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› Green Cell Duo 12V/24V to 230V 300W/600W Modified Sine Wave Power Inverter User Manual

Green Cell INVGC1224M300DUO

Green Cell Duo 12V/24V to 230V 300W/600W Modified Sine Wave Power Inverter

Model: INVGC1224M300DUO | Brand: Green Cell

INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Green Cell Duo 12V/24V to 230V 300W/600W Modified Sine Wave Power Inverter. This universal DC/AC inverter is designed to convert battery power from 12V or 24V DC sources (such as car or truck batteries) into 230V AC power, allowing you to power various electronic devices on the go. Please read this manual thoroughly before installation and use, and retain it for future reference.

SAFETY INSTRUCTIONS

Always prioritize safety when operating electrical equipment. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Ventilation:** Ensure the inverter is installed in a well-ventilated area. Do not block the ventilation openings or fan.
- **Moisture:** Do not expose the inverter to rain, moisture, or water. Operate only in dry conditions.
- **Temperature:** Avoid operating the inverter in direct sunlight or near heat sources. Maintain ambient temperatures within the specified range.
- **Flammable Materials:** Do not operate the inverter near flammable liquids, gases, or other combustible materials.
- **Connection:** Connect the inverter only to a 12V or 24V DC power source. Ensure correct polarity (+ to + and - to -). Incorrect connection can damage the inverter and battery.
- **Load:** Do not exceed the inverter's continuous power rating of 300W. The surge power is 600W for short periods. Overloading can cause damage or trigger protection mechanisms.
- **Grounding:** Ensure the inverter is properly grounded according to local electrical codes.
- **Children:** Keep the inverter out of reach of children.
- **Maintenance:** Only qualified personnel should perform maintenance or repairs. Refer to the 'Maintenance' section for user-serviceable parts.

Sicherheit geht vor



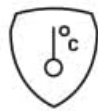
Kurzschlusschutz



Schutz vor zu hoher Spannung



Schutz vor übermäßiger Belastung



Schutz vor zu hohen Temperaturen



Verpolungsschutz (DC)



Unterspannungsschutz

Image: This diagram illustrates the inverter's built-in safety protections, including short-circuit protection, over-voltage protection, overload protection, high-temperature protection, reverse polarity protection, and under-voltage protection.

PACKAGE CONTENTS

Please check the package for the following items:

- Green Cell Duo Power Inverter (Model: INVGC1224M300DUO)
- DC Connection Cable (50 cm) with battery clamps
- 12V/24V Car Cigarette Lighter Plug
- Two (2) Spare Fuses
- User Manual



Image: The Green Cell power inverter shown alongside its included accessories: DC connection cables with battery clamps, a cigarette lighter plug, and two spare fuses.

PRODUCT OVERVIEW

Familiarize yourself with the components and features of your Green Cell power inverter.



Image: This detailed diagram highlights the various ports and features of the inverter. On the output side, it shows the EU AC 230V 50Hz outlet, USB-A port, USB-C port, ON/OFF switch, and status LEDs. On the input side, it shows the DC+ and DC- input terminals, the cooling fan, and the external fuse holder.

Key Features:

- **Mobile Power:** Provides 300W continuous power (600W surge) for electronics in remote locations.
- **Flexible Input:** Supports dual input voltage of 12V and 24V DC, compatible with car and truck electrical systems.
- **Fast Charging:** Equipped with USB-C Power Delivery (45W) and USB-A Quick Charge 3.0 (18W) ports for efficient charging of multiple devices.
- **Modified Sine Wave Output:** Suitable for most common electronic devices.
- **Safety Features:** Includes short-circuit, over-voltage, overload, high-temperature, reverse polarity, and under-voltage protection.
- **User-Friendly:** Intuitive design with an easily accessible and replaceable fuse.

GC Duo 12V/24V Wechselrichter

Universeller 12/24V DC-Wandler



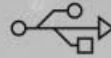
USB-C 45 W
Stromversorgung



Schuko
(EU)



Modifizierte
Sinuswelle



USB-A 18W
QC3.0



Leicht zugängliche,
externe Sicherung

Image: This image highlights the main features of the Green Cell Duo inverter: USB-C 45W Power Delivery, Schuko (EU) 230V socket, Modified Sine Wave output, USB-A 18W Quick Charge 3.0, and an easily accessible external fuse.

SETUP AND INSTALLATION

Follow these steps to properly set up and install your power inverter.

- 1. Choose a Location:** Select a dry, well-ventilated area for installation, away from direct sunlight, heat sources, and flammable materials. Ensure adequate space around the inverter for air circulation, especially around the fan.
- 2. Mounting (Optional):** The inverter can be mounted using the integrated mounting tabs. Use appropriate screws (not included) to secure it to a stable surface.
- 3. Connect to DC Power Source:**
 - **For Battery Clamp Connection:** Connect the red cable (positive +) to the positive terminal of your 12V or 24V battery and the black cable (negative -) to the negative terminal. Ensure connections are tight and secure.
 - **For Cigarette Lighter Plug Connection:** Insert the cigarette lighter plug into your vehicle's 12V or 24V cigarette lighter socket. This method is suitable for lower power devices (typically up to 150W, check your vehicle's socket rating).

Important: Always connect the inverter to the DC power source **before** turning it on or connecting AC devices.

4. **Grounding:** Connect the inverter's grounding terminal to a proper earth ground (e.g., vehicle chassis) using a suitable wire.

OPERATING INSTRUCTIONS

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

1. **Turn On the Inverter:** Flip the ON/OFF switch on the inverter to the 'ON' position. The status LEDs should illuminate, indicating the inverter is active.
2. **Connect AC Devices:** Plug your 230V AC device(s) into the AC outlet on the inverter. Ensure the total power consumption of your devices does not exceed 300W.
3. **Connect USB Devices:** For charging USB devices, connect them to the USB-A Quick Charge 3.0 port or the USB-C Power Delivery port.
4. **Monitor Battery Level:** Pay attention to your vehicle's battery level, especially when using the inverter for extended periods. Prolonged use can drain the battery. The inverter has an under-voltage protection feature that will shut it down if the battery voltage drops too low.
5. **Turn Off the Inverter:** When you are finished using the inverter, first disconnect all AC and USB devices, then flip the ON/OFF switch to the 'OFF' position.

MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the cooling fan and ventilation openings are free from dust and debris. Use compressed air to clear any blockages if necessary.
- **Connections:** Regularly check all electrical connections (DC input, AC output, grounding) to ensure they are tight and free from corrosion.
- **Fuse Replacement:** The inverter features an easily accessible, replaceable fuse. If the inverter stops working and the status light indicates a fuse issue, disconnect the inverter from all power sources, open the fuse holder, and replace the blown fuse with a new one of the same rating (spare fuses are included).

TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Inverter does not turn on.	No DC input power; Loose connections; Blown fuse; Low battery voltage.	Check DC power source and connections. Ensure battery is charged. Replace fuse if blown.
No AC output.	Overload; Over-temperature; Low battery voltage; Device fault.	Reduce connected load. Allow inverter to cool down. Recharge battery. Check AC device.
Inverter shuts down.	Overload; Over-temperature; Low battery voltage; Short circuit.	Reduce load. Allow cooling. Recharge battery. Check for short circuits in connected devices.
Fan is noisy or not working.	Dust/debris in fan; Fan malfunction.	Clean fan and vents. If malfunction persists, contact support.

SPECIFICATIONS

Feature	Specification
Model Number	INVGC1224M300DUO
Input Voltage	12V / 24V DC
Output Voltage	230V AC
Continuous Power	300 Watts
Surge Power	600 Watts
Output Waveform	Modified Sine Wave
Output Frequency	50 Hz
USB-C Output	45W Power Delivery
USB-A Output	18W Quick Charge 3.0
Efficiency	Up to 90%
Recommended Use	Car, Truck
Color	Black
Manufacturer	CSG S.A

WARRANTY AND SUPPORT

Green Cell products are designed for reliability and performance. For warranty information, technical support, or service inquiries, please refer to the contact details provided on the official Green Cell website or your purchase documentation. Please have your model number (INVGC1224M300DUO) and proof of purchase ready when contacting support.