

Product data sheet

Specifications



ION8650 meter 128MB,
9S/29S/36S, 120VAC/160VDC
60Hz, Full comm 3I+4O, password

M8650A0C0H6C7B1A

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 Instrument transformer correction Equipment monitoring and control Demand and power factor control Energy pulsing and totalisation Co-generation and IPP monitoring Load curtailment
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	1P + N 3P 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
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	3 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
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 TCP/IP at 300...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 ModemGate EtherGate
Communication port support	RJ45: ETHERNET SUB-D 9: RS485/RS232 Terminal block: RS485 Infrared RJ11: modem
Time synchronisation protocol	IRIG-B GPS: Truetime/Datum
Data recording	Alarms Transient logs Revenue logs Event logs Data logs Harmonics logs Sag and swell logs GPS synchronisation Time stamping Historical logs
Transmission rate	300...115200 bauds 300...57600 bauds 57600 bauds 10/100 Mbit/s <= 19200 bauds
Memory capacity	128 MB
Web services	Port addressing user designed Alarm notification by e-mail Web server Robust security logs
Ethernet service	Enable/disable serial ports SNMP-Traps and SYSLOG Enable/disable Ethernet protocols
Tamperproof of settings	Protected by access code Hardware lock by jumper
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	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

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months
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Recommended replacement(s)