



Main

Range	PowerLogic
Product name	PowerLogic ION7400
Device short name	ION7413
Product or component type	Power meter

Complementary

Power quality analysis	Waveform capture Disturbance direction detection Harmonic distortion Programmability (logic and math functions) Voltage sag and swell detection Up to the 63rd harmonic Compliance report EN 50160 Power quality monitoring IEC 62586 Power quality measurement IEC 61000-4-30 : class S Flicker IEC 61000-4-15
Device application	WAGES metering Power monitoring Revenue billing Data aggregation
Type of measurement	Power factor (total) Apparent power (total) Active and reactive energy Active and reactive power (total) Active and reactive power (per phase, rms) Apparent power (per phase, rms) Power factor (per phase, rms) Apparent energy Voltage Current Frequency
[Us] rated supply voltage	20...60 V DC +/- 10 %
Network frequency	50 Hz 60 Hz
[In] rated current	1 A 10 A 5 A
Poles description	1P + N 3P

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	3P + N
Power consumption in W	17 W
Display type	Without display
Sampling rate	256 samples/cycle
Measurement current	50...10000 mA
Analogue input type	Current (impedance 0.3 mOhm) Voltage (impedance 5 MOhm)
Measurement voltage	57...400 V AC 42...69 Hz between phase and neutral 100...690 V AC 42...69 Hz between phases
Frequency measurement range	42...69 Hz
Number of inputs	3 digital 30 V AC 3 digital 60 V DC
Measurement accuracy	+/- 0.2 % active energy +/- 0.1 % voltage +/- 0.1 % current
Accuracy class	Class 0.2 (active energy according to ANSI C12.20) Class 0.2S (active energy according to IEC 62053-22) Class 0.2 (active power according to IEC 61557-12) Class 0.5S (reactive energy according to IEC 62053-24) Class 0.5 (power factor according to IEC 61557-12) Class 0.2 (voltage according to IEC 61557-12) Class 0.2 (current according to IEC 61557-12) Class 0.2 (frequency according to IEC 61557-12) Class 0.2 (active energy according to IEC 61557-12)
Number of outputs	1 pulse
Information displayed	Voltage Current Frequency Power Energy consumption Harmonic distortion
Communication port protocol	DNP3 IEC 61850 Modbus RTU 2-wire, : 115 kbauds, ION 2-wire, : 115 kbauds, Modbus TCP/IP Ethernet Modbus TCP/IP daisy chain : 10/100 Mbit/s, RSTP 801.1d 2004
Communication port support	Ethernet RS485 (screw terminal block) USB (mini B USB)
Communication network type	IPv6 (internet protocol)
Data recording	Data logs Event logs Min/Max of instantaneous values Sequence of event recording Time stamping Trending/Forecasting GPS synchronisation Alarm logs Harmonics logs Sag and swell logs Waveform logs
Memory capacity	512 MB
Web services	Alarm notification by e-mail File upload/download via FTP HTTP server Web server Customizable home page Viewing of captured waveform
Communication service	DHCP NTP time synchronization SMTP e-mail notification SNMP RSTP support
Cybersecurity	Password protection Port hardening

	Robust security logs Enable/Disable communication ports Syslog protocol support
Mounting mode	Clip-on
Mounting support	DIN rail
Type of installation	Indoor installation
Installation category	III
Isolation voltage	IEC 61010-1 : CAT III, 400...690 V ed. 3 EN 61010-1 : CAT III, 400...690 V ed. 3 UL 61010-1 : CAT III, 347...600 V ed. 3 CSA C22.2 No 61010-1 : CAT III, 347...600 V ed. 3
Standards	IEC 61557-12 IEC 62053-22 IEC 62052-11 IEC 62053-24 IEC 61326-1
Product certifications	N998 China RoHS CULus CE
Width	90.5 mm
Depth	90.8 mm
Height	90.5 mm
Product weight	528 g

Environment

Electromagnetic compatibility	<ul style="list-style-type: none"> • electrical fast transient/burst immunity test, conforming to IEC 61000-4-4 • conducted RF disturbances, conforming to IEC 61000-4-6 • immunity to impulse waves, conforming to IEC 61000-4-12 • radiated radio-frequency electromagnetic field immunity test, conforming to IEC 61000-4-3 • voltage dips and interruptions immunity test, conforming to IEC 61000-4-11 • electrostatic discharge, conforming to IEC 61000-4-2 • surge immunity test, conforming to IEC 61000-4-5 • magnetic field at power frequency, conforming to IEC 61000-4-8 • conducted and radiated emissions, conforming to EN 55022 • conducted and radiated emissions, conforming to EN 55011 • conducted and radiated emissions, conforming to FCC Part 15 • conducted and radiated emissions, conforming to ICES-003 • conducted RF disturbances 2...150 Hz, conforming to CLC/TR 50579 • surge withstand, conforming to IEEE C37.90.1
IP degree of protection	IP30 conforming to IEC 60529
Relative humidity	5...95 %
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Operating altitude	3000 m

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