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› DOKIO 100W 18V Monocrystalline Solar Panel User Manual

DOKIO DSP-100

DOKIO 100W 18V Monocrystalline Solar Panel User Manual

Model: DSP-100 | Brand: DOKIO

INTRODUCTION

This manual provides essential information for the safe and efficient use of your DOKIO 100W 18V Monocrystalline Solar Panel. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of your solar panel.

The DOKIO 100W 18V solar panel is designed for high efficiency power generation, suitable for various applications including 12V/24V battery charging for on-grid, off-grid, and hybrid power systems in homes, gardens, RVs, and boats.

PRODUCT FEATURES

- Easy to wire and install with pre-drilled holes for fast mounting and securing.
- Waterproof design with a tough, sealed aluminum frame, suitable for all weather conditions.
- High module conversion efficiency, with each panel thoroughly tested for quality standards.
- Equipped with bypass diodes to minimize power drop caused by shade and ensure excellent performance in low-light environments.
- Multi-protection features, including bypass diodes to protect solar cells from overheating.

SETUP AND INSTALLATION

The DOKIO 100W solar panel is designed for straightforward installation. Ensure you have all necessary components before beginning.

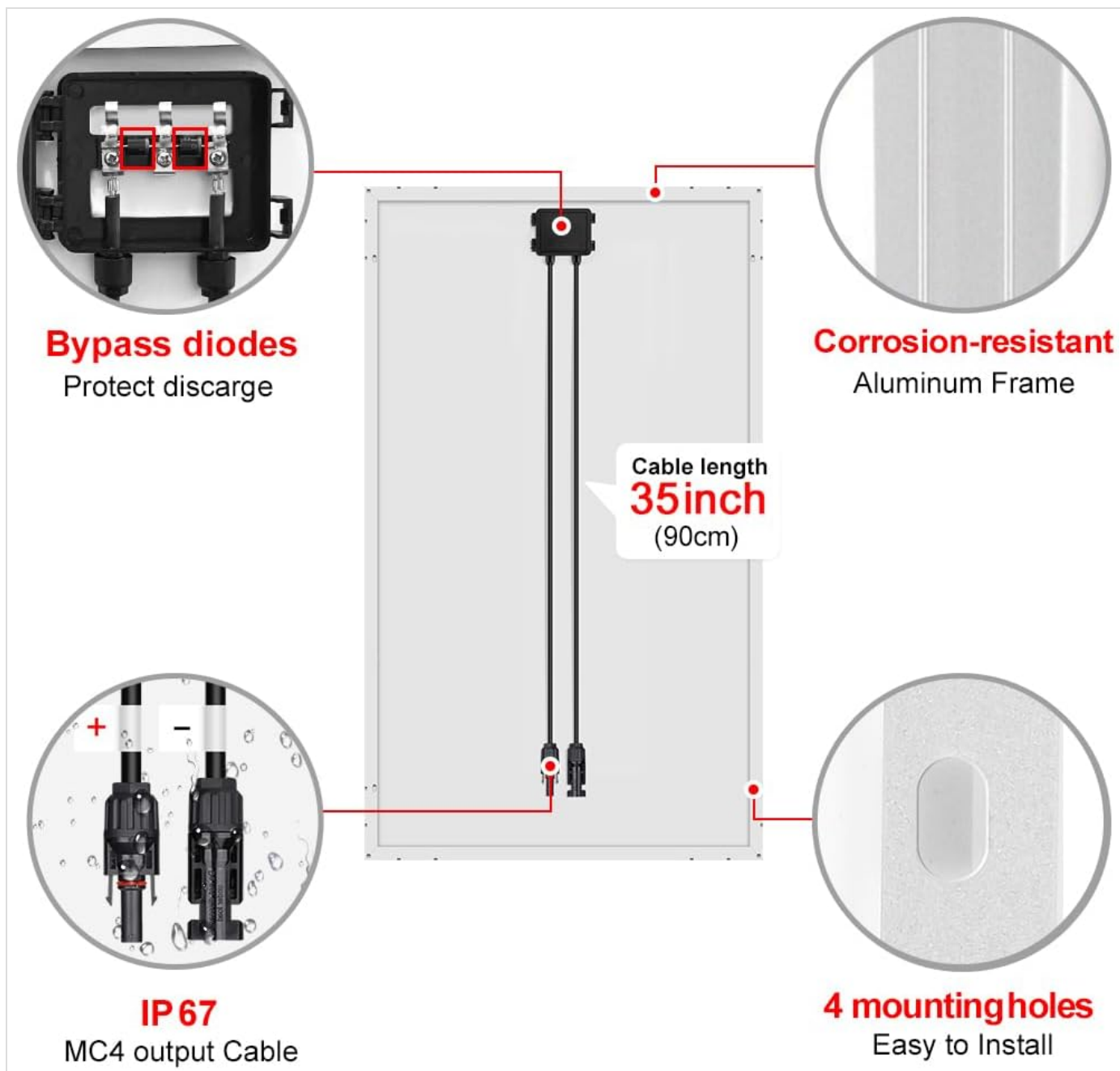


Figure 1: Exploded view of the DOKIO solar panel construction, highlighting its durable layers including Grade A+ monocrystalline cells.

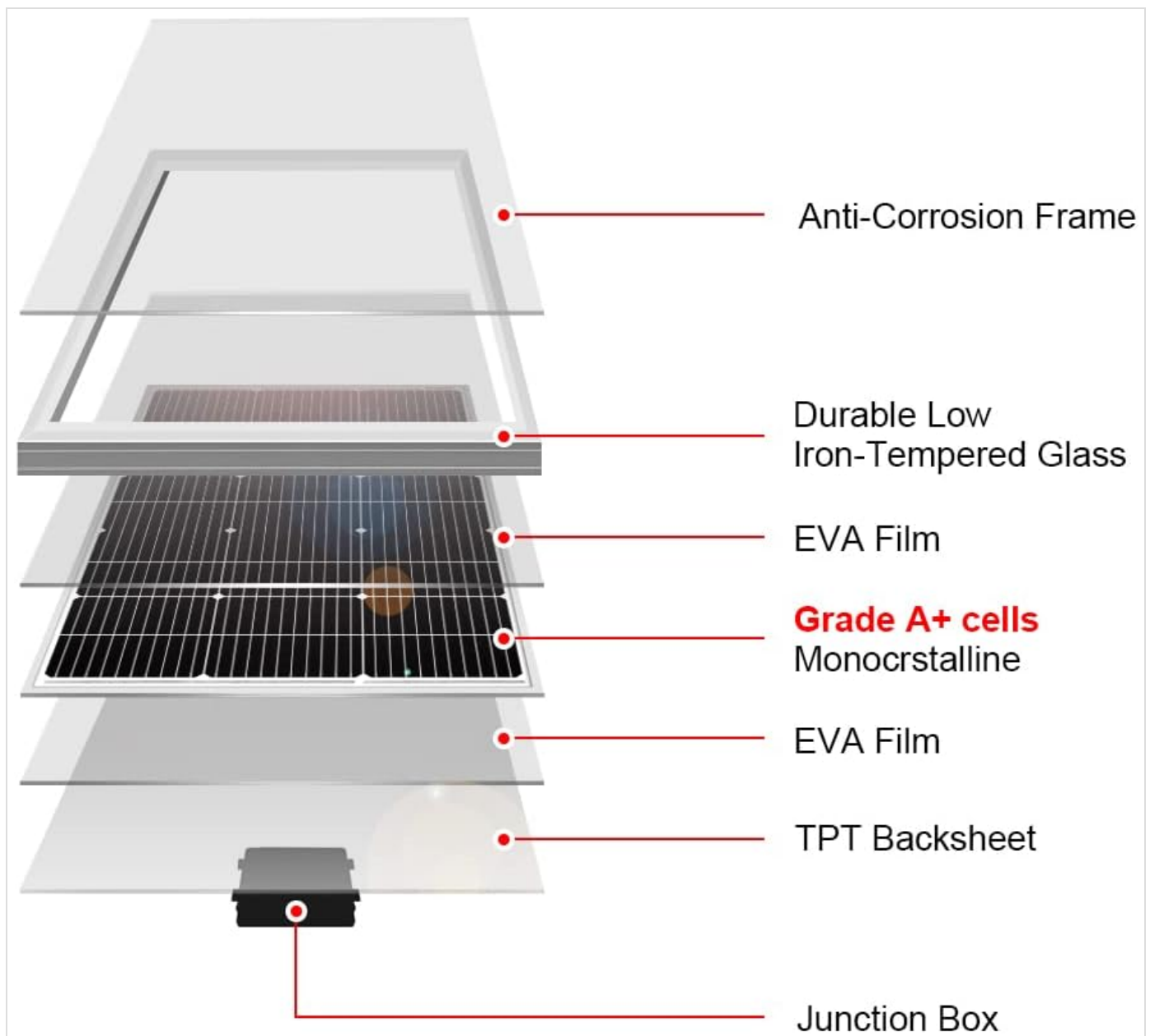


Figure 2: Key features for installation, including the junction box with bypass diodes, corrosion-resistant frame, IP67 rated MC4 cables (35 inches/90cm), and pre-drilled mounting holes.

Wiring Connections

The panel comes with MC4 connectors for easy and secure wiring. For optimal performance and safety, it is recommended to use a PWM Charge Controller (not included) and connect to a 12V battery system.

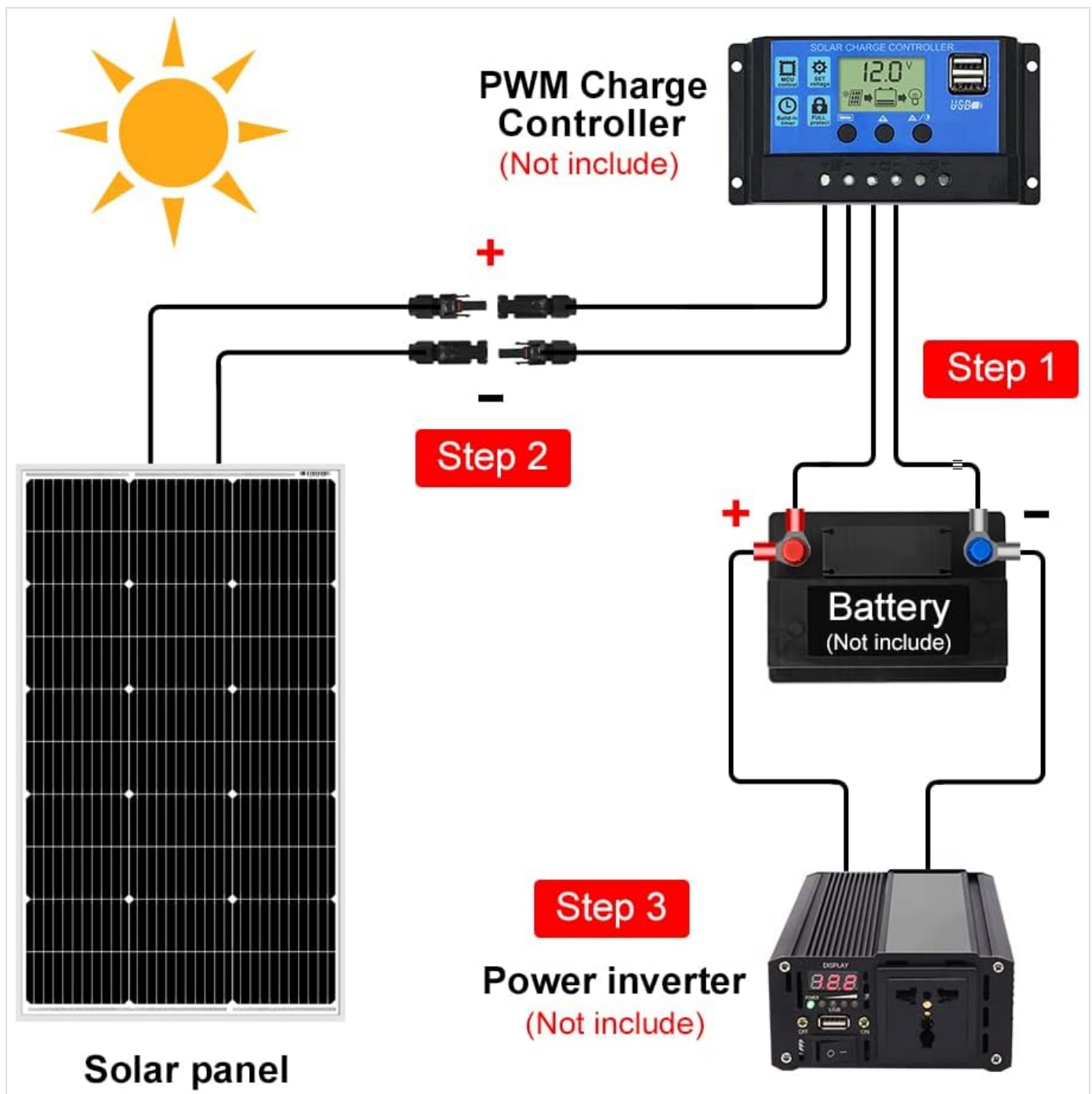


Figure 3: Basic wiring diagram for connecting the solar panel to a charge controller, battery, and inverter for a complete power system.

Ensure all connections are tight and secure. Consult a qualified electrician if you are unsure about any wiring procedures.

Mounting

The panel features pre-drilled holes for easy mounting. It can be installed on various surfaces including RVs, boats, and rooftops. Ensure the mounting surface is stable and can support the weight of the panel.



Figure 4: Examples of solar panel applications on houses, RVs, for camping setups, and on yachts.

OPERATING INSTRUCTIONS

Once installed and wired correctly, your DOKIO solar panel will begin generating electricity when exposed to sunlight. The efficiency of power generation depends on several factors:

- **Sunlight Intensity:** Direct, unobstructed sunlight provides the highest output.
- **Panel Angle:** Orient the panel towards the sun for maximum exposure.
- **Temperature:** While designed for various temperatures, extreme heat can slightly reduce efficiency.
- **Shading:** Even partial shading can significantly reduce power output due to bypass diodes.

The panel is built to withstand various weather conditions, including extreme cold (-40°F) and heat (185°F), and can endure significant snow and wind loads (5400P snow, 2400P wind).



Figure 5: The DOKIO solar panel is engineered to endure diverse weather conditions, from extreme cold to high temperatures and strong winds.

For monitoring power output and battery charge status, refer to the instructions provided with your charge controller.

MAINTENANCE

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

- **Cleaning:** Periodically clean the surface of the solar panel with a soft cloth and water to remove dust, dirt, and debris. Avoid abrasive materials or harsh chemicals.
- **Inspection:** Regularly inspect the panel for any physical damage, such as cracks in the glass, loose frames, or damaged cables. Check connections for corrosion or looseness.
- **Shading:** Ensure no new obstructions (e.g., growing trees, new structures) are casting shadows on the panel.

The panel's IP67 waterproof rating ensures protection against dust and water immersion, making it suitable for outdoor use.



Figure 6: The DOKIO solar panel features an IP67 waterproof rating, ensuring durability and performance in wet conditions.

TROUBLESHOOTING

If your solar panel system is not performing as expected, consider the following common issues:

- **No Power Output:**

- Check all connections (MC4 connectors, charge controller, battery) for looseness or corrosion.
- Ensure the panel is receiving direct sunlight and is not shaded.
- Verify the charge controller is functioning correctly and is compatible with your battery type.

- **Low Power Output:**

- Clean the panel surface to remove any dirt, dust, or debris that might be blocking sunlight.
- Adjust the panel's angle to optimize its exposure to the sun.
- Check for partial shading from nearby objects.
- Ensure the battery is not fully charged, as the charge controller will reduce current flow to prevent overcharging.

- **Panel Overheating:**

- While panels can get warm, excessive heat might indicate poor ventilation. Ensure adequate airflow around the back of the panel.
- Bypass diodes are designed to prevent overheating due to shading; if a cell is consistently hot, it might indicate a diode issue, requiring professional inspection.

For persistent issues, contact DOKIO customer support.

SPECIFICATIONS

Feature	Detail
Brand	DOKIO
Model Number	DSP-100
Material	Monocrystalline Silicon
Maximum Power (Pmax)	100 Watts

Feature	Detail
Maximum Power Voltage (Vmp)	18 Volts
Maximum Power Current (Imp)	5.56 Amps
Open Circuit Voltage (Voc)	20.50 Volts
Short Circuit Current (Isc)	5.80 Amps
Product Dimensions	38.2"L x 22.2"W x 0.98"H (97cm L x 56.5cm W x 2.5cm H)
Item Weight	2.29 pounds (1.04 Kilograms)
Efficiency	High Efficiency
Connector Type	MC4
Waterproof Rating	IP67
UPC	682228489302

Note: Specifications are subject to change without notice.

WARRANTY AND SUPPORT

Warranty Information

The DOKIO 100W 18V Solar Panel comes with a **25-year transferable power output warranty** and a **5-year material and workmanship warranty**. Please retain your proof of purchase for warranty claims.
For detailed warranty terms and conditions, please refer to the official DOKIO website or contact customer support.

Customer Support

For any questions, technical assistance, or warranty inquiries, please contact DOKIO customer support:

- Visit the official DOKIO Store: [DOKIO Store on Amazon](#)
- Refer to the product page for additional contact methods.

DOKIO aims to provide 24-hour response time for customer inquiries.

OFFICIAL PRODUCT VIDEOS

Watch these official videos for visual guidance on the DOKIO solar panel.
No official seller videos are available for this product at this time.

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

you@example.com

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