



Manuals.plus /

› **MARBERO** /

› MARBERO 21W Portable Foldable Solar Panel Instruction Manual

MARBERO ET-21W

MARBERO 21W Portable Foldable Solar Panel Instruction Manual

Model: ET-21W

INTRODUCTION

Thank you for choosing the MARBERO 21W Portable Foldable Solar Panel. This device is designed to provide reliable power for your electronic devices during outdoor activities, travel, and emergencies. Its compact, lightweight, and durable design ensures convenience and efficiency. Please read this manual thoroughly before use to ensure proper operation and longevity of your solar panel.

WITH COMPATIBILITY



HOW TO USE



1. Plug in the DC cable to the solar panel



2. Choose the suitable DC adapter according to your device



3. Connect it to your device



4. The device will be charging

Image: The MARBERO 21W Portable Foldable Solar Panel in its unfolded state, showcasing the solar cells designed to capture sunlight.

PACKAGE CONTENTS

Upon opening your MARBERO 21W Portable Foldable Solar Panel package, you should find the following items:

- 1x MARBERO Foldable Solar Panel 21W
- 1x DC 5521 Cable
- 3x Interchangeable DC Adapters
- 1x User Manual

- 2x Carabiners

SETUP AND CONNECTION

Follow these steps to set up and connect your solar panel for charging:

1. **Unfold the Solar Panel:** Carefully unfold the MARBERO 21W solar panel and lay it flat in an area with direct sunlight.
2. **Position for Optimal Sunlight:** For best efficiency, position the solar panel at an optimal tilt angle (typically 35 to 65 degrees) towards the sun. Avoid shaded areas.
3. **Connect the DC Cable:** Plug the DC 5521 cable into the DC output port on the solar panel's control box.
4. **Choose DC Adapter (if needed):** If your device requires a specific DC adapter, select the appropriate interchangeable DC adapter and connect it to the DC 5521 cable.
5. **Connect to Your Device:** Plug the other end of the DC cable (or the chosen DC adapter) into your portable power station or other compatible device. For USB charging, directly plug your device's USB cable into the USB-A output port on the solar panel.
6. **Begin Charging:** Once connected, your device should begin charging. The solar panel features a built-in smart chip that intelligently detects your device to maximize charging speed.

CONVENIENCE AND SECURITY

The solar panel can restart
to charge your devices after
high temperature



Over temperature
Protection



Low-voltage
Protection



Short-circuit
Protection



Auto-Restart
Function

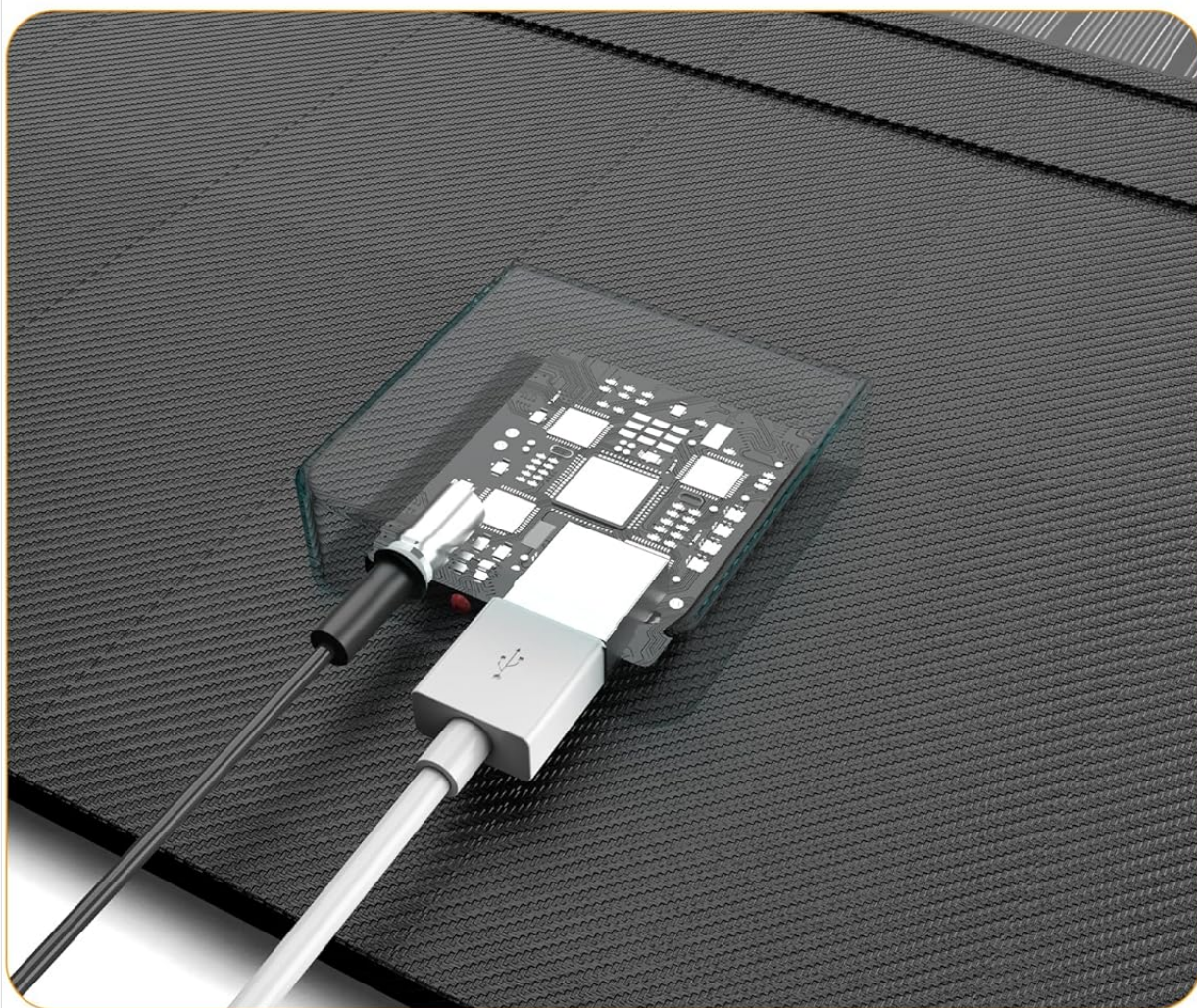


Image: A visual guide demonstrating the connection process: 1. Plug DC cable into solar panel. 2. Choose suitable DC adapter. 3. Connect to your device. 4. Device will begin charging.

21W SOLAR PANEL

USB A OUTPUT:

5V/2.4A



DC OUTPUT:

18V/1.1A



Image: Detail of the solar panel's output interface, showing the USB-A (5V/2.4A) and DC (18V/1.1A) ports for connecting various devices.

OPERATING INSTRUCTIONS

The MARBERO 21W solar panel is designed for user-friendly operation. Here are some key points for optimal performance:

- **Sunlight Exposure:** Ensure the solar panel receives maximum direct sunlight. Any clouds, suboptimal angles, or obstructions will affect the real output.
- **Cloudy Day Performance:** The panel maintains high efficiency even on cloudy days, providing 12W–16W of

power. Under full sunlight, it generates 18W–21W.

- **Smart Charging:** The built-in smart chip protects your devices from overcharging and overloading, ensuring safe and efficient power delivery.
- **Auto-Restart Function:** The solar panel can restart to charge your devices after high temperature conditions, enhancing convenience and security.
- **Device Compatibility:** Use the USB-A and DC ports to charge smartphones, tablets, power banks, speakers, and portable power stations. Note that this portable solar charger cannot store electricity and cannot charge laptops and power stations directly without a compatible power station.



Image: The solar panel deployed in an outdoor setting, connected to a portable power station, illustrating its use for charging devices during camping or other outdoor activities.

KEY FEATURES

The MARBERO 21W Portable Foldable Solar Panel offers several features designed for convenience and performance:

- **High Solar Conversion:** Equipped with high-efficiency solar arrays, offering a conversion rate of up to 23% for faster charging.
- **Durable & Versatile Design:** Crafted from high-quality, durable Oxford cloth with IP65 waterproofing, dust resistance, and high-temperature durability.
- **Portable & Lightweight:** With a folded size of 11.4" x 6.3" x 1.3" and weighing just 1.32 lbs, it's easy to carry and fits into most backpacks.
- **Attachment Holes:** Designed with 4 attachment holes and includes carabiners for convenient hanging.
- **Safety Protections:** Features over-temperature protection, low-voltage protection, short-circuit protection, and an auto-restart function.

SOLAR CONVERSION EFFICIENCY UP TO **23%**

90° TO THE SUN'S RAYS FOR BEST EFFICIENCY



DUST-PROOF



**ABRASION
RESISTANCE**



WATERPROOF

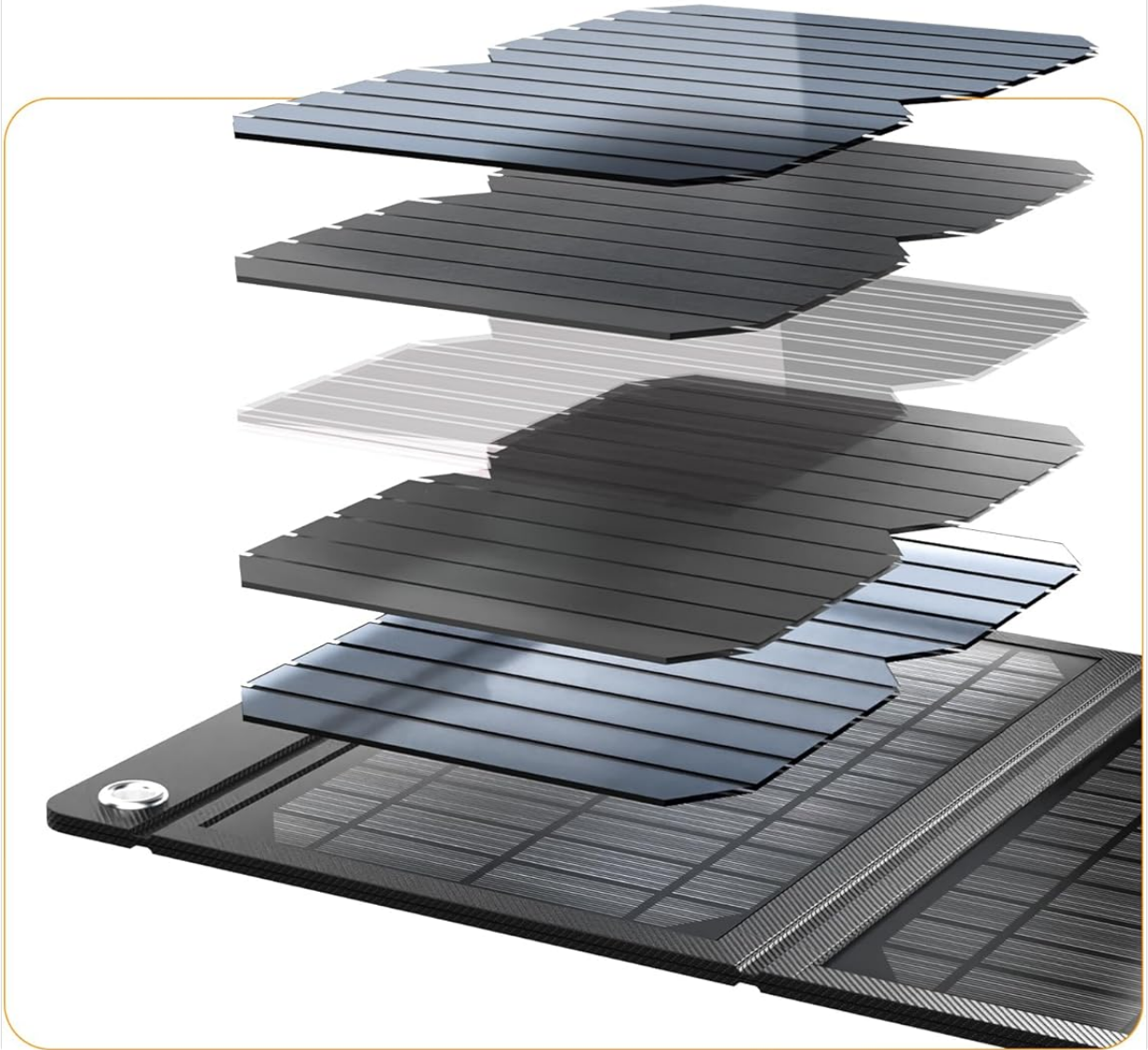


Image: An exploded view diagram showing the layers of the solar panel, emphasizing its 23% efficiency and protective features like dust-proof, abrasion resistance, and waterproofing.

Compact to Store and Carry

1.32lb

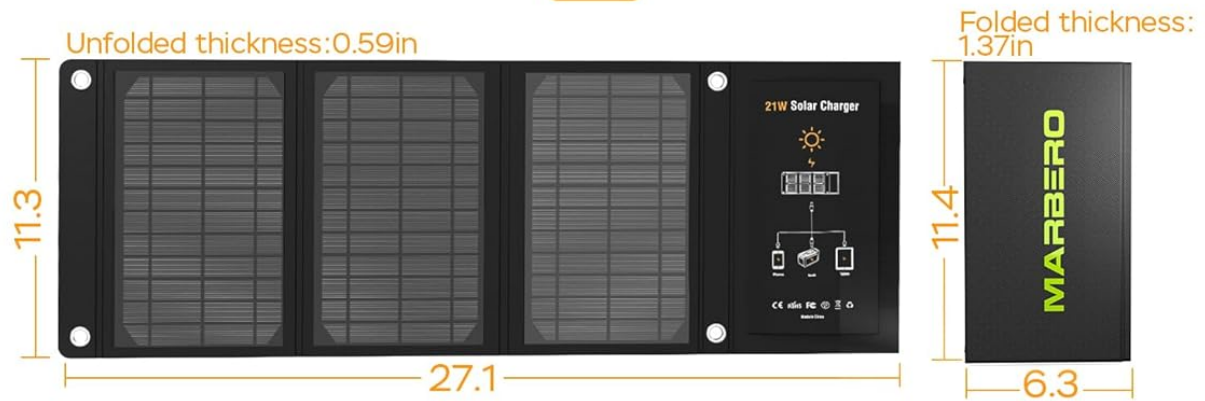


Image: The solar panel's dimensions in both folded and unfolded states, demonstrating its compact nature and ease of storage or transport in a bag.

Endless power for your **outdoors**



Image: A person hiking with the solar panel attached to their backpack, highlighting the included carabiners and the panel's suitability for on-the-go power during outdoor adventures.

SPECIFICATIONS

Specification	Detail
Model	ET-21W
Wattage	21W
Conversion Rate	Up to 23%
Folded Size	11.4" x 6.3" x 1.3" (29cm x 16cm x 3.3cm)
Unfolded Size	26.8" x 11.4" x 1.4" (68cm x 29cm x 3.5cm)
Weight	1.32 lbs (0.6 kg)
USB A Output	5V / 2.4A
DC Output	18V / 1.1A
Material	Monocrystalline Silicon & Waterproof Oxford Fabric
Waterproof Rating	IP65
Operational Temperature	-10~70°C / 14~158°F
Included Components	2 Carabiners, 3 Interchangeable DC Adapters, Bag, DC 5521 Cable, User Manual

MAINTENANCE

To ensure the longevity and optimal performance of your MARBERO 21W Portable Foldable Solar Panel, please follow these maintenance guidelines:

- **Cleaning:** Regularly wipe the solar panels with a soft, damp cloth to remove dust, dirt, or debris that may accumulate and reduce efficiency. Do not use harsh chemicals or abrasive materials.
- **Storage:** When not in use, fold the solar panel and store it in a cool, dry place away from direct sunlight and extreme temperatures.
- **Inspection:** Periodically inspect the cables, connectors, and the panel's fabric for any signs of wear, damage, or corrosion. Ensure all connections are secure before use.
- **Avoid Submersion:** While the panel is IP65 waterproof, it is designed to withstand splashes and light rain, not submersion in water.

TROUBLESHOOTING

If you encounter any issues with your solar panel, please refer to the following common troubleshooting tips:

- **No Charging Output:**
 - Ensure the solar panel is in direct sunlight and not shaded.
 - Check all cable connections to ensure they are secure and correctly inserted.
 - Verify that your device is compatible with the output specifications (5V/2.4A for USB-A, 18V/1.1A for DC).
 - Test with a different device or cable to rule out device/cable issues.
- **Low Charging Speed:**
 - Adjust the panel's angle to face the sun directly for maximum exposure.
 - Clean the solar panel surface to remove any dirt or dust.

- Cloudy or overcast weather will naturally reduce charging efficiency.
- Ensure the ambient temperature is within the operational range (-10~70°C).

- **Panel Overheating:**

- The panel has over-temperature protection and an auto-restart function. If it overheats, it may temporarily stop charging and resume once cooled.
- Ensure adequate airflow around the panel.

If these steps do not resolve the issue, please contact MARBERO customer service for further assistance.

WARRANTY AND SUPPORT

MARBERO offers a **12-month warranty** for your 21W Portable Foldable Solar Panel from the date of purchase.

This warranty covers manufacturing defects and issues arising from normal use.

For any product-related problems, technical support, or warranty claims, please do not hesitate to contact our customer service team. We are available **7 days a week, 24 hours a day** to assist you.

You can reach us via Amazon message or through the contact information provided in your product packaging.

Please have your purchase details and model number (ET-21W) ready when contacting support.