

# Product datasheet

Specifications



Power quality meter, PowerLogic  
PM8000, Standard, integrated  
display, 512 MB, 256 s/c

METSEPM8210

## Main

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                     | PowerLogic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product name              | PowerLogic PM8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product or component type | Power meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Device short name         | PM8210                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Market segment            | Buildings large building cost management: billing: sub feeder<br>Buildings small building network management: main incomer<br>Buildings medium building network management: main incomer<br>Buildings large building network management: main incomer<br>Buildings large building network management: sub feeder<br>Buildings multi-site network management: main incomer<br>Buildings multi-site network management: sub feeder<br>Data center network management: main incomer<br>Data center network management: sub feeder<br>Healthcare network management: main incomer<br>Healthcare network management: sub feeder<br>Industry network management: main incomer<br>Industry network management: sub feeder<br>Utility: sub feeder |
| model type                | Standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Complementary

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power quality analysis | conforming to EN 50160: 2010 compliance report<br>conforming to IEEE 519: 2014 compliance report<br>conforming to IEC 61000-4-30: class S power quality measurement<br>up to the 63rd harmonic<br>harmonic distortion<br>waveform capture<br>voltage sag and swell detection<br>programmability (logic and math functions)<br>conforming to IEC 62586 power quality monitoring<br>disturbance direction detection<br>rapid voltage change |
| Device application     | Power monitoring<br>WAGES metering                                                                                                                                                                                                                                                                                                                                                                                                        |
| Type of measurement    | Current<br>Voltage<br>Frequency<br>Active and reactive power total<br>Apparent power total<br>Power factor total<br>Active and reactive power per phase, rms<br>Apparent power per phase, rms<br>Power factor per phase, rms                                                                                                                                                                                                              |
| supply voltage         | 20...60 V DC +/- 10 %                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Network frequency      | 60 Hz<br>50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                            |
| [In] rated current     | 10 A<br>5 A<br>1 A                                                                                                                                                                                                                                                                                                                                                                                                                        |

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

|                             |                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poles description           | 3P<br>1P + N<br>3P + N                                                                                                                                                                                                                                                                                                                                                      |
| Power consumption in W      | 18 W                                                                                                                                                                                                                                                                                                                                                                        |
| Display type                | Colour TFT LCD                                                                                                                                                                                                                                                                                                                                                              |
| Display resolution          | 320 x 240 pixels QVGA                                                                                                                                                                                                                                                                                                                                                       |
| Sampling rate               | 256 samples/cycle                                                                                                                                                                                                                                                                                                                                                           |
| Measurement current         | 50...10000 mA                                                                                                                                                                                                                                                                                                                                                               |
| Analogue input type         | Voltage (impedance 5 MOhm)<br>Current (impedance 0.3 mOhm)                                                                                                                                                                                                                                                                                                                  |
| Measurement voltage         | 57...400 V AC 42...69 Hz between phase and neutral<br>100...690 V AC 42...69 Hz between phases                                                                                                                                                                                                                                                                              |
| Frequency measurement range | 42...69 Hz                                                                                                                                                                                                                                                                                                                                                                  |
| Number of inputs            | 3 digital 30 V AC<br>3 digital 60 V DC                                                                                                                                                                                                                                                                                                                                      |
| Measurement accuracy        | Current +/- 0.1 %<br>Voltage +/- 0.1 %<br>Active energy +/- 0.2 %                                                                                                                                                                                                                                                                                                           |
| Accuracy class              | Class 0.2S active energy conforming to IEC 62053-22<br>Class 0.2 active energy conforming to ANSI C12.20<br>Class 0.2 active power conforming to IEC 61557-12<br>Class 0.5S reactive energy conforming to IEC 62053-24<br>Class 0.5 power factor conforming to IEC 61557-12<br>Class 0.2 voltage conforming to IEC 61557-12<br>Class 0.2 current conforming to IEC 61557-12 |
| Number of outputs           | 1 pulse                                                                                                                                                                                                                                                                                                                                                                     |
| Information displayed       | Voltage<br>Current<br>Frequency<br>Power<br>Energy consumption<br>Harmonic distortion                                                                                                                                                                                                                                                                                       |
| Communication port protocol | Modbus RTU at 115 kbauds - 2-wire<br>ION at 115 kbauds - 2-wire<br>DNP3<br>IEC 61850<br>Modbus TCP/IP<br>Ethernet Modbus TCP/IP daisy chain at 10/100 Mbit/s<br>RSTP 801.1d 2004                                                                                                                                                                                            |
| Communication port support  | ETHERNET<br>Screw terminal block: RS485                                                                                                                                                                                                                                                                                                                                     |
| Communication network type  | IPv6 (internet protocol)                                                                                                                                                                                                                                                                                                                                                    |
| Data recording              | Data logs<br>Harmonics logs<br>Waveform logs<br>Min/max of instantaneous values<br>Trending/forecasting<br>Sag and swell logs<br>Sequence of event recording<br>GPS synchronisation<br>Alarm logs<br>Event logs<br>Time stamping<br>50 data recorders                                                                                                                       |
| Memory capacity             | 512 MB                                                                                                                                                                                                                                                                                                                                                                      |

|                        |                                                                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Web services           | Customizable home page<br>File upload/download via FTP<br>File upload/download via SFTP<br>Web server<br>Alarm notification by e-mail<br>Viewing of captured waveform (FTP)<br>Viewing of captured waveform (web)<br>HTTPS server |
| Communication service  | NTP time synchronization<br>SMTP e-mail notification<br>DHCP<br>RSTP support<br>SNMP<br>PTP time synchronization                                                                                                                  |
| Cybersecurity          | Syslog protocol support<br>Password protection<br>Port hardening<br>Enable/disable communication ports<br>Robust security logs                                                                                                    |
| Mounting mode          | Flush-mounted                                                                                                                                                                                                                     |
| Mounting support       | Framework                                                                                                                                                                                                                         |
| Installation category  | III                                                                                                                                                                                                                               |
| Safety Construction    | III400...690 V conforming to IEC 61010-1:ed. 3<br>III400...690 V conforming to EN 61010-1:ed. 3<br>III347...600 V conforming to UL 61010-1:ed. 3<br>III347...600 V conforming to CSA C22.2 No 61010-1:ed. 3                       |
| Standards              | IEC 62052-11<br>IEC 61557-12<br>IEC 62053-22<br>IEC 62053-24<br>IEEE 1588<br>IEC 62586-2<br>IEC 61326-1                                                                                                                           |
| Product certifications | CE<br>CULus<br>N998                                                                                                                                                                                                               |
| Width                  | 96 mm                                                                                                                                                                                                                             |
| Depth                  | 77.5 mm                                                                                                                                                                                                                           |
| Height                 | 96 mm                                                                                                                                                                                                                             |
| Product weight         | 581 g                                                                                                                                                                                                                             |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>Immunity to impulse waves conforming to IEC 61000-4-12<br>Conducted and radiated emissions conforming to EN 55022<br>Conducted and radiated emissions conforming to EN 55011<br>Conducted and radiated emissions conforming to FCC part 15<br>Conducted and radiated emissions conforming to ICES-003<br>Conducted RF disturbances (2...150 Hz) conforming to CLC/TR 50579<br>Surge withstand conforming to IEEE C37.90.1 |
| IP degree of protection               | IP54 front: conforming to IEC 60529<br>IP30 body: conforming to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Relative humidity                     | 5...95 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Ambient air temperature for operation | -25...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|                                     |             |
|-------------------------------------|-------------|
| Ambient air temperature for storage | -40...85 °C |
| Operating altitude                  | 3000 m      |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 14.000 cm |
| Package 1 Width              | 14.000 cm |
| Package 1 Length             | 18.500 cm |
| Package 1 Weight             | 953.900 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 8         |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 7.650 kg  |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 294 kg CO2 eq.                                |
| Carbon footprint of the manufacturing phase [A1 to A3] | 92 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]        | 0.4 kg CO2 eq.                                |
| Carbon footprint of the installation phase [A5]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 199 kg CO2 eq.                                |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 2 kg CO2 eq.                                  |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Better



### Materials and Substances

|                                        |                                                                                        |
|----------------------------------------|----------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                    |
| Packaging without single use plastic   | No                                                                                     |
| SCIP Number                            | 03520ddb-79bb-4c6d-89b9-5e4182b3a577                                                   |
| EU RoHS Directive                      | <a href="#">Compliant By Exemption</a>                                                 |
| REACH Regulation                       | <a href="#">Reference contains Substances of Very High Concern above the threshold</a> |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



### Repack and remanufacture

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recyclability potential, in %   | 17                                                                                                                                                                                                              |
| End of life manual availability | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| Take-back                       | No                                                                                                                                                                                                              |
| WEEE Label                      |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Image of product / Alternate images

Alternative

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