



# 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

## 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 mm2                  |
| 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 6 .../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    |
| Voltage measuring range   | 45...65 Hz    |



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

Three-phase power analyzer for DIN rail

Code: M56414.

|                                      |                       |
|--------------------------------------|-----------------------|
| Nominal voltage                      | 300V Ph-N, 520V Ph-Ph |
| Maximum input voltage consumption    | 0,15 VA               |
| Minimum measurement voltage (Vstart) | 11 V Ph-N             |

## Communications

|                   |                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------|
| Fieldbus (BACnet) | MS/TP                                                                                                                  |
| Fieldbus (ModBus) | RS-485                                                                                                                 |
| Protocol          | ModBus/RTU, BACnet                                                                                                     |
| Speed             | ModBus RTU: 9600-19200 bps / BACnet: 9600-19200 bps (38400-57600-115200 bps: Available on devices with software V2.xx) |

## Standards

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

## 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                                |



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

Three-phase power analyzer for DIN rail

Code: M56414.

CVM-E3-MINI

| 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 |

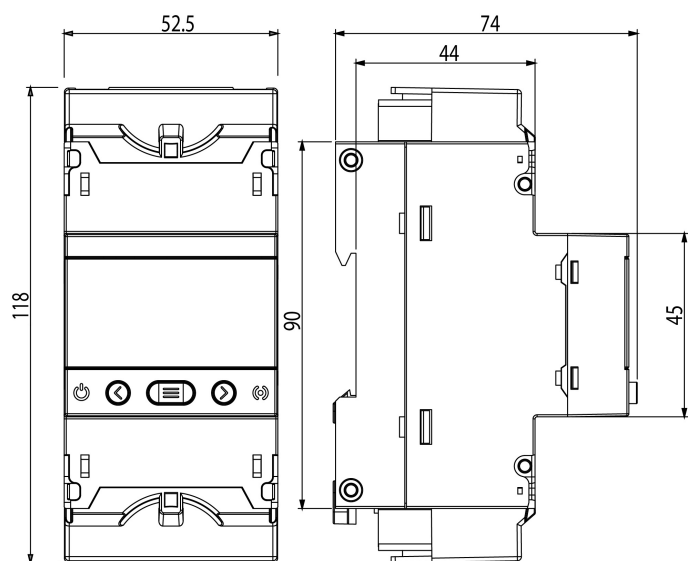


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Three-phase power analyzer for DIN rail

Code: M56414.

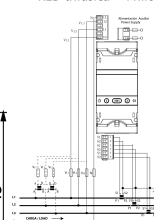
### Dimensions



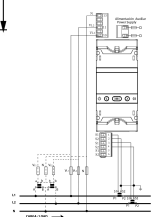
### Connections



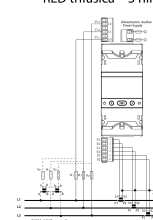
RED trifásica - 4 hilos



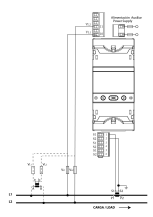
RED bifásica - 3 hilos



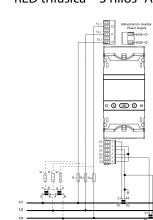
RED trifásica - 3 hilos



RED Fase-fase - 2 hilos



RED trifásica - 3 hilos- ARON



RED Fase-Neutro - 2 hilos

