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el FF ®

ENERGY METER
three-phase

LE-02d CT

5 908312 595083

Do not dispose of this device to a garbage bin with other unsorted waste!
In accordance with the Waste Electrical and Electronic Equipment Act any household electro-waste can be turned in free of charge and in any quantity to a collection point established for this purpose, as well as to the store in the event of purchasing new equipment (as per the old for new rule, regardless of brand). Electro-waste thrown in the garbage bin or abandoned in the bosom of nature pose a threat to the environment and human health.

CE

Purpose

LE-02 CT is a static (electronic) indicator calibrated electricity three-phase alternating current system.

The indicator is designed to work with current transformers with primary current Ip from 5 ÷ 6000A and secondary current 5A. The maximum measured current is determined by the value of the primary current Ip current transformer used. You can set the index value of the gear used transformers, allowing you to identify the actual value taken by the electricity system.

Functioning

A special electronic system under the influence of current flow and applied voltage in each phase generates pulses in proportion to the electricity consumed in this phase. Phase energy consumption is indicated by flashing the corresponding LED (L1, L2, L3). The sum of the three phases of pulses indicated by a flashing LED is converted to energy taken in the entire three-phase system, and its value is determined by the segment LCD display.

Stored in the memory index values transformer primary current Ip possible to apply. Choosing the right value compatible with the values of external transformers automatically sets the correct ratio, which is calculated according to the actual value of the collected energy. The LCD displays the actual value of the energy consumed in the format depending on the selected gear.

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Pulse output

The indicator has a pulse output SO+ SO-. This allows you to connect a pulse meter-reading (SO) pulses generated by the counter. For proper operation of the indicator is not required to connect additional devices. Constant pulse counter is 12000pulses/kWh for maximum input current meter, or the secondary current transformer (5A). When using a dedicated transformer the number of pulses per 1 kWh is calculated from the formula $(12000 \times 5) / Ip$, where:

Ip - primary current transformer used.

Example: for a transformer of $5 / 5A$ ($Ip = 5$): $(12000 \times 5) / 5 = 12000$ pulses $/ kWh$
for CT $100 / 5A$ ($Ip = 100$): $(12000 \times 5) / 100 = 600$ pulses $/ kWh$

Programming

Transmission programmable using the button located under the lower casing meter terminals.

⚠ For safety reasons, the data logging function can make the gear set only once.

CT Current values Ip inscribed in memory device:
5, 25, 40, 50, 60, 75, 80, 100, 120, 150, 200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1500, 1600, 2000, 2500, 3000, 4000, 5000, 6000.

Another pressing the programming button jumps to the next value.
After switching to the desired value in order to confirm the selected value to hold the key >30s.

Sealing

The indicator has the possibility of sealing guards input and output terminals do to prevent circumvention of the counter.

Counter number

The meter is marked with an individual serial number to uniquely identify it. The marking is indelible (laser engraver).

FF12345
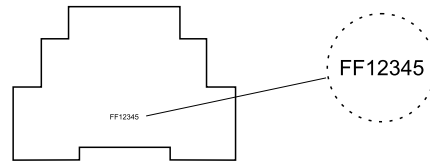
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Assembly

1. Disconnect the power supply.
2. The indicator mounted on a rail in the distribution box.
3. Using a screwdriver, remove the screws and remove the front shield meter terminals.
4. Connect the voltage-controlled phase, following the indications to terminals 1 (L1), 2 (L2), 3 (L3).
5. Connect the cable to the terminal N 4.
6. Transformers fasten on the phase conductors and secondary outputs connected in accordance with the indications to the terminals 10-9 (L1), 8-7 (L2), 6-5 (L3).

⚠ Do not tighten the clamps without the inserted wire. Doing so may damage the lift mechanism terminal or a plastic shield that terminal.

7. Additional pulse receiver connected to terminals 20(+) - 21(-). The terminals are located under the top shell meter terminals.
   NOTE! Additional pulse receiver is not required.
8. Pull the cap setting button transmission. Program indicator. Slide the cap.
   NOTE! The shell has a hole for safety seal assumption.
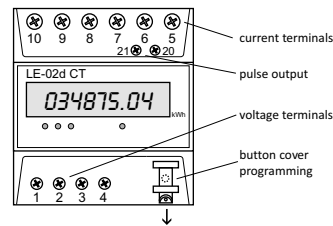9. Install shield meter terminals.

Technical data

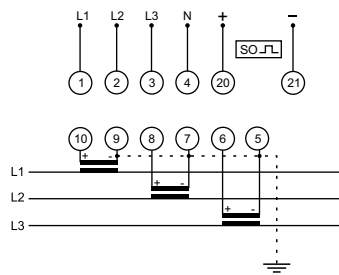|	
reference voltage	3×230/400V+N
base current	3×1,5A
maximum current	3×6A
secondary current transformer	5A
secondary minimum current	0,04A
accuracy in accordance (with IEC61036)	1st class
own power consumption	<10VA; <2W
load current inputs	0,4VA
number of characters LCD	8
indication range	depending on the gear
meter constant (for 5/5A)	12000 pulses/kWh
current consumption signal	3×red LED
read-out signalling	red LED
SO+ SO- pulse output	open collector
SO+ SO- connection voltage	<30V DC
SO+ SO- current connection	<27mA
SO+ SO- constant	depending on the gear
SO+ SO- pulse time	35ms
working temperature	-20÷55°C
terminal	screw terminals 16mm²
dimensions	4,5 modules (75mm)
mounting	on TH-35 rail
degree of protection	IP20

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The method of projection data depending on the settings gear:

Format	Current Ip
000000.00	5; 25; 40; 50; 60.
0000000.0	75; 80; 100; 120; 150; 200; 250; 300; 400; 500; 600.
00000000	800; 1000; 1200; 1500; 1600; 2000; 2500; 3000; 4000; 5000; 6000.

I/O description

current terminals
pulse output
voltage terminals
button cover programming

Wiring diagram

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