EARU EARU-1006

EARU Electric Single Phase Energy Meter 220V 80A Instruction Manual

Model: EARU-1006

1. Introduction

The EARU Electric Single Phase Energy Meter (Model EARU-1006) is designed for accurate monitoring of electrical parameters in single-phase 220V, 80A systems. It provides real-time data for voltage (V), current (A), power (W), power factor (PF), frequency (Hz), and kilowatt-hour (kWh) consumption. This device assists in understanding energy usage and identifying potential inefficiencies in your electrical system.

2. Safety Information

- Installation must be performed by a qualified electrician in accordance with local electrical codes and regulations.
- Ensure the main power supply is disconnected before installation or maintenance to prevent electric shock.
- Do not operate the device if it appears damaged.
- This device is designed for indoor use in a dry environment. Avoid exposure to moisture or extreme temperatures.
- The maximum current rating is 80A. Do not exceed this limit.

3. Product Overview

The EARU-1006 energy meter features a clear LCD display that shows various electrical parameters simultaneously. It is designed for DIN rail mounting, allowing for easy integration into standard electrical distribution boards.

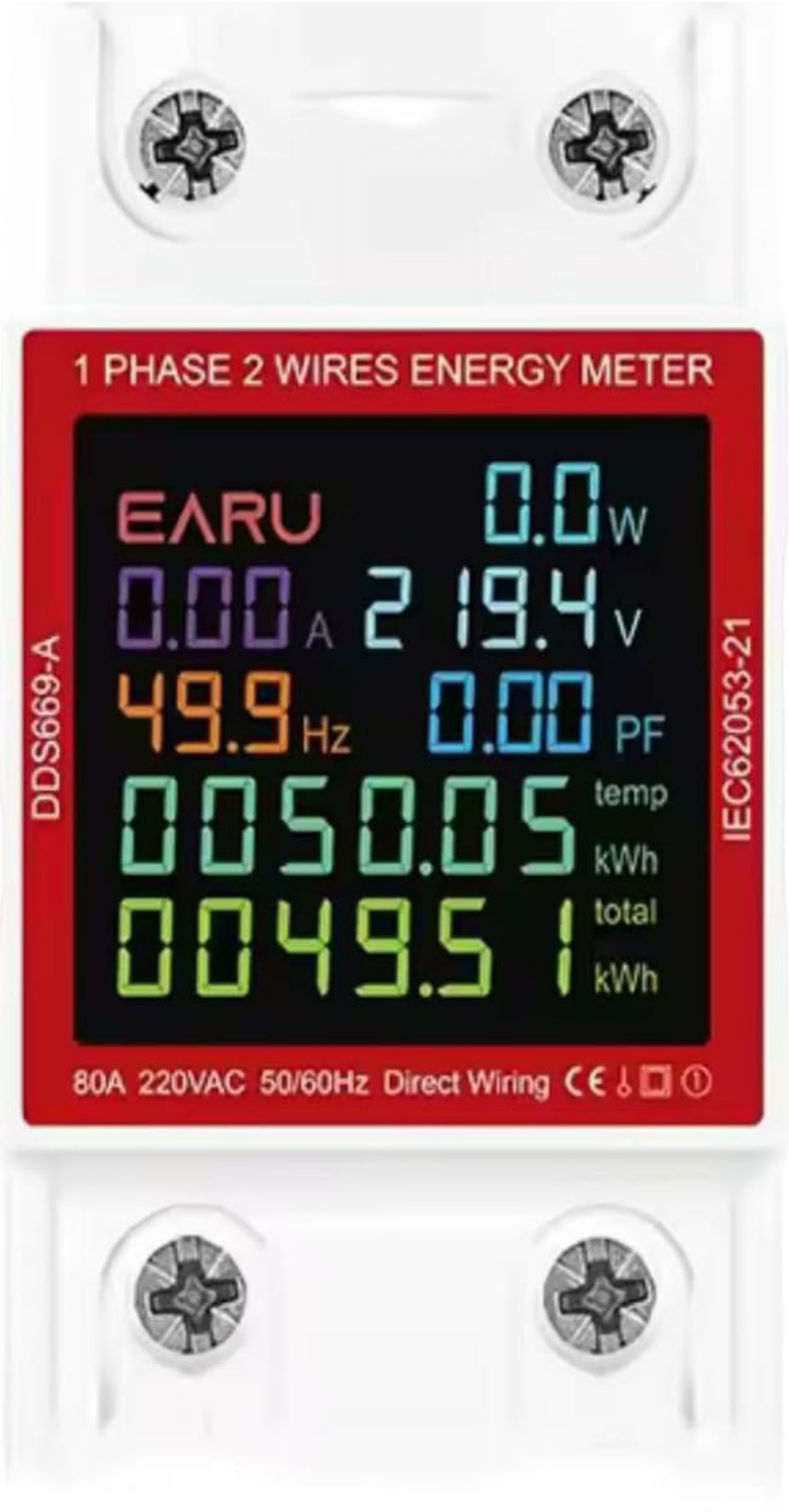


Figure 1: Front view of the EARU Electric Single Phase Energy Meter, showing the LCD display with various electrical readings.

Figure 2: Detailed view of the LCD display, illustrating the layout of voltage, current, power, frequency, power factor, and kWh readings.

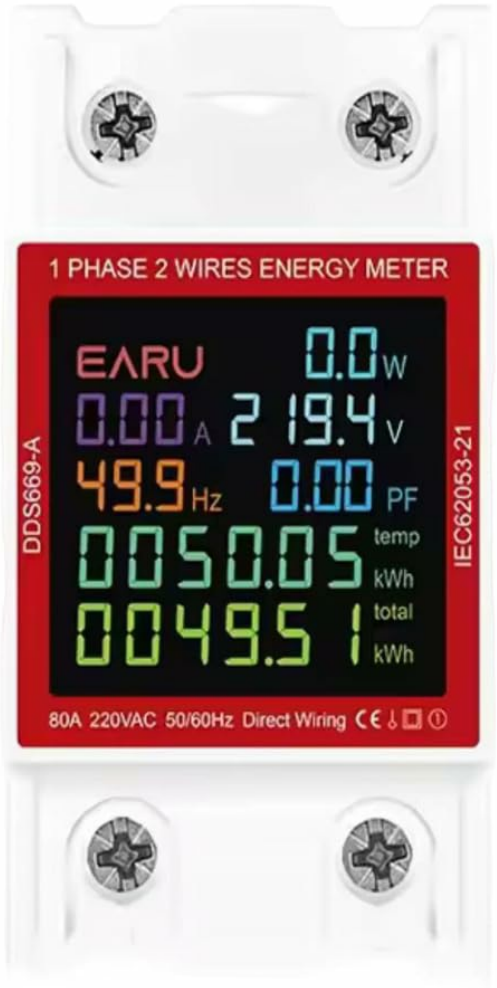
4. Package Contents

The package typically includes:

- 1 x EARU Electric Single Phase Energy Meter (Model EARU-1006)

5. Specifications

EARU ELECTRIC



Technical Data:

Rated Voltage	AC110V/220V
Frequency	50/60Hz
Measurement Accuracy	±1%/Class 1
Data Fresh Speed	1 Time/S
Power Consumption	<2W
Installation	35MM Din Rail
Working Temperature	-10°C~+55°C
Storage Temperature	-40°C~+70°C
Working Humidity	5%~95%RH
Display Type	LCD
Max kWh Record	999999kWh
Display Working Time	Always On
Load Capacity	0.051b-Imax
Standard	IEC62053-21&GB/T17215.321-2008

Figure 3: Technical data table providing detailed specifications of the energy meter.

Technical Specifications

Parameter	Value
Brand	EARU
Model	EARU-1006
Rated Voltage	AC110V/220V (230 Volts)
Rated Current	80A
Frequency	50/60Hz
Measurement Accuracy	±1% / Class 1
Power Consumption	<2W

Parameter	Value
Installation	35mm DIN Rail
Working Temperature	-10°C to +55°C
Storage Temperature	-40°C to +70°C
Working Humidity	5% to 95% RH
Display Type	LCD
Max kWh Record	999999kWh
Product Dimensions	10 x 5 x 10 cm
Item Weight	450 g

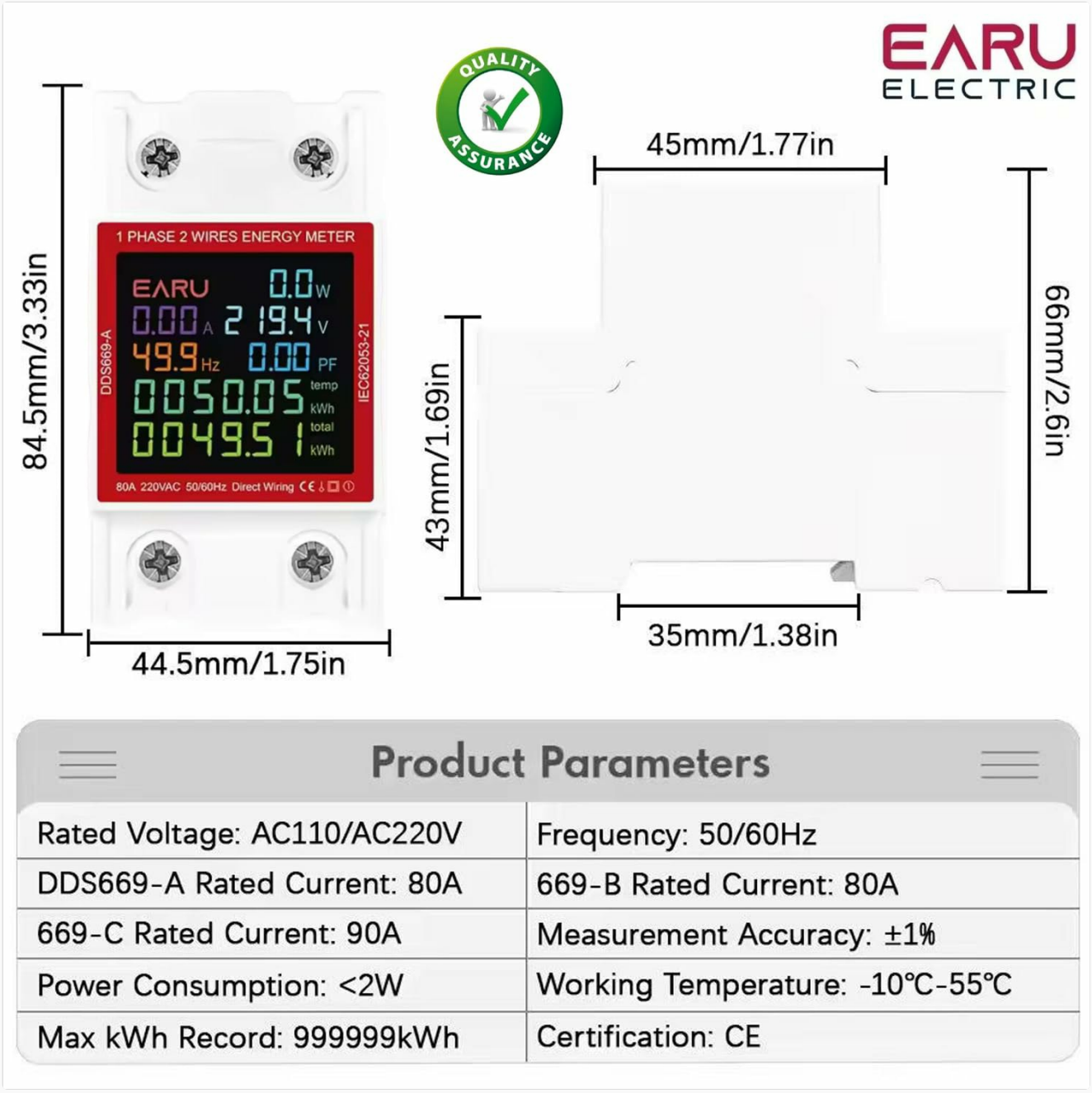


Figure 4: Dimensional drawing of the energy meter, showing measurements in both millimeters and inches.

6. Setup and Installation

Important: Ensure all power is disconnected before proceeding with installation.

1. **Mounting:** The EARU-1006 is designed for 35mm DIN rail mounting. Snap the meter onto the DIN rail securely within your electrical panel.
2. **Wiring:** Refer to the wiring diagram below for correct connection. This is a single-phase, 2-wire direct connection meter.
    - Connect the Live (L) input wire to the designated 'L In' terminal.
    - Connect the Neutral (N) input wire to the designated 'N In' terminal.
    - Connect the Live (L) output wire to the designated 'L Out' terminal.
    - Connect the Neutral (N) output wire to the designated 'N Out' terminal.
3. **Power On:** Once all connections are secure and verified, restore power to the circuit. The LCD display should illuminate and begin showing readings.

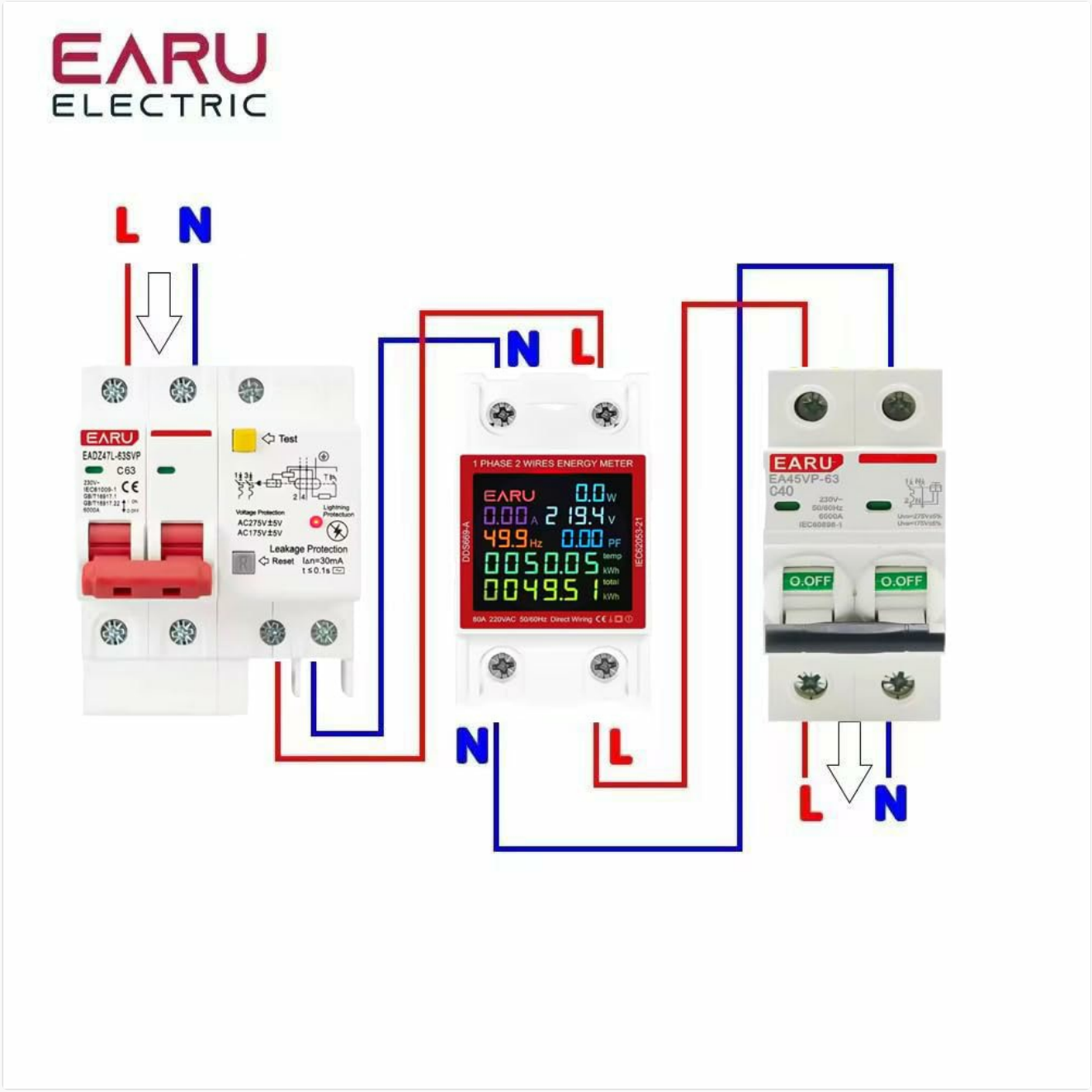


Figure 5: Wiring diagram illustrating the correct connections for the single-phase energy meter.

7. Operating Instructions

The energy meter operates automatically once powered on. The LCD display continuously cycles through or shows multiple parameters simultaneously.

- **Reading Parameters:** The display shows Voltage (V), Current (A), Power (W), Power Factor (PF), Frequency (Hz), and Kilowatt-hour (kWh).
- **kWh Reading:** The meter records total kWh consumption. This reading is permanent and accumulates over time.
- **kWh Reset:** The meter features a manual reset function for the kWh reading. Consult the device's physical buttons or specific instructions on the meter itself for the reset procedure. Typically, a long press on a designated button (if present) will reset the temporary kWh value. The total kWh value is usually non-resettable.

8. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the meter's exterior. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically inspect the wiring connections to ensure they are tight and free from corrosion.
- **Environment:** Ensure the operating environment remains within the specified temperature and humidity ranges.

9. Troubleshooting

Problem	Possible Cause	Solution
Display is blank	No power supply; Incorrect wiring	Check power connections and ensure power is supplied. Verify wiring against the diagram.
Incorrect readings	Incorrect wiring; Faulty connection	Double-check all wiring connections. Ensure wires are securely fastened.
kWh not accumulating	No load connected; Meter malfunction	Ensure there is an active electrical load connected through the meter. If problem persists, contact support.

10. Warranty and Support

The EARU Electric Single Phase Energy Meter (Model EARU-1006) typically comes with a 1-year warranty from the date of purchase. Please retain your purchase receipt for warranty claims.
For technical support, troubleshooting assistance, or warranty inquiries, please contact your retailer or the manufacturer directly. Refer to the product packaging or manufacturer's website for contact details.