



### 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 Load curtailment Equipment monitoring and control Co-generation and IPP monitoring Tariff metering Energy pulsing and totalisation 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	50 Hz
Outlet standard	American
[In] rated current	1 A 5 A

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

	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 ModemGate 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 RJ11: modem
Time synchronisation protocol	GPS: Truetime/Datum IRIG-B
Data recording	Time stamping Alarms Event logs Data logs Revenue logs Sag and swell logs GPS synchronisation Historical logs Harmonics logs
Transmission rate	300...57600 bauds 10/100 Mbit/s <= 19200 bauds 57600 bauds 300...115200 bauds
Memory capacity	32 MB
Web services	Alarm notification by e-mail Port addressing user designed Web server Robust security logs

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 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

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH free of SVHC	Yes
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> Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>