

# Product data sheet

Specifications



ION8650 meter 128MB, FT21 cable,  
277VAC 60Hz, Eth. swb 1I+5O

M8650A7C0E6E0C0A

ⓘ 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	Tariff metering Equipment monitoring and control Energy pulsing and totalisation Demand and power factor control Co-generation and IPP monitoring Load curtailment Instrument transformer correction
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	60 Hz
[In] Rated Current	2 A 5 A 1 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	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 TCP/IP at 10 Mbit/s DLMS at 300...115200 bauds Modbus at 57600 bauds DNP3 at 10 Mbit/s ION at 10 Mbit/s IEC 61850 ed. 2 at 10 Mbit/s Modbus RTU, master/slave at 300...115200 bauds Modbus TCP, master/slave at 10 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	Transient logs Sag and swell logs GPS synchronisation Historical logs Revenue logs Data logs Alarms Time stamping Harmonics logs Event logs
Transmission Rate	10 Mbit/s 300...115200 bauds <= 19200 bauds
Memory Capacity	128 MB
Web Services	Web server Alarm notification by e-mail Robust security logs Port addressing user designed
Ethernet Service	Enable/disable serial ports SNMP-Traps and SYSLOG Enable/disable Ethernet protocols
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 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	26.0 cm
Package 1 Width	28.0 cm
Package 1 Length	44.0 cm
Package 1 Weight	4.5 kg

## Contractual warranty

Warranty	18 months
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