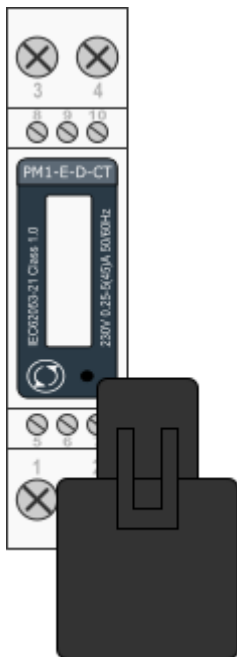


# Single phase power-sensor

## 1-phase power-sensor, current transformer



|   |  |
|---|--|
| Model number:                                 | <b>PM1-E-D-CT</b>                                      |
| Connect to:                                   | <a href="#">MC-230</a><br>RS485 power sensor bus A - B |
| Mounting:                                     | DIN rail, 1M, 18 mm                                    |
| Dimensions:                                   | 18 × 62 × 119 mm                                       |
| <b>Used for measuring power and energy of</b> |  |
| ✓   | single-phase energy sources                            |
| ✓   | single-phase energy consumers                          |

## Applications

- Digital multi-function power sensor for single phase networks

## Features

- DIN rail mounting with 50A current transformer
- 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.

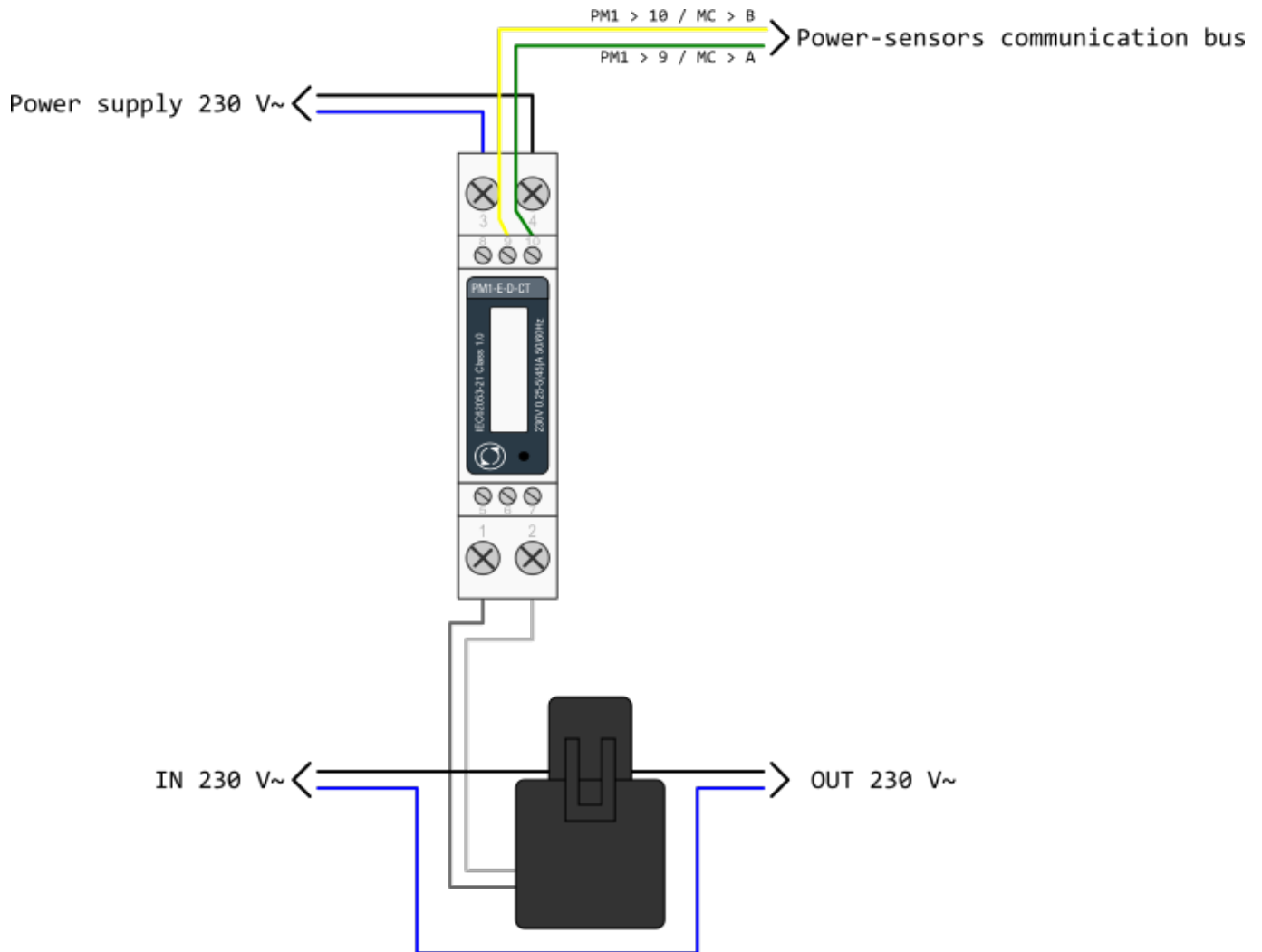
## Technical specifications

| Technical Data     |       |
|--------------------|-------|
| Operating Humidity | ≤ 75% |

|                              |   |
|------------------------------|---|
| Storage Humidity             | ≤ 95%                                       |
| Operating Temperature        | -20°C - +50°C                               |
| Storage Temperature          | -30°C - +70°C                               |
| International Standard       | IEC 62053-21                                |
| Accuracy                     | Class 1                                     |
| Mounting                     | DIN rail (DIN 43880)                        |
| Sealing                      | IP51 Indoor                                 |
| Nominal Voltage Input        | (Ph+N) 230V AC (176-276V AC)                |
| Max Continuous Voltage       | 120% of nominal                             |
| AC Voltage Withstand         | 4KV for 1 minute                            |
| Impulse Voltage Withstand    | 6KV-1.2μS                                   |
| Current Input                | 0.25-5A(6)A AC RMS                          |
| Operational Current Range    | 0.4% Ib-I <sub>max</sub>                    |
| Over current withstand       | 20I <sub>max</sub> for 0.01s                |
| Nominal Input Current Burden | 0.5VA                                       |
| Frequency                    | 50Hz(±10%)                                  |
| Power Consumption            | ≤ 2W/10VA/phase                             |
| <b>Accuracy</b>              |   |
| Voltage, Current             | 0.5%  |
| Frequency                    | 0.2% of Mid-Frequency                       |
| Power Factor                 | 1% of Unity (0.01)                          |
| Active Power, Apparent Power | ≤ 1% of Range Maximum                       |
| Reactive Power               | ≤ 1% of Range Maximum                       |
| Reactive Energy (Varh)       | Class 2                                     |
| Active Energy (Wh)           | Class 1                                     |
| <b>Current transformer</b>   |   |
| Frequency                    | 50-60 Hz                                    |
| Rated current                | 50 A  |
| Accuracy                     | from 20% to 120% of rated current           |
| Phase angle                  | less than 2 degrees at 50% of rated current |
| Insulation voltage           | 600 VAC                                     |
| Maximum primary voltage      | 5000 VAC (insulated conductor)              |
| Dielectric strength          | 2.5 kV/1mA/1min                             |
| Operating temperature        | -15 to 60°C                                 |
| Operating humidity           | < 85 %                                      |
| Case material                | PC/UL94-V0                                  |
| Bobin                        | PBT   |
| Core                         | Permalloy                                   |
| Internal structure           | Epoxy                                       |
| Leads                        | UL 1015, Twisted pair, 22 AWG               |
| <b>Modbus</b>                |   |
| Bus Type                     | RS485 (Semi-Duplex)                         |
| Protocol                     | Modbus RTU                                  |
| Baud Rate                    | 1200/2400/4800/9600bps                      |
| Address Range                | 1-247                                       |
| Max. Bus Loading             | 64pcs                                       |

|                        |               |
|------------------------|---------------|
| Communication Distance | 1000 Meters   |
| Parity                 | EVEN/ODD/NONE |
| Data Bit               | 8             |
| Stop Bit               | 1             |

## SDM120 Terminals



sdm120ct\_series\_datasheet.pdf  
sdm120ct\_protocol.pdf

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