

Product data sheet

Specifications



ION8650 meter 32MB, 9S/29S/36S, 120VAC/160VDC 60Hz, Ethernet No I/O

M8650C0C0H6E1A0A

Main

Range	PowerLogic
Device short name	ION8650C
Product or component type	Revenue and power quality meter

Complementary

Power quality analysis	up to the 31st harmonic harmonic distortion voltage sag and swell detection programmability (logic and math functions)
Device application	Load curtailment Demand and power factor control Co-generation and IPP monitoring Energy pulsing and totalisation Tariff metering Equipment monitoring and control 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 65...120 V AC 47...63 Hz 80...160 V DC
Network frequency	60 Hz
Outlet standard	American
[In] rated current	5 A 1 A 2 A
type of network	3P 1P + N 3P + N
Power consumption in VA	24 VA
Maximum power consumption in VA	33 VA
Display type	FSTN transfective LCD
Form designation	9S 3-element 4 36S 2½-element 4 29S 2½-element 4
Sampling rate	1024 samples/cycle

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

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 DNP3 at 10/100 Mbit/s ION at 10/100 Mbit/s 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
Time synchronisation protocol	GPS: Truetime/Datum IRIG-B
Data recording	Event logs Historical logs Time stamping Data logs Revenue logs Alarms GPS synchronisation Sag and swell logs Harmonics logs
Transmission rate	10/100 Mbit/s <= 19200 bauds 300...115200 bauds 57600 bauds
Memory capacity	32 MB
Web services	Port addressing user designed Web server Robust security logs Alarm notification by e-mail
Ethernet service	Enable/disable serial ports SNMP-Traps and SYSLOG Enable/disable Ethernet protocols
Tamperproof of settings	Protected by access code
Compatibility code	ION8650C

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	Socket-mounted
Mounting support	Enclosure door
Type of installation	Indoor installation
Overvoltage category	III
IP degree of protection	IP65 front face: IP51 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	178 mm
Depth	237 mm
Height	178 mm
Product 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 (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	313 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	74 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	20 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.6 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	213 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	6 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Free of Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	16
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins