Product data sheet

PM870MG
power meter PM870 - with display - WFC - disturbance detection - 800 kB logging

Main
Range of product PowerLogic PM800
Device short name PM870
Product or component type Power meter

Complementary
Power quality analysis Up to the 63rd harmonic
Type of measurement Current
Voltage
Frequency
Power factor total
Apparent power total
Active power total
Reactive power total
Apparent power per phase
Active power per phase
Reactive power per phase
Energy
Power factor per phase

Supply voltage
125...250 V DC
115...415 V AC 45...67 Hz
115...415 V AC 350...450 Hz

Network frequency
45...67 Hz
350...450 Hz

Maximum power consumption in VA 15 VA

Display type Backlit LCD
Display resolution 6 lines
Sampling rate 128 samples/cycle
Measurement current 1 A
5 A
Input type Current 0.005...10 A (impedance <= 0.1 Ohm)
Measurement voltage 0...600 V AC phase to phase
0...347 V AC phase to neutral

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.
<table>
<thead>
<tr>
<th><strong>Number of inputs</strong></th>
<th>1 digital 0...5 mA 24...125 V AC/DC</th>
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</table>
| **Measurement accuracy** | Current 0.5 % 0.5...10 A  
Voltage 0.2 % 10...227 V  
Energy 0.2 %  
Frequency 0.01 Hz  
Power factor 0.002  
Power 0.2 % |
| **Accuracy class** | Class 2 reactive energy conforming to IEC 62053-23  
Class 0.5S active energy conforming to IEC 62053-22  
Class 0.2 active energy conforming to ANSI C12.20 |
| **Number of outputs** | 1 digital (static) |
| **Communication port protocol** | Modbus 38.4 kbauds |
| **Communication port support** | RS485 |
| **Data recording** | GPS synchronisation  
Trending/forecasting  
4 data logs and PQ sag/swell  
Event logs  
Time stamping  
Alarms  
Min/max of instantaneous values |
| **Memory capacity** | 800 kB |

### Environment

**Electromagnetic compatibility**

- Immunity to impulse waves: , conforming to IEC 61000-4-12
- Limits for harmonic current emissions: , conforming to IEC 61000-3-2
- Conducted and radiated emissions: , conforming to EN 55011 class A
- Electrostatic discharge immunity test: , class III, conforming to IEC 61000-4-2
- Susceptibility to electromagnetic fields: , class III, conforming to IEC 61000-4-3
- Electrical fast transient/burst immunity test: , class III, conforming to IEC 61000-4-4
- 1.2/50 µs shock waves immunity test: , class III, conforming to IEC 61000-4-5
- Conducted RF disturbances: , class III, conforming to IEC 61000-4-6
- Immunity to impulse waves: , class III, conforming to IEC 61000-4-8
- Immunity to microbreaks and voltage drops: , class III, conforming to IEC 61000-4-11
- Limitation of voltage changes, voltage fluctuations and flicker in low-voltage: , conforming to IEC 61000-3-3

**Mounting mode**

- Flush-mounted

**Mounting support**

- Panel

**Type of installation**

- Indoor installation

**Overvoltage category**

- III

**IP degree of protection**

- IP30 back: conforming to IEC 60529
- IP52 front face: conforming to IEC 60529

**Relative humidity**

- 90 % at 40 °C

**Pollution degree**

- 2

**Ambient air temperature for operation**

- -25…70 °C

**Ambient air temperature for storage**

- -40…85 °C

**Operating altitude**

- 0…3000 m

**Standards**

- CSA C22.2 No 14
- UL 508
- IEC 61010-1

**Product certifications**

- CE
- CULus

**Width**

- 96 mm

**Depth**

- 70 mm

**Height**

- 96 mm

**Net weight**

- 0.6 kg

### Offer Sustainability

**Sustainable offer status**

- Green Premium product

**EU RoHS Directive**

- Compliant

**EU RoHS Declaration**

**Circularity Profile**

- End of Life Information
| Warranty | 18 months |