

Product data sheet

Specifications



ION8650 meter 128MB, FT21 panel,
120VAC/160VDC 50Hz, Full comm
No I/O

M8650A4C0H5C7A0A

⚠ Discontinued on: Apr 1, 2024

⚠ To be end-of-service on: Mar 31, 2025

⚠ To be discontinued

Main

| | |
|---------------------------|---------------------------------|
| Range | PowerLogic |
| Device Short Name | ION8650A |
| Product Or Component Type | Revenue and power quality meter |

Complementary

| | |
|------------------------|---|
| Power Quality Analysis | conforming to IEC 61000-4-15 flicker magnitude harmonic up to the 50th transient capture conforming to EN 50160: ed. 4 compliance report harmonic distortion voltage sag and swell detection waveform capture programmability (logic and math functions) up to the 63rd harmonic conforming to IEC 61000-4-30: class A power quality measurement |
| Device Application | Co-generation and IPP monitoring Demand and power factor control Energy pulsing and totalisation Load curtailment Tariff metering Instrument transformer correction Equipment monitoring and control |
| Type Of Measurement | Current Voltage Frequency Apparent power total Power factor total Apparent power per phase Power factor per phase Active power total Active power per phase Reactive power total Reactive power per phase |
| Supply Voltage | 120...277 V AC 47...63 Hz 120...480 V AC 47...63 Hz 65...120 V AC 47...63 Hz 80...160 V DC |
| Network Frequency | 50 Hz |
| Outlet Standard | American |
| [In] Rated Current | 5 A 2 A 1 A |
| Type Of Network | 1P + N 3P 3P + N |

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

| | |
|---------------------------------|---|
| Power Consumption In Va | 24 VA |
| Maximum Power Consumption In Va | 33 VA |
| Display Type | FSTN transfective LCD |
| Form Designation | 36S 2½-element 4 9 3-element 4 35 2-element 3 29 2½-element 4 |
| Sampling Rate | 1024 samples/cycle |
| Measurement Current | 0.001...24 A |
| Input Type | Current 0.01...20 A (impedance 0.05 Ohm) |
| Measurement Voltage | 57...277 V AC phase to neutral 100...480 V AC phase to phase |
| Number Of Inputs | 0 |
| Measurement Accuracy | Current 0.1 % Voltage 0.1 % Power 0.1 % Power factor 0.1 % Frequency 0.001 Hz Energy 0.1 % |
| Accuracy Class | Class 0.2S energy conforming to IEC 62053-23 Class 0.2 energy conforming to ANSI C12.20 Class 0.2S energy conforming to IEC 62053-22 |
| Number Of Outputs | 2 pulse |
| Communication Port Protocol | DNP3 at 300...115200 bauds ION at 300...115200 bauds Ansi C12.18 at <= 19200 bauds IEC 61850 ed. 2 at 10/100 Mbit/s TCP/IP at 10/100 Mbit/s DLMS at 300...115200 bauds Modbus at 57600 bauds TCP/IP at 300...57600 bauds DNP3 at 10/100 Mbit/s ION at 10/100 Mbit/s Modbus RTU, master/slave at 300...115200 bauds Modbus TCP, master/slave at 10/100 Mbit/s ModemGate EtherGate |
| Communication Port Support | RJ45: ETHERNET SUB-D 9: RS485/RS232 Terminal block: RS485 Infrared RJ11: modem |
| Time Synchronisation Protocol | GPS: Truetime/Datum IRIG-B |
| Data Recording | Harmonics logs GPS synchronisation Data logs Revenue logs Alarms Historical logs Event logs Transient logs Sag and swell logs Time stamping |
| Transmission Rate | 300...57600 bauds 57600 bauds <= 19200 bauds 300...115200 bauds 10/100 Mbit/s |
| Memory Capacity | 128 MB |

| | |
|-------------------------|---|
| Web Services | Web server Alarm notification by e-mail Port addressing user designed Robust security logs |
| Ethernet Service | Enable/disable Ethernet protocols Enable/disable serial ports SNMP-Traps and SYSLOG |
| Tamperproof Of Settings | Protected by access code |
| Provided Equipment | Break out panel |
| Compatibility Code | ION8650A |

Environment

| | |
|---------------------------------------|---|
| Electromagnetic Compatibility | Electrostatic discharge immunity test conforming to IEC 61000-4-2 Conducted RF disturbances conforming to IEC 61000-4-6 Immunity to impulse waves conforming to IEC 61000-4-12 Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 Susceptibility to electromagnetic fields conforming to IEC 61000-4-3 1.2/50 µs shock waves immunity test conforming to IEC 61000-4-5 Conducted and radiated emissions B conforming to CISPR 22 |
| Mounting Mode | Flush-mounted |
| Enclosure Type | FT21 switchboard |
| Type Of Installation | Indoor installation |
| Overvoltage Category | III |
| Ip Degree Of Protection | IP50 front face: IP30 back: |
| Relative Humidity | 5...95 % |
| Pollution Degree | 2 |
| Ambient Air Temperature For Operation | -40...85 °C |
| Ambient Air Temperature For Storage | -40...85 °C |
| Operating Altitude | 0...3000 m |
| Standards | ANSI C12.1 IEC 62052-11 |
| Width | 163 mm |
| Depth | 228 mm |
| Height | 285 mm |
| Net Weight | 7 kg |

Packing Units

| | |
|------------------------------|---------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 29.0 cm |
| Package 1 Width | 29.0 cm |
| Package 1 Length | 41.0 cm |
| Package 1 Weight | 7.0 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-CO₂ 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 >](#)



Transparency RoHS/REACH

Well-being performance

 Rohs Exemption Information [Yes](#)

Certifications & Standards

| | |
|---------------------------|--|
| Reach Regulation | REACH Declaration |
| Eu Rohs Directive | Compliant with Exemptions |
| China Rohs Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| California Proposition 65 | WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov |