





Its most notable features are:

4-quadrant power analyzer (consumption and generation).

Measurement of active, inductive/capacitive reactive and apparent energy.

Measures the monetary cost of energy, CO<sub>2</sub> emissions and operating hours for preventive maintenance tasks.

Dual power source through digital input. Separates the energy from two sources: utility and generator set or photovoltaic generation.

- **RS-485 communications with Modbus RTU** and BACnet protocol, which can be selected in the same unit.
- Maximum active power, inductive/capacitive reactive, apparent or current demand with programmable calculation window.
- 1 digital output for generation of energy consumption impulses or alarm of any instantaneous parameter.
- 1 digital input for changing the tariff or status control (sensor management or skipping of protections).

Quick connection terminals.

Possibility of panel assembly using 72x72 accessory \*

Sealable.

#### **Technical features**

Power circuit	Rated voltage	207 to 253 V~	
	Installation category	CAT III 300 V	
Voltage measure- ment circuit	Rated voltage (Un)	300 V ac (p-n) / 520 V ac (p-p)	
	Voltage measurement margin	5 to 120% <i>U</i> n	
	Frequency measurement margin	45 to 65 Hz	
	Installation category	CAT III 300 V	
Current measure- ment circuit	Nominal current (/n)	/5A or/1A	
	Current measurement margin	2 to 120% <i>I</i> n	
	MINImum measurement current (/start)	10 mA	
	Installation category	CAT III 300 V	
	Voltage measurement	0.5% ± 1 digit	
	Current measurement	0.5% ± 1 digit	
	Frequency measurement	0,5%	
	Active power measurement	0.5% ± 2 digits	
accuracy	Reactive power measurement	1% ± 2 digits	
	Active energy measurement	l <0.1 <i>I</i> n Class 1	l >0.1 <i>I</i> n Class 0.5
	Reactive energy measurement	Class 2	
Pulse output	Quantity	1	
	Туре	Output NPN	
	Maximum voltage	24 Vdc	
	Maximum frequency	16 imp/s	
	Pulse width	30 to 500 ms (Programmable)	
	Quantity	1	
	Туре	Potential-free contact NPN	
Digital input	Communications protocol	Modbus RTU	BACnet
	Fieldbus	RS-485	MS/TP
	Speed	9600 - 19200 - 38400- [57600 Modbus RTU]	
Environmental features	Operating temperature	-5 to +45°C	
	Storage temperature	-10 to +50°C	
	Relative humidity (without condensation)	5 95 %	
	Maximum altitude	2000 m	
Mechanical features	Protection degree	IP31 - Front panel: IP40	
	Dimensions	52.5 x 118 x 74 mm	
	Weight	300 g	
	Enclosure	V0 self-extinguishing plastic	
	Panel attachment with 72x72 accessory	DIN rail	
Standards	EN 61010-1:2010, EN 61010-2-030:2011,		

#### References

Туре	Code	Туре	
CVM-E3-MINI-ITF-485-IC	M56414	Panel adapter CVM-E3-MINI 72x72	

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Code: C2M5M3

Code

M5ZZF100000E3



# **CVM-E3-MINI**

Power analyzer designed for energy efficiency

# Check each parameter of your electrical installation







### **Measures and calculates** any parameter in your electrical network

CVM-E3-MINI provides real time measurements of more than 250 electrical parameters. The unit shows the maximum and MINImum RMS values of any instantaneous variable as well as the harmonic breakdown up to the 31st harmonic.



### **Remotely fixes any** configuration error

Reconfigure the unit, through PowerStudio software, to resolve any error in the programming or physical wiring of the unit. Save indirect costs in the start-up and configuration.

#### Separates the consumption of two sources of energy

The unit has a digital input for changing the tariff. In this way the unit is able to save the incremental values of two sources of energy, either from the electrical network or the auxiliary energy generation system.



> It protects any user from direct contact with live parts and ensures the accuracy of the measurements, sealing the terminals and discouraging any tampering.

#### **High contrast display**

10-11-1213

VL1 VL2 VL3 N

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+8 e3T1

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> It ensures the correct display of data for distances of up to 3 m, avoiding having to open the panel to check any electrical parameter.

(A1) (A2)

Power Supply

200

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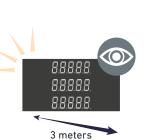
L1 L2 L3 50-50+ S B- A+

D23456 789SBA

S2 S1 S2 S1 S2 C0 01 I1 C

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CVM-E3-MINI







#### **New screens**

> The various measurement options include the possibility of measuring the monetary cost of energy, operating time, CO<sub>2</sub> emissions and harmonics.

# New needs in the sector

CVM-E3-MINI enables the control of electrical and energy variables in any type of installation adapting to new international regulations for the measurement and management of energy efficiency, adding the economic cost, CO<sub>2</sub> emissions and operating time for preventive maintenance in two energy logs for two different sources: distribution panel and self-consumption.



