

# Product data sheet

Specifications



## M8800B energy meter - 10 MB - class A - 1 A input - 50 Hz

M8800B1E0B5E0E0C

### Main

|                           |                                |
|---------------------------|--------------------------------|
| Range                     | PowerLogic                     |
| Device short name         | ION8800B                       |
| Product or component type | Energy and power quality meter |

### Complementary

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power quality analysis          | conforming to IEC 61000-4-30: class S power quality measurement<br>conforming to IEC 61000-4-15 flicker<br>magnitude harmonic up to the 50th<br>conforming to IEEE 519: 1992 harmonic control<br>conforming to IEEE 1159: 1995 power quality monitoring<br>symmetrical component<br>transient detection (20 µs)<br>voltage sag and swell detection<br>programmability (logic and math functions)<br>up to the 63rd harmonic<br>conforming to IEC 61000-4-30: class A power quality measurement<br>conforming to EN 50160 compliance report |
| Device application              | Tariff metering<br>Demand and power factor control<br>Load curtailment<br>Instrument transformer correction<br>Contract optimisation<br>Energy pulsing and totalisation<br>Equipment monitoring and control<br>Power monitoring<br>Co-generation and IPP monitoring                                                                                                                                                                                                                                                                        |
| Type of measurement             | Current<br>Voltage<br>Frequency<br>Apparent power total<br>Power factor total<br>Apparent power per phase<br>Power factor per phase<br>Active power total<br>Active power per phase<br>Reactive power total<br>Reactive power per phase                                                                                                                                                                                                                                                                                                    |
| Supply voltage                  | 85...240 V AC 47...63 Hz<br>110...270 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Network frequency               | 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [In] rated current              | 1 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Type of network                 | 1P + N<br>3P<br>3P + N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Power consumption in VA         | 19 VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Maximum power consumption in VA | 32 VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

|                               |                                                                                                                                                                                                                                                                            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display type                  | FSTN transfective LCD                                                                                                                                                                                                                                                      |
| Sampling rate                 | 1024 samples/cycle                                                                                                                                                                                                                                                         |
| Measurement current           | 0...1 A                                                                                                                                                                                                                                                                    |
| Input type                    | Current 0.001...10 A (impedance 0.01 Ohm)                                                                                                                                                                                                                                  |
| Measurement voltage           | 57...288 V AC phase to neutral<br>99...500 V AC phase to phase                                                                                                                                                                                                             |
| Frequency measurement range   | 47...63 Hz                                                                                                                                                                                                                                                                 |
| Number of inputs              | 3 digital 80...280 V AC/DC                                                                                                                                                                                                                                                 |
| Measurement accuracy          | Current 0.1 %<br>Voltage 0.1 %<br>Power 0.2 %<br>Power factor 0.1 %<br>Frequency 0.005 Hz<br>Energy 0.2 %                                                                                                                                                                  |
| Accuracy class                | Class 0.2S active energy conforming to IEC 62053-22<br>Class 0.2S reactive energy conforming to IEC 62053-23                                                                                                                                                               |
| Number of outputs             | 1 alarm output<br>4 form C solid state output<br>2 IEC 1107 pulse                                                                                                                                                                                                          |
| Communication port protocol   | DLMS<br>ION<br>TCP/IP at 10/100 Mbit/s<br>DNP3<br>Modbus RTU, master/slave at <= 19200 bauds<br>Modbus RTU, master/slave at 300...57600 bauds<br>Modbus RTU, master/slave at 300...115200 bauds<br>Modbus TCP, master/slave at 10/100 Mbit/s<br>IEC 1107 at <= 19200 bauds |
| Communication port support    | Screw terminal block: RS485<br>RJ45: ETHERNET<br>Infrared<br>DB9: RS485/RS232                                                                                                                                                                                              |
| Time synchronisation protocol | IRIG-B                                                                                                                                                                                                                                                                     |
| Data recording                | GPS synchronisation<br>Historical logs<br>Waveform logs<br>Alarms<br>Min/max of instantaneous values<br>Data logs<br>Time stamping<br>Transient logs                                                                                                                       |
| Transmission rate             | 300...115200 bauds<br>300...57600 bauds<br><= 19200 bauds<br>10/100 Mbit/s                                                                                                                                                                                                 |
| Memory capacity               | 10 MB                                                                                                                                                                                                                                                                      |
| Web services                  | Web server                                                                                                                                                                                                                                                                 |
| Tamperproof of settings       | Protected by access code                                                                                                                                                                                                                                                   |
| Compatibility code            | ION8800B                                                                                                                                                                                                                                                                   |

## Environment

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic compatibility | Conducted RF disturbances conforming to IEC 61000-4-6<br>Immunity to impulse waves conforming to IEC 61000-4-12<br>Electrical fast transient/burst immunity test conforming to IEC 61000-4-4<br>Electrostatic discharge conforming to IEC 61000-4-2<br>Susceptibility to electromagnetic fields conforming to IEC 61000-4-3<br>1.2/50 µs shock waves immunity test conforming to IEC 61000-4-5<br>Conducted and radiated emissions B conforming to CISPR 22 |
| Mounting mode                 | Rack-mounted                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Enclosure type                | 19" rack                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Type of installation          | Indoor installation                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Overvoltage category          | III                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| IP degree of protection       | IP51 conforming to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                                       |                             |
|---------------------------------------|-----------------------------|
| Relative humidity                     | 5...95 %                    |
| Pollution degree                      | 2                           |
| Ambient air temperature for operation | -10...45 °C                 |
| Ambient air temperature for storage   | -25...70 °C                 |
| Operating altitude                    | 0...2000 m                  |
| Product certifications                | EGR<br>ESKOM<br>GOST<br>NMI |
| Standards                             | IEC 62052-11<br>IEC 60950   |
| Width                                 | 202.1 mm                    |
| Depth                                 | 261.51 mm                   |
| Height                                | 132.2 mm                    |
| Product weight                        | 6 kg                        |

Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 21.0 cm |
| Package 1 Width              | 53.0 cm |
| Package 1 Length             | 44.0 cm |
| Package 1 Weight             | 7.0 kg  |

Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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>                                                                                      |
| 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 |
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Recommended replacement(s)