KETOTEK D52-2047HD

KETOTEK AC 40-300V 100A Single-Phase Digital Energy Meter

Instruction Manual

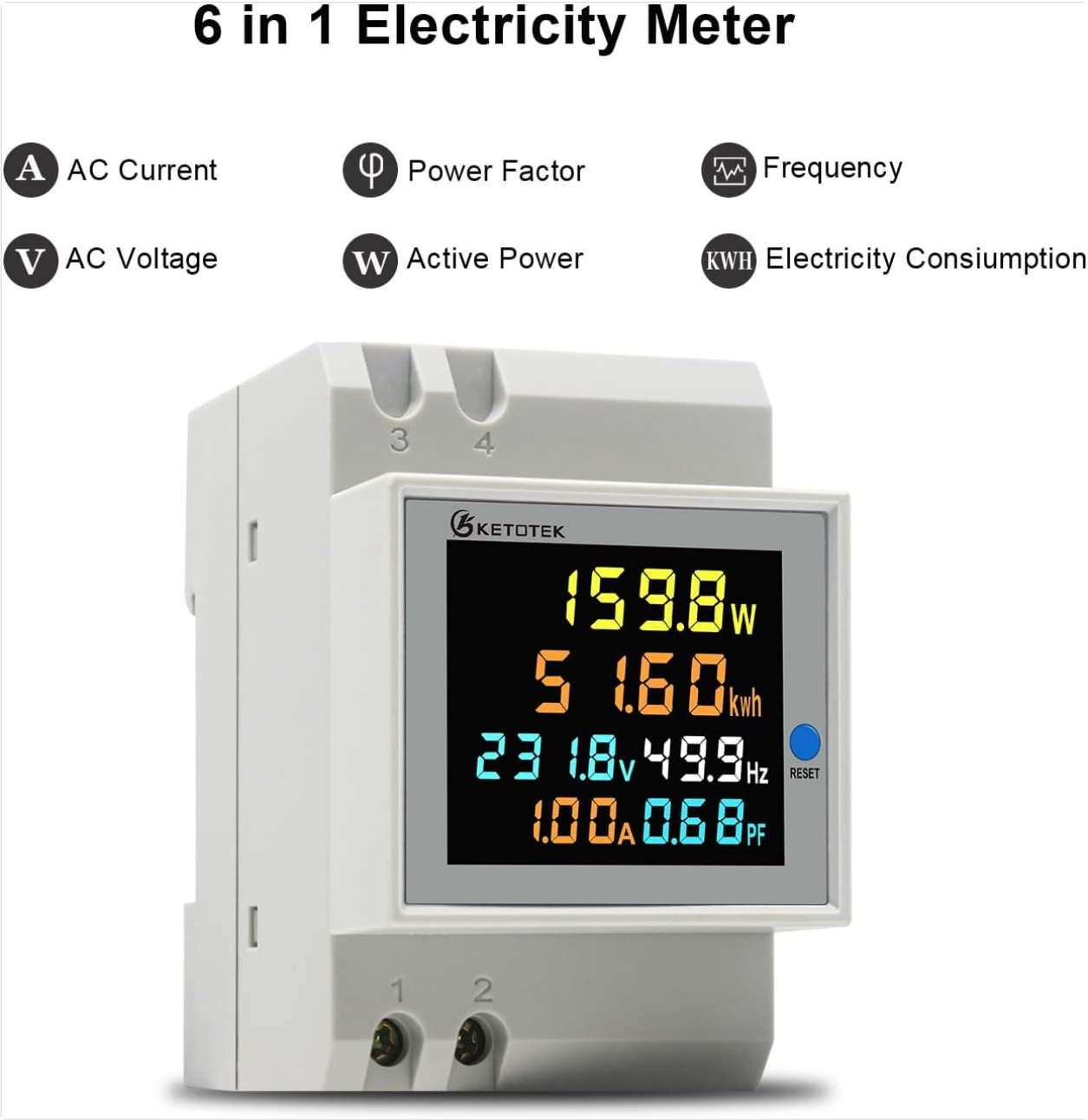
1. Introduction

The KETOTEK AC 40-300V 100A Single-Phase Digital Energy Meter is a versatile device designed for accurate measurement and display of various electrical parameters. This meter is suitable for DIN rail installation and provides real-time data for voltage, current, active power, energy consumption, frequency, and power factor.

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your energy meter. Please read it thoroughly before use.

2. Key Features

- **6-in-1 Multimeter:** Simultaneously displays AC Voltage (40-300V), AC Current (0-100A), Active Power (0-30000W), Electric Energy (0-99999kWh), Frequency (45-65Hz), and Power Factor (0-1PF).
- **High-Definition LCD Display:** Features a colorful HD LCD screen with a 178° wide viewing angle and backlight function for clear visibility in various lighting conditions.
- **Durable and Reliable:** Constructed from high-quality ABS flame-retardant material with a high-precision chip, ensuring safe operation, good electromagnetic anti-interference, low power consumption, and long service life.
- **Data Retention and Reset:** Automatically saves electrical energy data upon power loss and resumes accumulation when power is restored. A dedicated reset button allows for clearing accumulated data.
- **Wide Application:** Suitable for various environments including schools, markets, homes, industrial settings, and laboratories. Capable of measuring non-standard sine waves from inverters.

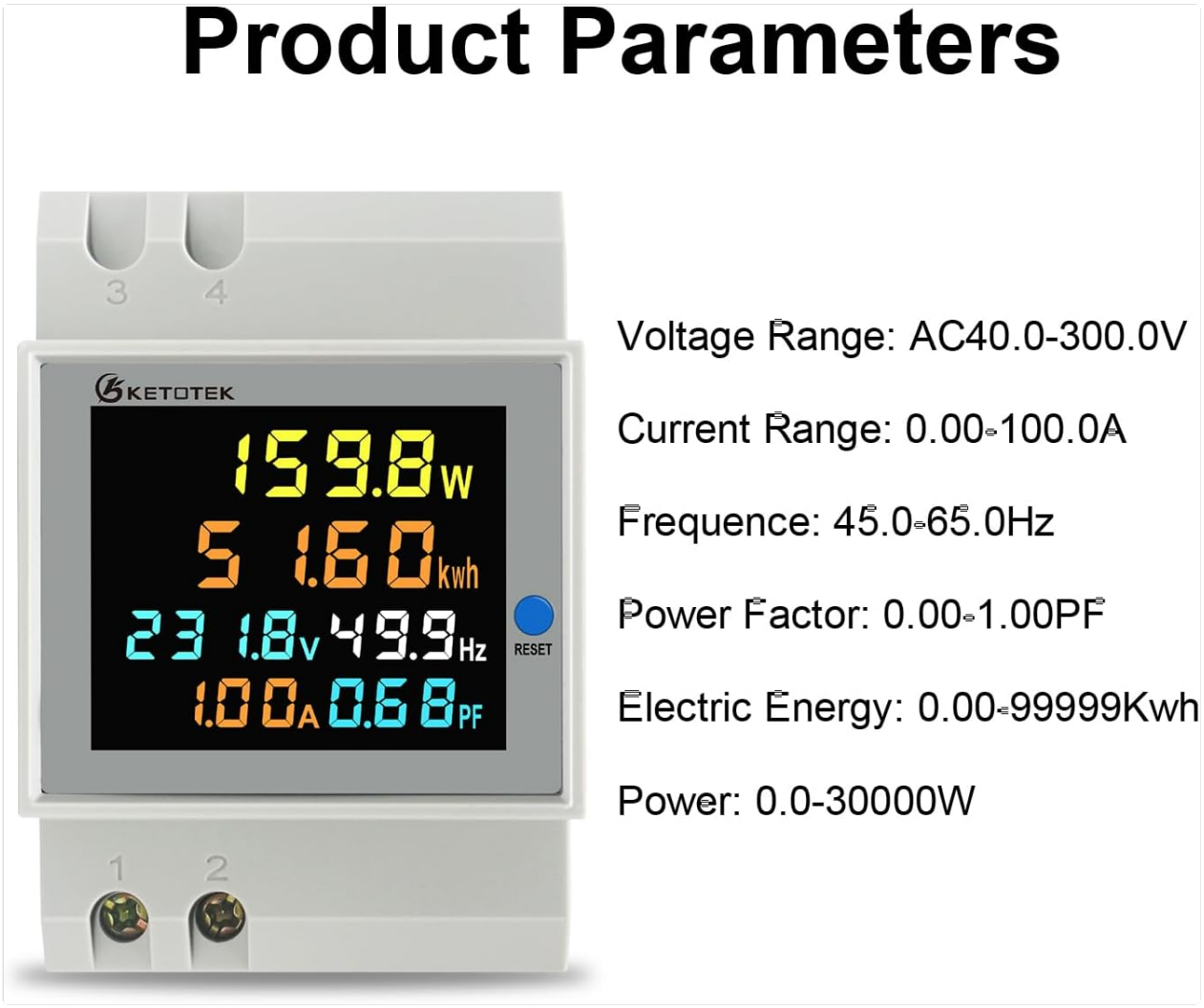


KETOTEK 6-in-1 Electricity Meter displaying AC Current, Power Factor, Frequency, AC Voltage, Active Power, and Electricity Consumption (KWh).

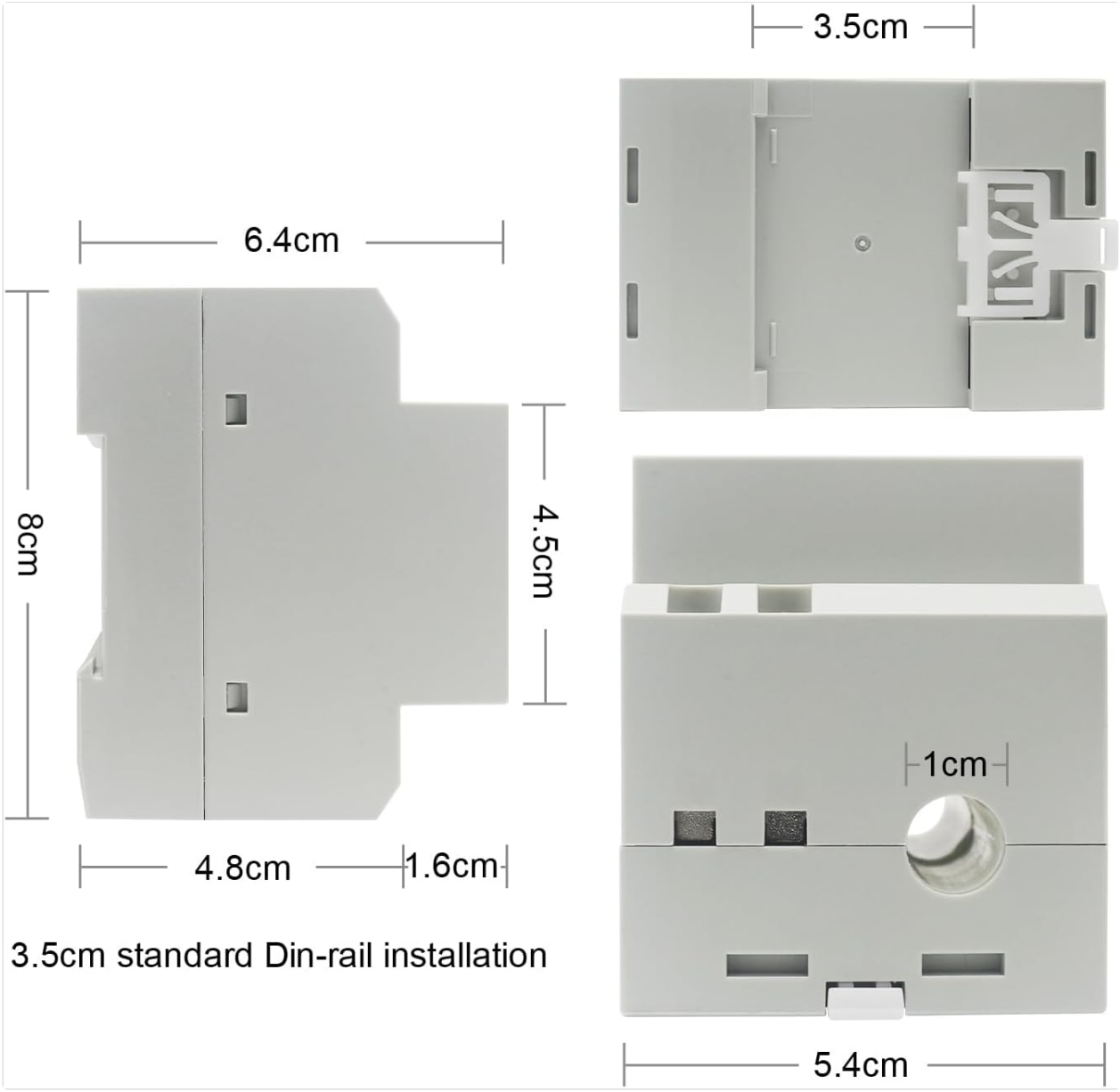
3. Specifications

Parameter	Value
Manufacturer	KETOTEK
Model Number	D52-2047HD
Dimensions (L x W x H)	5.4 x 6.4 x 8 cm
Weight	141 grams
Voltage Range	AC 40-300V
Current Range	0-100A
Active Power Range	0-30000W

Electric Energy Range	0-99999kWh
Frequency Range	45-65Hz
Power Factor Range	0-1PF
Material	ABS
Display Type	LCD
Certification	CE



Product parameters for the KETOTEK energy meter, showing ranges for Voltage, Current, Frequency, Power Factor, Electric Energy, and Power.



Technical drawing with precise dimensions of the KETOTEK single-phase energy meter, indicating its length, width, height, and DIN rail installation compatibility.

4. Safety Information

WARNING: Installation and maintenance should only be performed by qualified personnel to prevent electric shock or damage to the device. Always disconnect power before working on electrical circuits.

- Ensure the power supply is completely disconnected before installation or wiring.
- Verify that the voltage and current ratings of the meter match your application requirements.
- Do not operate the device in wet or damp conditions.
- Avoid exposing the meter to direct sunlight or extreme temperatures.
- Use appropriate personal protective equipment (PPE) during installation.

5. Installation

5.1 DIN Rail Mounting

The KETOTEK energy meter is designed for standard 35mm DIN rail installation. Simply clip the meter onto

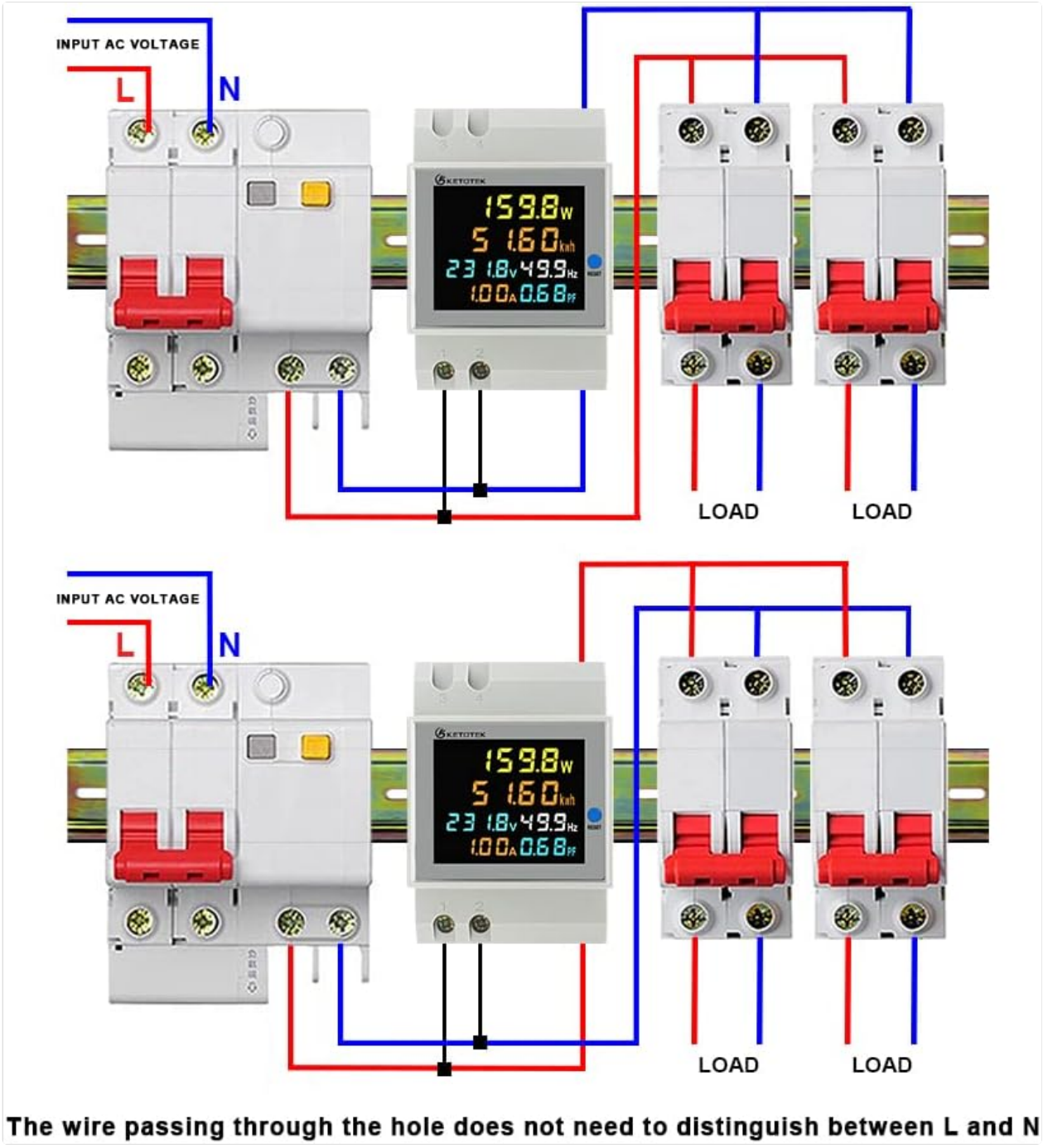
the DIN rail in your electrical panel.

The KETOTEK energy meter installed on a 35mm DIN rail within an electrical panel.

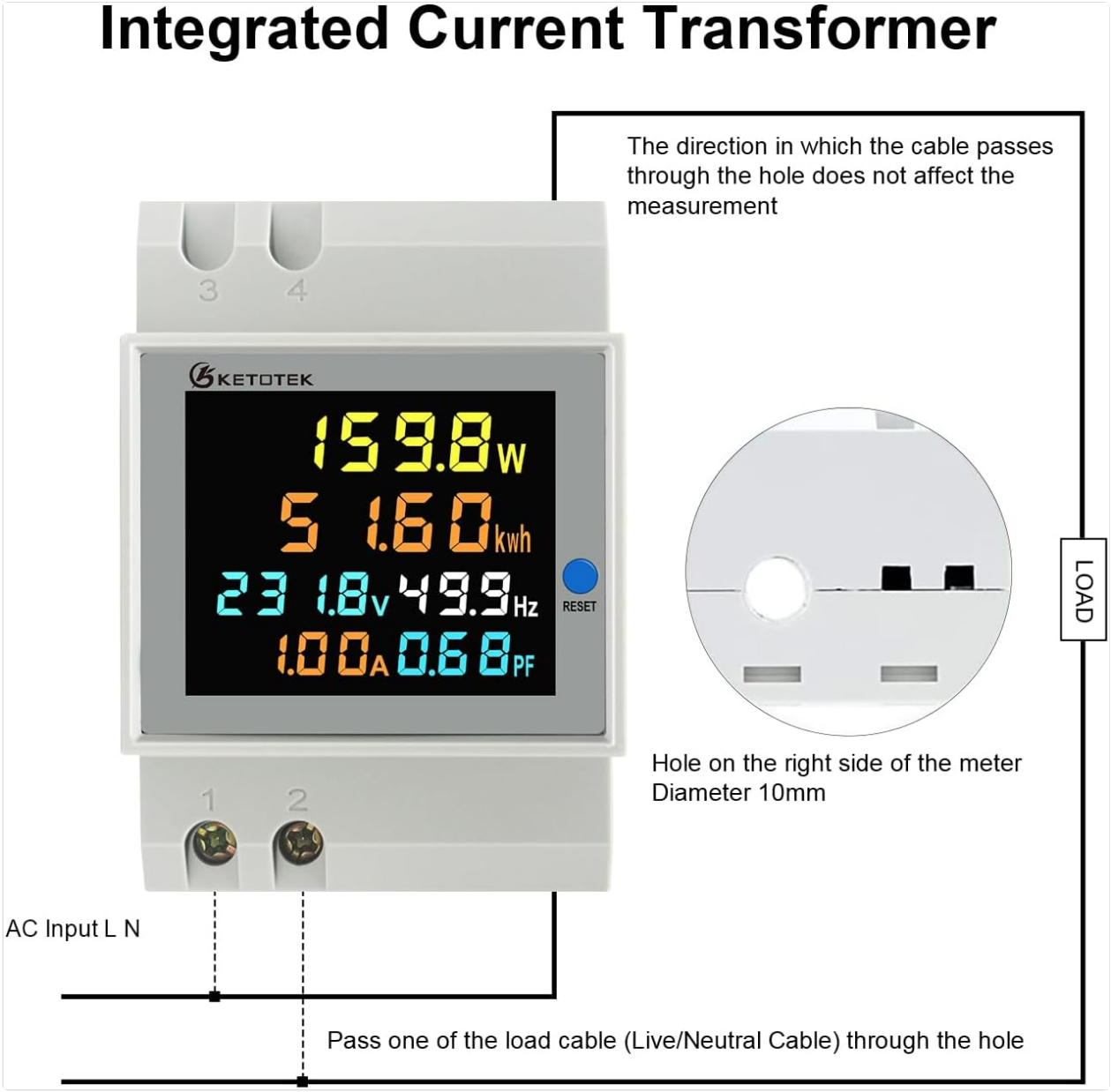
5.2 Wiring Instructions

Refer to the wiring diagram below for correct connection. The meter requires both a live (L) and neutral (N) connection for its own power supply and for voltage measurement. For current measurement, one of the load cables (either live or neutral) must pass through the integrated current transformer hole.

- Connect the AC input voltage (Live and Neutral) to terminals 1 and 2 of the meter.
- Pass one of the load cables (Live or Neutral) through the current sensing hole on the right side of the meter. The direction in which the cable passes through the hole does not affect the measurement.
- Ensure all connections are secure and properly insulated.
- For three-phase systems, connect only one live wire and the neutral wire to the meter for measurement.



Wiring diagram for the KETOTEK single-phase energy meter, showing connections with circuit breakers and loads.



Detailed diagram of the integrated current transformer, showing how to pass the load cable through the 10mm hole.

6. Operation

6.1 Power On

Once properly wired and power is supplied, the meter will automatically power on and display the measured electrical parameters on its LCD screen.

6.2 Display Modes

The meter cycles through different display screens, showing various parameters such as voltage, current, active power, energy, frequency, and power factor. The colorful HD LCD ensures clear readability.

Examples of the KETOTEK energy meter displaying real-time electrical measurements in various applications.

6.3 Data Reset

To reset the accumulated electrical energy (kWh) data, press and hold the blue "RESET" button on the front panel for approximately five seconds. The energy value will reset to zero.

The meter automatically stores the accumulated energy data even if power is interrupted. When power is restored, it will continue to accumulate from the last saved value.

7. Troubleshooting

- **No Display:** Check if the AC input voltage is correctly connected to terminals 1 and 2 and within the specified range (AC 40-300V). Ensure power is supplied to the circuit.
- **Current/Power Reading is Zero:** Verify that one of the load cables is correctly passed through the integrated current transformer hole. Ensure there is an active load drawing current.
- **Inaccurate Readings:** Confirm that the wiring is correct according to the diagram. Ensure the meter is not exposed to strong electromagnetic interference.
- **Display Flickering:** While some minor fluctuations in decimal values are normal for real-time

measurements, ensure stable power supply. If flickering is excessive or constant, recheck connections.

8. Maintenance

- Keep the meter clean and free from dust. Use a soft, dry cloth for cleaning. Do not use abrasive cleaners or solvents.
- Regularly inspect wiring connections to ensure they remain tight and secure.
- Avoid physical impact or dropping the device.
- No user-serviceable parts inside. Do not attempt to open or repair the meter yourself.

9. Warranty and Support

KETOTEK products are manufactured to high-quality standards. For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official KETOTEK website.

Please retain your proof of purchase for any warranty claims.