EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

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ELECTRICITY ENERGY METER
3-phase, 2-wire, tariff
to half indirect measurement

LE-03MW CT

WARRANTY. The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase.
Contact your dealer or directly with us.
More information how to make a compliant can be found on the website:
www.fif.com.pl/reklamacje

5 902431 671871

Do not dispose of this device in the trash along with other waste! According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.

Przeznaczenie

LE-03MW CT is an electronic, 2-way electricity meter for three-phase electricity, designed for measurement in a half indirect measurement.

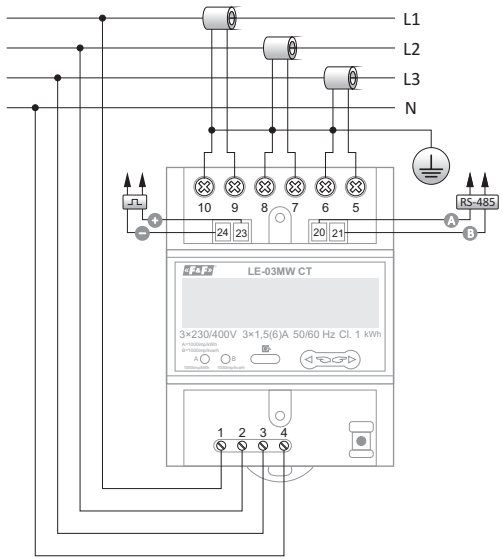
The built-in real-time clock allows energy consumption to be measured with different tariff zones.

The device is equipped with communication interfaces: RS-485 with Modbus RTU protocol and optical port compliant with EN62056 (IEC1107) standard for remote reading and configuration of the meter.

Characteristis of the device

* 3-phase, 2-way energy meter;
* half indirect measurement (direct measurement up to 6 A);
* energy measurement in 4 tariff zones;
* built-in real time clock with battery backup to switch tariff zones;
* registration of total and divided into consumption tariffs:
  – total active and reactive energy;
  – active and reactive energy divided into individual quadrants;
* 8 time schedules dividing the day into tariff zones;
* it can settle energy according to schedules specific for business days and weekends;
* it can divide year into 8 time intervals; in each interval the energy (for weekdays) can be settled according to a different schedule;
* indication of network parameters (voltages, currents, active power, reactive power, apparent power, power factor, frequency);
* calculation of power demand for individual tariffs;
* additional, resettable energy meter;
* RS-485 port, Modbus RTU protocol;
* optical communication port compliant with EN62056 (IEC1107) standard;
* 2× SO pulse outputs with a programmable number of pulses per kWh/kvarh;
* multifunction LCD display.

Connection diagram



20, 21 – RS-485 (A, B)
23, 24 – wyjście impulsowe

Setting the current transformer

The current transformer of the meter can be set remotely via the Modbus RTU interface or locally with the PROG button.
To manually set the transformer:
1) Turn the meter power off and on.
2) Press and hold the PROG button.
3) After approximately 15 seconds, release the PROG button.
4) The display will show a flashing transformer value (for example 0005-5).
5) Use the RIGHT or LEFT buttons to set the desired current trans-former value.
6) Wait until the transformer value disappears from the display.

Indication of energy consumption

The maximum indicated value of electricity consumption depends on the selected current transformer value.

Transformer	Energy consumption readout
5/5	99999,999 kWh
40/5	99999,999 kWh
50/5	999999,99 kWh
60/5	999999,99 kWh
75/5	999999,99 kWh
100/5	999999,99 kWh
125/5	999999,99 kWh
150/5	999999,99 kWh
200/5	999999,99 kWh
250/5	999999,99 kWh
300/5	999999,99 kWh
400/5	9999999,9 kWh

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500/5	9999999,9 kWh
600/5	9999999,9 kWh
800/5	9999999,9 kWh
1000/5	9999999,9 kWh
1250/5	9999999,9 kWh
1500/5	9999999,9 kWh
2000/5	9999999,9 kWh
2500/5	9999999,9 kWh
3000/5	9999999,9 kWh
4000/5	99999999 kWh
5000/5	99999999 kWh
6000/5	99999999 kWh
7500/5	99999999 kWh

After filling the readout field, the meter starts counting the energy from the value of 0 kWh.

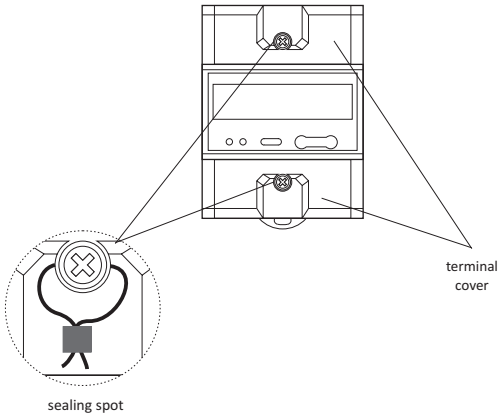
Meter number

The meter is marked with individual serial number allowing its unambiguous identification. The marking is laser engraved and cannot be removed.

Sealing

The meter has sealable input and output terminal covers to prevent any attempts to bypass the meter.

Additionally, it is possible to seal the access cover to the PROG button, which allows a local change of the current transformer setting.



Warning

Full technical documentation of the device, CE declaration, copy of the MID certificate, description of the communication protocol and software for meter configuration via the RS-485 interface is available for download from the product website: www.fif.com.pl.

Technical data

reference voltage	3×230/400 V
minimum current/base current	0.25/1.5 A
transformer settings	5/5, 40/5, 50/5, 60/5, 75/5, 100/5, 125/5, 150/5, 200/5, 300/5, 400/5, 500/5, 600/5, 800/5, 1000/5, 1250/5, 1500/5, 2000/5, 3000/5, 4000/5, 5000/5, 6000/5, 7500/5
maximum current	6 A
minimum detection current	0.003 A
voltage measuring current	
L-N	100÷289 V AC
L-L	173÷500 V AC
registered parameters:	
* consumed and supplied active energy	
* inductive and capacitive reactive energy	
* phase voltages	
* phase currents	
* active power (absolute value)	
* reactive power (absolute value)	
* apparent power	
* power factor (absolute value)	
* frequency	
rated frequency	50 Hz
measurement accuracy	B class
instalation	3-phase, 4-wire
overloading	30×Imax/10 ms
insulation	4 kV/1 min.; 6 kV/1 µs

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own meter consumption	<10 VA; <2 W
measured values	
indication range of the meter	8 digits
pulse output	
number of pulse output	2
type of pulse outputs	OC (open collector)
maximum voltage	30 V DC
maximum current	27 mA
pulse constant for output 1	10; 100; 1000 imp/kWh
pulse constant for output 2	1000 imp/kvar
communication	
port	RS-485
communication protocol	Modbus RTU
transmission speed	1200, 2400, 4800, 9600 bps
parity	EVEN
parity bits	2
reading indication	2×LED
working temperature	-25÷55°C
terminal	screw terminals 25mm²
dimensions	76×100×65 mm (4,5 of DIN module)
mounting	on the TH-35 mm rail
protection level	IP51
insulation protection class	II class
housing	UI94 V-0 self-extinguishing material