

# Product data sheet

Specifications



## ION7650, wDispl, 10MB 1024s, 1A 240VAC/300VDC 50Hz - RS+T2 - 20I+3R+8O

M7650B1E0B5A0N0A

⚠ Discontinued on: Jun 1, 2021

⚠ Discontinued

### Main

|                           |                                |
|---------------------------|--------------------------------|
| Range                     | PowerLogic                     |
| Device Short Name         | ION7650                        |
| Product Or Component Type | Energy and power quality meter |

### Complementary

|                                 |  |
|---------------------------------|--|
| Power Quality Analysis          | harmonic distortion<br>voltage sag and swell detection<br>waveform capture<br>compliance monitoring<br>dip and swell, transient<br>disturbance direction detection<br>programmability (logic and math functions)<br>setpoint learning<br>up to the 63rd harmonic |
| Device Application              | Energy pulsing and totalisation<br>Demand and power factor control<br>Tariff metering<br>Equipment monitoring and control<br>Co-generation and IPP monitoring<br>Load curtailment<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                  | 110...300 V DC<br>85...240 V AC 47...63 Hz   |
| Network Frequency               | 50 Hz  |
| [In] Rated Current              | 1 A  |
| Type Of Network                 | 1P + N<br>3P + N<br>3P   |
| Power Consumption In Va         | 20 VA  |
| Maximum Power Consumption In Va | 45 VA  |
| Display Resolution              | 320 x 240 pixels QVGA  |
| Display Type                    | Backlit 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 0.005...20 A (impedance 0.015 Ohm)  |
| Measurement Voltage         | 100...600 V AC phase to phase<br>57...347 V AC phase to neutral   |
| Frequency Measurement Range | 42...69 Hz  |
| Number Of Inputs            | 16 digital 120 V DC<br>4 analog 0...20 mA   |
| Measurement Accuracy        | Current 0.1 % 1...5 A<br>Voltage 0.1 % 57...288 V<br>Energy 0.2 %   |
| Accuracy Class              | Class 0.2S energy conforming to IEC 62053-22  |
| Number Of Outputs           | 3 relay<br>4 solid state<br>4 analog  |
| Communication Port Protocol | Telnet<br>DNP3 at <= 115.2 kbits/s<br>ION at <= 115.2 kbits/s<br>Modbus at <= 115.2 kbits/s<br>Modbus, master   |
| Communication Port Support  | RS485<br>SUB-D 9: RS485/RS232<br>Infrared   |
| Data Recording              | GPS synchronisation<br>Trending/forecasting<br>Time stamping<br>Min/max of instantaneous values<br>Event logs<br>Data logs<br>Sequence of event recording |
| Transmission Rate           | 300...57600 bauds<br>300...115200 bauds<br><= 19200 bauds   |
| Memory Capacity             | 10 MB   |
| Web Services                | Web server  |
| Tamperproof Of Settings     | Protected by access code  |
| Compatibility Code          | ION7650   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Electromagnetic Compatibility         | 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                         | Flush-mounted  |
| Mounting Support                      | Enclosure door   |
| Type Of Installation                  | Indoor installation  |
| Overvoltage Category                  | III  |
| Ip Degree Of Protection               | IP30 back: conforming to IEC 60529<br>IP50 front face: conforming to IEC 60529   |
| Relative Humidity                     | 5...95 %   |
| Pollution Degree                      | 2  |
| Ambient Air Temperature For Operation | -20...70 °C  |

|                                     |             |
|-------------------------------------|-------------|
| Ambient Air Temperature For Storage | -40...85 °C |
| Operating Altitude                  | 0...2000 m  |
| Standards                           | IEC 61010-1 |
| Width                               | 192 mm      |
| Depth                               | 174 mm      |
| Height                              | 192 mm      |
| Net Weight                          | 1.9 kg      |

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)

|                           |   |
|---------------------------|---|
| Eu Rohs Directive         | Compliant<br><a href="#">EU RoHS Declaration</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 |
| California Proposition 65 | WARNING: Cancer and Reproductive Harm - <a href="#">www.P65Warnings.ca.gov</a>  |