

## EPQS

The EPQS meter is a multifunction device for measurement of electrical energy. Its accuracy complies with the requirements for Accuracy Class 0.5s (0.2s) of IEC 60687 international standard. The meter is designed for 3- or 4-wire connection through current or voltage transformers.

The meter data structure is compatible with DLMS standard. Each measured parameter has its OBIS (OBject Identification System) code describing the parameter or value.

The meter measures, registers, and collects data on active energy of both directions (+A, -A), reactive energy in four quadrants (R, R, R3, R4), and apparent energy of both directions (+W, -W). The meter also registers maximums of average power, collects power profiles and registers cumulative powers.

Besides the aforementioned values, the EPQS meter can display or transmit through its communication interfaces the following profiles stored in any of 16 freely programmed channels: phase and line voltages; currents; instantaneous active, reactive, and apparent power; frequency; power factor ( $\cos\phi$ ). It can also analyse power quality and generate weekly reports of power grid quality.

Up to eight of energy and the same number of power maximum tariffs can be activated for tariffication of energy and power. The structure of tariff module enables adapt the meter for almost any of existing tariff programs.

For remote data transmission, the meter has two independent electrical communication interfaces. For local data readout, optical interface D0 is provided.

Table 1-1. Designation of Modifications of EPQS Meter

	EPQS	X	X	X	XX	XX
Connection:						
3-element 4-wire connection		1				
2-element 3-wire connection		2				
Nominal Voltage, V:						
3x57.7/100; 3x63.5/110; 3x69.2/120; 3x100; 3x110; 3x120					1	
Multi-voltage (3x57.7 ... 230/110 ... 400)					2	
3x220/380; 3x230/400; 3x380; 3x400					3	
3x120/208; 3x127/220; 3x220; 3x230					4	
Nominal (Maximum) Current, A:						
Transformer connection, nominal (maximum) current 5(6.25)						1
Transformer connection, nominal (maximum) current 5(10)						2
Transformer connection, nominal (maximum) current 1(1.25)						3
Transformer connection, nominal (maximum) current 1(2)						4
Controller Software Code						
Hardware Code						

Table 1-2. Main Technical Characteristics of EPQS Meter

Precision Class	0.5s (IEC 60687:92)
Nominal voltage, V	57.7 ... 230
Nominal (maximum) current, A	1(1.25); 1(2); 5(6.25); 5(10)
Nominal network frequency, Hz	50Hz or 60Hz
Threshold sensitivity	0.001I <sub>nom</sub>
Power consumption:	
Voltage circuits	Not more than 2.5 VA/phase
Current circuit	Not more than 0.5 VA/phase
Meter constant [pulse/kWh, pulse/kVArh, pulse/kVAh]	5000, 10000, 20000 or 40000
Digital communication interfaces:	
Optical interface	IEC 61107 protocol
Current loop	IEC 61142 protocol
Auxiliary communication interfaces	
Current loop 2, RS 485 or RS 232	IEC 61142 protocol
Outputs:	
S0 outputs acc. to IEC 62053-31	4 ... 8
Programmable relay outputs	1 or 2
Backup power supply	Li battery
Operating temperature	From -25°C to +55°C
Weight, kg	No more than 1.5 kg
Dimensions, mm <sup>3</sup>	328x178x58