

# Product data sheet

## Characteristics

# M8650C0C0H6C7A0A

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



### Main

Range	PowerLogic
Device short name	ION8650C
Product or component type	Energy 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	Demand and power factor control Equipment monitoring and control Load curtailment Instrument transformer correction Co-generation and IPP monitoring Tariff metering 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 65...120 V AC 47...63 Hz 80...160 V DC
Network frequency	60 Hz
Outlet standard	American
Line Rated Current	5 A 1 A 2 A
Type of network	3P + N 3P 1P + N
Power consumption in VA	24 VA
Maximum power consumption in VA	33 VA
Display type	FSTN transreflective LCD
Form designation	9S 3-element 4 36S 2½-element 4 29S 2½-element 4
Sampling rate	1024 samples/cycle
Measurement current	0.001...24 A
Input type	Current 0.01...20 A 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 IEC 62053-23 Class 0.2 energy ANSI C12.20 Class 0.2S energy IEC 62053-22
Number of outputs	2 pulse
Communication port protocol	DNP3 300...115200 bauds ION 300...115200 bauds Ansi C12.18 <= 19200 bauds IEC 61850 ed. 2 10/100 Mbit/s TCP/IP 10/100 Mbit/s DLMS 300...115200 bauds Modbus 57600 bauds TCP/IP 300...57600 bauds DNP3 10/100 Mbit/s ION 10/100 Mbit/s ModemGate Modbus RTU, slave 300...115200 bauds Modbus TCP, slave 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	Data logs Harmonics logs Event logs Time stamping Sag and swell logs Historical logs Revenue logs Alarms GPS synchronisation
Transmission rate	10/100 Mbit/s 300...57600 bauds 57600 bauds <= 19200 bauds 300...115200 bauds
Memory capacity	32 MB
Web services	Robust security logs Alarm notification by e-mail Web server Port addressing user designed
Ethernet service	Enable/Disable Ethernet protocols SNMP-Traps and SYSLOG Enable/disable serial ports
Tamperproof of settings	Protected by access code
Compatibility code	ION8650C

## Environment

Electromagnetic compatibility	Electrostatic discharge immunity test IEC 61000-4-2 Conducted RF disturbances IEC 61000-4-6 Immunity to impulse waves IEC 61000-4-12 Electrical fast transient/burst immunity test IEC 61000-4-4 Susceptibility to electromagnetic fields IEC 61000-4-3 1.2/50 µs shock waves immunity test IEC 61000-4-5 Conducted and radiated emissionsB CISPR 22
Mounting mode	Socket-mounted
Mounting support	Enclosure door
Type of installation	Indoor installation
Overvoltage category	III

IP degree of protection	Front face IP65 Back IP51
Relative humidity	5...95 %
Pollution degree	2
Ambient air temperature for operation	-40...185 °F (-40...85 °C)
Ambient air temperature for storage	-40...185 °F (-40...85 °C)
Operating altitude	0...9842.52 ft (0...3000 m)
Standards	ANSI C12.1 IEC 62052-11
Maximum Width	7.01 in (178 mm)
Maximum Depth	9.33 in (237 mm)
Maximum Height	7.01 in (178 mm)
Net Weight	15.43 lb(US) (7 kg)

### Ordering and shipping details

Nbr. of units in pkg.	1
Package weight(Lbs)	9.92 lb(US) (4.5 kg)

### Packing Units

Unit Type of Package 1	PCE
Package 1 Height	10.24 in (26 cm)
Package 1 width	11.02 in (28 cm)
Package 1 Length	17.32 in (44 cm)

### Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including: Dichloromethane (Methylene chloride) and Bisphenol A (BPA) which is known to the State of California to cause Carcinogen and Reproductive harm. For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
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>

### Contractual warranty

Warranty	18 months
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