

# Energy Meter

## SINGLE PHASE - MID

The device PM10E02IRE – Single-phase Digital Energy meter – Direct connection 80 A integrates all the measurement functions necessary to monitor a single-phase electrical installation:

- 0.25-5 (80) A, Class B, 230 VAC 50 Hz, -25 °C ÷ +55 °C, 4 Quadrants, 2 Tariffs
- Active Energy Class B (according to EN-50470) and Reactive Energy Class 2 (according to IEC 62053-23)
- Direct connected (up to 80 A)
- Backlighted LCD display and 3 push-button keys (to read Energies, V, I, PF, F, P, Q and to configure some parameters)
- Display with 8 digits.
- Self supplied (by the input voltage itself)
- DIN modules width (36 mm)
- 2 Tariffs controlled by a 230 VAC digital input
- 2 S0 standard low voltage pulse outputs MID certified



### Technical Features

<b>Mechanical data</b>	<ul style="list-style-type: none"> <li>• Dimensions: 2 DIN Modules (PM10E02IRE)</li> <li>• Dimensions: 1 DIN Module (PM00A00IRI)</li> </ul>
<b>Supply</b>	<ul style="list-style-type: none"> <li>• Via bus EIB/KNX cable: 21 ÷ 32 Vdc</li> <li>• Operating supply voltage range: 92 ÷ 276 Vac</li> <li>• Reference current 5 A / max current 63A / min. current 0.25 A / starting current 0.015 A</li> <li>• Nominal frequency 50 Hz / frequency range: 45 ÷ 65 Hz</li> <li>• Max Power consumption (voltage circuit) &lt; 2VA (1 W)</li> </ul>
<b>Functionality</b>	<ul style="list-style-type: none"> <li>• Connection to single-phase network (2-wires)</li> <li>• Tariff for active and reactive energy: n° 2 - T1 / T2</li> </ul>
<b>Overload capability</b>	<ul style="list-style-type: none"> <li>• Permanent voltage 276 Vac / temporary (1 s) 300 Vac</li> <li>• Permanent current 63 A / temporary (10 ms) 1890 A</li> </ul>
<b>Protective class</b>	Class II

### Order Codes

#### PM10E02IRE

Single-phase Digital Energy meter – Direct connection 80 A – MID

#### PM00A00IRI

EIB-KNX interface

# Energy Meter

ENERGY METER **THREE-PHASE ENERGY METER 80 A – MID**

ENERGY METER **THREE PHASE WITH EXTERNAL TA 1-5A – MID**

Devices provide all relevant measures for the evaluation of an electrical network: I, U, PF, F, THD%, Powers (displayed for each phase and 3 phase), and Imported/Exported Active/Reactive Energies.

- Direct connection (80 A)
- Current range 0.25-5(80) A
- 2 tariffs and with IR lateral communication available
- 2 S0 Pulse outputs MID certified

Devices are intended to be installed on DIN rail.



## Technical Features

<b>Mechanical data</b>	<ul style="list-style-type: none"> <li>• Dimensions: 4 DIN Modules</li> <li>• Dimensions: 1 DIN Module</li> </ul>
<b>Supply</b>	<ul style="list-style-type: none"> <li>• Via bus EIB/KNX cable: 21 ÷ 32 Vdc</li> <li>• Reference voltage Line to Neutral: 230 Vac</li> <li>• Reference voltage Line to Line: 400 Vac</li> <li>• Operating supply voltage range: 92 ÷ 276 / 160 ÷ 480 Vac</li> <li>• cod. <b>PM30E01IRE</b>: reference current 5 A / maximum current 63 A / minimum current 0.25 A / starting current 0.015 A</li> <li>• cod. <b>PM30E02IRE</b>: reference current 1 A / maximum current 6 A / minimum current 0.01 A / starting current 0.001 A</li> <li>• cod. <b>PM30E02IRE</b>: max CT ratio 10000/5 A or 2000/1 A; ratio adjusting step 5 or 1 A</li> <li>• Nominal frequency 50 A / frequency range: 45 ÷ 65 Hz</li> <li>• Max Power consumption (voltage circuit) ≤2 VA (0.6 W)</li> </ul>
<b>Functionality</b>	<ul style="list-style-type: none"> <li>• Connection to three-phase network (4-wires)</li> <li>• Tariff for active energy: n° 2 - T1 / T2</li> </ul>
<b>Overload capability</b>	<p><b>Voltage:</b></p> <ul style="list-style-type: none"> <li>• continuous phase-phase 480 Vac</li> <li>• 1 second phase-phase 800 Vac</li> <li>• cod. <b>PM30E01IRE</b>: continuous phase-N 276 Vac</li> <li>• cod. <b>PM30E02IRE</b>: continuous phase-N 800 Vac</li> <li>• 1 second phase-N 300 Vac</li> </ul> <p><b>Current:</b></p> <ul style="list-style-type: none"> <li>• cod. <b>PM30E01IRE</b>: <ul style="list-style-type: none"> <li>- continuous 80 A</li> <li>- 10ms 2400 A</li> </ul> </li> <li>• cod. <b>PM30E02IRE</b>: <ul style="list-style-type: none"> <li>- continuous 6 A</li> <li>- 0,5 ms 120 A</li> </ul> </li> </ul>

## Order Codes

### PM30E01IRE

Three-phase Digital Energy Meter Direct connection 80 A – MID

### PM30E02IRE

Three-phase Digital Energy Meter with external TA 1-5 A – MID

### PM00A00IRI

EIB-KNX interface