



We hereby declare that Energy3 instruments comply with EEC directives EMC 89/336/EEC and meet the requirements concerning EMISSIONS and IMMUNITY.

### OPERATORS' SAFETY

All operators should carefully read these pages, before installing and using the instrument.

The instrument dealt with in this manual should be used by properly trained personnel, only.

All maintenance and repair operations to be carried out with the open instrument should be performed by Elcotronic qualified personnel, or by an operator duly authorized by Elcotronic srl.

This instrument has been manufactured and tested in compliance with IEC 348 and VDE 411 standards, and left the factory under perfect safety conditions.

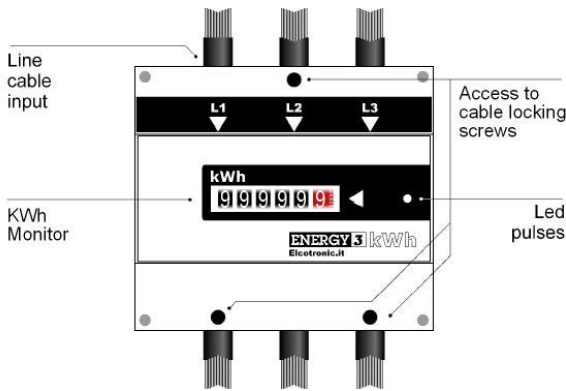
If the instrument seems to be unsafe, i.e. as a result of damages occurred during transit or caused by use, it should be put out of use and checked by authorized personnel.

Before plugging in the instrument, make sure the rated voltage and mains voltage have the same value.

When the instrument must be opened for maintenance and servicing or to replace parts, it must be first disconnected from all power sources.

Make sure that the spare parts used are of the type required and meet the technical specifications indicated.

**WARNING:** Elcotronic srl shall not be held responsible for any damage to people or things, resulting from improper use of the instrument.



### THREE-PHASE MODELS with internal CTs

- EN3 kWh - 5/36A direct reading up to 36A with through cable
- EN3 kWh - 72A direct reading up to 72A with through cable
- EN3 kWh - 140A direct reading up to 140A with through cable
- EN3 kWh - 240A direct reading up to 240A with through cable

### THREE-PHASE MODELS with external CTs

- EN3 kWh - 500A with CT 500/5 direct reading
- EN3 kWh - 1000A with CT 1000/5 direct reading
- EN3 kWh - 1500A with CT 1500/5 direct reading

### SINGLE-PHASE MODELS with internal CTs

- EN2 kWh - 5/36A direct reading up to 36A with through cable
- EN2 kWh - 72A direct reading up to 72A with through cable
- EN2 kWh - 140A direct reading up to 140A with through cable
- EN2 kWh - 240A direct reading up to 240A with through cable

### KWh x K READING with external CTs

- ENERGY3 kWh 5A x k - kWh x k reading E.g. K= 20xCT 100/5
- ENERGY2 kWh 5A x k - kWh x k reading K=200xCT 500/5
- ENERGY2 kWh 5A x k - kWh x k reading K=200xCT 1000/5

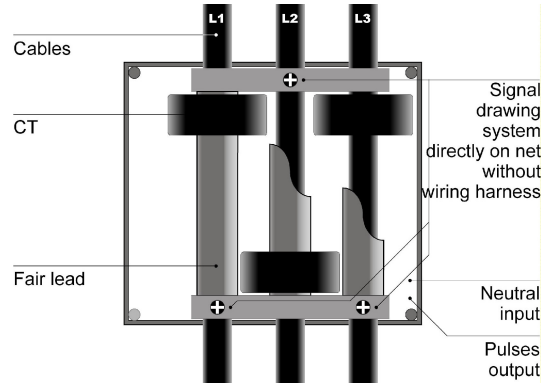
### TECHNICAL SPECIFICATIONS

Measurements in true RMS value	
Accuracy	± 2%
Power supply	direct from measure
Input	380 phase/phase
Display	99999.9 kWh
Size	6 DIN modules
Protection rating	instrument to IP20 front to IP40
Temperature range	-10°C +45°C
Relative humidity	max 90%
Insulation	complying with relevant standard
Output	100 pulses 1 kWh

### INSTALLATION

To connect the instrument proceed as follows:

- 1) Switch off the panel where the instrument shall be installed.
- 2) Place the instrument on the DIN rail
- 3) Disconnect the three-phase power cables and lead them through the holes marked with L1, L2 and L3. The CTs inside will sense the power flowing through the cable to take measurements.
- 4) Fully tighten the three screws located inside that can be reached from the holes on the instrument front. Screws will perforate cable insulation, supplying power and signal for measuring.
- 5) Connect the neutral with the terminal.

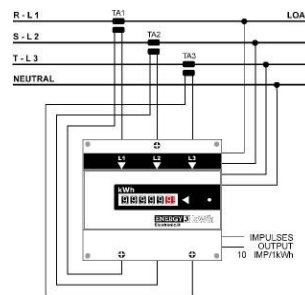


- 6) After the above operations have been carried out, switch on the panel and the instrument will start working.

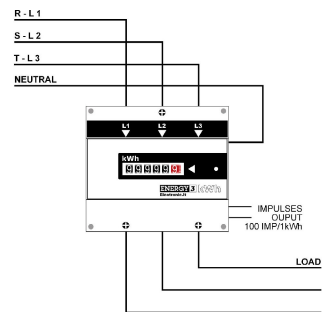
### ENERGY3 WIRING DIAGRAM for THREE-PHASE models

Wiring instructions according to the selected model with direct kWh reading

- EN3 kWh - 500A with CT 500/5
- EN3 kWh - 1000A with CT 1000/5
- EN3 kWh - 1500A with CT 1500/5



- EN3 kWh - 5/36A w/ through cable
- EN3 kWh - 72A w/ through cable
- EN3 kWh - 140A w/ through cable
- EN3 kWh - 240A w/ through cable



### KWh x k reading

EN3 kWh 5A x k - kWh x k reading

### ENERGY2 WIRING DIAGRAM for SINGLE-PHASE models

EN2 kWh 5A x k - kWh x k reading

- EN2 kWh - 5/36A for direct read.
- EN2 kWh - 72A for direct reading
- EN2 kWh - 140A for direct reading
- EN2 kWh - 240A for direct reading

