Qoltec®

Model: 50883

INSTRUCTION MANUAL

THREE-PHASE ELECTRONIC METER | DIN RAIL ENERGY CONSUMPTION METER WITH WI-FI

INTRODUCTION

Thank you for purchasing the Single-phase energy meter with 2 modules with WI-FI. The meter is designed for DIN rail mounting and offers a wide range of functions for integration into electrical installations, providing significant benefits for the user. The device provides high efficiency, safety and installation convenience. It is part of a comprehensive range of DIN rail-mounted energy meters with various communication options.

ABOUT THE PRODUCT

230V/400V AC-powered electronic energy consumption meter for DIN rail mounting 35 is used for the ongoing monitoring of the level of electricity consumption by three-phase consumers. The LCD display indicates the energy consumed converted from the number of pulses. Energy consumption per phase is indicated by an LED measurement indicator. Accuracy class 1. The TUYA app provides detailed information on energy consumption per phase. The base current is 10A, the maximum current 100A

NOTE : It is not possible to manually reset the counter (e.g. kWh value) to zero.

TECHNICAL SPECIFICATIONS

Type	Three-phase, unidirectional
Accuracy	Class 1.0
Rated voltage	3 x 230/400V
Rated current	3 x 10(100)A
Inrush current	0.4%Ib
Pulse constant	800 imp/kWh
Number of poles	7P
LCD display	5+2
Signalling	LED
Assembly	DIN rail TH35

Communication	TUYA application

SAFETY INSTRUCTIONS

1. Installation and removal of the meter should only be carried out by a qualified electrician. The guarantee is invalid if the housing has been opened or the guarantee seal has been removed.
2. Always disconnect the power supply before starting any installation, maintenance or repair work.
3. Ensure that the meter is connected to a properly protected electrical circuit, in accordance with local electrical regulations and standards.
4. The unit should be installed in a dry location, protected from moisture and direct contact with water.
5. Ensure that the meter is installed in a location that allows adequate ventilation to prevent overheating.
6. Periodically check the condition of the meter, including the electrical connections, to ensure they are working properly and there is no visible damage.
7. The appliance should be installed out of the reach of children and unauthorised persons.
8. Do not exceed the maximum current and voltage rating specified in the device specifications.
9. It is recommended that surge protectors are installed in the electrical circuits to protect the meter from sudden voltage spikes.

INSTALLATION OF THE DEVICE

1. Install the unit on a 35 mm wide DIN rail, choosing a location that allows the meter to be easily read.
2. Make sure the meter is installed in a well-ventilated and dry place

3. If the meter is exposed to dust or other debris, it should be installed in a protective enclosure
4. In areas exposed to frequent surges (e.g. due to storms), we recommend protecting the meter with a surge protection device (SPD).

DIAGRAM

Illustration 1 in the appendix

What we see in the diagram:

1. **Inputs (inputs)**:

- There are four inputs labelled **A, B, C, N**.
- A, B, C are the three phases of current (as in a three-phase socket) and **N** is the neutral wire.

2. **Outputs (outputs)**:

- To the right are the exits, also labelled **A, B, C, N**.
- The outputs are connected to the inputs via a relay

3. **Impulses (pulse)**:

- On the top right are two additional terminals marked **5 (-)** and **6 (+)**.
- These are the terminals for connecting a control that operates on impulse (a short application of current). These terminals are connected to the pulse control circuit. When a current pulse is applied to these terminals, the relay changes its state (switches the circuit on or off).

How it works:

- Current enters the circuit through the **A, B, C, N** inputs
- In its normal state, the current does not continue to flow because the relay is "off".

- If you apply a short pulse of current to terminals **5** and **6**, the relay will 'switch on' and connect the inputs to the outputs
- Once the pulse is over, the relay remains 'on' until another pulse is given to switch it off

Application example:

If you have a lamp in your home that you want to switch on from different locations using a single button. Each press of the button sends a pulse to the relay, which turns the lamp on or off. You don't have to keep the button pressed all the time, a short pulse is enough.

PRINCIPLES

Button left (Button left): Allows you to view various readings and parameters on the display when pressed. Used to toggle displayed data such as active energy, reactive energy, etc.

Button right: Used to set various counter options. It can also be used to toggle the Wi-Fi connection (e.g. to pair with a Wi-Fi network).

INDICATORS

Illustration 2 in the appendix

1. Active Indicator (Active Energy Indicator): Measures and indicates the consumption of active energy, i.e. the energy that is actually used to operate the equipment.
2. Reactive Indicator (Reactive Energy Indicator): Measures and indicates the reactive energy that is not used to do work, but is needed to maintain the electromagnetic field in equipment such as transformers or motors.
3. Net Indicator: Indicates the status of the Wi-Fi network connection. It is used to monitor the meter's connection to the internet or mobile app.

4. Relay Indicator : Indicates the status of the relay, i.e. whether the power is on (cut on) or off (cut off). This indicator is useful for remote control of the power supply.

TUYA APPLICATION INSTALLATION

The meter has a Wi-Fi remote control function via the Tuya platform, which allows energy consumption to be monitored and the device to be managed remotely via a mobile app. The app can remotely switch the device on and off.

1. Download and register the app ,,Tuya Smart" from the App Store (*Illustration 3 attached).* Enter your e-mail address and select your country. When you receive your verification code, enter it and then set your password to log in.
2. Add a device. Turn on Bluetooth on your phone. Accept the required permissions. Select a Wi-Fi network and enter the network password.
3. The next step is to pair the device. Make sure the device is switched on.
4. Hold down the button on the device until the LED starts flashing. Turn on Bluetooth and Wi-Fi on your smartphone to start pairing. The app will automatically add the device to the list. This process may take approximately 1 minute. The indicator light should start flashing faster. Select "Confirm the indicator is blinking".
5. The application will prompt you add a new device.

PROBLEM SOLVING

NO WI-FI CONNECTION	1) Make sure the router is working properly and is close to the device.
THE DEVICE DOES NOT RESPOND TO COMMANDS FROM THE APPLICATION	1) Check the internet connection on your smartphone. 2) Ensure that the device is correctly installed and powered.

CONSERVATION

1) Regularly check the technical condition, including DIN rail mounting and the condition of the electrical connections.

2) Turn off the power before cleaning.
3) Wipe the unit with a dry cloth. Do not use chemicals or water.
4) If you notice any damage, such as cracks in the casing or burns, immediately unplug the unit and contact an authorised service centre.
5) Do not try to repair it yourself - contact the manufacturer's technical service NTEC SP. Z O.O.
6) The device is appropriately marked, including the CE symbol, serial number and manufacturer's data, which enables the product to be identified and compliant with current legislation.

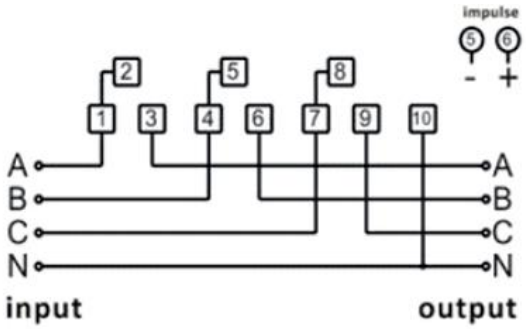
UTILISATION

This product is subject to the regulations for the disposal of electrical and electronic equipment (WEEE). It must not be disposed of with municipal waste. If you have any questions about disposal, please contact the manufacturer or an authorised service centre.

INFORMATION ON WARRANTY AND SERVICING

The product is covered by a 24-month manufacturer's warranty from the date of purchase. The warranty covers any defects in materials and workmanship. Please contact our service department if you have any problems with your device to ensure prompt and professional service. The warranty does not cover damage resulting from misuse, falls, mechanical damage, unauthorised repairs or attempts at disassembly. The warranty is invalid if the housing has been opened or the warranty seal has been removed.

1


impulse
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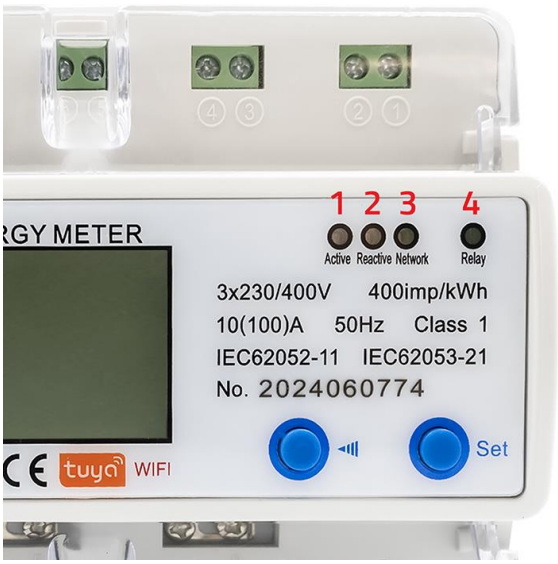
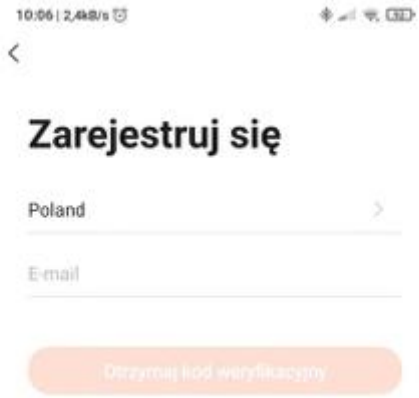

1 2 3 4
Active Reactive Network Relay
RGY METER
3x230/400V 400imp/kWh
10(100)A 50Hz Class 1
IEC62052-11 IEC62053-21
No. 2024060774
tuya WIFI
Set

3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