

# Product data sheet

## Characteristics

**M8650B0C0H6E1A1A**  
 ION8650 meter 64MB, 9S/29S/36S,  
 120VAC/160VDC 60Hz, Ethernet No I/O,  
 password



### Main

Range	PowerLogic
Device short name	ION8650B
Product or component type	Energy and power quality meter

### Complementary

Power quality analysis	conforming to IEC 61000-4-30: class S power quality measurement conforming to IEC 61000-4-15 flicker transient capture magnitude harmonic up to the 40th conforming to EN 50160: ed. 4 compliance report harmonic distortion voltage sag and swell detection programmability (logic and math functions) up to the 63rd harmonic
Device application	Instrument transformer correction Demand and power factor control Tariff metering Equipment monitoring and control Co-generation and IPP monitoring Load curtailment 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

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

[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 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 (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, 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	IRIG-B GPS: Truetime/Datum
Data recording	Time stamping Historical logs Sag and swell logs Harmonics logs Alarms Revenue logs GPS synchronisation Event logs Data logs
Transmission rate	10/100 Mbit/s 300...115200 bauds <= 19200 bauds 57600 bauds
Memory capacity	64 MB
Web services	Web server Port addressing user designed Alarm notification by e-mail Robust security logs
Ethernet service	Enable/disable serial ports Enable/disable Ethernet protocols

## SNMP-Traps and SYSLOG

Tamperproof of settings	Protected by access code Hardware lock by jumper
Compatibility code	ION8650B

## 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
Net weight	7 kg

## Packing Units

Package 1 Weight	4.500 kg
Package 1 Height	26.000 cm
Package 1 width	28.000 cm
Package 1 Length	44.000 cm

## Offer Sustainability

REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
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>