



## CVM-E3-MINI-ITF-485-IC

CVM-E3-MINI-ITF-485-IC, Power analyzer

Code: M56414.

- > Protocol: Modbus/RTU | BACnet
- > Communications: RS-485
- > Transistor output: 1
- > Digital inputs: 1
- > Harmonics: 31
- > Power supply (Vac): 207...253 Vac
- > Input current: .../5 A | .../1 A
- > Mounting: DIN rail

### Description

Three-phase power analyzer (balanced and unbalanced) for mounting on DIN rail, very compact, with measurements in 4 quadrants.

Other features:

- Current measurement .../5 or .../1 A or .../250 mA or Rogowski type sensors
- With ITF technology: ITF galvanic insulation protection
- DIN rail with only 3 modules
- High-contrast backlit display
- 72 x 72 mm panel mounting with front adapter
- RS-485 communication (Modbus/RTU up to 19.2 kbps) (Bacnet up to 19.2 kbps)
- One transistor output (programmable)
- One digital input for selecting tariff or logic states
- Sealable terminal cover
- Harmonic display (V, A) up to 31°

### Application

- Control application in low- and medium-voltage distribution panels and switchboards where it is necessary to place an analyzer on the DIN rail due to problems of space.
- Alarm control. Maximum value, minimum value and programmable delay.
- Control of active or reactive energy by impulse output.
- Capture of maximum and minimum instantaneous data of electrical parameters measured.



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Three-phase power analyzer for DIN rail

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### Specifications

#### AC power supply

Installation category	CAT III 300 V
Consumption	4 VA
Frequency	50...60 Hz
Nominal voltage	207...253 Vc.a.

#### Mechanical characteristics

Size (mm) width x height x depth	52.5 x 118 x 74 (mm)
Envelope	Self-extinguishing V0 plastic
Differential current measurement	min. 2,5 mm <sup>2</sup>
Fastening	DIN rail
Weight (kg)	0,38

#### Environmental characteristics

Protection class	IP 30 / Front: IP 40
Relative humidity (without condensation)	5...95%
Storage temperature	-10 ... +50 °C
Working temperature	-5 ... +45 °C

#### Current measurement circuit

Installation category	CAT III 300 V
Nominal current (In)	.../5 A ó .../1 A
Phase current measuring range	2...120% de In
Maximum input current consumption	0,9 VA
Minimum current measurement	0,2 % In

#### Voltage measurement circuit

Installation category	CAT III 300 V
Input impedance	400 kΩ
Frequency measuring range	45...65 Hz
Nominal voltage	300V Ph-N, 520V Ph-Ph
Maximum input voltage consumption	0,15 VA
Minimum measurement voltage (Vstart)	11 V Ph-N

#### Standards

Electrical safety, Maximum height (m)	2000
Standards	IEC 61010-1, IEC 61010-2-030, IEC 61326-1, IEC 61557-12 , UL94



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### User interface

LED	2 LED
Keyboard	3 keys
Display type	LCD Custom COG

### Digital inputs

Input/output insulation	Optoisolated
Quantity	1
Type	NPN Potential-free contact

### Digital transistor outputs

Pulse width	30...500 ms (Programmable)
Type	NPN
Maximum frequency	16 imp / s
Maximum current	50 mA
Maximum voltage	24 Vdc

### Measurement accuracy

Frequency measurement	0,50%
Phase current measurement	0,5% ± 1 digit
Reactive energy measurement (kvarh)	Class 2
Reactive power measurement (kvar)	class 2
Apparent power measurement (kVA)	0.5 % ±2 digits
Active energy measurement (kWh)	I < 0,1 In (Class 1) / I > 0,1 In (Class 0,5)
Active power measurement (kW)	0.5 % ±2 digits
Phase voltage measurement	0.5% ± 1 digit

### Serial communication

Protocol	ModBus/RTU, BACnet
Technology / Type	RS-485 / BACnet

### CVM-E3-MINI

Power analyzer, three-phase DIN rail

CODE	TYPE	Input current	Transistor output	Digital inputs	Communications	Protocol
M56414.	CVM-E3-MINI-ITF-485-IC	.../5 A   .../1 A	1	1	RS-485	Modbus/RTU   BACnet
M56424.	CVM-E3-MINI-MC-485-IC	.../250 mA	1	1	RS-485	Modbus/RTU   BACnet
M56454.	CVM-E3-MINI-FLEX-485-IC	Rogowski	1	1	RS-485	Modbus/RTU   BACnet

"Built-in wireless communication on all WiEth models for configuration via free app (MyConfig) RS-485 models, possibility of switching power supply Consult additional benefits"



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### Dimensions



### Connections

