



## Main

Range	PowerLogic
Device short name	ION92040
Product or component type	Energy and power quality meter
Device application	Power monitoring WAGES metering Net metering Medium voltage High voltage
Metering type	Demand current I1, I2, I3, I4, I5 Peak demand currents Demand power P, Q, S Peak demand power PM, QM, SM Calculated active and reactive energy (+/- W.h, +/- VAR.h)
Provided equipment	Remote display Remote display adapter Mounting instructions Mounting hardware

## Complementary

Power quality analysis	EN 50160 compliance checking conforming to IEEE 519 harmonic limit conforming to IEC 61000-4-30: class A compliance reporting conforming to IEEE 519 compliance reporting waveform capture total demand distortion total harmonic distortion up to the 63rd harmonic up to the 127th harmonic with software disturbance direction detection dip, swell and transient half cycle data acquisition transient detection (20 µs)
Type of measurement	Voltage sags and swells Current sags and swells

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

	Voltage Current Frequency Active and reactive power total Apparent power total Active and reactive power per phase Apparent power per phase Power factor total Power factor per phase Active and reactive energy Apparent energy Harmonic distortion (I THD & U THD)
[Us] rated supply voltage	90...480 V AC 45...66 Hz +/- 10 % 90...120 V AC 400 Hz +/- 10 % 110...480 V DC +/- 15 %
Network frequency	50 Hz 60 Hz
Ride-through time	100 ms 6 cycles at 60 Hz 120 V AC typical 400 ms 24 cycles at 60 Hz 240 V AC typical 1200 ms 72 cycles at 60 Hz 480 V AC typical
[In] rated current	1 A 5 A
Type of network	3P + N + E
Power consumption in VA	38 VA at 480 V AC
Maximum power consumption in VA	80 VA at 480 V AC
Display resolution	800 x 480 pixels
Display type	Remote LCD display Colour touchscreen
Sampling rate	1024 samples/cycle
Measurement current	0.01...20 A
Input type	Voltage (impedance 5 MOhm) External CT (impedance 0.3 mOhm)5 x
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	20...450 Hz
Number of inputs	8 digital 30 V AC/60 V DC
Measurement accuracy	Voltage +/- 0.1 % Current +/- 0.1 %
Accuracy class	Class 0.1S active energy conforming to IEC 62053-22 Class 0.1 active energy conforming to IEC 61557-12 Class 0.1 active energy conforming to ANSI C12.20 Class 0.5S reactive energy conforming to IEC 62053-24 Class 0.1 current conforming to IEC 61557-12 Class 0.1 voltage conforming to IEC 61557-12 Class 0.1 active power conforming to IEC 61557-12 Class 0.5 power factor conforming to IEC 61557-12
Number of outputs	4 digital 2 form C relay output
Communication port protocol	Modbus RTU at 2400...115200 bps - 2-wire ION at 2400...115200 bps - 2-wire DNP3 at 2400...115200 bps - 2-wire Modbus TCP at 10/100 Mbit/s ION TCP at 10/100 Mbit/s DNP3 TCP at 10/100 Mbit/s IEC 61850 Ethernet Modbus TCP/IP daisy chain at 10/100 Mbit/s DHCP DNS DLMS
Communication port support	RS485 2 removable screw terminal block
Port Ethernet	10/100BASE-TX 2 RJ45
Communication gateway	Ethernet/serial
Time synchronisation protocol	GPS IRIG-B NTP SNTP

PTP

Data recording	<ul style="list-style-type: none"> <li>Time stamping</li> <li>Min/max of instantaneous values</li> <li>User-definable data logs</li> <li>Continuous logging or snapshot</li> <li>Trending/forecasting</li> <li>Event logs</li> <li>Alarm logs</li> <li>Configuration change</li> <li>Power outage</li> <li>User login/logout</li> <li>Data logs</li> <li>GPS synchronisation</li> <li>Sequence of event recording</li> </ul>
Memory capacity	2 GB
Cybersecurity	<ul style="list-style-type: none"> <li>Syslog protocol support</li> <li>Robust security logs</li> <li>Port hardening</li> <li>Enable/disable communication ports</li> <li>Hardware metrology lock</li> </ul>
Web services	<ul style="list-style-type: none"> <li>Viewing of captured waveform</li> <li>Web page</li> <li>Pass/fail report for IEEE 519</li> <li>Pass/fail report for EN 50160</li> <li>ITIC (CBEMA) curve</li> <li>SEMI curve</li> <li>NEMA motor derating curve</li> <li>Alarm notification by e-mail</li> <li>TLS 1.2</li> <li>Push historical data via mail</li> </ul>
Ethernet service	<ul style="list-style-type: none"> <li>DHCP client</li> <li>Device Profile Web Services (DPWS)</li> <li>Rapid Scanning Tree Protocol (RSTP)</li> <li>FTP/HTTP/HTTPS</li> </ul>
Communication service	<ul style="list-style-type: none"> <li>Compliant reports</li> <li>Power quality summary</li> <li>Energy report</li> <li>EcoStruxure Power Events Analysis</li> <li>SMTP e-mail notification</li> <li>SNMP</li> </ul>
Tamperproof of settings	Protected by sealable cover
Mounting support	<ul style="list-style-type: none"> <li>DIN rail meter device</li> <li>Door cut-out remote display</li> </ul>
Electrical insulation class	Class III conforming to EN/IEC 62052-11
Isolation voltage	<ul style="list-style-type: none"> <li>III400...690 V conforming to EN 61010-1:ed. 3</li> <li>III347...600 V conforming to UL 61010-1:ed. 3</li> <li>III347...600 V conforming to CSA C22.2 No 61010-1:ed. 3</li> </ul>
Width	160 mm
Depth	135.3 mm
Height	160 mm
Product weight	1.5 kg

**Environment**

Electromagnetic compatibility	<ul style="list-style-type: none"> <li>EMC immunity conforming to IEC 62052-11</li> <li>EMC immunity conforming to IEC 61326-1</li> <li>EMC immunity conforming to IEC 61000-6-5</li> <li>Electrostatic discharge immunity test conforming to IEC 61000-4-2</li> <li>Immunity to radiated fields conforming to IEC 61000-4-3</li> <li>Immunity to fast transients conforming to IEC 61000-4-4</li> <li>Surge immunity test conforming to IEC 61000-4-5</li> <li>Immunity to conducted disturbances conforming to IEC 61000-4-6</li> <li>Immunity to magnetic fields at network frequency conforming to IEC 61000-4-8</li> <li>Immunity to conducted disturbances - test level: 2...150 kHz conforming to CLC/TR 50579</li> <li>Voltage dips and interruptions immunity test conforming to IEC 61000-4-11</li> <li>Immunity to impulse waves conforming to IEC 61000-4-12</li> <li>Conducted and radiated emissions conforming to EN 55011</li> <li>Conducted and radiated emissions class B conforming to EN 55032</li> <li>Conducted and radiated emissions class B conforming to FCC part 15</li> </ul>
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Conducted and radiated emissions class B conforming to ICES-003  
 Surge withstand conforming to ANSI C37.90.1  
 Surge withstand conforming to IEEE C37.90.1

IP degree of protection	IP65 front: IP30 rear:
Degree of protection	UL type 12, front
Relative humidity	5...95 %
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Installation category	III
Operating altitude	0...3000 m
Standards	ANSI C12.20 ANSI C37.90.1 IEC 61000-4-15 IEC 61000-4-30 IEC 61010-1 IEC 61326-1 IEC 61557-12 IEC 61850 IEC 62052-11 IEC 62052-31 IEC 62053-22 IEC 62053-23 IEC 62053-24 IEC 62586 UL 61010-1
Quality labels	ISO 9001 ISO 14000

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	3.6 kg
Package 1 Height	30 cm
Package 1 width	30 cm
Package 1 Length	41 cm
Unit Type of Package 2	S04
Number of Units in Package 2	2
Package 2 Weight	4.4 kg
Package 2 Height	30 cm
Package 2 width	40 cm
Package 2 Length	60 cm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: Cancer and Reproductive Harm - <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>