

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.



Active Power



Single or Double Direction



Multi-Rate Registration
Programmable External Time Switch



Internal Clock



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;

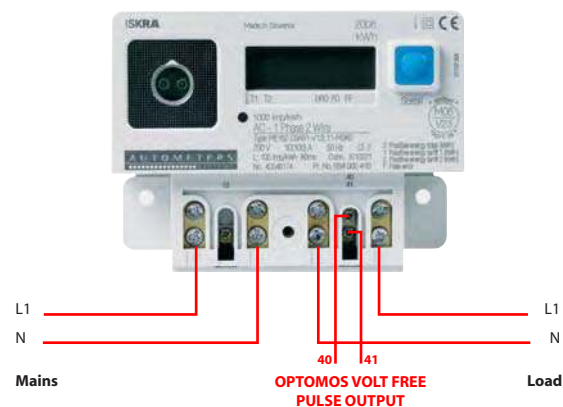
Protection against water and dust: IP 53

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 I_{max}	85, 100 A
Min Current	0.05 In
Starting Current	0.004 I_b
Reference Voltage U_n	120, 220, 230, 240 V
Voltage Range	0.8 U_n > 1.15 U_n
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 mA
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 I_{max}
EMC: High Frequency Disturbances	6 kV (IEC 1000-4-4)
Optical Port	IEC62056-21 (IEC 61107)
Impulse Outputs:	
S0	t_i = 40 ms (10, 20, 30...160 ms)
opto-MOS	t_i = 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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