

# Product datasheet

Specifications



## M8800A energy meter - 5 MB - class A - 1 A input - 50 Hz

M8800A2E0B5F0C0C

### Main

|                           |                                |
|---------------------------|--------------------------------|
| Range                     | PowerLogic                     |
| Device Short Name         | ION8800A                       |
| Product Or Component Type | Energy and power quality meter |

### Complementary

|                                 |   |
|---------------------------------|---|
| Power Quality Analysis          | 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              | Load curtailment<br>Demand and power factor control<br>Power monitoring<br>Equipment monitoring and control<br>Tariff metering<br>Co-generation and IPP monitoring<br>Contract optimisation<br>Energy pulsing and totalisation<br>Instrument transformer correction   |
| 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                 | 3P<br>1P + N<br>3P + N  |
| Power Consumption In Va         | 19 VA   |
| Maximum Power Consumption In Va | 32 VA   |
| Display Type                    | FSTN transfective LCD   |

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

|                             |   |
|-----------------------------|---|
| 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>8 form A triac output<br>4 form C solid state output<br>2 IEC 1107 pulse  |
| Communication Port Protocol | DLMS<br>ION<br>IEC 61850<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>ST: fiber optic<br>DB9: RS485/RS232  |
| Data Recording              | Time stamping<br>Min/max of instantaneous values<br>GPS synchronisation<br>Transient logs<br>Data logs<br>Waveform logs<br>Historical logs<br>Alarms  |
| Transmission Rate           | 300...57600 bauds<br>300...115200 bauds<br>10/100 Mbit/s<br><= 19200 bauds  |
| Memory Capacity             | 5 MB  |
| Web Services                | Web server  |
| Tamperproof Of Settings     | Protected by access code  |
| Compatibility Code          | ION8800A  |

## 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                     |
| Net 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  |

## Contractual warranty

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

## Sustainability



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## Well-being performance

|  |   |
|--|---|
|  Mercury Free               |   |
|  Rohs Exemption Information | <a href="#">Yes</a>   |
| Eu Rohs Directive  | Compliant with Exemptions   |
| 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 |