



**5 YEAR  
WARRANTY**

- ◆ Accuracy class 1
- ◆ Bi-directional registration of energy
- ◆ Indication for wrong connection
- ◆ Output to systems for remote reading
- ◆ Protection from external magnetic fields
- ◆ Compact dimensions 165x88x45 mm
- ◆ Light and sturdy case meeting UL94 V0
- ◆ Meeting the requirements of BDS EN 61036 + A1:2001

The M100 series is a static electric meter that measure the active energy consumption in single-phase AC networks with a voltage of 230 VAC and a frequency from 45 of 65 Hz. It is for direct connection with an accuracy class 1 and bi-directional registration of energy. The meter is compact and light and is protected from the influence of external magnetic fields. The M100 is provided with an indicator for wrong connection to the electrical network and with an output for connection to systems for remote reading of energy consumption. The case of the meter is made of a material meeting the requirements of UL94 V0. The M100 also meets the requirements of BDS EN 61036 + A1:2001 and of the electrical specifications of IEC. 62053-31, class B. The electric meters are designed for household and industrial applications as commercial measuring devices or for in-house reading, accounting and distribution of electrical energy consumption. The investments made are well protected with the possibility for subsequent unification in remote reading systems.

**ENGINEERING DATA**

<b>Electrical parameters</b>	
Number of phases	1
Rated voltage	230 VAC
Voltage range	110 ÷ 264 VAC
Frequency	50 Hz
Base current	5 A
Maximum current	60 A
Power consumption	< 10 VA
Connection	Direct
<b>Measurement</b>	
Accuracy class	1
Measurement error <sup>(1)</sup>	< ±1%
Mean temperature coefficient <sup>(1)</sup>	0.05%/°C
Number of rates	1 or 2
Meter constant	1600 imp./KWh
Starting current	20 mA
Resolution	0.01 KWh
Register capacity	999999.9 KWh
Bi-directional energy measurement	Yes
Register type	Electromechanical
Data retention time	Unlimited

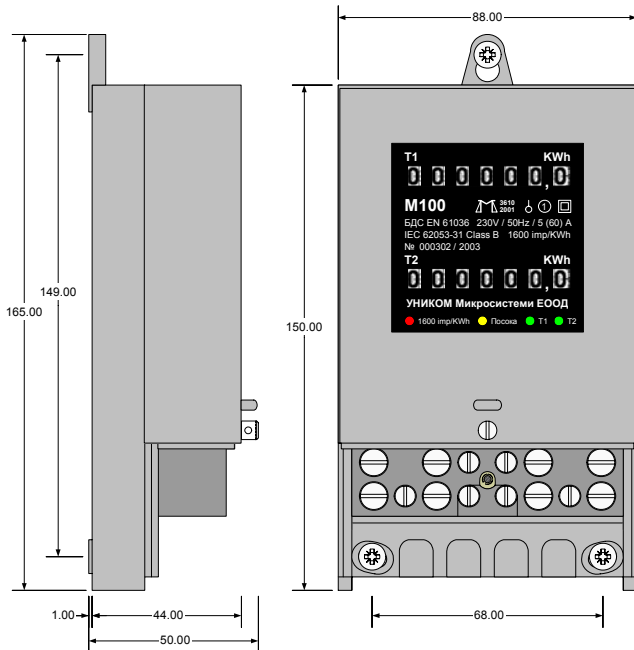
<b>Pulse output</b>	
Type	Open collector
Constant <sup>(2)</sup>	1600 imp./KWh
Power supply	15 VDC max.
Power supply source impedance	1000 Ω min.
<b>Others</b>	
Operating temperature range <sup>(3)</sup>	от -25°C до +55°C
Storage temperature	от -30°C до +70°C
Protective class	II
Case	Isolating IP54 UL94 V0
Weight	440 g
Dimensions	165x88x45 mm

**Notes:**

1. The parameter is determined with  $\cos \varphi = 1$  and  $0.1I_b \leq I \leq I_{max}$ .
2. The pulse output constant may be different and set by the customer.
3. Operating temperature range may be extended in case of need.

**MECHANICAL MOUNTING**

All dimensions are in millimeters



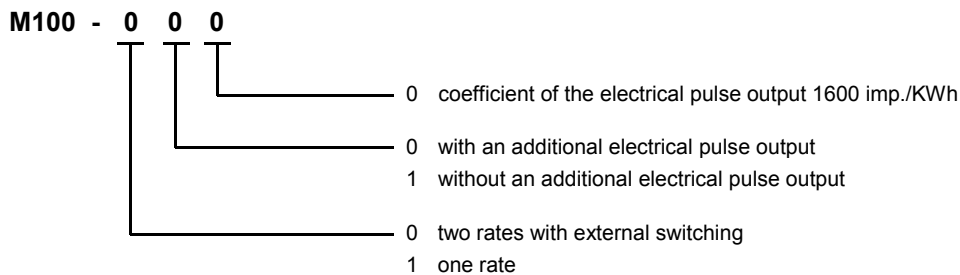
**ELECTRICAL INSTALLATION**

Terminal №	
1	Phase input
2	Phase output
3	Neutral input
4	Neutral output
5, 6, 7, 8, 9, 10	The designation of each terminal is determined depending on the specific options and is shown on a scheme attached on the inside of the terminal strip cover.

- ◆ All required safety measures shall be taken during electrical installation work of the meter.
- ◆ Electrical installation work of the electric meter shall be undertaken by qualified and certified engineering personnel.

- ◆ The electric meter is mounted in a suitable place on a wall, panel or in a cabinet, on a flat surface in an arbitrary position.
- ◆ It is inadmissible to locate the meter near heaters or other surfaces that are heated to high temperatures.
- ◆ Fastening is achieved by means of three galvanized rapid screws Ø3.5 mm with a cylindrical head and of suitable length.

**SPECIFICATION**



◆ When the last one or more digits in the specification are zero it is possible to drop them.