



Main

Range	PowerLogic
Device short name	ION8650A
Product or component type	Energy and power quality meter

Complementary

Power quality analysis	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Co-generation and IPP monitoring Instrument transformer correction Tariff metering Energy pulsing and totalisation Load curtailment Equipment monitoring and control Demand and power factor control
Type of measurement	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 120...277 V AC 47...63 Hz 120...480 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	2 A 1 A 5 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 transreflective LCD
Form designation	36S 2½-element 4 9 3-element 4 35 2-element 3 29 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 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 Transient logs Alarms Data logs Sag and swell logs GPS synchronisation Historical logs Revenue logs Harmonics logs Event logs
Transmission rate	<= 19200 bauds 300...115200 bauds 57600 bauds 10/100 Mbit/s
Memory capacity	128 MB

Web services	Port addressing user designed Robust security logs Web server Alarm notification by e-mail
Ethernet service	Enable/disable serial ports Enable/disable Ethernet protocols SNMP-Traps and SYSLOG
Tamperproof of settings	Protected by access code
Provided equipment	Break out panel
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	Flush-mounted
Enclosure type	FT21 switchboard
Type of installation	Indoor installation
Overvoltage category	III
IP degree of protection	IP50 front face: IP30 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	163 mm
Depth	228 mm
Height	285 mm
Net weight	7 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
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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