Technaxx TE23

Technaxx Inverter TE23 3000W User Manual

Model: TE23 (5028)

1. Important Safety Instructions

Please read and understand all safety instructions before operating the Technaxx Inverter TE23. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Ensure proper ventilation around the inverter. Do not block cooling vents.
- Do not expose the inverter to water, rain, or excessive moisture.
- Keep out of reach of children.
- Connect the inverter only to a 12V DC power source.
- Do not connect the inverter to AC power sources.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not disassemble or modify the inverter. Refer all servicing to qualified personnel.
- Avoid operating the inverter in environments with flammable fumes or gases.
- Disconnect the inverter from the power source before performing any maintenance or cleaning.

2. Product Overview

The Technaxx Inverter TE23 is a pure sine wave power inverter designed to convert 12V DC battery power into standard 230V AC mains voltage. It provides a continuous output of 3000W and a peak output of 6000W, suitable for a wide range of electronic devices.

Figure 2.1: Front view of the Technaxx Inverter TE23, showing the two Schuko sockets, USB-A and USB-C ports, LCD display, and power button.

Figure 2.2: Detailed view of the inverter's LCD display, showing DC input voltage, AC output voltage, frequency, and load indicators.

Figure 2.3: Rear view of the inverter, highlighting the integrated cooling fans and the robust battery connection terminals.

Figure 2.4: Diagram illustrating the main components of the inverter, including power input terminals, cooling fan, power button, LCD screen, 230V AC outlets, and USB ports.

Key Features:

- **Pure Sine Wave Output:** Ensures stable and clean power, safe for sensitive electronics.
- **High Power Output:** 3000W continuous, 6000W peak power.
- **Multiple Outputs:** Two 230V Schuko sockets, one USB-A Quick Charge 3.0 port, and one USB-C port.
- **Advanced Protection:** Automatic shut-off for low battery (~10.2V), over-voltage, under-voltage, and overload protection.
- **Integrated Cooling Fan:** Prevents overheating during operation.
- **TÜV Rheinland Certified:** Ensures product safety and quality.
- **LCD Display:** Provides real-time information on input voltage, output voltage, frequency, and load.

3. Package Contents

Verify that all items are present in the package before proceeding with installation.

- 1 x Technaxx Inverter TE23 (3000W)
- 2 x Connection Cables (0.6m each)
- 1 x User Manual (this document)

Figure 3.1: The Technaxx Inverter TE23 shown with its included battery connection cables.

4. Setup and Installation

Follow these steps carefully to set up your Technaxx Inverter TE23.

1. **Choose a Suitable Location:** Select a dry, well-ventilated area for the inverter. Ensure it is away from direct sunlight, heat sources, and flammable materials. The inverter can be installed in cars, caravans, or boats.
2. **Prepare the Battery:** Ensure the 12V DC battery is fully charged and in good condition. Turn off any loads

connected to the battery.

3. **Connect the Cables:**
    - Connect the **red** positive (+) cable to the positive (+) terminal of the inverter.
    - Connect the **black** negative (-) cable to the negative (-) terminal of the inverter.
    - Ensure connections are tight and secure.

Figure 4.1: Proper connection of the battery cable to the inverter terminal, showing the protective cover.

4. **Connect to Battery:**
    - Connect the other end of the **red** positive (+) cable to the positive (+) terminal of the 12V battery.
    - Connect the other end of the **black** negative (-) cable to the negative (-) terminal of the 12V battery.
    - Double-check all connections for polarity and tightness. Loose connections can cause overheating and damage.
5. **Initial Power On:** Once all connections are secure, press the power button on the inverter. The LCD display should illuminate, indicating the inverter is operational.

5. Operating Instructions

This section details how to use your Technaxx Inverter TE23.

5.1 Powering On/Off

- To turn on the inverter, press and hold the power button () for a few seconds until the LCD screen illuminates.
- To turn off the inverter, press and hold the power button () again until the LCD screen turns off.

5.2 Connecting Devices

The inverter provides 230V AC power through its Schuko sockets and 5V DC power through its USB ports.

1. Ensure the inverter is powered on.
2. For AC devices, plug the device's power cord into one of the 230V Schuko sockets. Ensure the device's power consumption does not exceed the inverter's continuous rating (3000W).
3. For USB devices, connect your USB-A or USB-C charging cable to the respective port on the inverter. The USB-A port supports Quick Charge 3.0.
4. Monitor the LCD display for real-time information on input voltage, output voltage, frequency, and load.

Figure 5.1: The inverter in use, demonstrating connections to various household appliances.

5.3 Understanding the LCD Display

The LCD display provides critical operational information:

- **DC Voltage:** Shows the current input voltage from the 12V battery.
- **AC Voltage:** Displays the output AC voltage (typically 220V or 230V).
- **Frequency:** Indicates the output AC frequency (typically 50Hz).
- **Load Indicator:** Shows the approximate load percentage on the inverter.
- **Power/Normal/Fault Indicators:** LEDs indicating operational status or error conditions.

Figure 5.2: A clear view of the LCD display providing real-time operational data.

6. Protection Features

The Technaxx Inverter TE23 incorporates several safety features to protect itself and your connected devices:

- **Low Voltage Shut-off:** The inverter will automatically shut down and sound an alarm if the input DC voltage drops to approximately 10.2V to protect the battery from deep discharge.
- **Over Voltage Protection:** Shuts down if the input voltage exceeds a safe limit.
- **Overload Protection:** Shuts down if the connected load exceeds the inverter's maximum continuous or peak power rating.
- **Over Temperature Protection:** The integrated cooling fan activates to dissipate heat. If the temperature continues to rise to unsafe levels, the inverter will shut down.
- **Short Circuit Protection:** Protects against damage from short circuits on the output.

7. Maintenance

Regular maintenance ensures optimal performance and longevity of your inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a soft, dry cloth. Ensure the cooling vents are free from dust and debris. Do not use liquid cleaners.
- **Connections:** Regularly check all electrical connections (battery terminals, output sockets) to ensure they are tight and free from corrosion.
- **Ventilation:** Ensure the area around the inverter remains clear to allow for proper airflow and cooling.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

Figure 7.1: Ensure the cooling fan and vents are kept clear for efficient heat dissipation.

8. Troubleshooting

If you encounter issues with your Technaxx Inverter TE23, refer to the following table:

Problem	Possible Cause	Solution
Inverter does not turn on.	• Loose battery connections. • Battery voltage too low. • Inverter fuse blown (if applicable).	• Check and tighten all battery cable connections. • Charge the 12V battery. • Contact customer support for fuse replacement.

Problem	Possible Cause	Solution
No AC output.	• Overload protection activated. • Over-temperature protection activated. • Low battery voltage.	• Reduce the connected load. • Allow inverter to cool down; ensure proper ventilation. • Charge the 12V battery.
Alarm sounds.	• Low battery voltage. • Overload condition. • Over-temperature condition.	• Charge the 12V battery. • Reduce the connected load. • Allow inverter to cool down.
Connected device not working.	• Device power consumption too high. • Device not compatible with pure sine wave (unlikely, but possible). • Device faulty.	• Check device wattage; ensure it's within inverter limits. • Try another device. • Test the device with a standard wall outlet.

9. Specifications

Feature	Detail
Model Name	TE23
Item Model Number	5028
Input Voltage	12V DC
Output Voltage	230V AC
Output Waveform	Pure Sine Wave
Continuous Power	3000W
Peak Power	6000W
Output Frequency	50Hz
USB-A Output	Quick Charge 3.0
USB-C Output	Yes (Max. 3A)
AC Outlets	2 x Schuko Sockets
Low Voltage Alarm	~10.2V
Dimensions (L x W x H)	45 x 25 x 10 cm
Weight	5.96 kg
Certifications	TÜV Rheinland Certified

10. Warranty and Support

Technaxx products are designed for reliability and performance. For warranty information and technical support, please refer to the official Technaxx website or contact their customer service directly.

- **Manufacturer:** Technaxx
- **Website:** www.technaxx.de (General website, specific support link not provided in input)
- **Contact:** Refer to the manufacturer's website for contact details and support channels.

Please retain your proof of purchase for warranty claims.