

DEWIN KDFCALAMQ-GS110258

DEWIN Intelligent WiFi Photovoltaic Meter User Manual

Model: KDFCALAMQ-GS110258

1. INTRODUCTION

Thank you for choosing the DEWIN Intelligent WiFi Photovoltaic Meter. This device is a 100A 3P 4W three-phase smart energy meter designed for accurate measurement and control of electrical energy in various applications, including photovoltaic systems. It features remote control capabilities via the Tuya Smart APP and comprehensive protection functions to ensure safety and reliability. Please read this manual thoroughly before installation and operation to ensure proper use and to prevent damage.

WIDE RANGE OF APPLICATIONS



Electric power
metering system



Commercial Building



Apartment



School



Hotel



Laboratory

Figure 1.1: The DEWIN Intelligent WiFi Photovoltaic Meter is suitable for a wide range of applications, from solar energy systems to commercial and residential buildings.

2. SAFETY INFORMATION

WARNING: Electrical installation and maintenance should only be performed by qualified personnel. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power before installing or servicing the device.
- Ensure all wiring connections are secure and comply with local electrical codes.
- Do not operate the device if it is damaged or malfunctioning.
- The device is designed for indoor use in environments within its specified operating temperature range (-5°C to +40°C).
- In case of power failure, the device screen will indicate a red warning, signaling a potential issue.

PROTECTION WHEN POWER FAILS THE SCREEN WILL SHOW RED



Figure 2.1: The meter's display turns red to indicate protection activation during a power failure, ensuring user awareness of potential issues.

3. PRODUCT OVERVIEW

The DEWIN Intelligent WiFi Photovoltaic Meter is a sophisticated device for monitoring and controlling electrical parameters. It integrates a clear LCD display, WiFi connectivity for remote management, and robust protection features.

RAIL DESIGN

Installed using universal DIN35mm standard rail, no screws required
The installation is simple, compact, convenient and practical

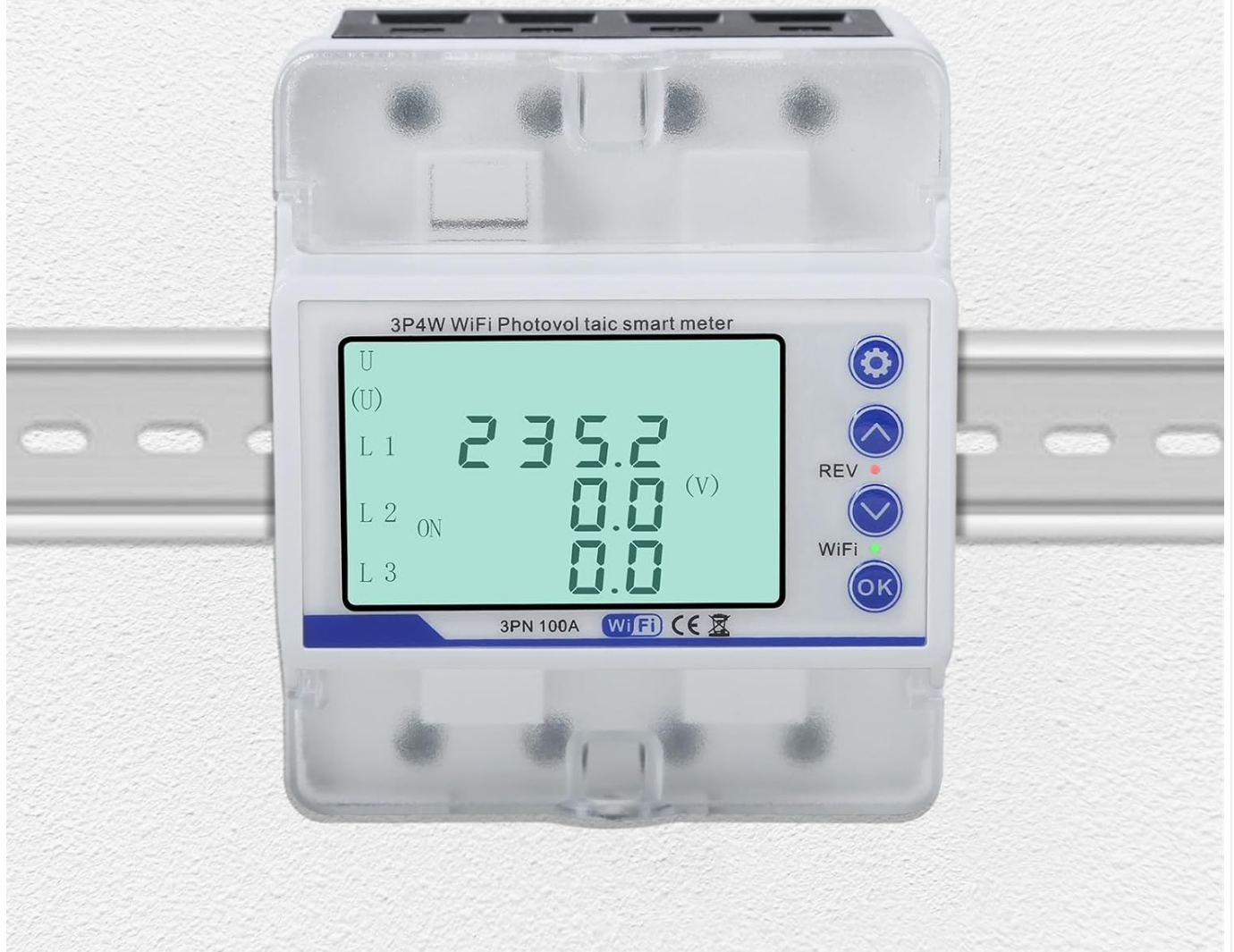


Figure 3.1: The DEWIN Intelligent WiFi Photovoltaic Meter with its clear LCD display and control buttons.

Key Features:

- **Remote Control:** Manage your electrical appliances via the Tuya Smart APP on your smartphone, offering control regardless of location.
- **High Accuracy LCD Display:** Provides clear and precise data readings day and night.
- **Overcurrent Delay Protection:** Prevents frequent tripping due to momentary current surges, enhancing circuit stability.
- **Bidirectional Photovoltaic Measurement:** Accurately measures both generated and grid-fed electrical energy in solar systems.
- **Multiple Protections:** Includes undervoltage, overvoltage, overcurrent, undercurrent, three-phase voltage imbalance, and current imbalance protection.
- **DIN Rail Installation:** Designed for easy installation on a 35mm DIN rail without the need for screws.

WIFI SMART CIRCUIT BREAKER



Smart Life



Google assistant



WiFi



Tuya Smart



Amazon Alexa

- Electricity display
- Overcurrent protection
- Overvoltage protection
- Remote settings
- Leakage Protection

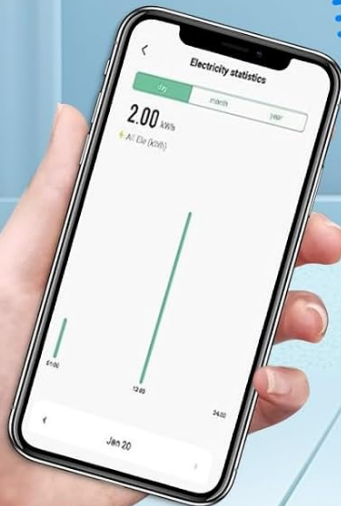


Figure 3.2: Overview of the DEWIN Intelligent WiFi Photovoltaic Meter highlighting its smart features and protective capabilities.

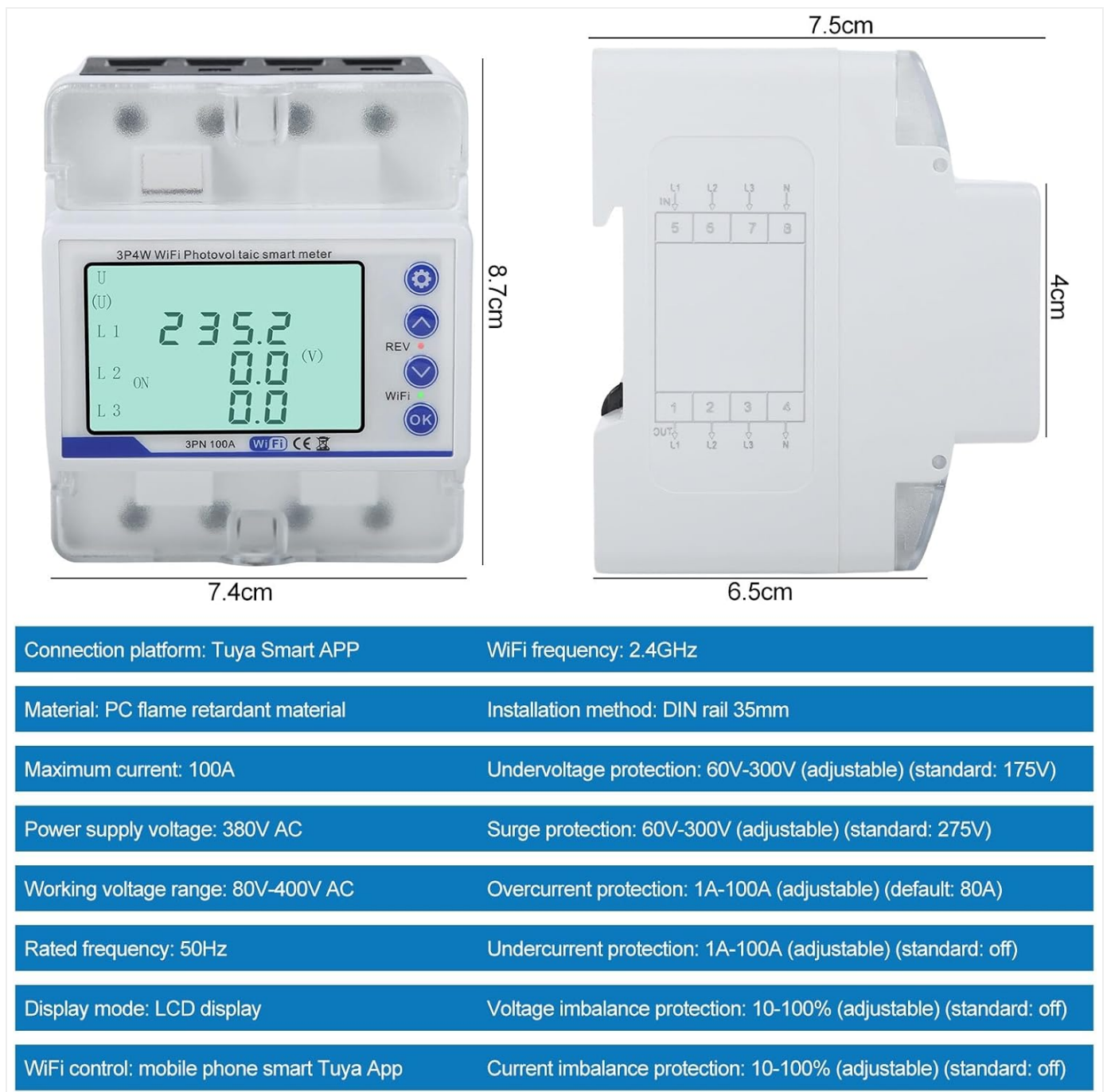


Figure 3.3: The meter features a convenient rail design for universal DIN35mm standard rail installation, requiring no screws.

4. SETUP

4.1 Package Contents

- 1 x DEWIN WiFi Power Switch (Intelligent WiFi Photovoltaic Meter)
- 1 x User Manual (English)

4.2 Installation

The DEWIN Intelligent WiFi Photovoltaic Meter is designed for 35mm DIN rail installation.

1. Ensure the main power supply is disconnected before beginning installation.
2. Mount the meter onto a standard 35mm DIN rail in your electrical distribution box. The screw-less design allows for simple and compact installation.
3. Refer to the wiring diagram below for correct electrical connections. Connect the input (ENTER) and output

(OUTPUT) lines for L1, L2, L3, and N (Neutral) according to the labels on the device.

4. Double-check all connections for tightness and correctness before restoring power.

INSTALLATION WIRING DIAGRAM

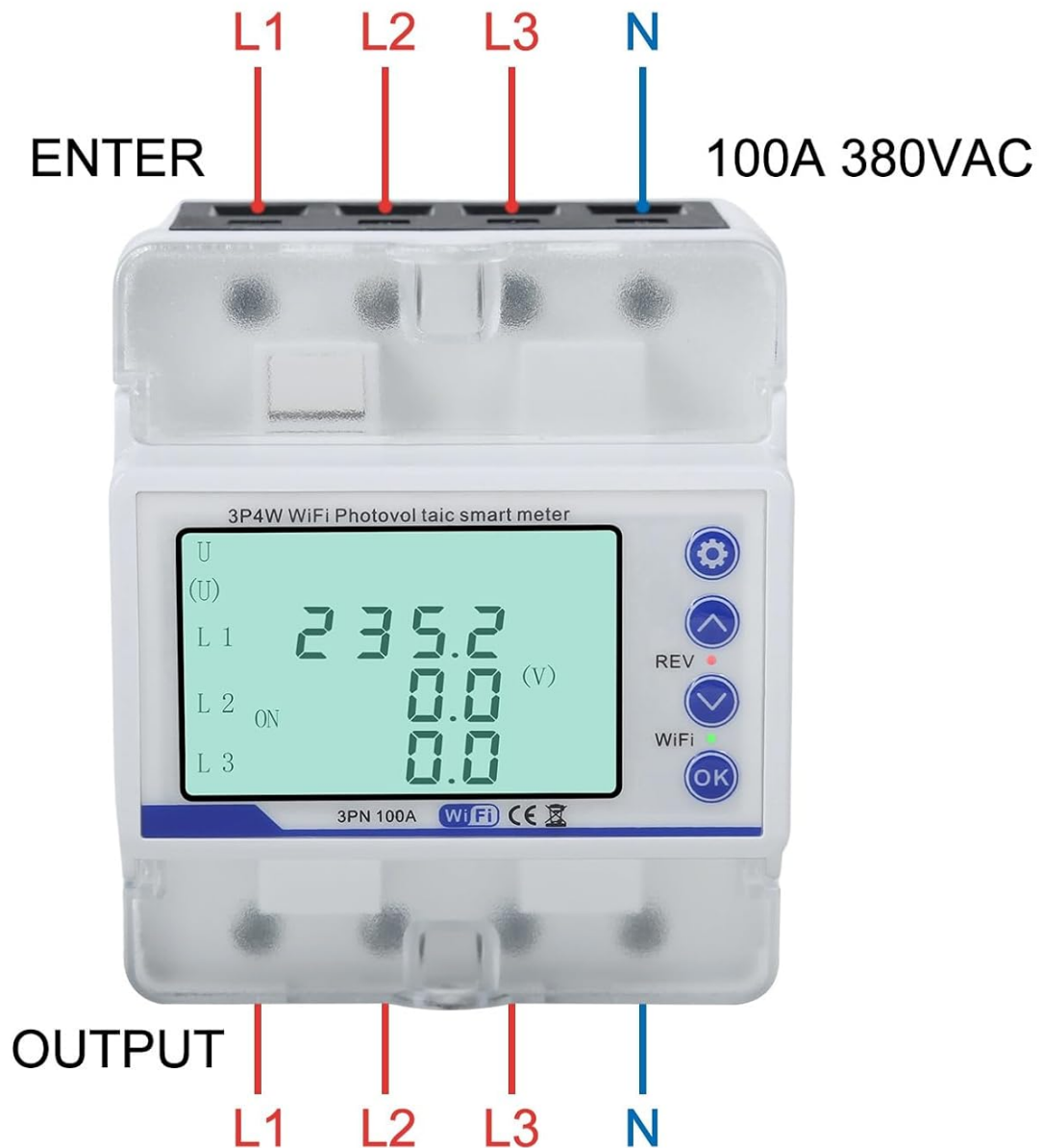


Figure 4.1: Wiring diagram for the DEWIN Intelligent WiFi Photovoltaic Meter. Ensure correct phase (L1, L2, L3) and neutral (N) connections for both input and output.

4.3 WiFi Connection

The device connects to your smartphone via the Tuya Smart APP using a 2.4 GHz WiFi frequency.

1. Download the "Tuya Smart" app from your smartphone's app store (iOS or Android).
2. Register or log in to your Tuya Smart account.
3. Power on the DEWIN Photovoltaic Meter. The WiFi indicator on the device should start blinking, indicating pairing mode. If not, refer to the device's specific instructions for entering pairing mode (usually by pressing and holding the WiFi button).
4. In the Tuya Smart app, tap "+" to add a new device. Select the appropriate device type (e.g., "Energy Meter" or "Circuit Breaker").
5. Follow the on-screen instructions in the app to connect the meter to your 2.4 GHz WiFi network.

6. Once connected, the WiFi indicator on the meter will become solid, and you can control and monitor the device via the app.

5. OPERATING

5.1 Local Operation (LCD Display)

The integrated LCD display provides real-time data. Use the navigation buttons (up, down, OK) on the device to cycle through various parameters such as voltage (U), current (I), power (P), energy consumption, and protection settings.

5.2 Remote Operation (Tuya Smart APP)

After successfully connecting the device to the Tuya Smart APP, you can perform the following operations:

- **Real-time Monitoring:** View current voltage, current, power, and energy consumption data from anywhere.
- **Remote Control:** Turn the power supply on or off remotely.
- **Protection Settings:** Adjust undervoltage, overvoltage, overcurrent, and other protection thresholds.
- **Energy Statistics:** Access historical energy consumption data and reports.
- **Scheduling:** Set schedules or timers for automatic power on/off.

6. MAINTENANCE

The DEWIN Intelligent WiFi Photovoltaic Meter requires minimal maintenance.

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Firmware Updates:** Periodically check the Tuya Smart APP for available firmware updates to ensure optimal performance and security.
- **Connection Check:** Regularly inspect wiring connections to ensure they remain secure.
- **Environmental Conditions:** Ensure the device operates within its specified temperature range (-5°C to +40°C) and avoid exposure to excessive moisture or direct sunlight.



Figure 6.1: The meter is designed to operate reliably across a wide temperature range, from -5°C to +40°C.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device not powering on.	No power supply; incorrect wiring.	Check main power supply. Verify all wiring connections according to the diagram.
WiFi indicator not blinking/connecting.	Incorrect WiFi frequency (not 2.4 GHz); incorrect password; device not in pairing mode.	Ensure your router is set to 2.4 GHz. Re-enter WiFi password. Press and hold the WiFi button on the device to enter pairing mode.

Problem	Possible Cause	Solution
Inaccurate readings.	Incorrect wiring; device malfunction.	Verify wiring connections. If problem persists, contact customer support.
Device trips frequently.	Protection settings too sensitive; actual overcurrent/overvoltage condition.	Adjust protection thresholds in the Tuya Smart APP. Investigate the electrical load for actual faults.

8. SPECIFICATIONS

Parameter	Value
Connection Platform	Tuya Smart APP
Material	Polycarbonate (fire-retardant)
Maximum Current	100 A
Power Supply Voltage	380 V AC
Operating Voltage Range	80-400 V AC
Rated Frequency	50 Hz
Display Mode	LCD Screen
WiFi Control	Tuya Smart app for smartphones
WLAN Frequency	2.4 GHz
Installation Method	35 mm DIN-rail
Undervoltage Protection	60V-300V (adjustable, default: 175V)
Overvoltage Protection	60V-300V (adjustable, default: 275V)
Overcurrent Protection	1A-100A (adjustable, default: 80A)
Undercurrent Protection	1A-100A (adjustable, default: OFF)
Voltage Imbalance Protection	10-100% (adjustable, default: OFF)
Current Imbalance Protection	10-100% (adjustable, default: OFF)
Product Dimensions	10D x 8B x 8H cm
Item Weight	480 Grams

THE TWO HEAVENS OF ICE AND FIRE

It has a wide operating temperature range and can be used in hot and cold weather from -5°C to $+40^{\circ}\text{C}$. No need to worry about using it in hot and cold temperatures!



Figure 8.1: Visual representation of the meter's dimensions and key technical specifications.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact DEWIN customer service.

Manufacturer: DEWIN

Model Number: KDFCALAMQ-GS110258

ASIN: B0D422RKMV

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