

# Product data sheet

Specifications



## ION8650 meter 128MB, FT21 panel, 120VAC/160VDC 60Hz, Ethernet 1I+5O

M8650A4C0H6E1C0A

⚠ 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	Demand and power factor control Equipment monitoring and control Instrument transformer correction Load curtailment Tariff metering Co-generation and IPP monitoring 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 65...120 V AC 47...63 Hz 80...160 V DC
Network Frequency	60 Hz
Outlet Standard	American
[In] Rated Current	1 A 5 A 2 A
Type Of Network	3P + N 3P 1P + 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	1 digital 0.001...100 mA 30 V DC
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 4 form C relay output 1 form A triac output
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 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 EtherGate
Communication Port Support	RJ45: ETHERNET SUB-D 9: RS485/RS232 Terminal block: RS485 Infrared
Time Synchronisation Protocol	GPS: Truetime/Datum IRIG-B
Data Recording	Event logs Harmonics logs Transient logs Historical logs Sag and swell logs Alarms Data logs GPS synchronisation Revenue logs Time stamping
Transmission Rate	300...115200 bauds <= 19200 bauds 57600 bauds 10/100 Mbit/s
Memory Capacity	128 MB

Web Services	Alarm notification by e-mail Web server Port addressing user designed Robust security logs
Ethernet Service	Enable/disable Ethernet protocols SNMP-Traps and SYSLOG Enable/disable serial ports
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-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.


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



Transparency   RoHS/REACH

## Well-being performance

 Rohs Exemption Information   [Yes](#)

## Certifications & Standards

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