

Walfront DTM125SC

Walfront DTM125SC Three Phase Digital kWh Meter

INSTRUCTION MANUAL

1. Product Overview

The Walfront DTM125SC is a three-phase electronic power meter designed for accurate measurement of active energy consumption in both residential and industrial settings. This smart meter utilizes advanced digital technology and a large integrated circuit to provide reliable energy tracking. It features a 6+1 digit LCD display for clear readings and supports standard DIN-track installation.

Key Features:

- 35mm standard DIN-track installation, compliant with DIN EN50022.
- 6+1 digit LCD display (999999.1 kWh).
- Standard pulse output (polarity) for easy integration with AMR systems, meeting IEC 62053-31 and DIN43864 standards.
- Ten widths (modulus 12.5mm), compliant with DIN43880 standard.



Figure 1: Front view of the Walfront DTM125SC Three Phase Digital kWh Meter, showing the LCD display and indicator lights.

2. Safety Information

WARNING: Installation and maintenance of this device must be performed by qualified personnel only. Failure to follow these instructions may result in electrical shock, fire, or serious injury.

- Always disconnect power before installing or servicing the meter.
- Ensure all wiring connections are secure and correctly terminated to prevent loose connections and potential hazards.
- Do not operate the meter if it appears damaged.
- Adhere to all local and national electrical codes.

3. Setup and Installation

The DTM125SC meter is designed for 35mm DIN-track installation. Ensure the mounting location is dry, well-ventilated,

and free from excessive vibration or extreme temperatures.

3.1 Mounting

- Attach the meter to a standard 35mm DIN rail by aligning the clips on the back of the meter with the rail and pressing firmly until it clicks into place.



Figure 2: Top view of the meter showing the DIN rail mounting clips.

3.2 Wiring Connections

This is a three-phase, four-wire energy meter. Refer to the wiring diagram on the side of the meter for correct connections. Ensure all wires are properly stripped and inserted into the correct terminals, then tighten the terminal screws securely.

- **L1, L2, L3:** Connect the three phase lines.
- **N:** Connect the neutral line.
- Ensure the input and output connections for each phase are correctly identified and connected.

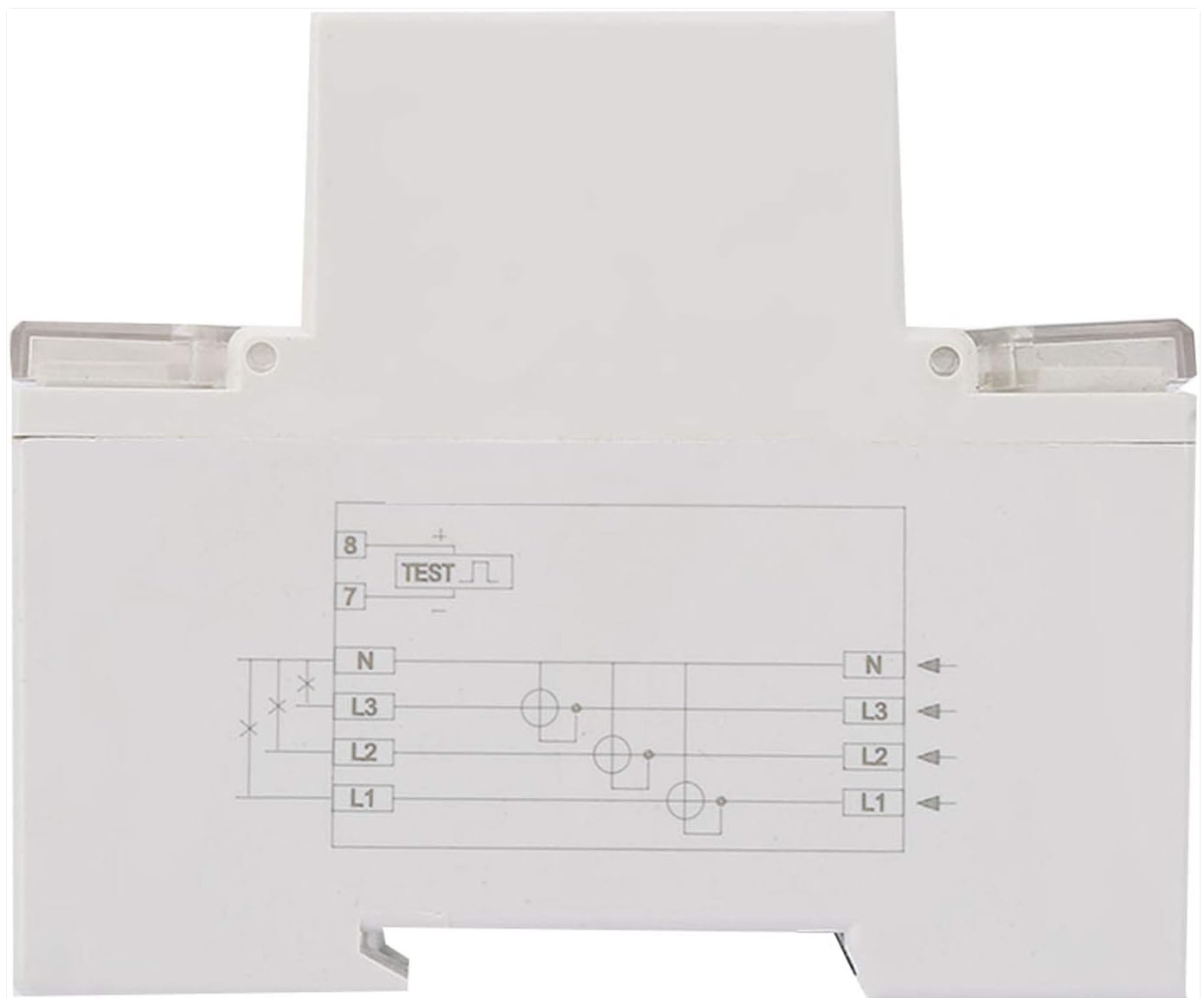


Figure 3: Side view of the meter displaying the wiring diagram for three-phase, four-wire connection.



Figure 4: Bottom view of the meter showing the terminal connections for power input and output.

4. Operating Instructions

Once properly installed and powered, the meter will automatically begin measuring energy consumption. The LCD display shows the total accumulated energy in kilowatt-hours (KWh).

4.1 LCD Display

The 6+1 digit LCD displays the total energy consumption in KWh. The last digit (after the decimal point) represents tenths of a KWh.

4.2 Indicator Lights (LEDs)

- **L1, L2, L3:** These LEDs indicate the presence of voltage for each respective phase. They should be illuminated when power is supplied to the corresponding phase.
- **PULSE:** This LED flashes to indicate active energy measurement. The flash rate is proportional to the energy consumption (e.g., 400imp/KWh).

- **REV:** This LED illuminates if reverse current flow is detected.
- **TEST:** This LED is typically used during calibration or testing by authorized personnel.

5. Maintenance

The Walfront DTM125SC Digital kWh Meter is designed for long-term, maintenance-free operation. No user-serviceable parts are inside.

- Keep the meter clean and free from dust. Use a soft, dry cloth for cleaning. Do not use liquid cleaners or solvents.
- Ensure the terminal connections remain tight and free from corrosion. Periodically inspect connections if the environment is prone to vibration or moisture.
- Do not attempt to open or repair the meter. This will void the warranty and may pose a safety risk.

6. Troubleshooting

If you encounter issues with your Walfront DTM125SC meter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display/Meter not powering on	No power supply; incorrect wiring; internal fault.	Check power supply to the meter. Verify wiring connections according to the diagram. If power is present and wiring is correct, contact support.
PULSE LED not flashing	No load connected; very low load; internal fault.	Ensure there is an active electrical load. If load is present and LED still not flashing, contact support.
REV LED illuminated	Reverse current flow detected.	Check wiring for incorrect phase or neutral connections that could cause reverse current. Consult a qualified electrician.
Inaccurate readings	Incorrect wiring; faulty meter.	Double-check all wiring connections. If wiring is correct, the meter may be faulty; contact support.

For issues not listed above or if troubleshooting steps do not resolve the problem, please contact Walfront customer support.

7. Specifications

Parameter	Value
Model	DTM125SC
Rated Voltage	3 x 220V / 380V
Current Specification	3 x 20(80)A
Frequency	50Hz
Display Mode	LCD (6+1 digits)
Pulse Output	400imp/KWh (Standard configuration pulse output passivity)

Parameter	Value
Installation Method	35mm DIN Rail Type
Insulation Performance	Voltage CA 4KV, 1 minute; Impulse voltage 1.2/50US 6KV
Standard Compliance	IEC 62053-31, DIN43864, DIN EN50022, DIN43880
Package Dimensions	5.24 x 3.66 x 3.27 inches
Item Weight	1.06 pounds

8. Warranty and Support

Walfront products are manufactured to high-quality standards. For warranty information or technical support, please contact your retailer or Walfront customer service directly. Please have your product model number (DTM125SC) and purchase details available when contacting support.

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