

TWING 300w inverters

TWING 300W Car Power Inverter User Manual

Model: 300w inverters

1. INTRODUCTION

Thank you for choosing the TWING 300W Car Power Inverter. This device is designed to convert 12V DC power from your vehicle's battery into 110V AC household power, along with multiple USB charging ports. It is ideal for powering various electronic devices on the go, such as laptops, tablets, smartphones, and small appliances.

Please read this manual thoroughly before using the inverter to ensure safe and optimal performance. Keep this manual for future reference.

2. SAFETY INFORMATION

Important Safety Precautions:

- Do not expose the inverter to water, rain, or snow.
- Do not operate the inverter if it has been dropped or damaged.
- Ensure the inverter is used in a well-ventilated, dry area to prevent overheating.
- Keep out of reach of children.
- Do not insert foreign objects into the AC outlets or USB ports.
- Always connect the inverter to a 12V DC power source. Do not connect to 24V DC or higher.
- Ensure the total power consumption of connected devices does not exceed the inverter's continuous power rating (300W).

The TWING 300W Car Power Inverter incorporates multiple safety protections:

- **Low Voltage Protection:** Automatically shuts down if input voltage drops below 10V.
- **High Voltage Protection:** Automatically shuts down if input voltage exceeds 15V.
- **Overload Protection:** Shuts down if connected load exceeds 300W.
- **Short Circuit Protection:** Protects against short circuits in the output.
- **Overheating Protection:** Shuts down if internal temperature exceeds 105°C.

Safety Chip

Smart chip identifies device current automatically to protect charging device.

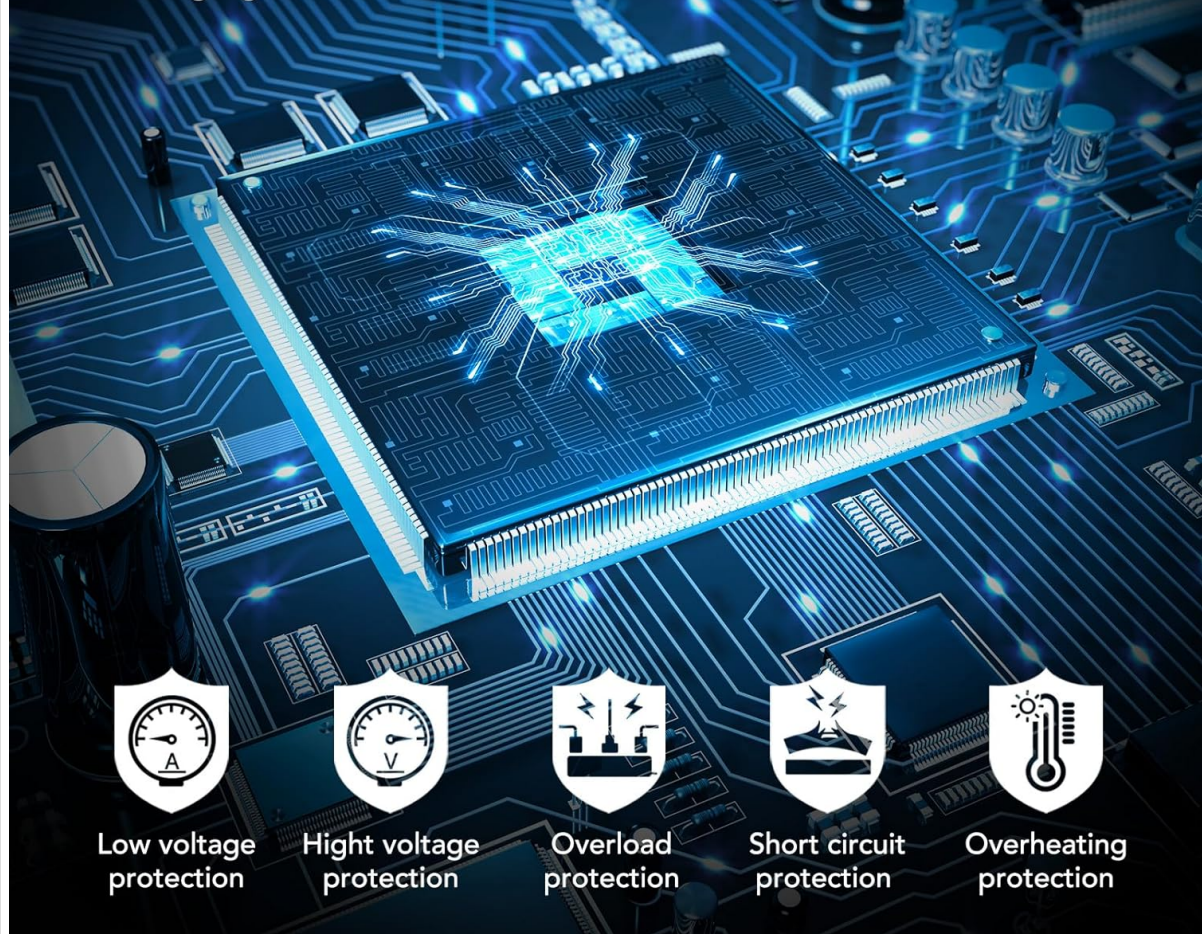


Figure 2.1: Inverter Safety Features

This image illustrates the smart chip technology within the inverter, which automatically identifies device current and provides comprehensive protection against low voltage, high voltage, overload, short circuit, and overheating, ensuring safe charging.

3. PRODUCT FEATURES AND COMPONENTS

The TWING 300W Car Power Inverter is equipped with multiple output options and safety features for versatile use.

- **Continuous Power:** 300 Watts
- **Peak Power:** 600 Watts
- **AC Outlet:** 1 x 110V AC outlet (up to 280W surge capacity)
- **USB Ports:**
 - 1 x QC 3.0 (18W) port for fast charging compatible devices.
 - 1 x PD (Type-C) (30W) port for fast charging compatible devices.
 - 1 x 2.4A USB port for standard charging.
- **Cooling Fan:** Integrated cooling fan for efficient heat dissipation.
- **Digital Display:** Smart digital display for monitoring status.

- **Material:** Durable aluminum alloy casing.



Figure 3.1: Multi-Functional Inverter Components

This image provides a detailed view of the inverter, labeling its key components including the cooling fan, various USB ports (2.4A, PD 30W, QC 3.0), the power switch, and the 110V AC outlet.



USB Ports

for powering USB compatible devices



Figure 3.2: USB Ports and AC Outlet

This close-up image focuses on the inverter's output interfaces, specifically highlighting the QC 3.0, PD (Type-C), and 2.4A USB ports, along with the 110V AC outlet, demonstrating their function for powering compatible devices.

4. SETUP

The TWING 300W Car Power Inverter is designed for easy setup in your vehicle.

- Vehicle Compatibility:** Ensure your vehicle has a 12V DC power outlet (cigarette lighter socket).
- Placement:** Place the inverter in a stable, well-ventilated, and dry location within your vehicle. Avoid areas that are exposed to direct sunlight, excessive heat, or moisture. Ensure the cooling fan is not obstructed.
- Connection:** Insert the inverter's cigarette lighter plug firmly into your vehicle's 12V DC power outlet. Ensure a secure connection to prevent power loss or overheating at the connection point.
- Power On:** Once connected, switch the inverter's power button to the "ON" position. The digital display will illuminate, indicating the inverter is ready for use.

Note: For optimal performance and safety, ensure your vehicle's engine is running when using the inverter for extended periods or with high-power devices to prevent draining the vehicle's battery.

5. OPERATING INSTRUCTIONS

Once the inverter is set up and powered on, you can begin connecting your devices.

1. Connecting AC Devices:

- Plug your 110V AC device into the inverter's AC outlet.
- Ensure the device's power consumption does not exceed 300W continuous power.
- Examples of compatible AC devices include laptops, small fans, string lights, and DVD players.

2. Connecting USB Devices:

- Connect your USB-powered device to one of the inverter's USB ports (QC 3.0, PD Type-C, or 2.4A).
- The inverter automatically detects the optimal charging current for your device.
- Compatible USB devices include smartphones, tablets, Kindles, and digital cameras.

3. **Monitoring:** The smart digital display provides real-time information, such as input voltage or output wattage, depending on the model.

4. **Powering Off:** When you are finished using the inverter, switch the power button to the "OFF" position and then disconnect it from the vehicle's power outlet.



Figure 5.1: In-Car Usage Example

This image demonstrates the practical application of the inverter, showing a user conveniently powering a laptop inside a vehicle, highlighting its utility for mobile productivity.



Figure 5.2: Wide Range of Applications

This visual illustrates the broad compatibility of the inverter, showcasing its ability to power a diverse array of electronic devices, from personal gadgets like phones and tablets to specialized equipment such as drones and breast pumps, making it suitable for various needs.

6. TROUBLESHOOTING

If you encounter issues with your TWING 300W Car Power Inverter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Inverter does not power on.	Loose connection to vehicle's power outlet. Vehicle's cigarette lighter fuse blown. Low vehicle battery voltage. Inverter's internal fuse blown (less common, as it has electronic protection).	Ensure the cigarette lighter plug is fully inserted and secure. Check and replace the vehicle's cigarette lighter fuse if necessary. Start the vehicle's engine to recharge the battery. Contact customer support if the inverter remains unresponsive.
Inverter shuts down during operation.	Overload (connected device exceeds 300W). Overheating (poor ventilation). Low or high input voltage from vehicle battery.	Reduce the load by disconnecting high-power devices. Ensure the inverter is in a well-ventilated area and the cooling fan is unobstructed. Allow it to cool down. Check vehicle battery voltage. Start engine if voltage is low.
No output from AC outlet or USB ports.	Inverter is off or in protection mode. Device not properly plugged in. Device requires more power than inverter can provide.	Check inverter power switch and digital display. Ensure devices are securely plugged into the correct ports. Verify device wattage and compare to inverter specifications.

7. SPECIFICATIONS

Detailed technical specifications for the TWING 300W Car Power Inverter:

PRODUCT PARAMETER	
Model Number	LK-U300
Output Waveform	Modified sine wave
Material	Aluminum alloy
Size	4.5*2.7*1.8 IN
Rated input	DC 12V
Input Range	DC 12V(10V-15V)
Rated Power	240W
maximum power	300W
Peak Power	600W
Low Voltage Protection	<10V(alarm twice)
Over Voltage Protection	>15V(alarm 3 times)
Recovery Voltage	12V(13.2± 0.3V)
Overload Protection	>300W(alarm 4 times)
Output Voltage	AC 110V-120V,USB 5V
USB output current	QC3.0(18W)+PD(30W)+5V 2.4A
Output Frequency	60Hz
Overheating Protection	>105°C

Figure 7.1: Product Parameter Table

This table provides a comprehensive overview of the inverter's technical specifications, including power ratings,

input/output voltages, protection thresholds, and physical dimensions.

Model Number	300w inverters (LK-U300)
Output Waveform	Modified Sine Wave
Material	Aluminum Alloy
Dimensions (L x W x H)	4.5 x 2.7 x 1.8 inches
Item Weight	14 ounces
Rated Input Voltage	DC 12V
Input Voltage Range	DC 12V (10V-15V)
Rated Power	240W
Maximum Continuous Power	300W
Peak Power	600W
Output Voltage	AC 110V-120V, USB 5V
USB Output Current	QC3.0 (18W), PD (30W), 5V 2.4A
Output Frequency	60Hz
Low Voltage Protection	<10V (alarm twice)
Over Voltage Protection	>15V (alarm 3 times)
Overload Protection	>300W (alarm 4 times)
Overheating Protection	>105°C

Smart Power Inverter



Figure 7.2: Inverter Dimensions

This image provides a clear visual representation of the inverter's physical dimensions, including its length, width, height, and the length of its attached cigarette lighter cable.

8. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your inverter.

- **Cleaning:** Periodically wipe the exterior of the inverter with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure the cooling fan and ventilation openings are free from dust and debris. Blocked vents can lead to overheating.
- **Storage:** When not in use for extended periods, store the inverter in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Connections:** Regularly check the cigarette lighter plug and any connected cables for signs of wear or damage. Ensure connections remain secure.

9. WARRANTY AND SUPPORT

The TWING 300W Car Power Inverter comes with a **12-Month Hassle-Free Warranty**.

We are committed to providing excellent customer service and satisfaction. If you have any questions, concerns, or require technical assistance, please do not hesitate to contact our customer support team. The product is certified with CE, FCC, and ROHS, ensuring compliance with international safety and environmental standards.

Customer Service:

Please refer to your purchase platform or the TWING official website for contact information.