DOKIO DFSP

DOKIO Semi-Flexible Solar Panel

Model: DFSP - 100W 12V

1. Introduction and Product Overview

The DOKIO Semi-Flexible Solar Panel is designed for versatile off-grid power solutions, ideal for caravans, RVs, boats, campers, and trailers. Its lightweight and bendable design allows for easy installation on curved surfaces, providing efficient solar energy conversion.

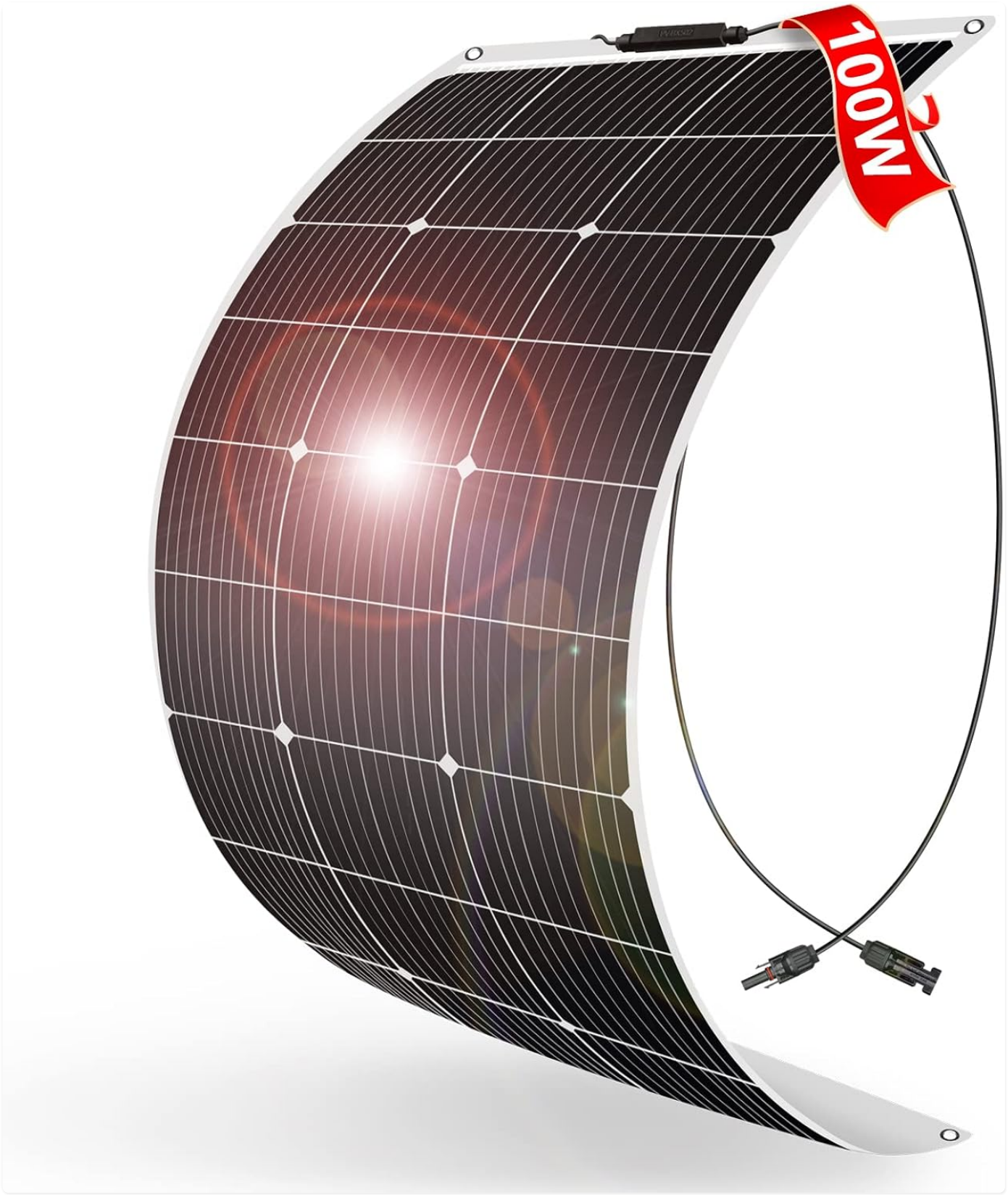


Image 1.1: DOKIO 100W Semi-Flexible Solar Panel, showcasing its bendable form and lightweight nature.

Key Features:

- **Lightweight Design:** Weighing only 2.3 lbs (1.05 kg) and 0.03 inches thin, it is significantly lighter than conventional solar panels, simplifying transport and handling.
- **Extreme Flexibility:** Can be curved up to a maximum 30-degree arc, making it suitable for installation on various curved surfaces.
- **High-Quality ETFE Material:** Utilizes ETFE material for superior light transmission and enhanced durability, offering anti-scratch properties.

- **High Efficiency:** Features Grade A+ solar cells with 22-23% efficiency, providing higher power output compared to average panels.
- **Highly Durable:** Engineered to withstand high wind-pressure, snow loads, and extreme temperatures. Includes a bypass diode for input overcurrent protection and reverse protection.
- **Easy Installation:** Equipped with four metal grommet mounting holes for quick and easy hanging with hooks, or can be securely attached using adhesive.

2. Safety Information

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

- Do not attempt to disassemble, repair, or modify the solar panel.
- Ensure all electrical connections are secure and properly insulated to prevent short circuits.
- Avoid stepping on or placing heavy objects on the solar panel.
- Handle the panel with care to prevent damage to the cells or frame.
- Keep the panel away from flammable materials and heat sources.
- Wear appropriate personal protective equipment (PPE) during installation, including gloves and eye protection.
- Disconnect the solar panel from any charge controller or battery before performing maintenance or cleaning.

3. Package Contents

Verify that all items are present and in good condition upon opening the package:

- 1 x DOKIO 100W Semi-Flexible Solar Panel
- 1 x Bag (for storage/transport)

4. Setup and Installation

The DOKIO solar panel offers flexible installation options due to its lightweight and bendable nature. Proper installation ensures optimal performance and longevity.

4.1 Mounting Options

- **Grommet Holes:** The panel features four metal grommet mounting holes, allowing it to be easily hung with hooks or secured using screws.
- **Adhesive Mounting:** For permanent installations on curved or flat surfaces, the panel can be securely attached using a suitable adhesive. Ensure the surface is clean and dry before application.

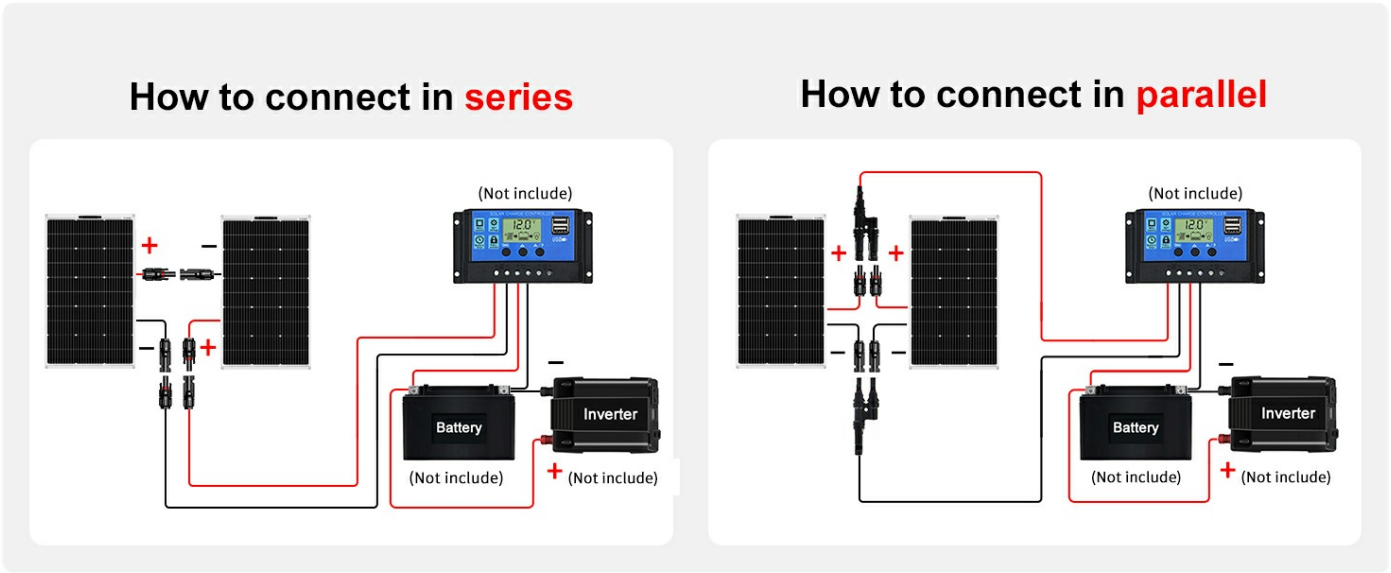


Image 4.1: Flexible installation options, including hanging with straps and adhesive application for secure mounting.

4.2 Electrical Connections

The panel comes with MC4 connectors for easy and secure wiring. It is designed for 12V systems and requires a compatible charge controller (not included) to regulate power to your battery bank.

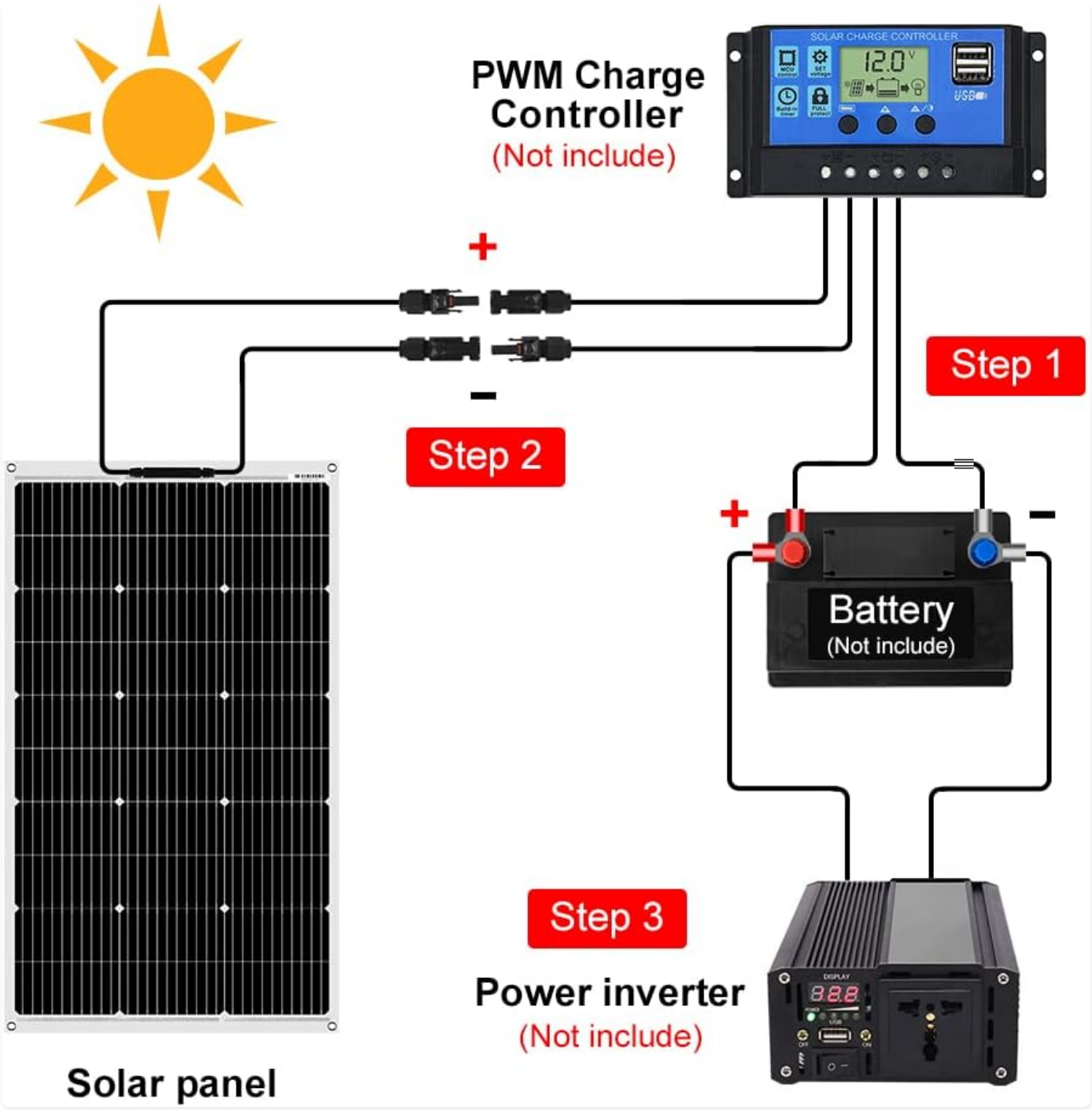


Image 4.2: Basic wiring diagram for connecting the solar panel to a charge controller, battery, and power inverter.

For multiple panels, you can connect them in series or parallel depending on your system's voltage and current requirements. Consult your charge controller's manual for specific wiring configurations.



Image 4.3: Detailed diagrams for connecting solar panels in series and parallel configurations.

5. Operating Instructions

Once installed and connected, the DOKIO solar panel will begin converting sunlight into electrical energy. Ensure the panel is exposed to direct sunlight for maximum output.

5.1 Maximizing Power Output

- **Optimal Orientation:** Position the solar panel to face the sun directly throughout the day. Adjust its angle periodically if possible to track the sun's movement.
- **Avoid Shading:** Even partial shading can significantly reduce the panel's output. Ensure no trees, buildings, or other obstructions cast shadows on the panel.
- **Clean Surface:** Keep the panel surface clean from dust, dirt, leaves, and snow. A clean surface allows for maximum light absorption.

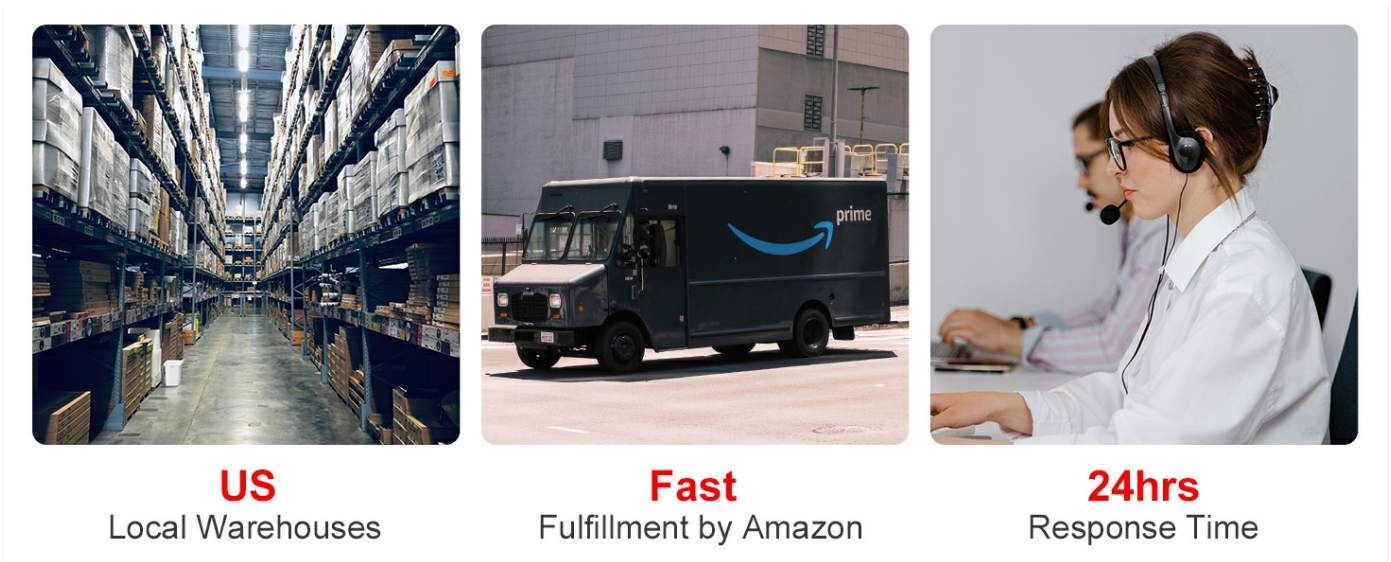


Image 5.1: DOKIO panels feature higher efficiency cells for improved power generation.

5.2 Typical Applications

The flexible and lightweight design makes this panel suitable for a variety of mobile and stationary applications:

- **RV & Camper:** Easily mounts on curved RV roofs to provide continuous power for onboard electronics.

- **Boats & Yachts:** Ideal for marine environments due to its flexibility and durability, powering navigation systems and cabin amenities.
- **Camping & Outdoor:** Portable and easy to set up for charging devices and small appliances during outdoor adventures.
- **Trailers & Sheds:** Provides reliable power for remote structures without access to grid electricity.



Image 5.2: The DOKIO solar panel is versatile for use on RVs, yachts, camping setups, and vehicles.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your DOKIO solar panel.

6.1 Cleaning

Clean the surface of the solar panel periodically to remove any dirt, dust, or debris that may accumulate and reduce efficiency. Use a soft cloth and mild, non-abrasive cleaning solution with water. Avoid harsh chemicals or abrasive

materials that could scratch the ETFE surface.



Image 6.1: The panel's IP67 waterproof rating ensures durability against water exposure.

6.2 Inspection

Regularly inspect the panel for any signs of physical damage, such as cracks, delamination, or frayed cables. Check the MC4 connectors for corrosion or loose connections. Address any issues promptly to prevent further damage or safety hazards.
The panel's robust construction, including ETFE material and bypass diodes, contributes to its high durability against environmental factors.

7. Troubleshooting

If you experience issues with your DOKIO solar panel, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Low or No Power Output	Shading on the panel surface Dirty panel surface Incorrect wiring or loose connections Insufficient sunlight Faulty charge controller or battery	Remove any shading obstructions. Clean the panel surface thoroughly. Check all MC4 connections and wiring for proper polarity and tightness. Ensure the panel is in direct sunlight. Test the charge controller and battery independently.
Panel Overheating	Poor ventilation behind the panel Excessive ambient temperature	Ensure adequate airflow around the panel, especially if mounted flat. Consider temporary shading or repositioning during extreme heat.

Problem	Possible Cause	Solution
Physical Damage (e.g., peeling)	Improper handling or installation Extreme environmental exposure	Handle the panel with care during transport and installation. Avoid sharp bends beyond 30 degrees. Ensure proper mounting to prevent stress points.

8. Specifications

Attribute	Detail
Brand	DOKIO
Model Number	DFSP
Material	Metal (Frame/Components), ETFE (Surface)
Product Dimensions	38.4"L x 22.2"W x 0.04"H (97.5cm L x 56.5cm W x 0.1cm H)
Item Weight	2.3 Pounds (1.05 kg)
Efficiency	Ultra Efficiency (22-23%)
Connector Type	MC4
Included Components	Bag
Maximum Voltage	12 Volts
Maximum Power	100 Watts
UPC	682559946444
Country of Origin	China

9. Warranty and Support

9.1 Warranty Information

The DOKIO Semi-Flexible Solar Panel comes with a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, misuse, accidents, or unauthorized modifications.

9.2 Customer Support

For technical assistance, warranty claims, or any questions regarding your DOKIO solar panel, please contact the seller or manufacturer directly. Have your purchase receipt and product model number (DFSP) ready when contacting support. Manufacturer: DOKIO

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question