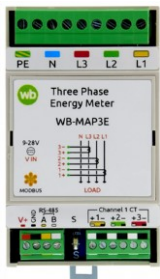


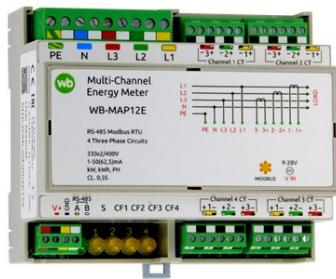
## Electrical “Smart” Distribution Panel

The electrical “smart” distribution panel is manufactured with CT-309 current transformer modules pre-assembled inside the electrical panel.

The assembly is intended for use together with **WB-MAP meters** as a replacement for detachable transformers. The use of non-detachable transformers are often more convenient and reliable when assembling a new panel.



**Single  
3phase**



**Multiple Phases**



**CT-309**



The current transformer modules are connected to the WB-MAP meters using a screened cable with RJ12 jack and a mating terminal block, which must be used to replace the original terminal block of the meter.

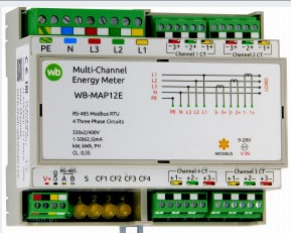
The pitch between the transformers is 1 DIN module (17.5 mm). It is convenient to install the assembly directly under the circuit breakers. They can also be joined in multiple modules. It can be attached to the electrical panel using self-tapping screws to the plastic posts. It can also be simply fixed to the cable and secured with cable ties.

The adapter with the RJ-12 socket is inserted into the WB-MAP meter instead of the mating terminal block and is connected to the transformer modules with a connecting cable (included). The cable is made of a twisted pair and two 6P6C (RJ-12) plugs, crimped according to a straight pattern: white-orange, orange, white-green, green, white-blue, blue (see diagram 1).

### TECHNICAL SPECIFICATIONS

- Rated current 5 A
- Maximum current 125 A
- Accuracy class 0,5S
- Opening diameter 9.5 mm
- Dimensions 68\*37\*30 mm
- Weight 70 g



Specifications	
	
Supply voltage	5.5-28V DC (Interface Part) 90-510 VAC (measuring part)
Allowable Voltage at Terminals L1, L2, L3	1200 V for 10msec
Maximum power consumption	1.3 Watts
Power consumption (average)	0.9 W
Terminal blocks and wire cross-sections	
Recommended wire cross-section with NSHVI	for control inputs: 0.35 – 1 mm <sup>2</sup> – single, 0.35 – 0.5 mm <sup>2</sup> – double wires, For power inputs: up to 2.5 mm <sup>2</sup> – single, up to 1.5 mm <sup>2</sup> – dual wires
Length of the standard NSHVI bushing	8 mm
Screw torque	for control inputs: 0.2 N · m, for power outputs: 0.5 N · m
Measurement channels	
Number of channels	12 single-phase or 4 three-phase
Duration of measured voltage and current surges	from 300µs
Maximum Measured Current	60 mA rms on the secondary winding of the transformer
Temperature Coefficient of Resistance of Current Input Resistors	50PPM (previously: 200PPM up to and including batch v1.7N/E2)
Communication	
Interface	RS-485
Interface isolation	Galvanically decoupled from measuring circuits
Data exchange protocol	Modbus RTU, address is set in software, factory settings are indicated on the label
RS-485 interface parameters	Set programmable, by default: Speed – 9600 bps; data – 8 bits; parity bit - none (N); Stop Bits — 2
Ready to use after power up	~2 c
Service conditions	
Air temperature	-40 to +80 °C
RH	Up to 92%, non-condensing
Climatic version as per GOST 15150-69	<b><u>O2.1*</u></b>

Warranty period	2 years
Life	16 years
Dimensions	
Width, DIN units	6
Dimensions (L x W x H)	106 x 90 x 58 mm
Weight (with box)	215 g

### Measured parameters

The WB-MAP meter provides measurement of many parameters of the electrical network, such as:

- Current and Voltage Root Mean Squares (Urms)
- Power (active, reactive, total, apparent) and power factor
- Direct and reverse energy (active, reactive, apparent, inactive)
- Total values of capacities and energy when connecting three-phase loads
- Amplitude of voltage and current spikes. The width of the measured peaks is from 300  $\mu$ s, determined by filters at the inputs, peak values are updated periodically, the period is configurable (default minute)
- Phase shift angles, frequency, etc.

The amplitude values of currents and voltages are measured by the counter several thousand times per second. The values of energy and powers are updated in the Modbus registers instantly, and the root mean square (rms) voltages and currents, mains frequency, phase angles are averaged over several periods and updated in the Modbus registers about three times per second.

The meters provide a measurement accuracy class of 0.5S for active power and energy and an accuracy class of 1 for reactive power and energy.

