** Ensure adequate airflow around the unit. Do not install in an enclosed space.
- **Environment:** Place in a dry, cool, and dust-free environment. Avoid direct sunlight and heat sources.
- **Mounting:** The inverter can be mounted horizontally or vertically. Ensure it is securely fastened to a stable surface.



The image displays the physical dimensions of the VEVOR inverter, indicating its length (17.5 inches), width (10.2 inches), and height (7.5 inches) for installation planning.

### 4.3 Battery Connection (DC Input)

Connect the inverter to a 12V battery bank. Use appropriate gauge cables for the current draw. Ensure correct polarity:

1. Connect the positive (+) terminal of the battery to the positive (+) DC input terminal of the inverter.
2. Connect the negative (-) terminal of the battery to the negative (-) DC input terminal of the inverter.
3. Tighten all connections securely to prevent loose contacts and arcing.

### 4.4 AC Output Connection

Connect your 220V AC appliances to the AC output sockets on the inverter. Ensure the total power consumption of connected appliances does not exceed the inverter's continuous power rating (3000W).

### 4.5 Grounding

Connect the inverter's grounding terminal to a reliable earth ground. This is crucial for safety and to prevent electrical hazards.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Powering On/Off

1. **To Power On:** After all connections are made and checked, switch the inverter's power button to the 'ON' position. The LCD screen will illuminate, and the inverter will begin its self-test sequence.
2. **To Power Off:** Disconnect all AC loads first, then switch the inverter's power button to the 'OFF' position.

### 5.2 LCD Display Interpretation

The LCD screen provides real-time information about the inverter's status:

- **Input Voltage:** Displays the current DC voltage from the battery.
- **Output Voltage:** Shows the AC output voltage (e.g., 220V).
- **Output Frequency:** Indicates the AC output frequency (e.g., 50Hz).
- **Battery Charge Level:** An icon or percentage indicating the battery's state of charge.
- **Status Indicators:** Icons for AC mode, Inverter mode, Charging mode, and Fault warnings.

### 5.3 Connecting Loads

Once the inverter is powered on, you can connect your 220V AC appliances to the output sockets. Start with smaller loads and gradually add larger ones. Monitor the LCD display for any overload warnings.



This image illustrates the broad compatibility of the VEVOR inverter, capable of powering a wide range of household and office appliances, from kitchen electronics to climate control systems.

## 5.4 Charging Function

This inverter includes an integrated AC charger. To charge your 12V battery bank, connect the inverter's AC input to a standard 220V AC grid power source. The inverter will automatically detect the AC input and begin charging the connected batteries. The LCD will indicate the charging status.

## 6. MAINTENANCE

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Regular maintenance ensures optimal performance and longevity of your inverter:

- **Cleaning:** Keep the inverter clean and free from dust. Use a dry cloth to wipe the exterior. Do not use liquid cleaners.
- **Connection Checks:** Periodically check all DC and AC connections for tightness. Loose connections can cause overheating and power loss.
- **Ventilation:** Ensure the cooling fan and ventilation openings are clear of obstructions.
- **Battery Maintenance:** Follow the battery manufacturer's recommendations for maintenance.

- **Storage:** If storing the inverter for an extended period, ensure it is clean, dry, and stored in a cool environment. Disconnect it from all power sources.



This image highlights the inverter's quiet operation and efficient cooling system, designed to maintain low temperatures. The smart fan activates only when necessary, contributing to a peaceful environment, as depicted by a sleeping person and sound wave comparisons.

## 7. TROUBLESHOOTING

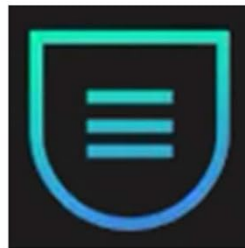
Before contacting support, refer to the following common issues and solutions:

Problem	Possible Cause	Solution
No power output	Low battery voltage, loose connections, inverter off, internal fuse blown.	Check battery voltage, tighten connections, ensure inverter is ON, check fuses (if accessible and safe).

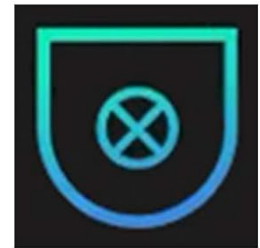
Problem	Possible Cause	Solution
Overload warning	Connected load exceeds inverter capacity.	Reduce the total load connected to the inverter. Disconnect some appliances.
Over-temperature warning	Poor ventilation, blocked fan, high ambient temperature.	Ensure adequate ventilation, clear fan and vents, move inverter to a cooler location.
Fan constantly running or noisy	High internal temperature, dust in fan.	Ensure proper ventilation. Clean fan if dusty (with power disconnected). Fan activates at 55°C.
Inverter shuts down unexpectedly	Low battery voltage, overload, over-temperature, short circuit.	Check battery, reduce load, ensure ventilation, check for short circuits in wiring/appliances.



**OVERLOAD  
PROTECTION**



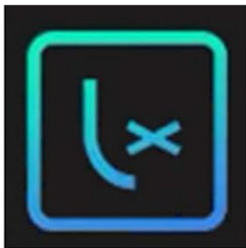
**OVER-CURRENT  
PROTECTION**



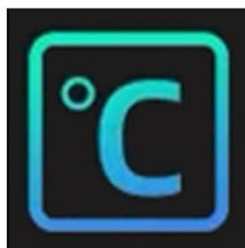
**SHORT CIRCUIT  
PROTECTION**



**LOW-VOLTAGE  
PROTECTION**



**OVER-TEMPERATURE  
PROTECTION**



**OVER HIGH  
VOLTAGE PROTECTION**



The VEVOR inverter is equipped with multiple safety features, including protection against overload, over-current, short circuits, low voltage, over-temperature, and over-voltage, ensuring safe and reliable operation. The image displays the inverter with six distinct protection icons.

## 8. SPECIFICATIONS

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Parameter	Value
Brand	VEVOR
Model Name	Pure Sine Wave Power Inverter 3000W 12V
Continuous Power	3000W
Peak Power	9000W
Input Voltage	12V DC
Output Voltage	220V AC
Output Waveform	Pure Sine Wave
Inversion Efficiency	91%
Screen Type	LCD
Dimensions (L x W x H)	44.5 x 25.9 x 19.1 cm (17.5 x 10.2 x 7.5 inches)
Item Weight	23 kg
Certifications	CE
Power Source	Solar (compatible)
What's in the Box	Inverter

## 9. WARRANTY AND SUPPORT

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For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official VEVOR website. Keep your purchase receipt as proof of purchase for any warranty claims.