

3-phase energy meter, 100A, RS-485 port, MID, 4 modules, multi-tariff, installation rail: DIN TH-35mm, PV-Ready

ORNO

Marka: Orno | Symbol: OR-WE-530 | Ean: 5908254846564



PRODUCT DESCRIPTION

The 3-phase energy meter with a maximum current of 100A is a modern measuring device designed for precise monitoring of electricity consumption in three-phase installations. Thanks to the MID certificate, the device may be used in commercial, industrial and home applications where accurate and reliable readings are required.

The meter is multi-tariff, which means that it automatically records energy consumption in different time zones according to a defined tariff. This facilitates savings if a greater deal of energy is consumed during cheaper tariff.

The unit operates in systems with a rated voltage of 3x230/400V~ and a frequency of 50/60Hz, enabling energy measurement without the need to use current transformers. The device records active, reactive, consumed and emitted energy. This allows for comprehensive monitoring of energy flow in both directions. The minimum measuring current of 0.25A ensures high sensitivity of the device even at low load.

Digital LCD display (6+2 digits) with backlight facilitates comfortable readings even in low light. The device also has a sub-meter reset function, especially useful in situations requiring periodic resetting of readings.

Designed for mounting on a TH-35mm DIN rail, it ensures easy installation in common distribution boards. The housing with dimensions of 72x72x90 mm fits into the standard 4 DIN modules. The maximum cross-section of the connecting wires is 35 mm².

The device is equipped with an RS-485 port supporting the Modbus protocol and an S0 pulse output, which allows for easy integration with monitoring and automation systems. Additionally, the meter supports the IR protocol compliant with EN 62056-21.

The meter was designed in accordance with the following standards: IEC 62052-11:2020, IEC 62053-21:2020, IEC 62053-23:2020, EN 50470-1:2006 and EN 50470-3:2006. Compliance with MID 2014/32/EU allows the meter to be used in commercial spaces where certified equipment is required.

TECHNICAL DATA

General information:

| | |
|--------------------------------------------|---------------|
| Type of meter: | Elektroniczny |
| Nominal current (I _n) [A]: | 10 |
| Max. current (I _{max}) [A]: | 100 |
| Min. Current [A]: | 0.25 |
| Start current (I _{st}) [A]: | 0.004 |
| Nominal voltage (U _n) N-L [V]: | 230 |
| Nominal voltage (U _n) L-L [V]: | 400 |
| Frequency [Hz]: | 50 |
| Pulse frequency [imp/kWh]: | 1000 |

| | |
|--------------------------------------------------|---------------------------------------|
| Accuracy class [W]: | <12VA <1W |
| Pole type: | Trójfazowy |
| Model: | Pomiar bezpośredni |
| Measurement accuracy class: | 1 |
| Energy type: | Moc czynna i bierna |
| Active power: | Tak |
| Reactive power: | Tak |
| Forwarded power: | Tak |
| Reversed power: | Tak |
| Suitable for: | Pobór/zwrot |
| Tariff type: | Wielotaryfowy |
| Tariff control: | Wewnętrzny |
| Resetting sub-meter possibility: | Tak |
| Memory support: | bateria Li-Ion |
| Calibrated: | Tak |
| Approval: | MID (Measuring Instruments Directive) |
| Pulse output: | Optyczny |
| Pulse type: | S0 |
| Pulse rate [Imp/kWh]: | 1000 |
| Pulse output voltage [V DC]: | 12-27 |
| Pulse output current [mA]: | ≤27 |
| Multi-tariff: | Tak |
| Type of indication: | Cyfrowy |
| Backlight: | Tak |
| IR port: | Tak |
| Mounting method: | Adapter szyny DIN |
| Width in number of modular spacings: | 4,3 |
| Max. Cross-section of cables [mm ²]: | 35 |
| Width [mm]: | 72 |

| | |
|------------------------------------------------|---------------------------------------------------------------------------------------|
| Depth [mm]: | 72 |
| Height [mm]: | 90 |
| Temperature Range [°C]: | -40 - +70 |
| Max. Humidity: | ≤95% |
| Type of protocol: | IR , RS-485 |
| Type of interface: | Modbus, EN 62056-21 |
| Degree of protection (IP): | IP51 |
| Compliance with: | MID 2014/32/EU |
| Compliance with standards: | IEC 62052-11:2020 IEC 62053-21:2020 IEC 62053-23:2020 EN 50470-1:2006 EN 50470-3:2006 |
| Display [kWh]: | LCD 6+2 = 123456,12 |
| Display - number of digits: | 6+2 |
| Moment dokręcenia złącza siłowego [Nm]: | 2.5 |
| Moment dokręcenia złącza komunikacyjnego [Nm]: | 0.4 |