

# Product datasheet

Specifications



## EasyLogic PM2210 - Power & Energy meter - Total Harmonic - LCD - Pulse - RJ45

METSEPM2210R

⚠ To be discontinued

### Main

|                           |                  |
|---------------------------|------------------|
| Range                     | EasyLogic        |
| Product name              | EasyLogic PM2200 |
| Device short name         | PM2210           |
| Product or component type | Power meter      |

### Complementary

|                        |                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device application     | Power monitoring<br>Sub billing                                                                                                                                                                                                                                                                                                                                |
| Power quality analysis | total harmonic distortion                                                                                                                                                                                                                                                                                                                                      |
| Type of measurement    | Apparent power min/max, total<br>Active and reactive power min/max, total<br>Current min/max, avg<br>Voltage min/max, avg<br>Frequency min/max, avg<br>Total current harmonic distortion THD (I) per phase<br>Total voltage harmonic distortion THD (U) per phase<br>Power factor min/max, avg<br>Apparent energy total<br>Active and reactive energy total    |
| Metering type          | Calculated neutral current<br>Active, reactive, apparent energy (signed, four quadrant)<br>Unbalance current<br>Current I, I1, I2, I3<br>Active power P, P1, P2, P3<br>Voltage U, U21, U32, U13, V, V1, V2, V3<br>Reactive power Q, Q1, Q2, Q3<br>Peak demand currents<br>Demand power P, Q, S<br>Peak demand power PM, QM, SM<br>Apparent power S, S1, S2, S3 |
| Accuracy class         | Class 1 active energy conforming to IEC 62053-21<br>Class 1 reactive energy conforming to IEC 62053-24                                                                                                                                                                                                                                                         |
| Measurement accuracy   | Apparent power +/- 1 %<br>Active energy +/- 1 %<br>Reactive energy +/- 1 %<br>Active power +/- 1 %<br>Voltage +/- 0.5 %<br>Power factor +/- 0.01<br>Current +/- 0.5 %<br>Frequency +/- 0.05 %                                                                                                                                                                  |
| Measurement current    | 5...6000 mA                                                                                                                                                                                                                                                                                                                                                    |
| Measurement voltage    | 35...480 V AC 50/60 Hz between phases<br>20...277 V AC 50/60 Hz between phase and neutral<br>480...999000 V AC 50/60 Hz with external VT                                                                                                                                                                                                                       |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                 |                                                                                                                                                                                                                                                                                                                         |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency measurement range     | 45...65 Hz                                                                                                                                                                                                                                                                                                              |
| [Us] rated supply voltage       | 44...277 V AC 45...65 Hz +/- 10 %<br>44...277 V DC +/- 10 %                                                                                                                                                                                                                                                             |
| Network frequency               | 50 Hz<br>60 Hz                                                                                                                                                                                                                                                                                                          |
| Ride-through time               | 100 ms 120 V AC typical<br>400 ms 230 V AC typical<br>50 ms 125 V DC typical                                                                                                                                                                                                                                            |
| [In] rated current              | 5 A<br>1 A                                                                                                                                                                                                                                                                                                              |
| Maximum power consumption in VA | 6 VA at 277 V AC                                                                                                                                                                                                                                                                                                        |
| Maximum power consumption in W  | 3.3 W (power lines (AC))<br>2 W at 277 V (power lines (DC))                                                                                                                                                                                                                                                             |
| Input impedance                 | Current (impedance <= 0.3 mOhm)<br>Voltage (impedance > 5 MOhm)                                                                                                                                                                                                                                                         |
| Tamperproof of settings         | Protected by access code                                                                                                                                                                                                                                                                                                |
| Display type                    | Backlit LCD                                                                                                                                                                                                                                                                                                             |
| Display colour                  | Monochrome                                                                                                                                                                                                                                                                                                              |
| Display resolution              | 128 x 128 pixels                                                                                                                                                                                                                                                                                                        |
| Demand intervals                | Configurable from 1 to 60 min                                                                                                                                                                                                                                                                                           |
| Information displayed           | Demand current (past value)<br>Demand current (present value)<br>Demand power (past value)<br>Demand power (present value)<br>Voltage<br>Current<br>Frequency<br>Energy consumption<br>Harmonic distortion<br>Power factor<br>Active power<br>Apparent power<br>Reactive power<br>Unbalanced in %<br>Harmonic amplitude |
| Control type                    | 4 x button                                                                                                                                                                                                                                                                                                              |
| Local signalling                | Red LED: output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh)<br>Green LED: module operating (RUN)                                                                                                                                                                                                                   |
| Number of inputs                | 0                                                                                                                                                                                                                                                                                                                       |
| Number of outputs               | 1 pulse                                                                                                                                                                                                                                                                                                                 |
| POP parameter                   | Pulse: 20 ms (5...40 V DC, 20 mA max)1...9999000 pulse/ k_h (kWh, kVAh, kVARh)                                                                                                                                                                                                                                          |
| Impulse duration                | 20 ms                                                                                                                                                                                                                                                                                                                   |
| Communication port protocol     | POP                                                                                                                                                                                                                                                                                                                     |
| Function available              | Alarm                                                                                                                                                                                                                                                                                                                   |
| Sampling rate                   | 64 samples/cycle                                                                                                                                                                                                                                                                                                        |
| Cybersecurity                   | Enable/disable communication ports                                                                                                                                                                                                                                                                                      |
| Communication service           | Remote monitoring                                                                                                                                                                                                                                                                                                       |
| User language                   | German<br>Chinese<br>French<br>English<br>Spanish<br>Portuguese<br>Russian                                                                                                                                                                                                                                              |
| Product certifications          | CE conforming to IEC 61010-1<br>CULus conforming to UL 61010-1<br>CULus conforming to CSA C22.2 No 61010-1<br>RCM<br>EAC<br>C-Tick                                                                                                                                                                                      |

|                             |                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------|
| Mounting mode               | Clip-on                                                                          |
| Mounting position           | Vertical                                                                         |
| Mounting support            | Framework                                                                        |
| Provided equipment          | 1 x installation guide                                                           |
| Measurement category        | Category III 480 V<br>Category II 480...600 V                                    |
| Electrical insulation class | Double insulation<br>Class II                                                    |
| Flame retardance            | V-0 conforming to UL 94                                                          |
| Connections - terminals     | Current transformer: RJ45 connector1<br>Voltage inputs: screw connection (top) 4 |
| Material                    | Polycarbonate                                                                    |
| Width                       | 96 mm                                                                            |
| Depth                       | 76.09 mm total:<br>61.64 mm embedded:                                            |
| Height                      | 96 mm                                                                            |
| Net weight                  | 300 g                                                                            |
| Compatibility code          | PM2210R                                                                          |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service life                          | 7 year(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| IP degree of protection               | IP54 front: conforming to IEC 60529<br>IP30 body: conforming to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Relative humidity                     | 5...95 % at 50 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pollution degree                      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ambient air temperature for operation | -10...60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ambient air temperature for storage   | -25...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Operating altitude                    | <= 2000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Electromagnetic compatibility         | Electrostatic discharge conforming to IEC 61000-4-2<br>Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3<br>Electrical fast transient/burst immunity test conforming to IEC 61000-4-4<br>Surge immunity test conforming to IEC 61000-4-5<br>Conducted RF disturbances conforming to IEC 61000-4-6<br>Magnetic field at power frequency conforming to IEC 61000-4-8<br>Voltage dips and interruptions immunity test conforming to IEC 61000-4-11<br>Emission tests conforming to FCC part 15 class A |
| Overvoltage category                  | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 220 g   |
| Package 1 Height             | 6.25 cm |
| Package 1 width              | 9.6 cm  |
| Package 1 Length             | 9.6 cm  |
| Unit Type of Package 2       | S03     |
| Number of Units in Package 2 | 18      |
| Package 2 Weight             | 6.11 kg |
| Package 2 Height             | 30 cm   |

|                              |         |
|------------------------------|---------|
| Package 2 width              | 30 cm   |
| Package 2 Length             | 40 cm   |
| Unit Type of Package 3       | P06     |
| Number of Units in Package 3 | 96      |
| Package 3 Weight             | 21.2 kg |
| Package 3 Height             | 105 cm  |
| Package 3 width              | 60 cm   |
| Package 3 Length             | 80 cm   |

### Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|