



# Stephen P. Wales Ltd


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## CRN100DR\_ME162 100amp 2-tariff single-phase meter


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 Iskraemeco's standards that are the result of our more than 50-year experiences of meter manufacturing and fifty million meters installed worldwide.

**ME162 electronic kWh-meter is intended for electric energy measurement in single-phase two-wire multi-tariff networks.**




-  Active power


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-  Single or double direction


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-  Multi-rate registration


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-  Internal clock

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-  Data display

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-  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:** **LED 1** (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.

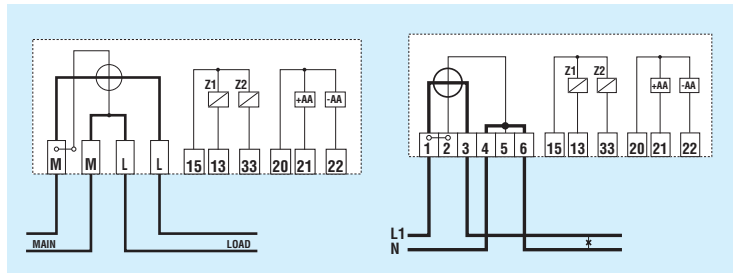
## TYPE DESIGNATION FOR ORDERING

**ME162-D1A41-V22G22-M3KO**

- M** – Electronic meter
- E** – Single-phase meter
- 162** – Meter with LCD and internal clock
- D1** – Terminal block for direct connection up to 85 A by DIN 43857

Accuracy class	..... 2 or 1
Rated current $I_n$	..... 5, 10, 20 A
Max. current $I_{max}$	..... 85, 100 A
Min. current	..... 0,05 $I_n$
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)	..... $\leq 6$ ppm or $\leq 3$ min/year
RTC control	..... 32 kHz crystal
Temperature range of operation	..... -25°C ... +60°C
Extended temp. range	..... -40°C ... +70°C
Storing 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 $\mu$ s
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)
Dimensions (h x w x d)	..... 97 x 130 x 43 mm
Mass	..... Approx. 0.380 kg

## CONNECTION DIAGRAMS



## DIMENSIONS

