

Product data sheet

Characteristics

M8650A4C0J5C7A0A
 ION8650 meter 128MB, FT21 panel,
 277VAC/300VDC 50Hz, Full comm No I/O



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"> Waveform capture Harmonic distortion Programmability (logic and math functions) Voltage sag and swell detection IEC 61000-4-30 : class A power quality measurement Up to the 63rd harmonic IEC 61000-4-15 flicker Magnitude harmonic up to the 50th Transient capture EN 50160 : ed. 4 compliance report
Device application	<ul style="list-style-type: none"> Tariff metering Co-generation and IPP monitoring Demand and power factor control Load curtailment Equipment monitoring and control Energy pulsing and totalisation Instrument transformer correction
Type of measurement	<ul style="list-style-type: none"> Apparent power total Apparent power per phase Active power total Active power per phase Reactive power total Reactive power per phase Voltage Current Frequency Power factor total Power factor per phase
Supply voltage	<ul style="list-style-type: none"> 120...277 V AC 47...63 Hz 120...480 V AC 47...63 Hz 200...300 V DC 160...277 V AC 47...63 Hz
Network frequency	50 Hz
Outlet standard	American
[In] rated current	1 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 5 A
Type of network	1P + N 3P 3P + N
Power consumption in VA	24 VA <= 33 VA
Display type	FSTN transfective LCD
Form designation	36S 2½-element 4-wire 9 3-element 4-wire 35 2-element 3-wire 29 2½-element 4-wire
Sampling rate	1024 samples/cycle
Measurement current	0.001...24 A
Input type	Current 0.01...20 A 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	0.1 % current 0.1 % voltage 0.1 % power 0.1 % power factor 0.001 Hz frequency 0.1 % energy
Accuracy class	Class 0.2S energy conforming to IEC 62053-22 Class 0.2S energy conforming to IEC 62053-23 Class 0.2 energy conforming to ANSI C12.20
Number of outputs	2 pulse
Communication port protocol	DNP3 : 300...115200 bauds, ION : 300...115200 bauds, Ansi C12.18 : <= 19200 bauds, TCP/IP : 10/100 Mbit/s, IEC 61850 ed. 2 : 10/100 Mbit/s, DLMS : 300...115200 bauds, Modbus : 57600 bauds, TCP/IP : 300...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, ModemGate EtherGate
Communication port support	Ethernet RJ45 Modem RJ11 Infrared RS485 terminal block RS485/RS232 SUB-D 9
Time synchronisation protocol	IRIG-B GPS: Truetime/Datum
Data recording	Alarms Data logs Event logs Time stamping GPS synchronisation Revenue logs Historical logs Harmonics logs Sag and swell logs Transient logs
Transmission rate	10/100 Mbit/s 300...57600 bauds 57600 bauds 300...115200 bauds <= 19200 bauds
Memory capacity	128 MB
Web services	Alarm notification by e-mail Web server Port addressing user designed

	Robust security logs
Ethernet service	SNMP-Traps and SYSLOG Enable/disable serial ports Enable/disable Ethernet protocols
Tamperproof of settings	Protected by access code
Provided equipment	Break out panel

Environment

Electromagnetic compatibility	<ul style="list-style-type: none"> • electrostatic discharge immunity test, conforming to IEC 61000-4-2 • susceptibility to electromagnetic fields, conforming to IEC 61000-4-3 • electrical fast transient/burst immunity test, conforming to IEC 61000-4-4 • 1.2/50 μs shock waves immunity test, conforming to IEC 61000-4-5 • conducted RF disturbances, conforming to IEC 61000-4-6 • immunity to impulse waves, conforming to IEC 61000-4-12 • conducted and radiated emissions class 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
Product weight	7 kg