



Main

Range	PowerLogic
Device short name	ION8650A
Product or Component Type	Revenue and power quality meter

Complementary

Power quality analysis	IEC 61000-4-15 flicker Magnitude harmonic up to the 50th Transient capture 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 IEC 61000-4-30 class A power quality measurement
Device Application	Tariff metering Co-generation and IPP monitoring Load curtailment Demand and power factor control Instrument transformer correction Equipment monitoring and control 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
[Us] rated supply voltage	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	50 Hz
Outlet standard	American
Line Rated Current	2 A 5 A 1 A
Poles description	1P + N 3P + N 3P
Power consumption in VA	24 VA
Maximum power consumption in VA	33 VA
Display Type	FSTN transfective LCD

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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
Analogue 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 IEC 62053-23 Class 0.2 energy ANSI C12.20 Class 0.2S energy IEC 62053-22
Number of Outputs	2 pulse 4 form C relay output
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 DNP3 10/100 Mbit/s ION 10/100 Mbit/s Modbus RTU, master/slave 300...115200 bauds Modbus TCP, master/slave 10/100 Mbit/s EtherGate
Communication port support	RJ45 ETHERNET SUB-D 9 RS485/RS232 Terminal block RS485 infrared
Time synchronisation protocol	GPS: Truetime/Datum IRIG-B
Data recording	Harmonics logs Historical logs GPS synchronisation Sag and swell logs Data logs Transient logs Time stamping Alarms Event logs Revenue logs
Transmission Rate	300...115200 bauds 10/100 Mbit/s <= 19200 bauds 57600 bauds
Memory capacity	128 MB
Web services	Alarm notification by e-mail Port addressing user designed Web server Robust security logs
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	Front face IP50 Back IP30
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
Width	6.42 in (163 mm)
Depth	8.98 in (228 mm)
Height	11.22 in (285 mm)
Net Weight	15.43 lb(US) (7 kg)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.42 in (29.0 cm)
Package 1 Width	11.42 in (29.0 cm)
Package 1 Length	16.14 in (41.0 cm)
Package 1 Weight	15.43 lb(US) (7.0 kg)

Offer Sustainability

REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant with Exemptions
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.