

Single phase power-sensor

Single phase power-sensor



| | |
|---|-------------------------------|
| Model number: | PM1-E-D |
| | MC-230 |
| Connect to: | RS485 power sensor bus A - B |
| Mounting: | DIN rail, 1M, 18 mm |
| Dimensions: | 18 × 62 × 119 mm |
| Used for measuring power and energy of | |
| ✓ | single-phase energy sources |
| ✓ | single-phase energy consumers |

Applications

- Digital multi-function power-sensor for single phase networks

Features

- DIN rail mounting with direct connection up to 45A
- Compact design in a single module 18mm wide
- Seal-able cover(phase and neutral terminals)

General description

The PM1-E-D series is an advanced single phase energy monitoring solution with built-in configuration push button and LCD data displaying, particularly indicated for active energy and other parameters metering and for cost allocation. Housing for DIN-rail mounting, IP51 protection degree, direct connection up to max 45A.

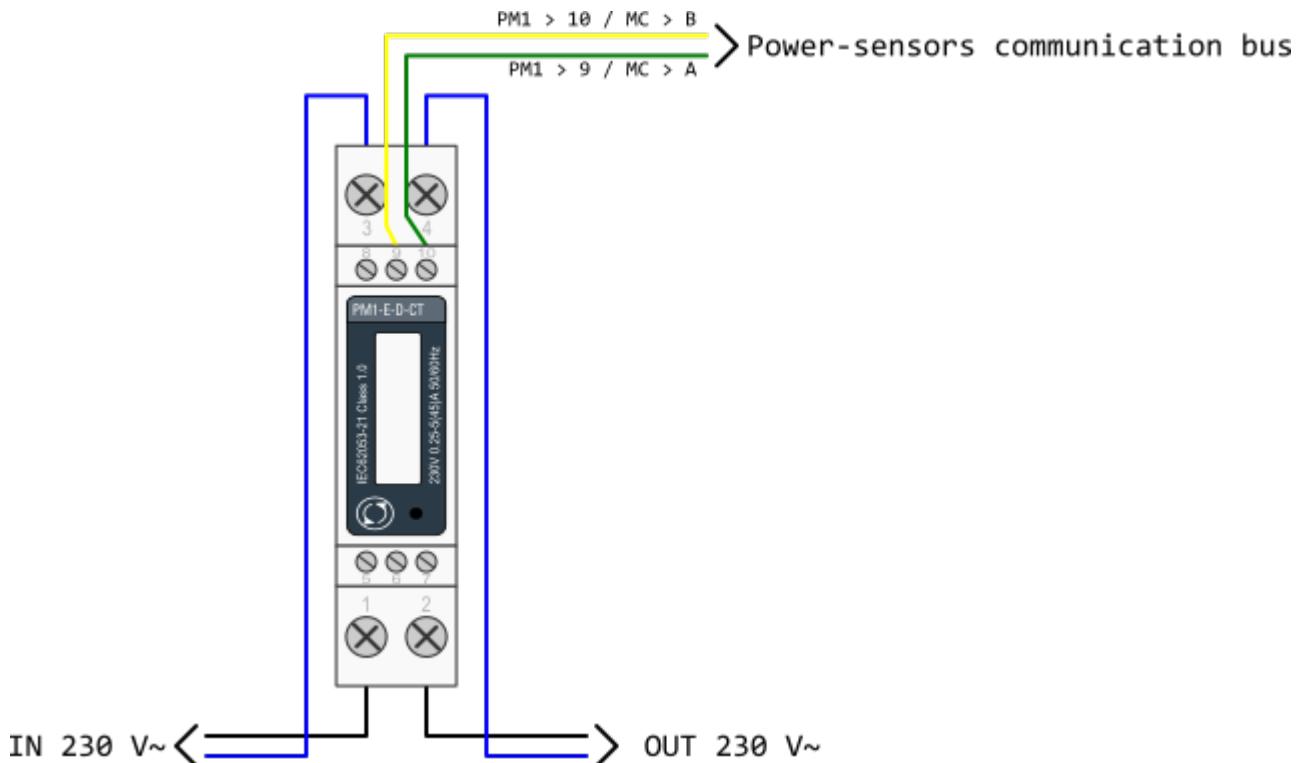
Technical specifications

| Energy Measurements | |
|---|---|
| Imported/Exported active energy | 0 to 99999.99 kWh |
| Imported/Exported reactive energy | 0 to 99999.99 kVArh |
| Total active energy | 0 to 99999.99 kWh |
| Total reactive energy | 0 to 99999.99 kVArh |
| Measured Inputs | |
| Nominal Voltage Input | (Ph+N) 176 to 276V |
| Max Continuous Voltage | 120% of nominal |
| Nominal Input Current | 5(45)A |
| Max Continuous Current | 120% of nominal |
| Frequency | 50Hz ($\pm 10\%$) |
| Accuracy | |
| Voltage | 0.5% of range maximum |
| Current | 0.5% of nominal |
| Frequency | 0.2% of mid-frequency |
| Power factor | 1% of unity (0.01) |
| Active power (W) | $\pm 1\%$ of range maximum |
| Reactive power (VAr) | $\pm 1\%$ of range maximum |
| Apparent power (VA) | $\pm 1\%$ of range maximum |
| Active energy (Wh) | Class 1 IEC 62053-21 |
| Reactive energy (VArh) | $\pm 1\%$ of range maximum |
| Modbus (RS485 Output for Modbus RTU & Pulsed Output) | |
| Baud rate | 1200, 2400, 4800, 9600. |
| Parity | none / odd / even |
| Stop bits | 1 or 2 |
| RS485 network address | 1 to 247 |
| Reference Conditions of Influence Quantities | |
| Ambient temperature | 23°C $\pm 1^\circ\text{C}$ |
| Input waveform | 50 or 60Hz $\pm 2\%$ |
| Input waveform | Sinusoidal (distortion factor < 0.005) |
| Auxiliary supply voltage | Nominal $\pm 1\%$ |
| Auxiliary supply frequency | Nominal $\pm 1\%$ |
| Auxiliary supply waveform (if AC) | Sinusoidal (distortion factor < 0.05) |
| Magnetic field of external origin | Terrestrial flux |
| Environment | |
| Operating temperature | -25°C to +55°C |
| Storage temperature | -40°C to +70°C |
| Relative humidity | 0 to 95%, non-condensing |
| Altitude | Up to 3000m |
| Warm up time | 1 minute |
| Vibration | 10Hz to 50Hz, IEC 60068-2-6, 2g |
| Shock | 30g in 3 planes |
| Mechanics | |
| DIN rail dimensions | 18mm x 90mm (WxH) per DIN 43880 |

Mounting

DIN rail (DIN 43880)

PM1-E-D Wiring



[sdm120_series_datasheet.pdf](#)
[sdm120_protocol.pdf](#)

From:

<http://wiki.hiq-universe.com/> -

Permanent link:

http://wiki.hiq-universe.com/doku.php?id=en:hiq_hw:pm1-e-d&rev=1563956175

Last update: **2019/07/24 08:16**

