

### MT171 Poly-Phase Meter Direct Connected (100 AMP)

## OFGEM Approved

### Introduction

MT171- three-phase active energy meter for household belongs to a new generation of meters. It gives advantages to all users in the process: an installer, a maintenance engineer, a service engineer, a readout operator and a final user.

The meter is approved and manufactured in compliance with the IEC 62052-11, IEC 62063-21 (IEC 61036) standards, and ISO 9001 and designed according to even higher internal standards, achieved on experiences from more than 50 years of meter manufacturing and 50 million meters on the field installed around the globe.



kWh

Active Power



Single or Double Direction

T(4)

Multi-Rate Registration  
External Time Switch



Multiphasing

LCD

Data Display



Impulse Output (kWh)

- Fast and easy installation procedure, indications of correct connection.
- Smaller dimensions for overall cost reduction of the meter site.
- Multi-phasing connection (all in one: single and poly-phase meter).
- Universal current terminal for all types of wires.
- Indications of operational status.
- Very high EMC immunity.
- Communication optical port for semi-automatic meter reading.

# Functional and Technical Data

MT171 is a poly-phase meter for residential and small commercial users, for revenue measuring of active power in four or three 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.

**Tamper proof features (optional):** Meter detects main cover and terminal cover opening and records it in log-book.

**Multi-phasing metering operation:** Meter can be connected as single, double or three phase meter.

**Multi-rate registration (optional):** External tariff switching. Programmable number of rates (1... 4 rates)

## Local metering data display (LCD):

- Automatic Scroll Mode
- Manual scroll (by button)
- Programmable data set and sequence
- Data codification (only for optional extended-size LCD):
- EDIS (DIN 43 863 -3)
- Defined by user

**LCD back-light:** Optional

**Current terminals:** Universal clamping type for all types of wires (D= 9,5mm).

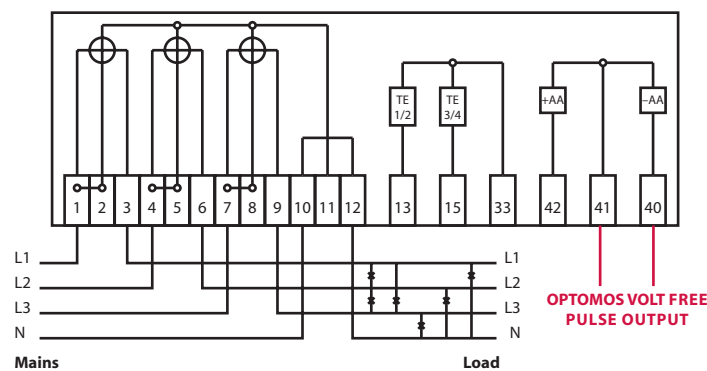
**Enclosure:** Polycarbonate, Self - extinguish;

**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.**

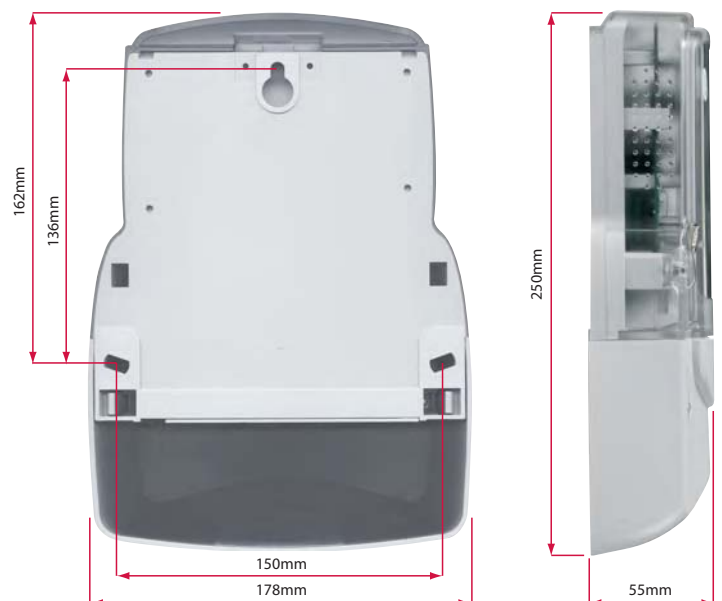
**When removing a meter from the supply it is essential that the meter is fully isolated from the mains, both voltage and current circuits must be isolated.**

## Connection Diagram



<b>Accuracy Class</b>	<b>2 or 1</b>
<b>Rated Current In</b>	<b>5, 10, 15, 40 A</b>
<b>Max Current I<sub>max</sub></b>	<b>40, 60, 85, 100, 120 A</b>
<b>Min Current</b>	<b>0.05 In</b>
<b>Starting Current</b>	<b>0.004 I<sub>b</sub></b>
<b>Reference Voltage U<sub>n</sub></b>	<b>3 x 230/400 V</b>
<b>Voltage Range</b>	<b>0.8 U<sub>n</sub> &gt; 1.15 U<sub>n</sub></b>
<b>Reference Frequency</b>	<b>50 Hz</b>
<b>Operating Temp. Range</b>	<b>-25°C &gt; +60°C</b>
<b>Extended Temp. Range</b>	<b>-40°C &gt; +70°C</b>
<b>Storage Temperature</b>	<b>-40°C &gt; +85°C</b>
<b>Current Circuit Burden</b>	<b>&lt;0.5 VA</b>
<b>Voltage Circuit Burden</b>	<b>&lt;1 W / 10 VA</b>
<b>Dielectric Strength</b>	<b>4 kV, 50 Hz, 1 min</b>
<b>Impulse Voltage</b>	<b>6 kV, 1.2/50 μs</b>
<b>Option:</b>	<b>Mains Circuits 12 kV (aux. circuits 6 kV)</b>
<b>Short Circuit Current</b>	<b>30 I<sub>max</sub></b>
<b>EMC: VF Interferences (EC 801-4)</b>	<b>6 kV</b>
<b>Optical Interface</b>	<b>IEC62056-21 (IEC 61107)</b>
<b>Outputs - Impulse:</b>	
<b>OPTOMOS VOLT FREE PULSE OUTPUT PROGRAMMABLE</b>	
<b>S0</b>	<b>ti = 30 ms (10,20,30..., 160 ms)</b>
<b>Dimensions</b>	<b>250 x 178 x 55 mm</b>
<b>Mass</b>	<b>1 kg</b>

## Casing Dimensions



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