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› SOLPERK 100W Monocrystalline Solar Panel User Manual

SOLPERK 100W Single Panel

SOLPERK 100W Monocrystalline Solar Panel User Manual

Model: 100W Single Panel

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your SOLPERK 100W Monocrystalline Solar Panel. Please read this manual thoroughly before installation and operation. Retain this manual for future reference.



Image: SOLPERK 100W Monocrystalline Solar Panel in use, providing power for RVs in an outdoor setting.

2. SAFETY INFORMATION

Always prioritize safety during installation and operation. Failure to follow these instructions may result in injury or damage to the product.

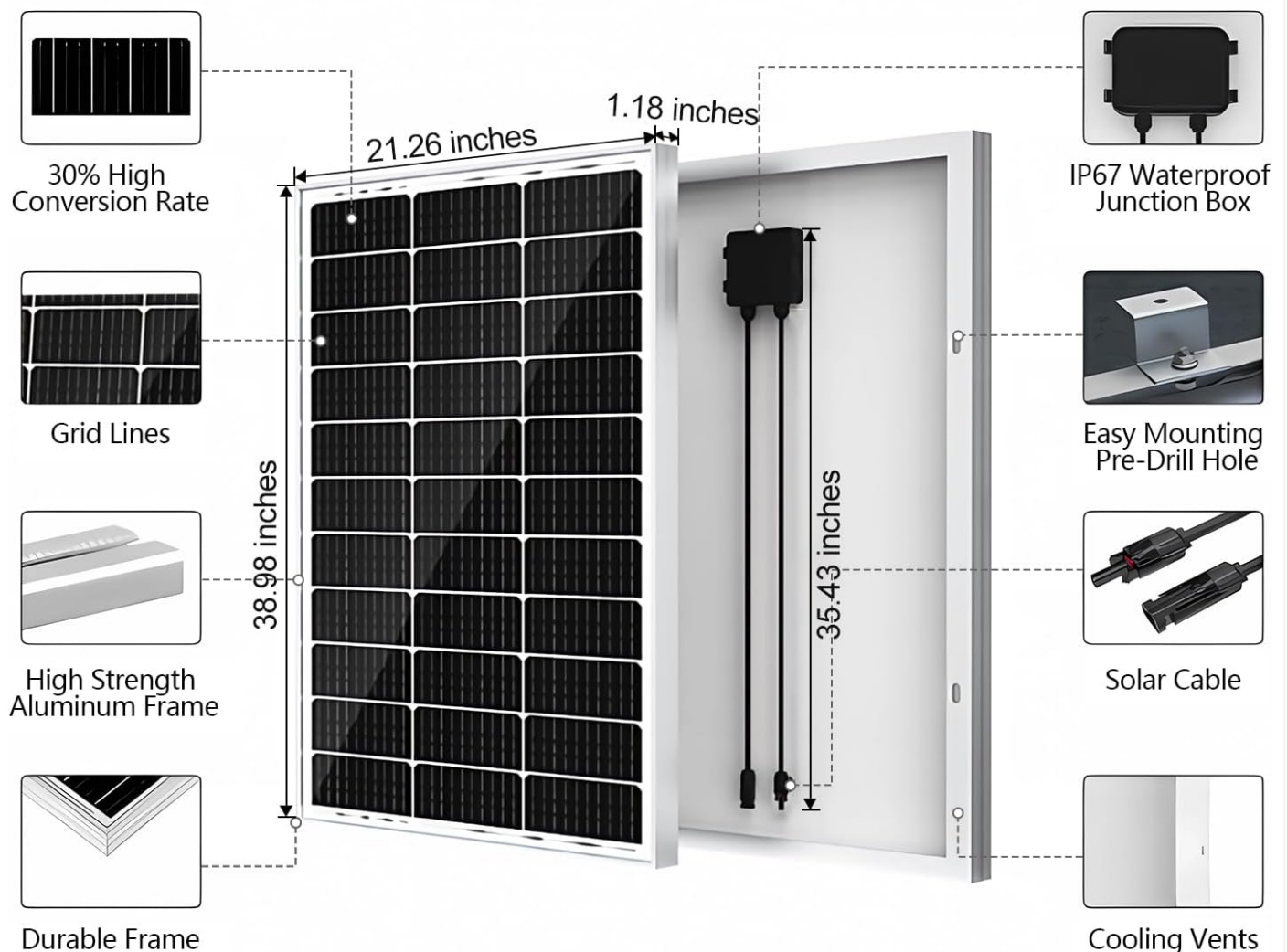
- Do not attempt to disassemble or modify the solar panel.
- Avoid touching the electrical terminals with bare hands. Use insulated tools.

- Ensure all wiring connections are secure and properly insulated to prevent electrical shock.
- Wear appropriate personal protective equipment (PPE), including gloves and eye protection, during installation.
- Do not step on or place heavy objects on the solar panel.
- Keep the solar panel away from flammable gases or liquids.
- In case of damage, contact customer support; do not attempt repairs yourself.

3. PRODUCT OVERVIEW AND COMPONENTS

The SOLPERK 100W Monocrystalline Solar Panel is designed for high efficiency and durability in various off-grid applications. It features a robust construction to withstand diverse environmental conditions.

SOLPERK 100W SOLAR PANEL



Weight: 12.2 lb

Image: Detailed diagram showing the dimensions (38.98 x 21.26 x 1.18 inches, 12.2 lb) and key components of the SOLPERK 100W solar panel, including the IP67 waterproof junction box, pre-drill holes, and solar cables.

Exceptional **25 Years** Service Life

Built to Last & Stronger than Ever

Low-iron Tempered Glass

①

EVA Film

②

Monocrystalline Solar Cell

③

EVA Film

④

Rust-proof Aluminum Frame

⑤

TPT Backsheet

⑥

100% Tested Premium Material

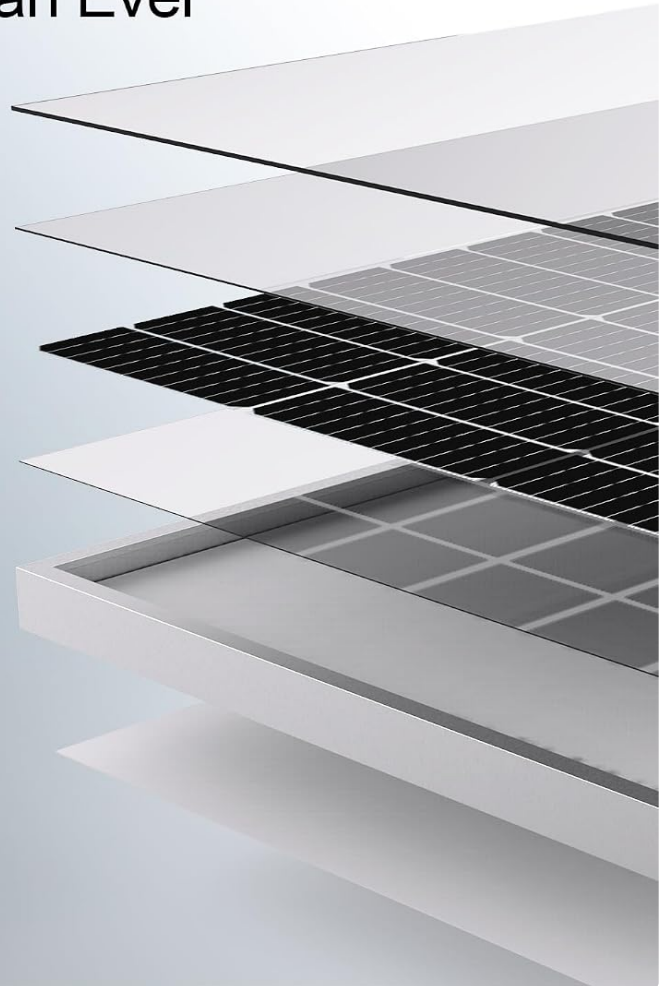


Image: Exploded view illustrating the layers of the solar panel: Low-iron Tempered Glass, EVA Film, Monocrystalline Solar Cell, EVA Film, Rust-proof Aluminum Frame, and TPT Backsheet, highlighting its durable construction for a 25-year service life.

4. INSTALLATION

The SOLPERK 100W solar panel is designed for easy installation with pre-drilled holes and solar connector leads.

4.1 Mounting Location

- Choose a location that receives maximum direct sunlight throughout the day, free from shadows.
- Ensure the mounting surface is sturdy enough to support the weight of the panel and withstand wind loads.
- Consider the angle of the panel for optimal sun exposure based on your geographical location and season.

4.2 Wiring Connections

- Connect the positive (+) and negative (-) solar connector leads from the panel to your charge controller.

- Ensure correct polarity to prevent damage to the panel or connected equipment.
- Refer to your charge controller's manual for specific wiring instructions.
- For multiple panels, consult a qualified electrician for parallel or series connection diagrams.

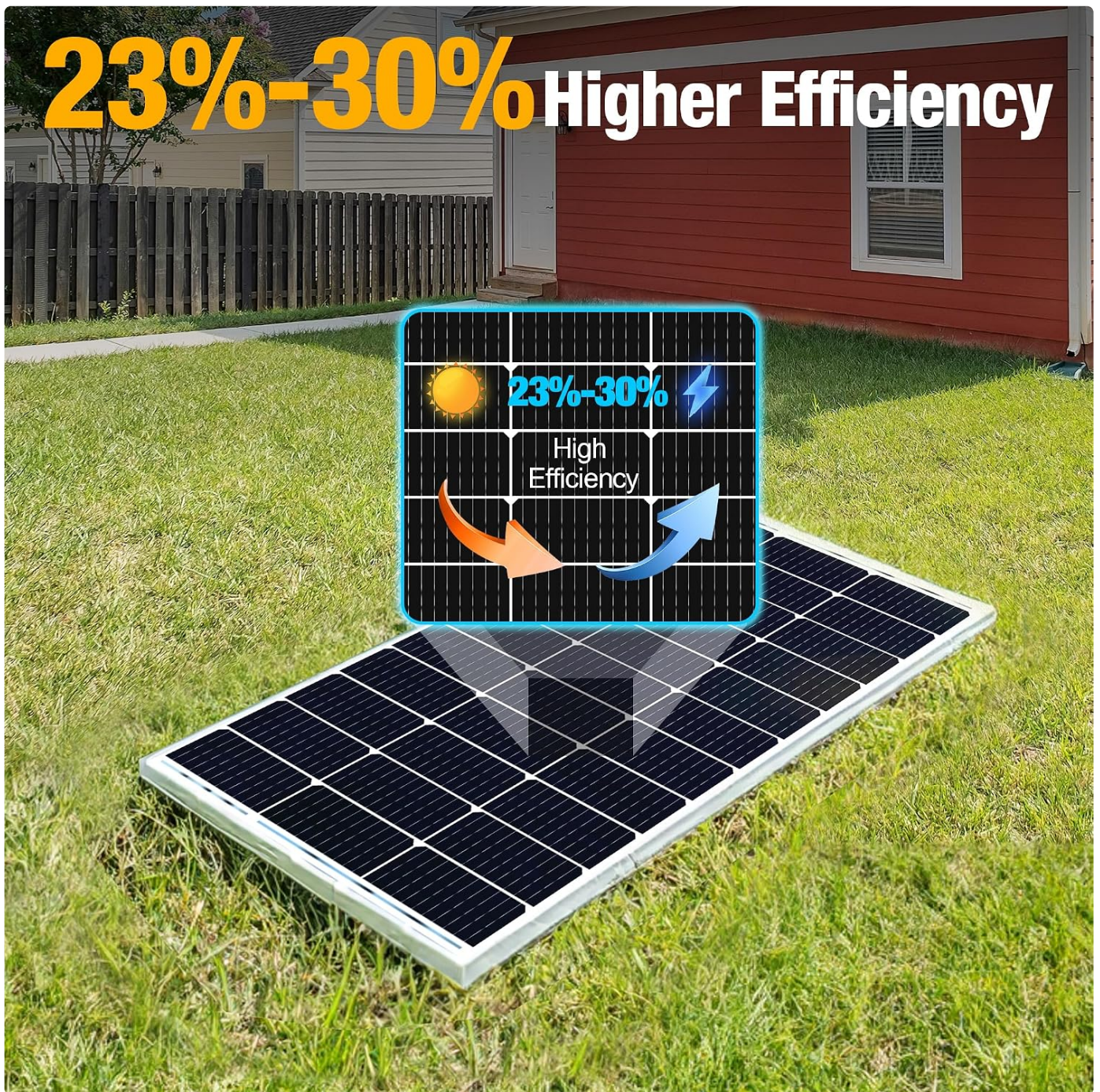


Image: The SOLPERK solar panel laid on grass, illustrating its high efficiency in converting sunlight to electricity.

IP67 Waterproof

Weather-resistant and Outdoor-friendly Design



Image: A SOLPERK solar panel installed on an RV, demonstrating its resilience and functionality in cold, snowy conditions.

5. OPERATING THE SOLAR PANEL

The SOLPERK 100W Monocrystalline Solar Panel provides efficient power generation for various off-grid applications.

5.1 Power Generation

- The panel has an excellent conversion efficiency of up to 30%.
- Under average conditions (4 hours of sunlight per day), it can provide approximately 500Wh of electricity daily.
- Actual power output may vary based on sunlight intensity, temperature, and panel orientation.

5.2 Applications

This 12V solar panel is suitable for a wide range of off-grid scenarios:

- RVs and campers
- Boats and marine applications
- Cabins and remote homes
- Camping and outdoor activities
- Rooftop installations

It is compatible with various charge controllers and 12V battery types, including lead-acid, lithium-ion, and nickel cadmium.

500WH OF POWER PER DAY



In 5-6 hours of direct sunlight

Image: An RV equipped with multiple SOLPERK solar panels on its roof, illustrating the potential for generating approximately 500Wh of power per day in 5-6 hours of direct sunlight.



Image: A collage showcasing various applications of the SOLPERK solar panel, including on an RV, a boat, for camping setups, and on a home rooftop, emphasizing its versatility for off-grid power.

6. MAINTENANCE

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

6.1 Cleaning

- Clean the surface of the solar panel periodically to remove dust, dirt, leaves, or other debris that may reduce efficiency.
- Use a soft cloth and mild, non-abrasive cleaning solution with water.
- Avoid harsh chemicals or abrasive materials that could scratch the glass surface.
- Clean during cooler parts of the day to prevent thermal shock to the panel.

6.2 Inspection

- Periodically inspect the panel for any physical damage, such as cracks in the glass or frame.
- Check all wiring and connections for signs of wear, corrosion, or loose contacts.
- Ensure the mounting hardware is secure.

6.3 Durability and Weather Resistance

The SOLPERK solar panel is built with a durable aluminum alloy frame and shatter-resistant tempered glass, offering IP67 protection against dust and water ingress. It can withstand extreme temperatures from -40°F to 185°F.

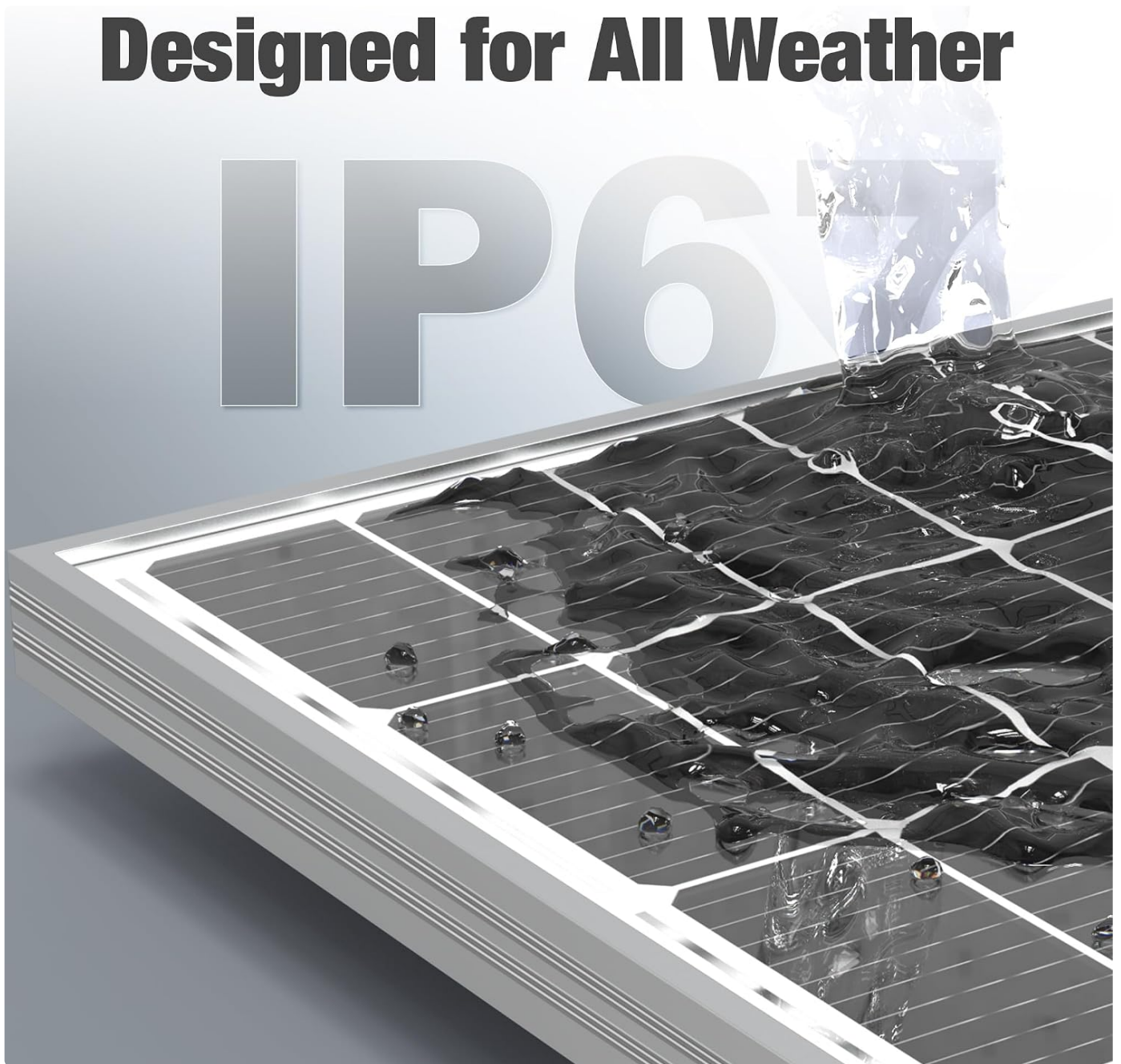


Image: The SOLPERK solar panel with water droplets on its surface, highlighting its IP67 rating and ability to withstand all weather conditions.



Image: Close-up view of the IP67 waterproof junction box and solar connectors, emphasizing the weather-resistant design for outdoor use.

7. TROUBLESHOOTING

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

- **Low Power Output:** Check for shading on the panel. Ensure the panel surface is clean. Verify all connections are secure. Check the charge controller for error codes or proper operation.
- **No Power Output:** Confirm all wiring is correctly connected and polarity is observed. Test the voltage output directly from the panel (under sunlight) to ensure it is generating power. Check the charge controller and battery connections.
- **Loose Connections:** Periodically inspect all electrical connections for tightness and corrosion. Loose connections can lead to power loss or overheating.

If problems persist after following these steps, please contact SOLPERK customer support.

8. SPECIFICATIONS

Detailed technical specifications for the SOLPERK 100W Monocrystalline Solar Panel:

Feature	Specification
Brand	SOLPERK
Model Number	100W Single Panel
Maximum Power	100 Watts
Maximum Voltage	12 Volts DC
Output Voltage	12 Volts DC
Efficiency	High Efficiency (up to 30% conversion)

Feature	Specification
Material Type	Monocrystalline Silicon, Tempered Glass, Aluminum Alloy
Upper Temperature Rating	185 °F (85 °C)
Lower Temperature Rating	-40 °F (-40 °C)
Included Components	100W Solar Panel
Special Features	High Efficiency, Versatile, Durable, Easy to Install

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The SOLPERK 100W Monocrystalline Solar Panel is backed by a **25-year power output assurance** and a **5-year material and workmanship warranty**. This warranty covers defects in materials and manufacturing under normal use and service conditions. Please retain your proof of purchase for warranty claims.

9.2 Customer Support

For any inquiries, technical assistance, or warranty claims, our 24/7 customer service team is available to help. Please visit the official SOLPERK website or refer to your purchase documentation for contact details.



Image: A customer service representative ready to assist, symbolizing SOLPERK's commitment to 24/7 support.

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