

Renogy Solar Panel 200 Watt N-Type

Renogy 200 Watt N-Type Solar Panel Instruction Manual

Model: Solar Panel 200 Watt N-Type

Brand: Renogy

INTRODUCTION

This manual provides essential information for the safe and efficient use of your Renogy 200 Watt N-Type Solar Panel. Please read these instructions thoroughly before installation and operation to ensure optimal performance and longevity of your product.



Built for Extreme Durability

Crafted with a durable aluminum alloy frame, it withstands bumps, vibrations, and tough road conditions for long-lasting durability.

Image: Overview of Renogy N-Type Solar Panel features, including 16 busbars, high-temperature performance, durable aluminum frame, 25% cell efficiency, 10-year commitment, reduced size and weight, and IP67 waterproof rating.

KEY FEATURES

- **High Efficiency:** Features 25% cell efficiency with advanced 16BB cell technology for enhanced energy conversion and reduced microcrack risks.
- **Compact and Lightweight:** Approximately 7.5% smaller and 11.7% lighter than previous models, ideal for space-constrained applications like Class B vans.
- **Dual System Compatibility:** Compatible with both 12V and 24V battery systems, offering flexible installation options.
- **Excellent High-Temperature Performance:** Low temperature coefficient ensures stable performance in hot environments.
- **Durable Construction:** Crafted with low-iron tempered glass, a durable aluminum frame, and IP67-rated solar connectors and IP65 junction box for long-term reliability.
- **Low Degradation:** Exhibits low degradation rates ($\leq 1\%$ in the first year, $\leq 0.4\%$ annually thereafter) for sustained power output over its lifespan.

Perfect Fit for Class B Van Roofs

A seamless, edge-to-edge fit with zero wasted space

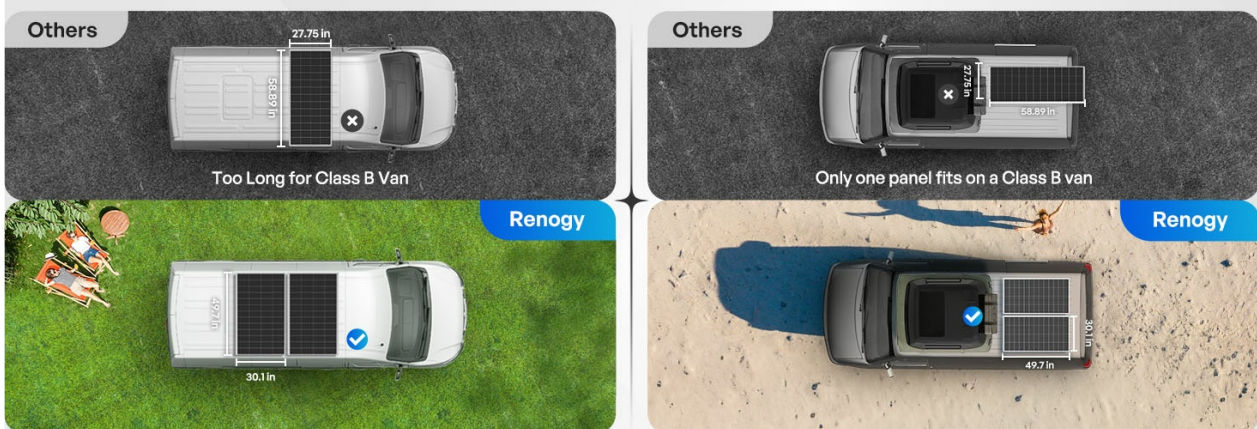


Image: Illustration of N-Type panel technology, showing 25% cell efficiency and the tunneling layer for improved electron transport and collection performance.



Image: Performance comparison of N-Type and P-Type PERC panels in extreme temperatures, demonstrating the N-Type's superior output stability.

SETUP AND INSTALLATION

The Renogy 200 Watt N-Type Solar Panel is designed for easy integration into various systems, particularly suitable for Class B vans, RVs, marine applications, and off-grid homes.

Mounting

The panel's compact size (49.7"L x 30.1"W x 1.2"H) and lighter weight (23.4 lbs) facilitate installation in tight spaces. The durable aluminum frame with enhanced corner protection ensures secure mounting.

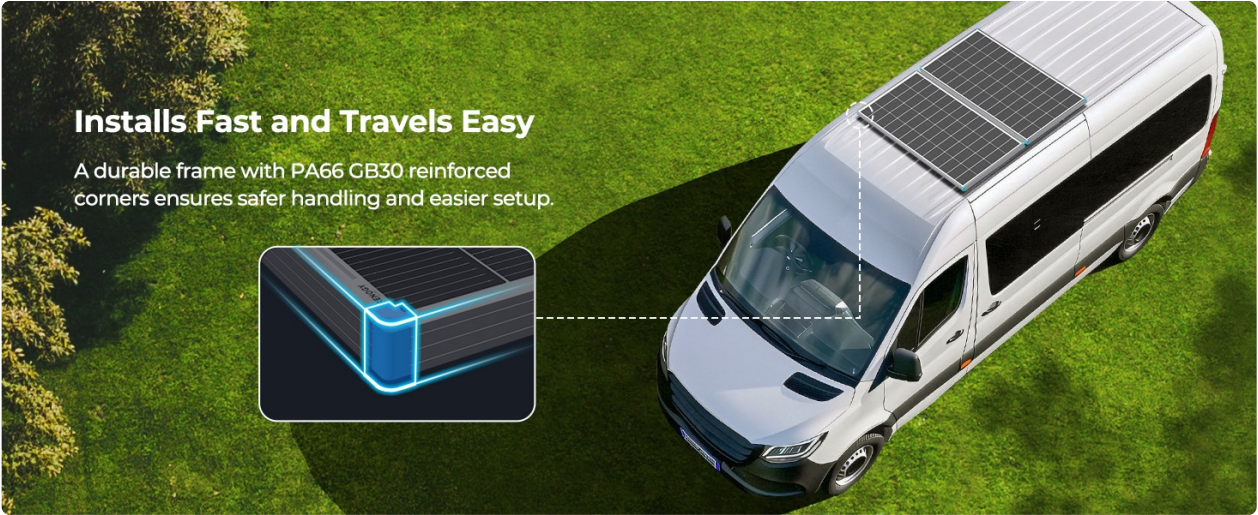


Image: Visual comparison demonstrating the optimal fit of Renogy N-Type panels on Class B van roofs, maximizing space utilization.

Wiring and Connections

The panel comes equipped with MC4 connectors for easy connection to a solar charge controller. For power stations with an XT60 input, an appropriate adapter cable (MC4 to XT60) is required.

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Video: An overview of the Renogy 16BB N-Type 200 Watt 24V Solar Panel, showcasing its features and potential applications.

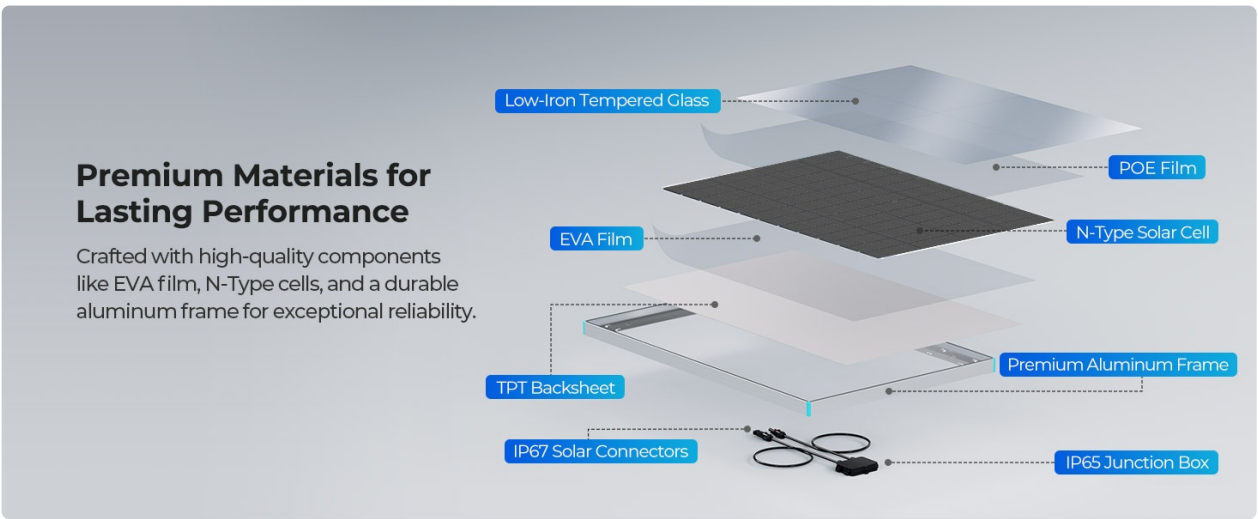


Image: Illustration of the panel's dual system compatibility, allowing seamless integration with both 12V and 24V battery setups.

OPERATING INSTRUCTIONS

Optimal Placement

For maximum power generation, position the solar panel in a location that receives direct sunlight throughout the day. Avoid shaded areas as even partial shading can significantly reduce output.

Power Monitoring

If connected to a compatible power station or charge controller with a display, monitor the input wattage to ensure the panel is generating power effectively. Adjust the panel's angle or position as needed to optimize sunlight exposure.

MAINTENANCE

Cleaning

Regularly clean the surface of the solar panel to remove dust, dirt, leaves, or other debris that may accumulate and obstruct sunlight. Use a soft cloth and water; avoid abrasive materials or harsh chemicals.

Connections

Periodically inspect all electrical connections, including MC4 connectors and wiring to the charge controller/power station, to ensure they are secure and free from corrosion or damage.

Long-Term Storage

For periods of extended non-use (e.g., 1-3 months), the panels can generally remain connected. However, for longer durations (3-9 months), it is recommended to disconnect the batteries and maintain an approximate 80% charge on them. A trickle charge may be beneficial to maintain battery health during prolonged storage.

TROUBLESHOOTING

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

- **No Power Output:** Check all connections for proper seating and ensure there is no damage to cables or connectors. Verify the panel is receiving direct sunlight and is not shaded.
- **Low Power Output:** Clean the panel surface. Check for partial shading. Ensure the panel is angled optimally towards the sun. Verify the charge controller settings are correct for your battery type.
- **System Incompatibility:** Ensure your power station or charge controller is compatible with the panel's voltage and current specifications.

SPECIFICATIONS

Attribute	Value
Brand	Renogy
Material	Aluminum, Polycrystalline Silicon, Tempered Glass
Product Dimensions	49.7"L x 30.1"W x 1.2"H
Item Weight	23.4 Pounds
Efficiency	25% High Efficiency
Included Components	One Solar Panel
AC Adapter Current	6.85 Amps
Maximum Voltage	37.44 Volts
Maximum Power	200 Watts
UPC	840315233720
Item model number	Solar Panel 200 Watt N-Type

WARRANTY AND SUPPORT

Warranty Information

Renogy offers a 10-year commitment on output and material/workmanship for this solar panel, along with a 25-year 80% output guarantee for lasting performance.

Customer Support

For any technical assistance or inquiries, Renogy provides professional technical guidance and prompt responses. Local warehouses in the US ensure efficient service.



Images: Renogy's commitment to customer support, including 24-hour response, local US warehouses, and professional

