

Product data sheet

Specifications



ION8650 meter 128MB, FT21 cable, 277VAC 50Hz, Full comm No I/O

M8650A7C0E5C7A0A

⚠ 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 Tariff metering Load curtailment Equipment monitoring and control Instrument transformer correction Demand and power factor control Energy pulsing and totalisation
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
Network Frequency	50 Hz
[In] Rated Current	5 A 1 A 2 A
Type Of Network	3P 3P + N 1P + N
Power Consumption In Va	24 VA
Maximum Power Consumption In Va	33 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

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 ModemGate Modbus RTU, slave at 300...115200 bauds Modbus TCP, slave at 10/100 Mbit/s 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	GPS synchronisation Harmonics logs Revenue logs Time stamping Historical logs Event logs Alarms Sag and swell logs Transient logs Data logs
Transmission Rate	10/100 Mbit/s 300...57600 bauds <= 19200 bauds 57600 bauds 300...115200 bauds
Memory Capacity	128 MB
Web Services	Web server Robust security logs Port addressing user designed Alarm notification by e-mail
Ethernet Service	Enable/disable serial ports Enable/disable Ethernet protocols SNMP-Traps and SYSLOG

Tamperproof Of Settings	Protected by access code
Provided Equipment	Break out cable
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 μ s 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
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information
California Proposition 65	WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov