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› DEWIN 800W Solar Grid Tie Micro Inverter (Model BDAQRYQEY) User Manual

DEWIN BDAQRYQEY

DEWIN 800W Solar Grid Tie Micro Inverter

Model: BDAQRYQEY

1. INTRODUCTION

Thank you for choosing the DEWIN 800W Solar Grid Tie Micro Inverter. This manual provides essential information for the safe installation, operation, and maintenance of your micro inverter. Please read this manual thoroughly before installation and keep it for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions to reduce the risk of electric shock, fire, or injury:

- Installation must be performed by qualified personnel in accordance with local electrical codes and standards.
- Do not attempt to repair or disassemble the inverter. Contact qualified service personnel.
- Ensure all connections are secure and properly insulated to prevent electrical hazards.
- Disconnect all power sources before performing any maintenance or installation procedures.
- The inverter can become hot during operation. Avoid direct contact.
- Ensure proper ventilation around the inverter to prevent overheating.

3. PRODUCT OVERVIEW

3.1 Key Features

- **Smart Microinverter:** Complete photovoltaic optimization system with Maximum Power Point Tracking (MPPT) for increased energy generation.
- **Intelligent Design:** Built-in 2.4 GHz WiFi module for monitoring operating status, AC voltage, AC frequency, AC current, real-time power generation, and total power generation via a dedicated mobile application.
- **IP65 Waterproof:** High-quality microprocessor and independent chip with an IP65 waterproof rating, ensuring stable and reliable operation with consistent output.
- **High Efficiency:** Multi-tooth heat dissipation design expands the contact surface of internal chips, accelerating heat dissipation to maintain normal operating temperatures and ensure higher power generation efficiency.
- **Scalable Use:** Can be stacked in series to meet higher power requirements.

3.2 Basic Structure

The DEWIN Micro Inverter features a robust design with clearly labeled components for easy installation and monitoring.



Figure 3.2.1: Basic Structure of the Micro Inverter. Key features include waterproof design, mounting holes for secure installation, an indicator light for operational status, AC bus cable connections for grid or next inverter, and DC inputs for PV modules.

3.3 Product Dimensions

Understanding the physical dimensions is crucial for planning the installation space.

Product information

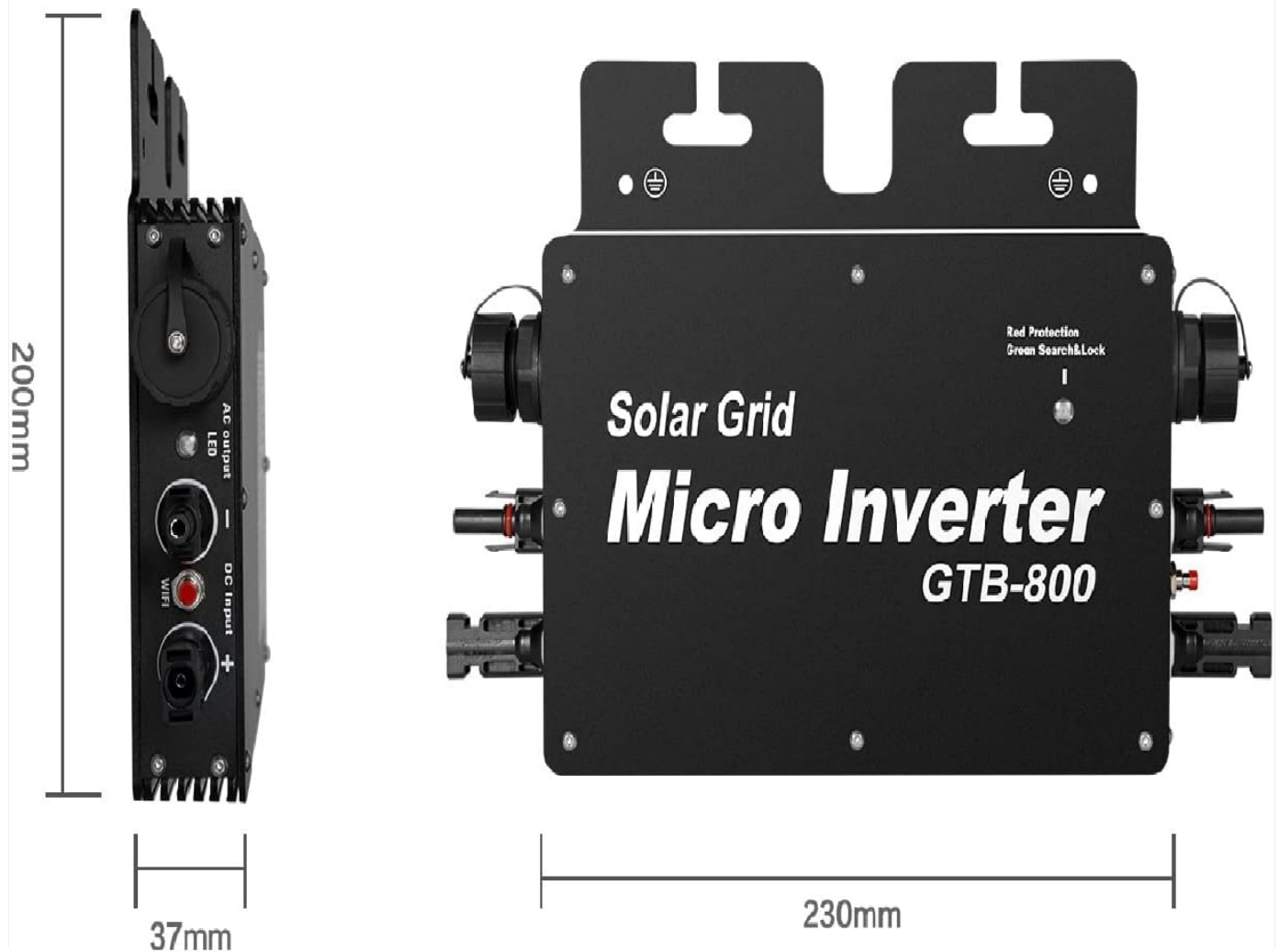


Figure 3.3.1: Product Dimensions. The inverter measures approximately 200mm in height, 37mm in depth, and 230mm in width.

4. PACKAGE CONTENTS

Verify that all items are present in the package before proceeding with installation.

Configuration Steps Of WIFI Cloud Monitoring



1 Download in mobile application: smartlife or direct code scanning



2 Register personal account



3 Restore factory settings Press and hold the red key for 5-10 seconds and release it. The blue light is flashing and the instrument is connected successfully



4 Add inverter



5 Further add confirmation information



6 Make sure the phone is in Bluetooth on or WiFi status



7 Enter your home WIFI account information password



8 Click Next to install and modify the name and account freely



9 The interface can control the system switch normally. The connection is successful



10 The connection is successful, and the green light of the inverter is always on in normal operation. Occasionally flashing instrument MPPT is tracking the optimal voltage

Figure 4.1: Package Contents. The package typically includes the DEWIN Micro Inverter unit, an AC connection cable, mounting hardware (screws and washers), and this user manual.

5. INSTALLATION

5.1 Mounting the Inverter

Choose a suitable location for mounting the inverter, ensuring adequate ventilation and protection from direct sunlight or

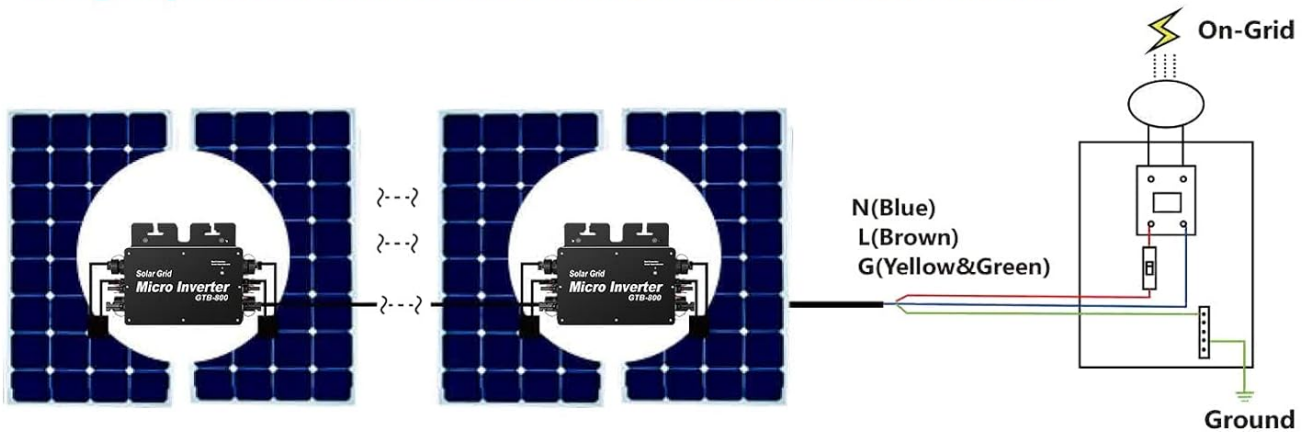
extreme weather conditions. Use the provided mounting holes to secure the inverter firmly.

5.2 Wiring Connections

Follow the wiring diagrams carefully for correct and safe connection to your solar panels and the electrical grid.

5.2.1 Single Phase Connection

Single phase connection method of micro inverter



Three phase connection method of GTB-800 micro inverter

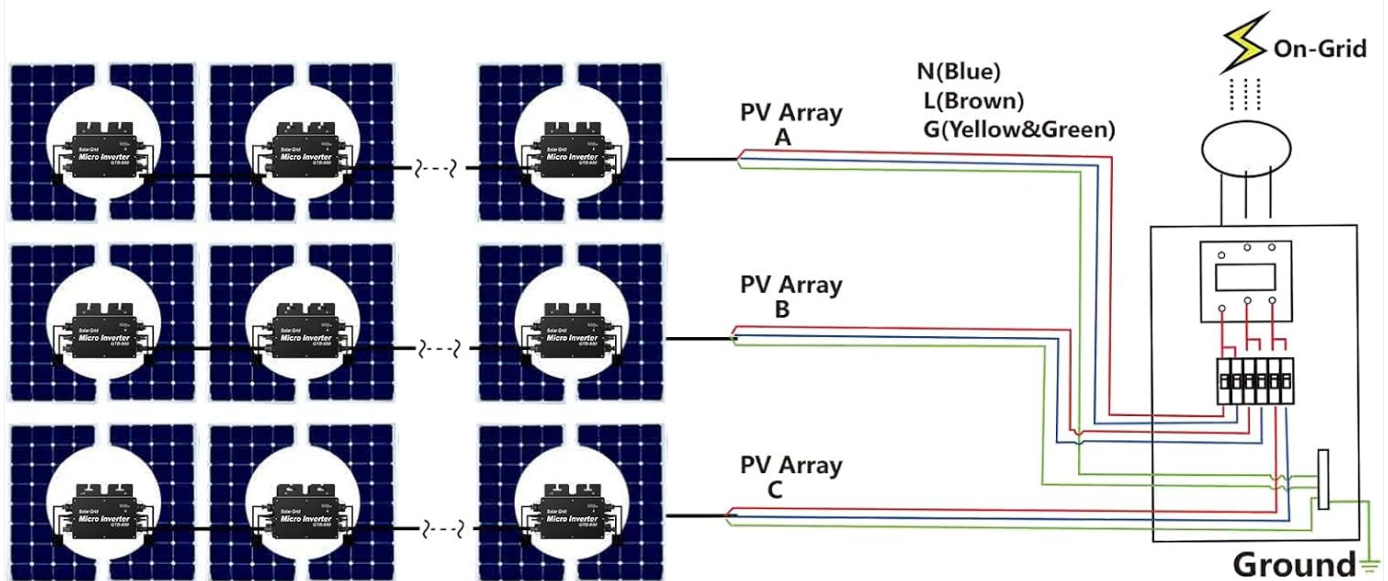
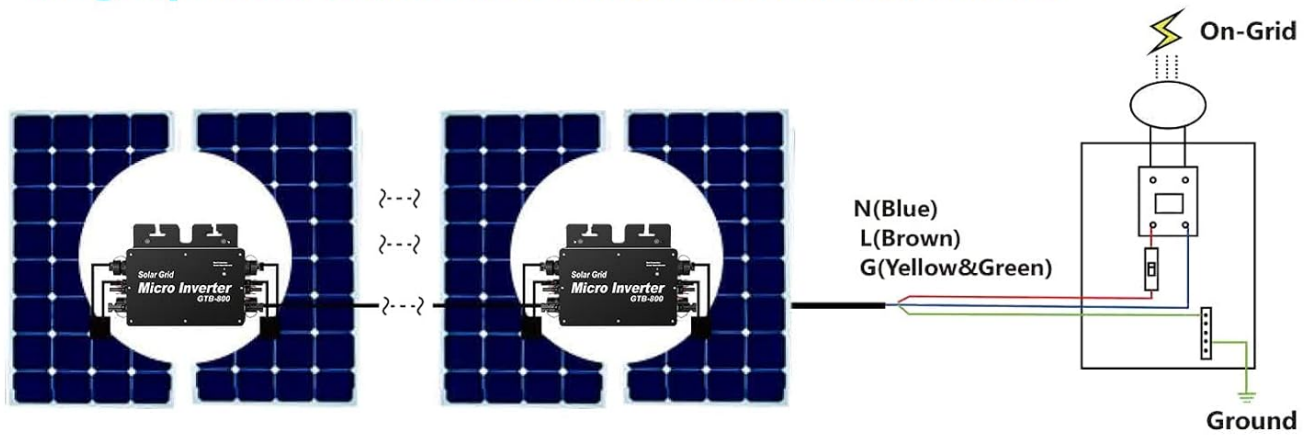


Figure 5.2.1: Single Phase Connection Method. Connect the DC inputs from your PV modules to the inverter. Then, connect the AC output of the inverter to the grid using the specified N (Blue), L (Brown), and G (Yellow & Green) wires.

5.2.2 Three Phase Connection

For larger installations requiring three-phase power, multiple inverters can be connected as shown below.

Single phase connection method of micro inverter



Three phase connection method of GTB-800 micro inverter

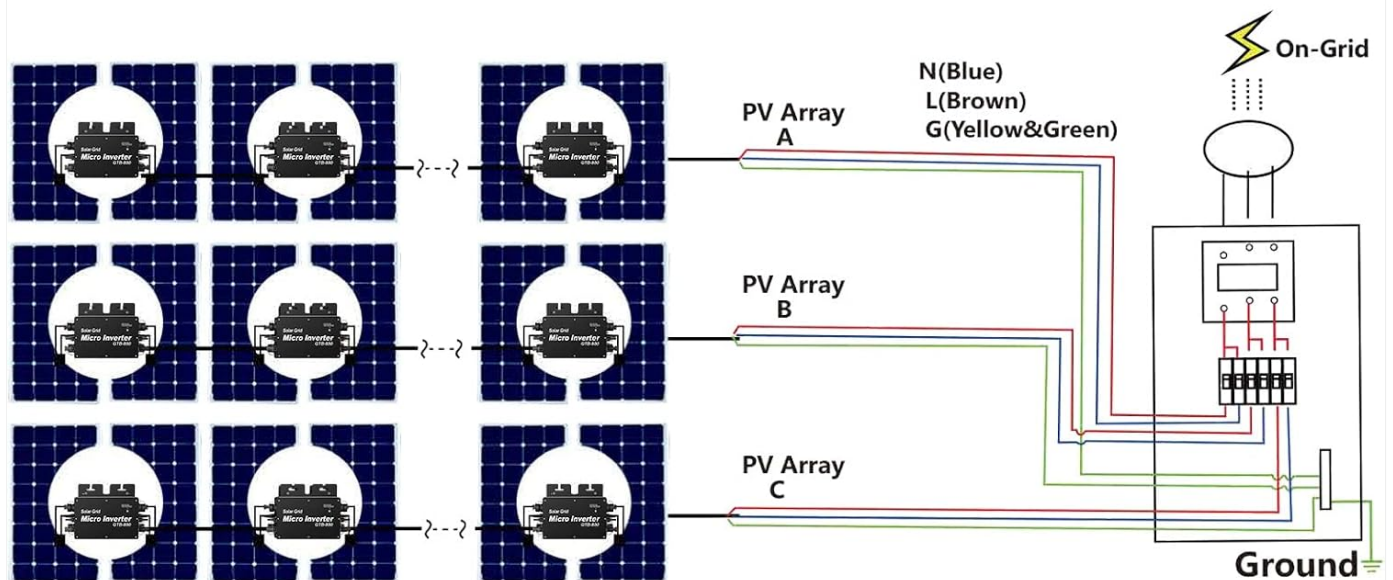


Figure 5.2.2: Three Phase Connection Method. Each PV array (A, B, C) connects to its respective micro inverter, and these inverters are then connected to the three-phase grid system.

5.3 System Installation Diagram

A complete overview of the system installation, including the connection to the household grid and monitoring via the app.

System installation diagram

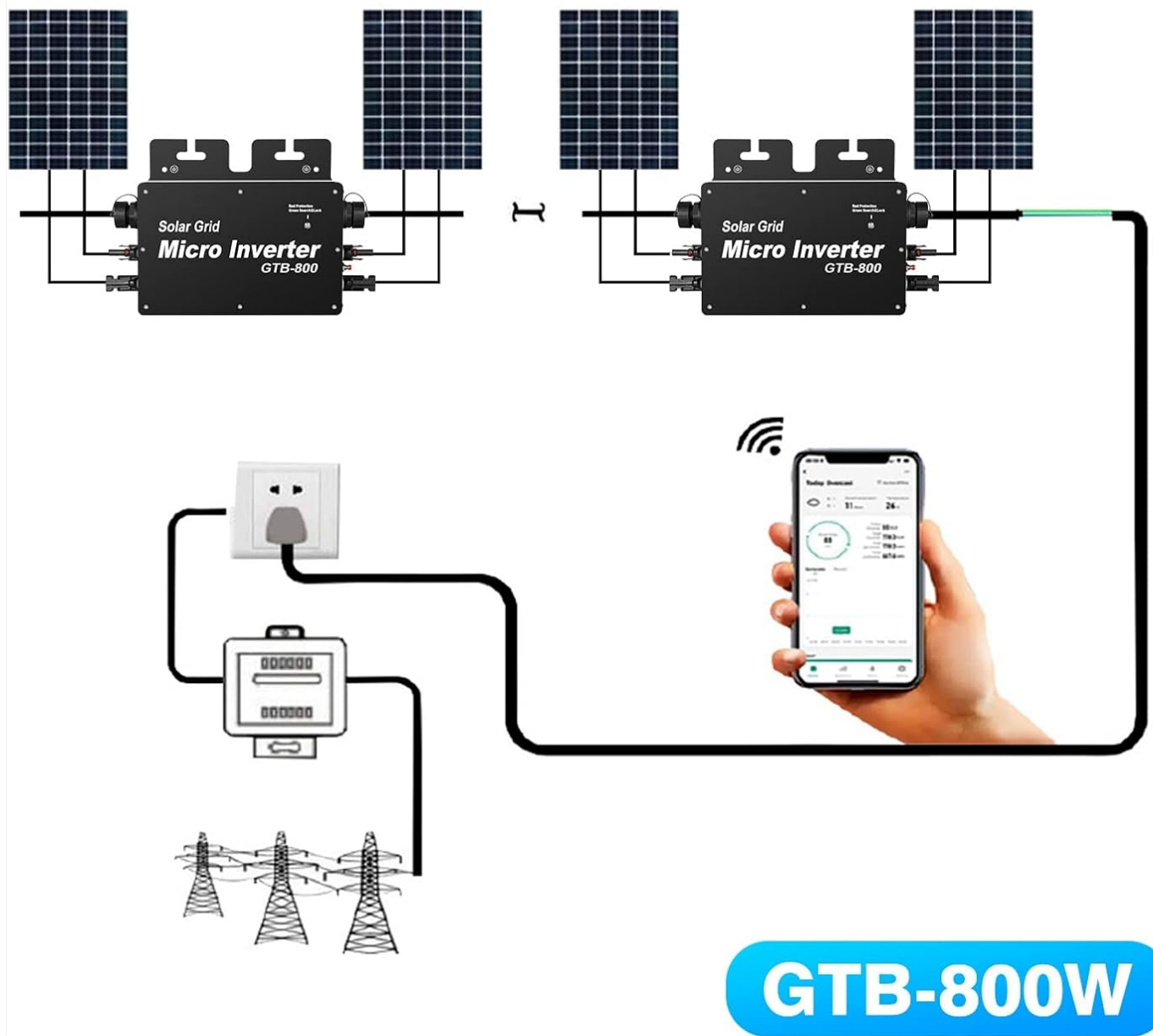


Figure 5.3.1: System Installation Diagram. This illustrates how the micro inverters connect to the solar panels, the household electrical system, and the main power grid, with remote monitoring capabilities.

6. OPERATING INSTRUCTIONS

6.1 Initial Power-Up

After ensuring all connections are secure and correct, switch on the DC power from the solar panels, followed by the AC power from the grid. The inverter will perform a self-test and begin operation.

6.2 WiFi APP Monitoring Configuration

The micro inverter features a built-in WiFi module for remote monitoring via a smartphone application. Follow these steps to configure the monitoring system:

1. **Download the App:** Download the 'Smart Life' mobile application from your app store or scan the QR code provided in the product documentation. A direct link is <https://smartapp.tuya.com/smartlife>.
2. **Register Account:** Register a personal account within the Smart Life application.
3. **Restore Factory Settings:** Press and hold the reset key on the inverter for 5-10 seconds until the blue light flashes, indicating successful restoration and connection readiness.
4. **Add Inverter:** In the app, follow the prompts to add a new device.
5. **Confirm Information:** Provide any further confirmation details as requested by the app.
6. **Enable Bluetooth/WiFi:** Ensure your phone's Bluetooth or WiFi is enabled for device discovery.
7. **Enter WiFi Password:** Enter your home WiFi network account information and password.
8. **Install and Modify:** Click 'Next' to install and freely modify the device name and account settings.
9. **Control Interface:** The app interface will allow you to control the system switch normally once the connection is successful.
10. **Monitoring:** A successful connection is indicated by a green light on the inverter, signifying normal operation. The MPPT function will track optimal voltage.

Configuration Steps Of WIFI Cloud Monitoring



1 Download in mobile application: smartlife or direct code scanning



2 Register personal account



3 Restore factory settings Press and hold the red key for 5-10 seconds and release it. The blue light is flashing and the instrument is connected successfully



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Figure 6.2.1: Configuration Steps for WiFi Cloud Monitoring. This visual guide details the process from downloading the app to successful inverter monitoring.

7. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your DEWIN Micro Inverter.

- **Cleaning:** Periodically clean the exterior of the inverter to remove dust and debris. Ensure the cooling fins are clear

for proper heat dissipation.

- **Connections:** Annually inspect all electrical connections for tightness and signs of corrosion.
- **Monitoring:** Regularly check the monitoring app for any error messages or abnormal performance readings.
- **Environment:** Ensure the installation environment remains within the specified operating temperature and humidity ranges.

8. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For problems not listed here, please contact customer support.

- **No Power Output:**
 - Check DC input from solar panels. Ensure panels are receiving sunlight and connections are secure.
 - Verify AC grid connection. Ensure the circuit breaker is on and grid power is stable.
 - Check the inverter's indicator light for error codes or status.
- **Inverter Running Hot:**
 - Ensure adequate ventilation around the inverter. Clear any obstructions.
 - Verify ambient temperature is within operating limits.
 - Reduce load if possible, or check for proper sizing of the inverter to the PV array.
- **WiFi Connection Issues:**
 - Ensure the inverter is within range of your 2.4 GHz WiFi network.
 - Verify correct WiFi password entry in the app.
 - Try resetting the inverter's WiFi module (refer to Section 6.2, step 3).
- **Low Power Generation:**
 - Check for shading on solar panels.
 - Clean solar panels if dirty.
 - Verify all panel connections are secure and functioning correctly.

9. SPECIFICATIONS

Technical specifications for the DEWIN 800W Solar Grid Tie Micro Inverter, Model BDAQRYQEY.

Attribute	Specification
Brand	DEWIN
Model Number	BDAQRYQEY
Product Weight	2.3 kg
Package Dimensions	34.5 x 23.7 x 9.7 cm
ASIN	B0BWSVTCDN
Power Output	800W (Max)

AC Voltage	220V
Waterproof Rating	IP65
Connectivity	2.4 GHz WiFi (APP Monitoring)

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact DEWIN customer service through their official channels. Keep your purchase receipt as proof of purchase.

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