ME162 Single-Phase Meter Direct Connected (100 AMP)

OFGEM Approved

Introduction

The ME162 single-phase electronic meters are intended for electric energy measurement and registration in single-phase two-wire networks in household. The meter is approved and manufactured in compliance with the IEC 62052-11, IEC 62053-21 (IEC 61036) standards and ISO 9001. They are designed according to even more severe internal standards that are the result of our more than 50-year experiences of meter manufacturing and fifty million meters installed worldwide.

- kWh — Active Power
- Single or Double Direction
- T(4) — Multi-Rate Registration
  Programmable External Time Switch
- Internal Clock
- LCD — Data Display
- Impulse Output (kWh)

- Internal clock
- Data display on LCD in voltage-free state (option)
- LCD backlight (option)
- Communication optical port for semi-automatic meter reading
- Smaller dimensions
- Energy measurement: one direction, double direction or absolute

Functional and Technical Data

ME162 is a single-phase meter for residential and small commercial users, for revenue measuring of active power in two wire systems.

Measuring and Registration:
Standard (as a mechanical meter)
Other Options:
- Double direction
- Always positive (absolute)

Accuracy/Calibration: Due to the long-term stability there is no need for recalibration in meters life-time.

Indications:

LED1 (red):	kWh impulses (k=1000 imp/kWh)
Illuminated:	Meter is powered, no load current.
Pulsating:	Load current is higher than starting value.
Not Illuminated:	Meter is not powered.

Communication: Opto-port (IEC 62056-21): for local meter reading and programming.

Real time clock:
- 32 kHz quartz oscillator
- The real time clock generates: a tariff program. season changeover, transition to day light saving period and vice-versa.

Inputs – Tariff: Two tariff inputs for 2-4 tariff energy registration.

Outputs: S0 (DIN 43864) or opto-MOS-relay.
Option: Two separate S0 or optomos outputs for bi-directional energy flow direction (kWh - import, kWh - export).

Local metering data display (LCD):
- Automatic scroll mode
- Manual scroll (by button)
- Programmable data set and sequence
- LCD back-light (option)
- Data display on LCD in voltage-free state (option).

Scroll key:
- LCD test
- Scrolling data on LCD

Enclosure: Polycarbonate, Self-extinguishable;

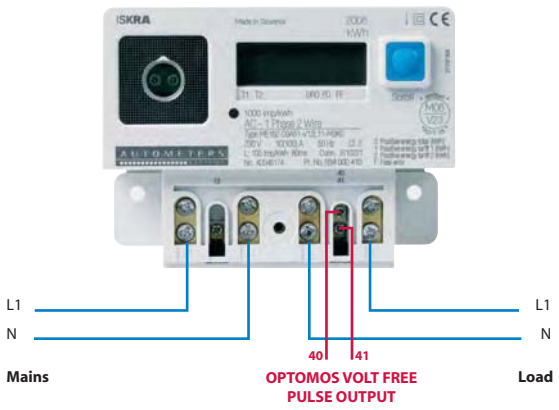
Protection against water and dust: IP 53

It is essential that any electricity meter is installed by a competent and qualified electrician. The meter must be fitted in full compliance to the regulations concerning electricity meters.

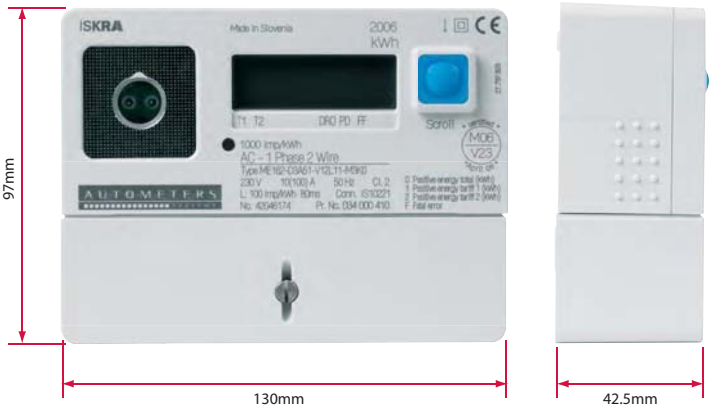
When removing a meter from the supply it is essential that the meter is fully isolated from the mains, both voltage and current circuits must be isolated.

Accuracy Class	**2 or 1**
Rated Current In	**5, 10, 20 A**
Max Current Imax	**85, 100 A**
Min Current	**0.05 In**
Starting Current	**0.004 Ib**
Reference Voltage Un	**120, 220, 230, 240 V**
Voltage Range	**0.8 Un > 1.15 Un**
Reference Frequency	**50, 60 Hz**
Meter Constant	**1000 imp/kWh**
Clock Accuracy (25°C)	**≤ 6 ppm or ≤ ± 3 min/year**
RTC Control	**32 kHz crystal**
Operating Temp. Range	**-25°C > +60°C**
Extended Temp. Range	**-40°C > +70°C**
Storage Temperature	**-40°C > +85°C**
Current Circuit Burden	**<25 mW / 25 mVA**
Voltage Circuit Burden	**<0.8 W / 10 VA**
Dielectric Strength (burst test)	**4 kV, 50 Hz, 1 min**
Impulse Voltage	**6 kV, 1.2/50 µs**
Short Circuit Current	**30 Imax**
EMC: High Frequency Disturbances	**6 kV (IEC 1000-4-4)**
Optical Port	**IEC62056-21 (IEC 61107)**
Impulse Outputs:	
S0	**ti = 40 ms (10, 20, 30...160 ms)**
opto-MOS	**ti = 80 ms (10, 20, 30...160 ms)**
Switching power	**25 VA (100 mA, 250 V)**
OPTOMOS VOLT FREE PULSE OUTPUT PROGRAMMABLE	
Dimensions	**97 x 130 x 43 mm**
Mass	**Approx 0.380 kg**

Connection Diagram



Casing Dimensions



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