## DewinLVD 4P 3P 100A

# DewinLVD 3-Phase 100A 380V AC WiFi Smart Energy Meter

Model: 4P 3P 100A

## 1. Introduction

This manual provides essential information for the safe and efficient operation of your DewinLVD 3-Phase 100A 380V AC WiFi Smart Energy Meter. This device is designed for measuring electrical parameters in three-phase systems, offering smart control and protection features via a WiFi connection and mobile application. Please read this manual thoroughly before installation and use.

## 2. Safety Information

**WARNING:** Installation and maintenance of this device must be performed by qualified personnel only. Always disconnect power before working on electrical circuits to prevent electric shock or damage to the equipment. Ensure all wiring complies with local electrical codes and regulations. This product does not have an isolation function; always turn off the main power supply before any maintenance.

- Do not operate the device if it appears damaged.
- Ensure proper grounding.
- Avoid exposure to moisture or extreme temperatures.
- The neutral line (neutral N line) of this product is directly connected and has no disconnection function.
- Although this device has a protection function, it cannot replace an ordinary circuit breaker. Always install a circuit breaker in front of this device.
- Tighten clamping screws firmly to prevent equipment damage due to poor contact.

## 3. Product Overview

The DewinLVD Smart Energy Meter is a versatile device offering comprehensive electrical monitoring and protection. It integrates multiple functions into a compact DIN rail mountable unit.

### Key Features

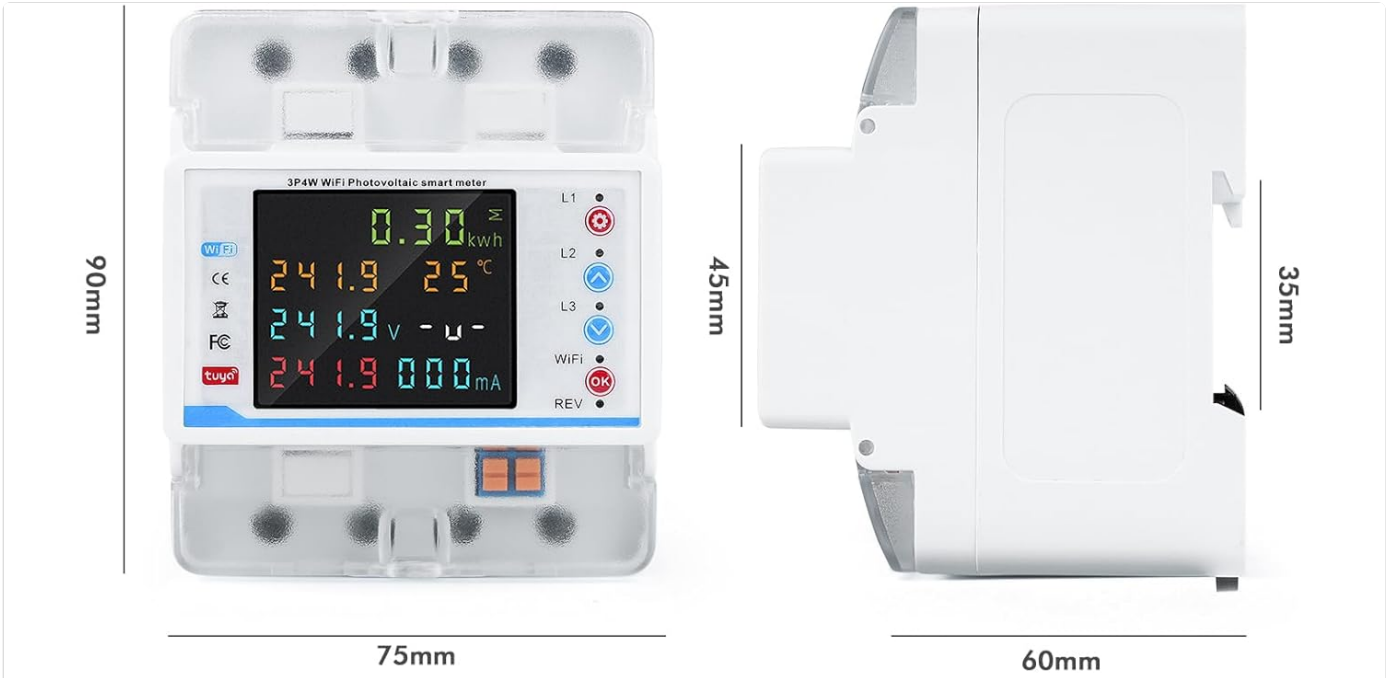
- **WiFi Connectivity:** Remote control and monitoring via Tuya Smart APP.
- **Real-time Data Display:** Power, current, voltage, leakage, frequency, cumulative power.
- **Wide Measurement Range:** AC 80-300V voltage, 1-100A current, 0-99999.9 kWh power.
- **Bidirectional Measurement:** Accurately measures both forward and reverse energy flow, suitable for solar systems.
- **Multi-Protection:** Overvoltage, undervoltage, overcurrent, leakage, phase asymmetry, and phase loss protection.
- **Timing Control:** Schedule operations for energy management.
- **DIN Rail Design:** Standard DIN35mm mounting for easy installation.
- **LCD Color Screen:** Clear and easy-to-read measurement results.


Figure 3.1: DewinLVD 3-Phase Smart Energy Meter with its main protective and measurement features.

### Included Components

- 1 x WiFi Smart Circuit Breaker
- 1 x User Manual (English)
- 1 x Current Transformer

## 4. Specifications




| | | | |
|---|---|---|---|
| **Connection Platform:** | Tuya Smart APP | **Undervoltage Protection:** | 80V-210V (adjustable) |
| **Material:** | PC flame retardant material | **Overcurrent Protection:** | PC flame retardant material |
| **Rated voltage:** | AC220V | **Rated voltage:** | 1.0A-100A (precision 0.1A) |
| **Maximum current:** | 100A | **Reconnection time (delay time):** | 1-9999 seconds (default 3 seconds) |
| **Working voltage:** | AC80-300V | **Overcurrent, leakage Protection time:** | AC80-300V |
| **Power display:** | 0-99999.9Kwh | **Display mode:** | 1-30 off (default: 5) |
| **Rated frequency:** | 50/60Hz | **WiFi frequency:** | 2.4GHZ |
| **Overvoltage Protection:** | 120-300VAC (adjustable) | **Installation method:** | DIN rail 35mm |

Figure 4.1: Product dimensions and technical specifications.

| Parameter | Value |
|---|---|
| Connection Platform | Tuya Smart APP |
| Material | PC flame retardant material |
| Rated Voltage | AC220V |
| Maximum Current | 100A |
| Working Voltage | AC80-300V |
| Power Display Range | 0-99999.9 kWh |
| Rated Frequency | 50/60Hz |
| Overvoltage Protection | 120-300 VAC (adjustable) |
| Undervoltage Protection | 80-210 VAC (adjustable) |
| Overcurrent Protection | 1.0A-100A (precision 0.1A) |

| Parameter | Value |
|---|---|
| Reconnection Time (delay) | 1-9999 seconds (default 3 seconds) |
| Overcurrent/Leakage Protection Time | AC80-300V |
| Display Mode | 1-30 off (default: 5) |
| WiFi Frequency | 2.4GHz |
| Installation Method | DIN rail 35mm |
| Dimensions (L x W x H) | 8 x 8 x 10 cm |
| Weight | 650 grams |

## 5. Setup

### 5.1 Wiring Display

Follow the wiring diagram carefully for correct installation. Ensure all connections are secure and properly insulated. The current transformer must be connected as shown.

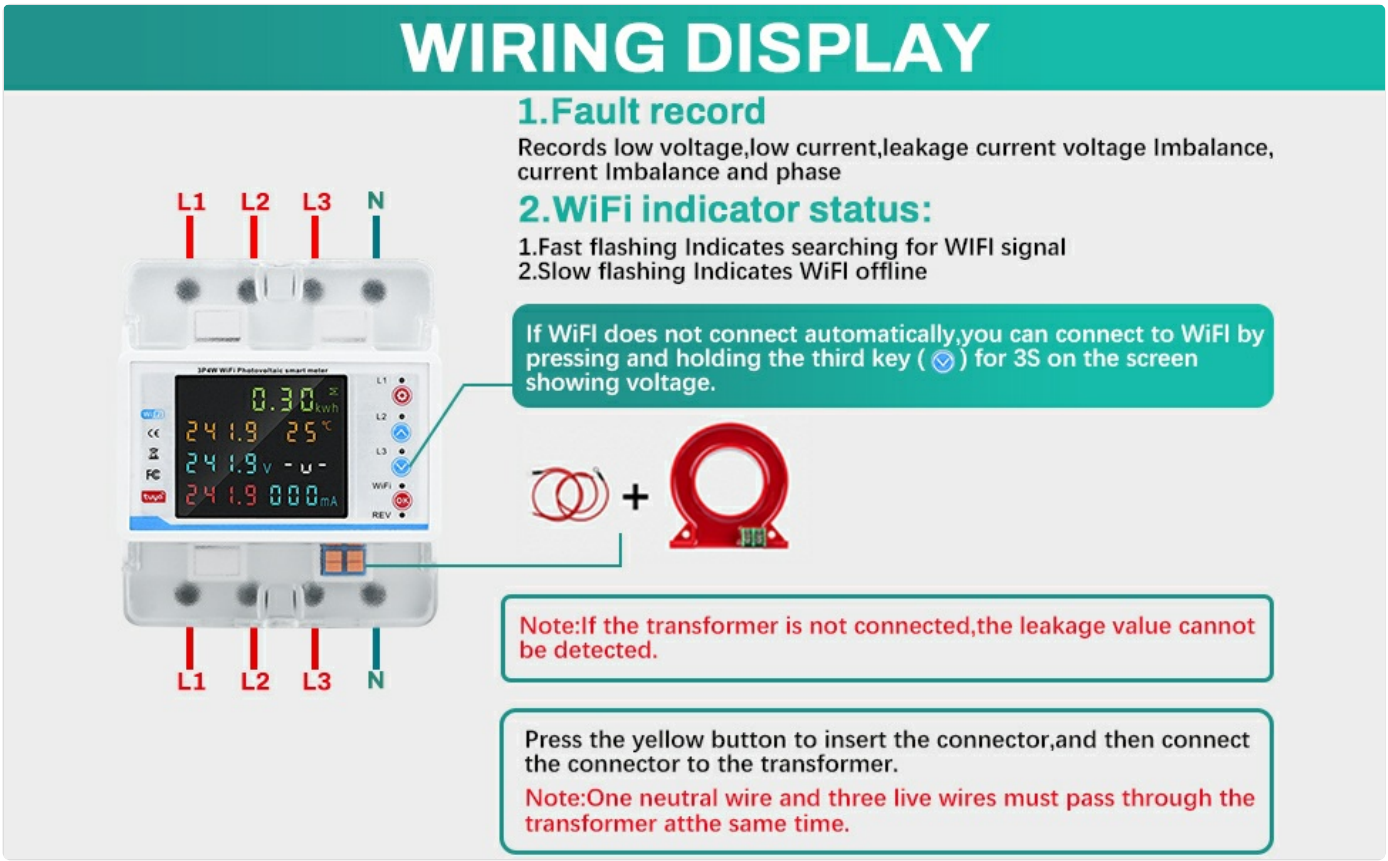



Figure 5.1: Wiring connections for the 3-phase smart energy meter and current transformer.

- **Current Transformer Connection:** Press the yellow button to insert the connector, then connect it to the transformer.
- **Important:** One neutral wire and three live wires must pass through the current transformer at the same time for accurate leakage detection. If the transformer is not connected, the leakage value cannot be detected.

### 5.2 WiFi Connection

The device connects to WiFi for smart control via the Tuya Smart APP. The WiFi indicator status provides feedback:

- **Fast flashing:** Indicates the device is searching for a WiFi signal.
- **Slow flashing:** Indicates the device is offline.

If the device does not connect automatically, you can manually connect to WiFi by pressing and holding the third key (usually marked with a WiFi symbol or 'OK') for 3 seconds on the screen showing voltage. This will activate the hotspot for the app to connect.

## 6. Operating Instructions

### 6.1 Display Modes

The LCD screen cycles through various display modes, showing different electrical parameters. You can typically navigate these displays using the device's buttons or through the Tuya Smart APP.

Figure 6.1: Examples of different display screens showing real-time electrical data.

### 6.2 Alarm Settings and Protection

The device supports various protection functions. You can set thresholds for overvoltage, undervoltage, overcurrent, and leakage protection via the Tuya Smart APP. Once a threshold is exceeded, the alarm function automatically triggers, and the protection trip switch can be turned on or off as configured.

### 6.3 Timing Schedule

Utilize the timing schedule feature through the Tuya Smart APP to automate the control of your electrical circuits. This allows for efficient energy management and can help reduce electricity consumption.


Figure 6.2: Multi-purpose functionality and timing schedule examples.

### 6.4 Bidirectional Measurement

This meter features bidirectional measurement, allowing it to accurately measure energy flow in both directions. This is particularly useful for installations with solar power generation systems, where it can measure both generated power and power drawn from the grid.

## 7. Maintenance

Regular maintenance ensures the longevity and accuracy of your smart energy meter.

- **Cleaning:** Wipe the device with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically check all wiring connections for tightness and signs of wear or damage. Ensure the device is free from dust and debris.
- **Software Updates:** Keep the Tuya Smart APP updated to the latest version for optimal performance and security.

**Important:** Always disconnect the main power supply before performing any physical maintenance on the device.

## 8. Troubleshooting

If you encounter issues with your DewinLVD Smart Energy Meter, refer to the following common problems and solutions:

| Problem | Possible Cause | Solution |
|---|---|---|
| Device does not power on | No power supply; incorrect wiring | Check main power supply. Verify wiring connections according to the diagram. |
| Cannot connect to WiFi | Incorrect WiFi password; router too far; 2.4GHz/5GHz band issue; device not in pairing mode | Ensure correct 2.4GHz WiFi password. Move device closer to router. Press and hold the third key for 3 seconds to activate pairing mode. Restart router. |
| Inaccurate readings | Incorrect current transformer wiring; faulty sensor | Ensure the neutral and three live wires pass through the current transformer correctly. Contact support if issue persists. |
| Protection trip occurs frequently | Protection thresholds set too low; actual electrical fault | Review and adjust protection thresholds in the app. Investigate for actual electrical overloads or faults in the circuit. |
| App shows device offline | WiFi signal loss; device powered off | Check WiFi connection and signal strength. Ensure the device is powered on. Reconnect WiFi if necessary. |

## 9. Warranty Information

This DewinLVD product is covered by a standard manufacturer's warranty against defects in materials and workmanship. The warranty period typically begins from the date of purchase. Please retain your proof of purchase for warranty claims. For specific warranty terms and conditions, refer to the documentation provided with your product or contact customer support.

## 10. Support

For technical assistance, troubleshooting, or any questions regarding your DewinLVD Smart Energy Meter, please contact our customer support team. You can typically find contact information on our official website or through the retailer where you purchased the product.
**Online Resources:** Visit the DewinLVD official website for FAQs, updated manuals, and additional support resources.