ENERGY METERS

EV METER - EV1 and EV3

Simple and competitive

EV1 and EV3 are simple and precise meters for single and three phase metering.

Both meters are MID approved with class B according to EN50470.

Thanks to the direct connection for current up to 65A they can be used for residential and commercial applications. And the Modbus RTU guarantees high level of integration.

General features
EV meter range includes EV1 for single phase and EV3 for three phase applications. Both meters can be used in applications where direct connection up to 65A is required. The measurement of energy is performed with Class B accuracy and coupled with a broad range of additional measured parameters.

Communication
Both EV1 and EV3 come standard with Modbus RTU for easy readout of measures.

Registers for measures readout are same of B series, with an higher resolution on energy values, 4 digits on EV and 2 digits on B series.

Supported measurements
EV meters support the readout of the following values both via LCD and Modbus RTU:

- Energy
- Voltage
- Current
- Power
- Power factor
- Import/Export of energy (EV3 only)

MID Approval
The EV meters are MID approved with a Class B accuracy. MID is the Measure Instruments Directive 2014/32/EU from European Commission.

The approval is according to standards that covers all relevant technical aspects of the meter.

These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

Ordering details

Description	Order details			Weight 1 piece
	Type code	Order code	EAN code	kg
1x230 Vac	EV1 012-100	2CMA261221R1000	8012542432050	0,130
3x230/400 Vac	EV3 012-100	2CMA290881R1000	8012542432159	0,260

Voltage/current inputs	EV3	EV1
Nominal voltage	3x230/400 Vac	230 Vac
Voltage range	0.8 – 1.15Un	
Power dissipation voltage circuits	< 0.7 W / 5.5 VA at Un	< 0.4 W / 5.5VA at Un
Power dissipation current circuits	< 0.015 VA at Ib	< 0.012 VA at Ib
Base current Ib	5A	
Reference current Iref	5A	
Transitional current Itr	0,5A	
Maximum current Imax	65A	
Minimum current Imin	0,25A	
Starting current Ist	_< 0.004 Ib	
Terminal wiring area (L * W)	6,3 * 5,6 (mm)	
Recommended tightening torque	1,2 Nm< M <1,5Nm	M <2,7Nm
General data		
Frequency	50 Hz (+- 2%)	
Accuracy class	Class B	
Accuracy	1%	
Display of energy	7 digit	6 digit
Active energy measurement	+A / -A	+A
Mechanical		
Material	fiber-glass reinforced Polycarbonate	
Environmental		
Operating temperature	-30°C to +70°C	
Storage temperature	-40°C to +85°C	
Pulse indicator	1000 imp/kWh	
EMC compatibility		
Isolation	4 kV AC, 50 Hz, 1min	
High voltage	7 kV, Impulse 0.1/2000 µs	
Dimensions		
Width	70 mm	35 mm
Height	90 mm	90 mm
Depth	62 mm	62 mm
DIN Modules	4 mm	2 mm
Modbus		
Baud rate	9600/19200/38400 bps, 8E1	
Parity	Even (default) - Odd - Null (configurable via modbus)	
Address	1 (default) up to 247	
Type	3 screws (A, B, C)	2 screws (A, B)

CE

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