

ENERGY METER LEM-30

THREE-PHASE DIGITAL

MANUAL INSTRUCTION



ZAMEL Sp. z o.o.

zameL

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DESCRIPTION

LEM-30 energy meter with a backlit display, is used to monitor the three-phase electricity consumption in commercial and industrial applications. It measures and displays the kWh. It is possible to connect a measuring device, due to an additional impulse output. The meter can be mounted in distribution boards or can be connected to an external power supply source.

FEATURES

- maximum current 100A, measuring and display of kWh,
- LCD (display),
- additional impulse output,
- four-modular casing,
- TH 35 rail mounting.



CAUTION! The device is designed for three-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this operating manual. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions. Disassembling of the device is equal with a loss of guarantee and can cause electric shock. Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 4 mm should be used to install the device. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to install the device in the following cases: if any device part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.

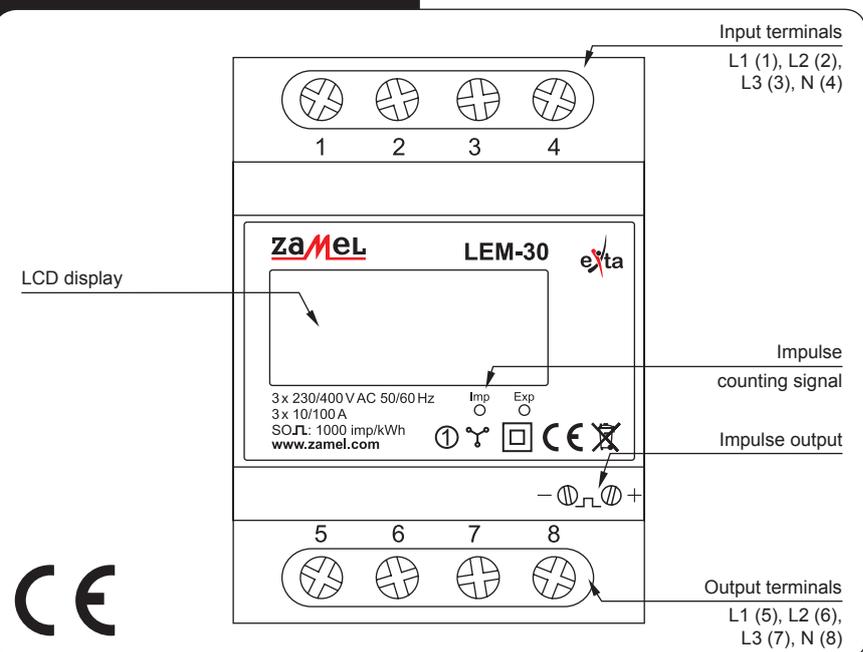


The symbol means selective collecting of electrical and electronic equipment. It is forbidden to put the used equipment together with other waste.

TECHNICAL DATA

LEM-30	
Power supply terminals:	L1 (IN 1, OUT 5); L2 (IN 2, OUT 6); L3 (IN 3, OUT 7); N (IN 4, OUT 8)
Reference voltage:	3 x 230 V / 400 V AC
Voltage tolerance:	-15 ÷ +10 %
Nominal frequency:	50 / 60 Hz
Basic current / maximum current:	3 x 10 A / 100 A
Meter power consumption:	10 VA / 2 W
Measurement accuracy (IEC61036):	class 1
LCD display:	Counter 5+2 digits
Impulse counting signal:	LED red
Impulse output: SO+ SO-:	OC type
Impulse output voltage SO+ SO-:	12 ÷ 27 V DC
Impulse output current SO+ SO-:	< 27 mA
Constant SO+ SO-:	1000 imp/kWh
Impulse duration SO+ SO-:	90 ms
Number of terminal clamps:	10
Section of connecting cables:	main connection: 4 ÷ 25 mm ² impulse output: minimum 0,2 mm ²
Operating temperature:	-25 ÷ +55 °C
Casing mounting:	TH35 rail (according to EN 60715)
Protection degree:	IP51
Protection level:	II
Overvoltage category:	II
Pollution degree:	2
Dimensions:	72 x 100 x 66 mm
Waga:	0,700 kg
Reference standards:	IEC 62053-21; EN50470-1/3

APPEARANCE



MOUNTING, FUNCTIONING

1. Read carefully and follow all the recommendations of the instruction manual before proceeding to mounting.
2. All mounting operations should be carried out only with disconnected power supply.
3. Use only in insulated tools.
4. The used wires should conduct current with a maximum intensity for a particular meter.
5. Mount the device on a TH35 rail in a distribution board.
6. Connect the cables with the terminals in accordance with the installing diagram.
7. Switch on the power supply from the mains.
8. Do not touch the connection terminals of the meter with bare hands, with metal items, an uninsulated wire, or any other conductive item as there is a risk of electric shock with a result of an injury, serious injury or death.
9. Maintenance and repair of the meter can be carried out only by a qualified electrician staff.
10. Protect the meter against drops and mechanical shocks which can damage the precise components inside the meter and can have an influence on the accuracy of the measurements.

CAUTION: In case the impulse output is used (terminals 8, 9), an additional power supply voltage must be connected to the device from the range of 12 ÷ 27 V DC through the R (470 Ω ÷ 1 kΩ) resistor limiting the current value.

DISPLAY

In case the meter is switched on, it carries out an automatic control.

 Main screen
(3 sec.)

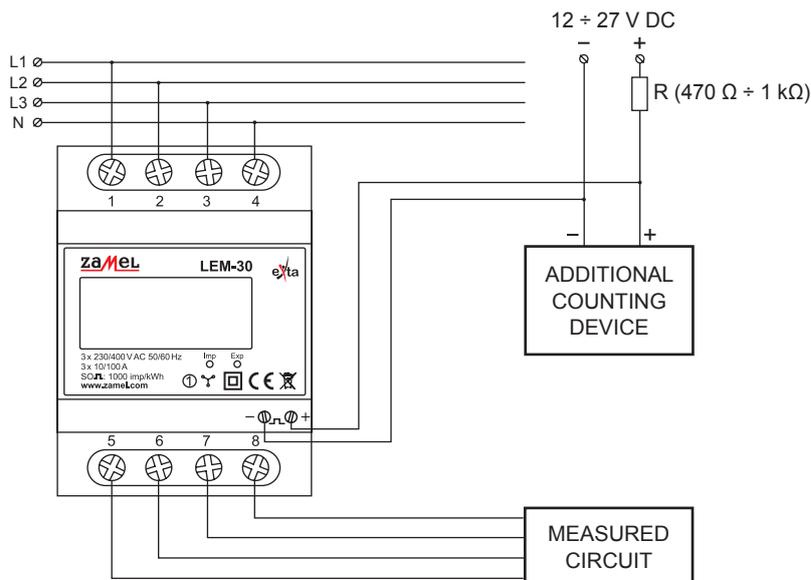
 Software version
(2 sec.)

 Impulse output
(2 sec.)

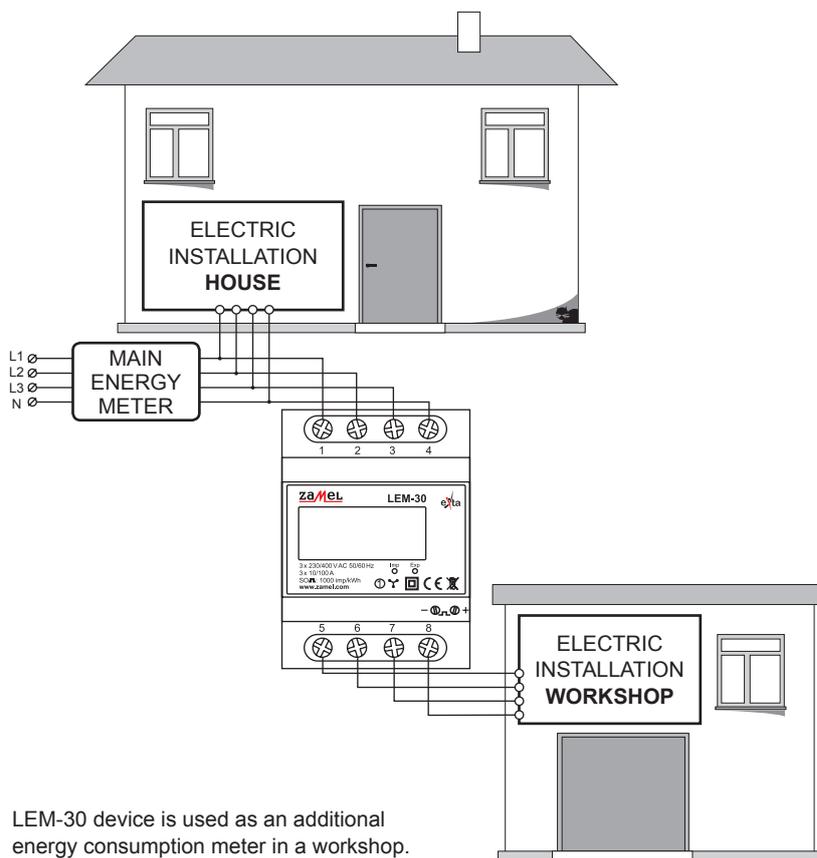
 Total positive energy
(kWh)

Salesman stamp and signature, date of sale

CONNECTION



APPLICATION



WARRANTY CARD

There is 24 months guarantee on the product

1. ZAMEL SP. z o. o. assures 24-month guarantee for the product.
2. The manufacturer's guarantee does not cover any of the following actions:
 - a) mechanical damage during transport, loading / unloading or under other circumstances,
 - b) damage caused by incorrect product mounting or misuse,
 - c) damage caused by unauthorised modifications made by the PURCHASER or any third parties to the product or any other devices needed for the product functioning,
 - d) damage caused by Act of God or any other incidents independent of the manufacturer.
3. The PURCHASER shall lay any claims in writing to the dealer or ZAMEL SP. z o. o.
4. ZAMEL SP. z o. o. is liable for processing any claim according to current Polish legislation.
5. ZAMEL SP. z o. o. shall process the claim at its own discretion: product repair, replacement or money return.
6. The manufacturer's guarantee is valid in the Republic of Poland.
7. The PURCHASER's statutory rights in any applicable legislation whether against the retailer arising from the purchase contract or otherwise are not affected by this warranty.