



F&F Filipowski sp. j.
Konstantynowska 79/81, 95-200 Pabianice, POLAND
phone/fax (+48 42) 215 23 83 / (+48 42) 227 09 71
www.fif.com.pl; e-mail: biuro@fif.com.pl

LE-03

Electric energy meter,
3-phase



5190831215917021

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.



Purpose

The LE-03 is a static (electronic) calibrated electricity meter of three-phase alternating current in a direct system.

Functioning

A special electronic system under the influence of flowing current and applied voltage in each phase generates pulses proportional to the energy drawn in the respective phase. Energy consumption in the phase is indicated by a flashing of corresponding LED (L1, L2, L3). The sum of the three phase pulses is indicated by a flashing LED and converted into energy absorbed throughout the three-phase system. Its value is displayed by the mechanical drum abacus.

The last, red number on the drum abacus indicates row 1/10 kWh (100 Wh).

Measured value

Active energy consumed

AE+

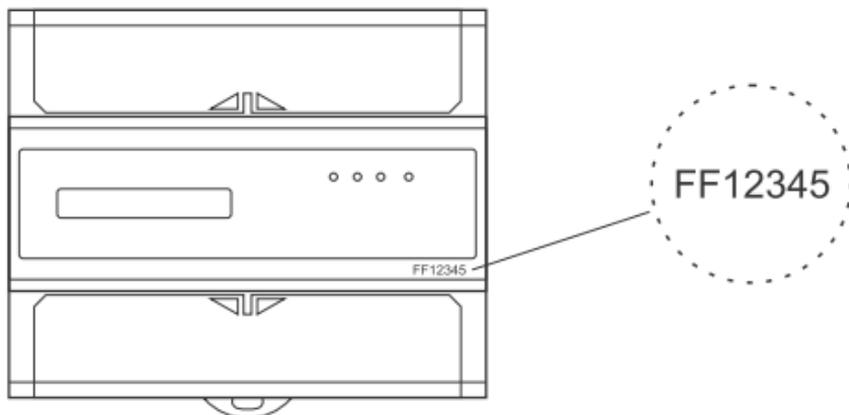
[kWh]

Pulse output

The indicator has a pulse output. This allows you to connect a pulse meter-reading pulses generated by the counter. For proper operation of the indicator is not required to connect additional devices.

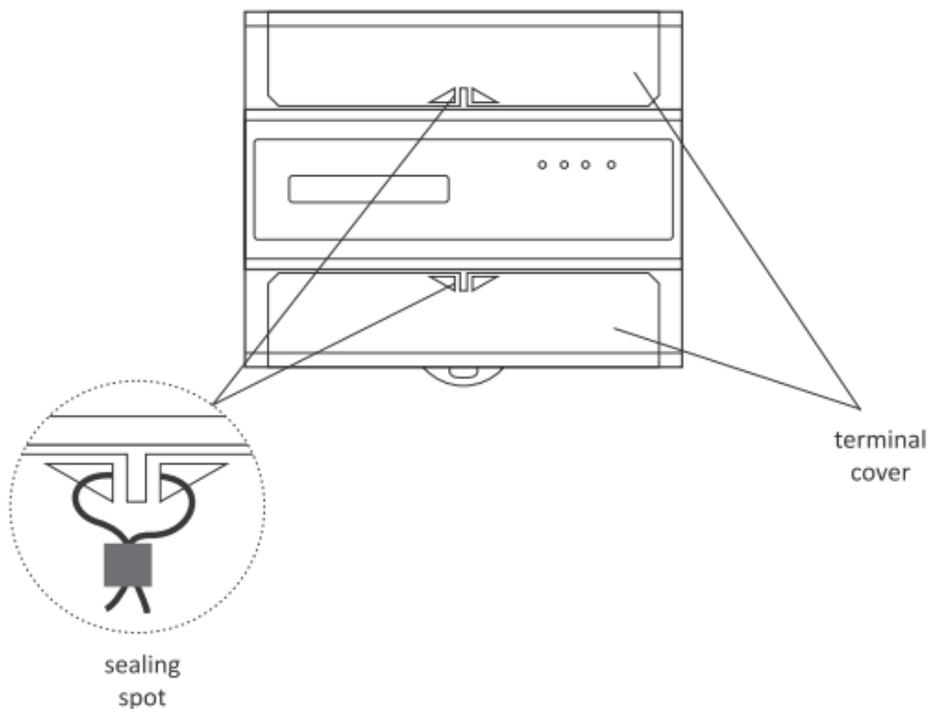
Meter number

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

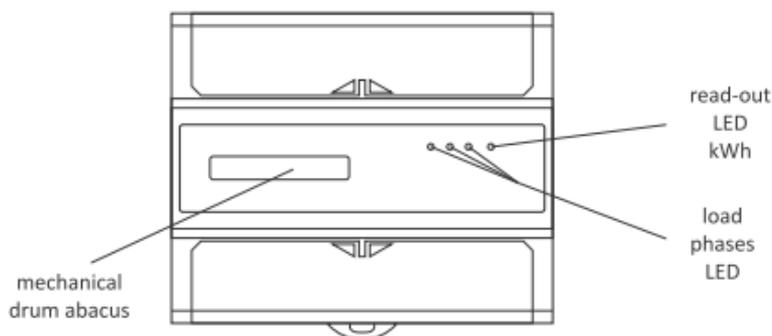


Sealing

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



Front description



Mounting

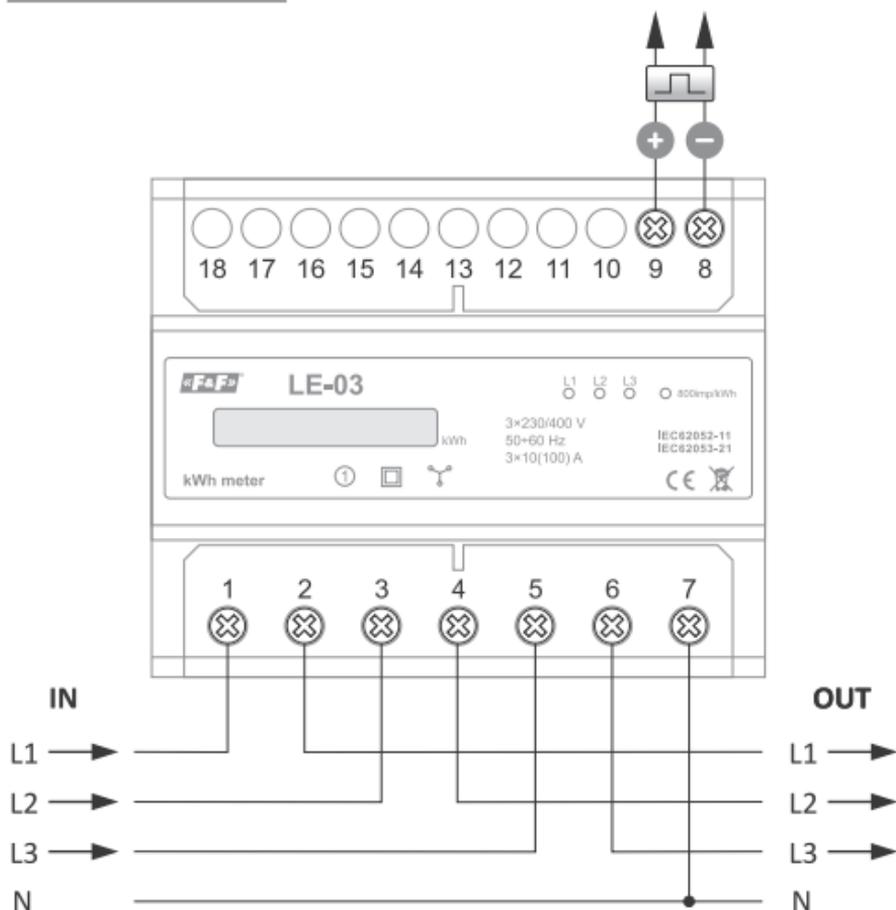
1. Disconnect the power supply.
2. The indicator mounted on a rail in the distribution box.
3. Using a screwdriver, remove the screws and remove the front shield meter terminals.
4. Connect power to terminals 1 (L1), 3 (L2), 5 (L3).
5. N-wire connect to terminal 7.
6. Additional pulse receiver connected (optional) to terminals 9 (+) and 8 (-).



Additional pulse receiver is not required.

7. Put the meter terminals covers.

Wiring diagram



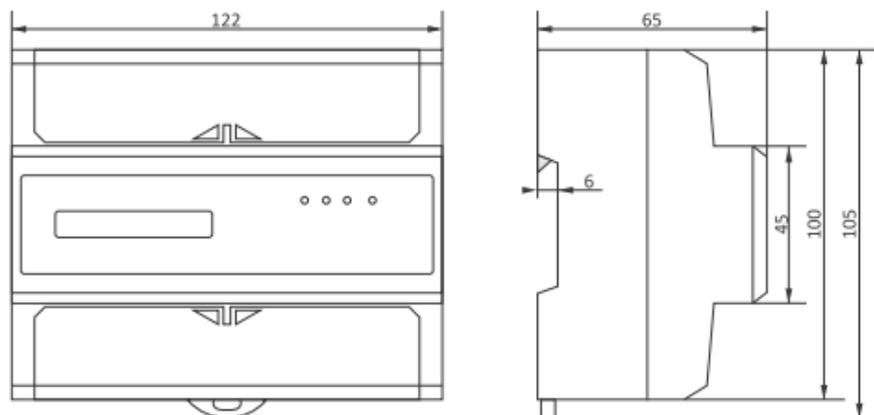
- | | | | |
|---|--------------------------------|---|--------------------------------|
| 1 | power input L1 _{IN} | 6 | power output L3 _{OUT} |
| 2 | power output L1 _{OUT} | 7 | N-wire neutral |
| 3 | power input L2 _{IN} | 8 | pulse output (-) |
| 4 | power output L2 _{OUT} | 9 | pulse output (+) |
| 5 | power input L3 _{IN} | | |

Technical data

installation	4-wire
rated voltage	3×230/400 V
minimum measured current	0.04 A
base current	10 A
maximum current	100 A
voltage measuring range	160÷265 V
measurement accuracy (IEC62052)	1st class
rated frequency	50 Hz
insulation protection class	II
housing	PC+ABS material
own power consumption	<10 VA; <2 W
indication range	0÷999999.9 kWh
constant	800 pulses/kWh
current consumption signalling L1, L2, L3 phases	3× red LED
read-out signalling	red LED
pulse output	
type	open collector
maximum voltage	27 V DC
maximum current	27 mA
pulse time	35÷80 ms*
working temperature	-20÷55°C
terminal	25 mm ² screw terminals
dimensions	7 modules (122 mm)
mounting	on TH-35 rail
ingress protection	IP20

* depends on the current consumption

Dimensions



Warranty

F&F products are covered by a 24-month warranty from the date of purchase. The warranty is only valid with proof of purchase. Contact your dealer or contact us directly.

CE declaration

F&F Filipowski sp. j. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found www.fif.com.pl on the product subpage.

General work safety conditions

- » Please read the instructions carefully before installation.
- » The device should be installed and operated by qualified personnel who are familiar with its design, operation, and associated risks.
- » Do not install a meter that is damaged or incomplete.
- » The user is responsible for proper grounding of the system, proper selection, installation, and efficiency of other devices connected to the meter, including safety devices such as over-current, residual current and overvoltage circuit breakers.
- » Before connecting the power supply, make sure that all cables are connected correctly.
- » It is essential to observe the operating conditions of the meter (supply voltage, humidity, temperature).
- » To avoid electric shock or damage to the meter, turn off the power supply whenever the connection is changed.
- » Do not make any changes to the unit yourself. Doing so can result in damage to or improper operation of the device, which in turn can pose a threat to people operating it. In such cases, the manufacturer is not responsible for the resulting events and may refuse the provided warranty in the event of a complaint.
- » Do not tighten the terminals without the wire inserted. This may damage the lift mechanism of the terminal or the plastic cover of this terminal.