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› EAEMP3-100-TY-W 3 Phase 380V 100A bidirectional Energy Power kWh Meter Over-Voltage and Under-Voltage Protector Relay Switch Current Limiter User Manual

ZMEGTURQ EAEMP3-100-TY-W

EAEMP3-100-TY-W 3 Phase 380V 100A bidirectional Energy Power kWh Meter User Manual

Model: EAEMP3-100-TY-W | Brand: ZMEGTURQ

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the EAEMP3-100-TY-W 3 Phase 380V 100A bidirectional Energy Power kWh Meter Over-Voltage and Under-Voltage Protector Relay Switch Current Limiter. Please read this manual thoroughly before using the device to ensure safe and efficient operation. The EAEMP3-100-TY-W is a sophisticated 3-phase bidirectional energy power kWh meter with integrated over-voltage and under-voltage protection, relay switch, and current limiting capabilities. It is designed for industrial and scientific applications requiring precise energy monitoring and protection.

PRODUCT OVERVIEW

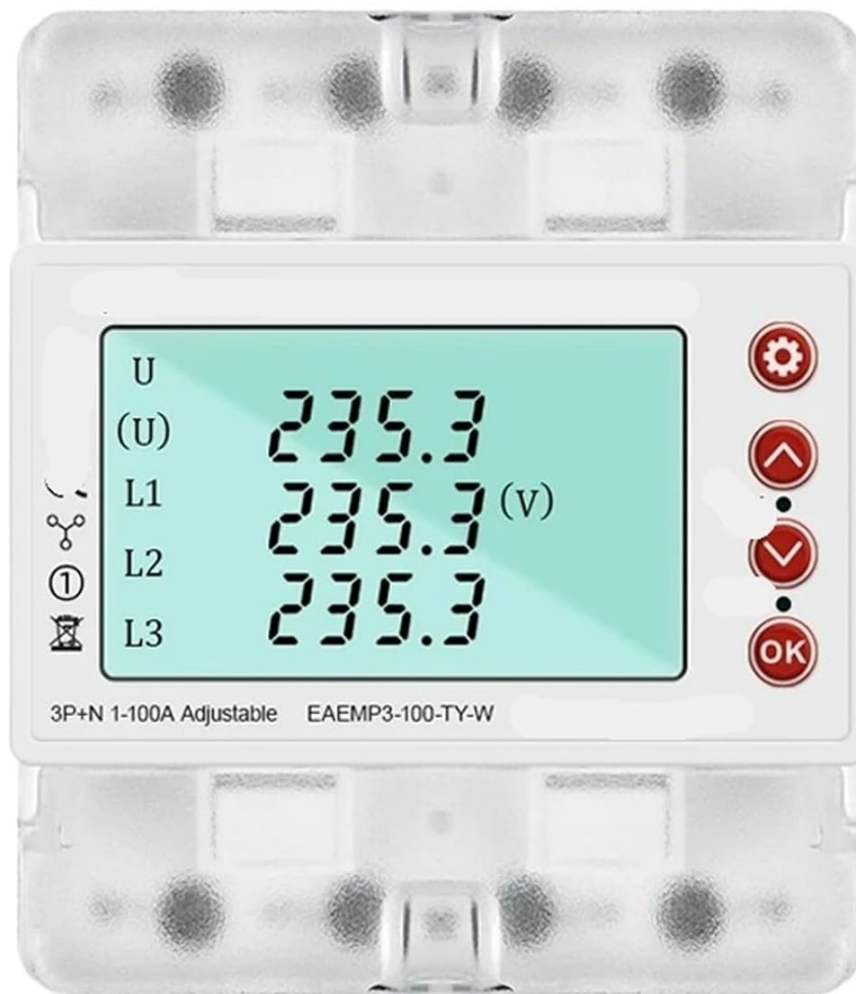
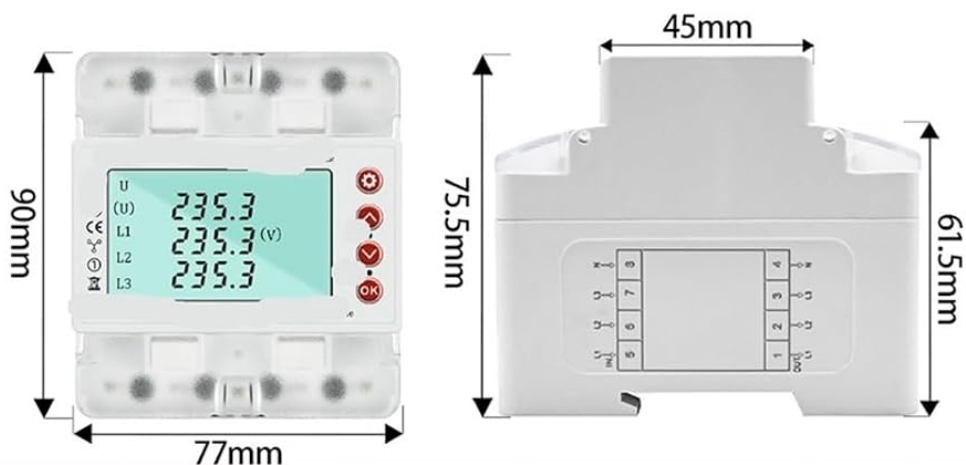


Figure 1: Front view of the EAEMP3-100-TY-W energy meter, showing the digital display with voltage readings for phases U, L1, L2, and L3, along with control buttons.



Upper Voltage Limit	120-300V (Adjustable) (Default:275V)
Lower Voltage Limit	80-210V (Adjustable) (Default:175V)
Upper Current Limit	1-100A (Adjustable) (Default:80A)
Lower Current Limit	1-100A (Adjustable) (Default:10A)
High Temperature Alarm	10-85°C (Adjustable) (Default:85°C)
Overcurrent Recovery Power-On Delay Time	1-9999s (Adjustable) (Default:20s)
Overcurrent Event Threshold Time	1-999s (Adjustable) (Default:5s)
Over and Under Voltage Event Recovery Power-On Delay Time	1-9999s (Adjustable) (Default:20s)
Over and Under Voltage Event Time Threshold	1-9999s (Adjustable) (Default:3s)
Three-Phase Current Imbalance Alarm	10-100% (Adjustable) (Default:20%)
Voltage Three-Phase Imbalance Alarm	10-100% (Adjustable)
Lost Current Recovery Delay Time	1-9999s (Adjustable) (Default:20s)
Time Threshold of Lost Flow Event	1-999s (Adjustable) (Default:10s)

Figure 2: Dimensions of the EAEMP3-100-TY-W meter (90mm height, 77mm width, 45mm depth) and a table detailing adjustable parameters such as voltage limits, current limits, temperature alarm, and various delay times.

SPECIFICATIONS

Parameter	Value
Model	EAEMP3-100-TY-W

Parameter	Value
Rated Voltage	380V (Three Phase)
Maximum Operating Current	100A (Adjustable 1-100A)
Output Voltage Range	80-300V
Accuracy Level	1%
Over Voltage Limit (Adjustable)	120-300V (Default: 275V)
Under Voltage Limit (Adjustable)	80-210V (Default: 175V)
High Temperature Alarm (Adjustable)	10-85°C (Default: 85°C)
Overcurrent Recovery Power On Delay Time (Adjustable)	1-9999s (Default: 20s)
Overcurrent Event Threshold Time (Adjustable)	1-9999s (Default: 5s)
Over and Under Voltage Event Recovery Power On Delay Time (Adjustable)	1-9999s (Default: 20s)
Over and Under Voltage Event Threshold (Adjustable)	1-9999s (Default: 3s)
Three-Phase Current Imbalance Alarm (Adjustable)	10-100% (Adjustable)
Voltage Three-Phase Imbalance Alarm (Adjustable)	10-100% (Adjustable)
Lost Current Recovery Delay Time (Adjustable)	1-9999s (Default: 20s)
Time Threshold of Lost Flow Event (Adjustable)	1-9999s (Default: 10s)

INSTALLATION

Safety Precautions: Before beginning installation, ensure that all power to the circuit is disconnected at the main breaker. Installation should only be performed by qualified personnel in accordance with local electrical codes and regulations.

- Mounting:** The EAEMP3-100-TY-W is designed for DIN rail mounting. Securely attach the device to a standard 35mm DIN rail within an electrical enclosure.
- Wiring:** Refer to the wiring diagram below for correct connection of the three phases (L1, L2, L3) and neutral (N) lines. Ensure all connections are tight and secure to prevent loose contacts and overheating.
- Power Supply:** Connect the main power supply to the designated input terminals.
- Load Connection:** Connect the load to the output terminals.

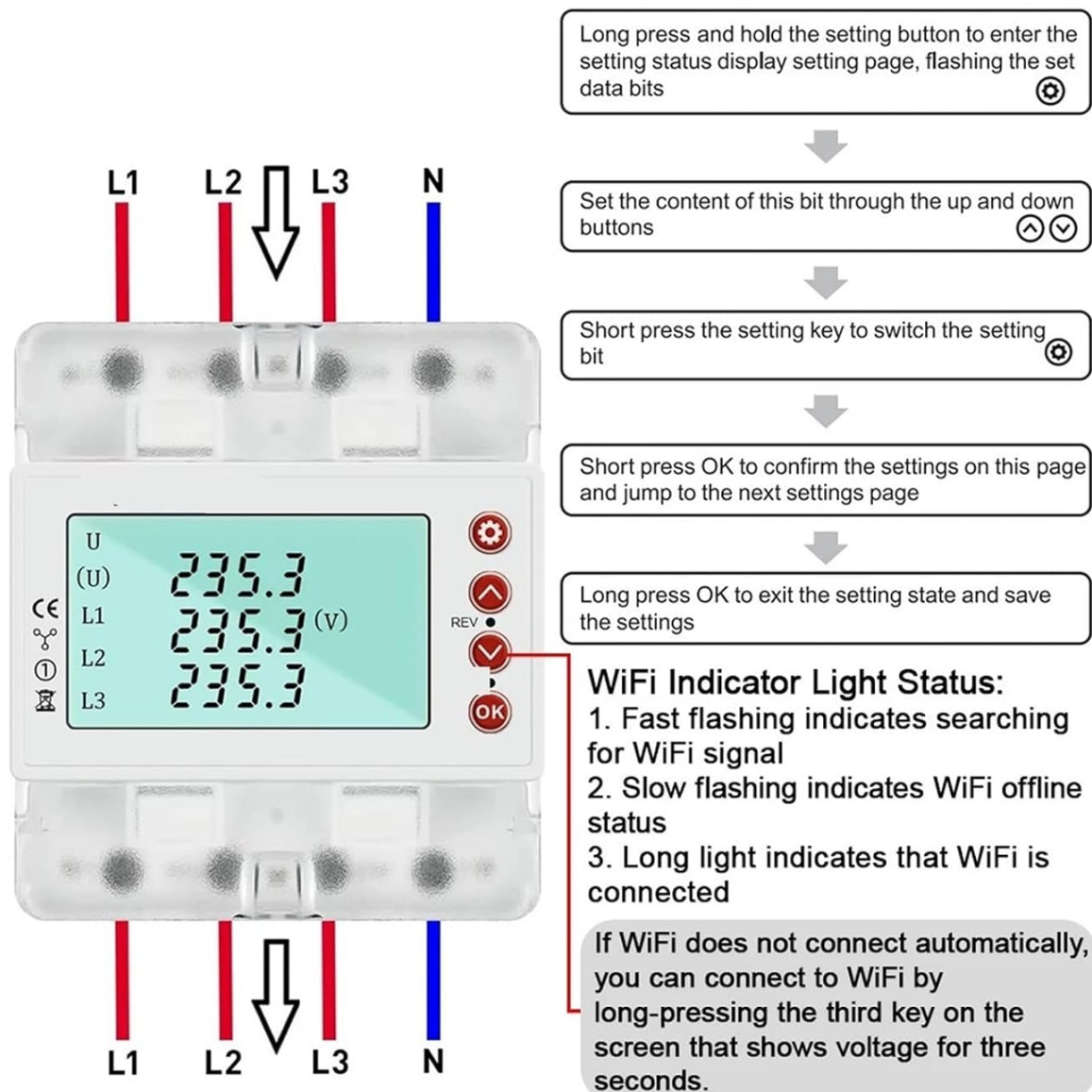


Figure 3: Wiring diagram illustrating the input and output connections for L1, L2, L3, and Neutral (N) lines. This image also provides a guide for navigating the settings menu and understanding the WiFi indicator light status.

OPERATION

Initial Power-Up

Once installed and wired correctly, restore power to the circuit. The meter's display will illuminate, showing real-time voltage readings for each phase (U, L1, L2, L3).

Setting Parameters

The device allows for adjustment of various protection parameters. Refer to Figure 3 for a visual guide on navigating the settings.

1. **Enter Settings:** Long press and hold the **setting button** (gear icon) to enter the setting status display page. The data bits will flash, indicating they are ready for adjustment.
2. **Adjust Value:** Use the **up and down buttons** (arrow icons) to change the content of the flashing bit.

- 3. **Switch Bit:** Short press the **setting button** to move to the next setting bit.
- 4. **Confirm Page Settings:** Short press the **OK button** to confirm the settings on the current page and proceed to the next settings page.
- 5. **Exit and Save:** Long press the **OK button** to exit the setting state and save all changes.

WiFi Connectivity

The device features WiFi connectivity for remote monitoring and control. The WiFi indicator light status provides feedback:

- **Fast flashing:** Indicates the device is actively searching for a WiFi signal.
- **Slow flashing:** Indicates WiFi offline status.
- **Solid light:** Indicates that WiFi is successfully connected.

If WiFi does not connect automatically, you can manually connect by long-pressing the third key on the screen (which shows voltage) for three seconds. This key is typically the 'OK' button or a dedicated WiFi button if present.

MAINTENANCE

The EAEMP3-100-TY-W is designed for minimal maintenance. However, regular checks are recommended to ensure optimal performance and longevity.

- **Visual Inspection:** Periodically inspect the device for any signs of physical damage, loose connections, or discoloration due to overheating.
- **Cleaning:** Keep the device clean and free from dust and debris. Use a soft, dry cloth for cleaning. Do not use liquid cleaners or solvents.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates that may improve performance or add new features.

Note: All maintenance requiring access to internal components or electrical connections should only be performed by qualified technicians with power disconnected.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Device not powering on.	No power supply; incorrect wiring; internal fault.	Check main power supply and circuit breaker. Verify wiring connections according to the diagram. If problem persists, contact support.
Display shows abnormal readings.	Incorrect wiring; sensor malfunction; external interference.	Re-check wiring. Ensure stable power supply. Contact support if readings remain inaccurate.
Protection relay trips frequently.	Over-voltage/under-voltage/overcurrent condition; incorrect protection settings.	Verify actual voltage/current levels. Adjust protection parameters if necessary (refer to "Setting Parameters" section). Investigate source of electrical anomaly.
WiFi not connecting.	Incorrect WiFi settings; weak signal; network issue.	Ensure correct WiFi credentials. Move device closer to router or use a repeater. Try manual connection (long press third key). Check router settings.

WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact ZMEGTURQ customer service. Keep your purchase receipt and product model number (EAEMP3-100-TY-W) readily available when contacting support. Contact information may be found on the manufacturer's official website or through your point of purchase.



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