

# Product data sheet

Specifications



## PowerLogic™ ION9000 meter, DIN mount, 192 mm display, B2B adapter, HW kit

METSEION92040

### 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 $\mu$ s)
Type of measurement	Voltage sags and swells Current sags and swells 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

<b>Ride-through time</b>	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
<b>[In] rated current</b>	1 A 5 A
<b>Type of network</b>	3P + N + E
<b>Power consumption in VA</b>	38 VA at 480 V AC
<b>Maximum power consumption in VA</b>	80 VA at 480 V AC
<b>Display resolution</b>	800 x 480 pixels
<b>Display type</b>	Remote LCD display Colour touchscreen
<b>Sampling rate</b>	1024 samples/cycle
<b>Measurement current</b>	0.01...20 A
<b>Input type</b>	Voltage (impedance 5 MOhm) External CT (impedance 0.3 mOhm)5 x
<b>Measurement voltage</b>	57...400 V AC 42...69 Hz between phase and neutral 100...690 V AC 42...69 Hz between phases
<b>Frequency measurement range</b>	20...450 Hz
<b>Number of inputs</b>	8 digital 30 V AC/60 V DC
<b>Measurement accuracy</b>	Voltage +/- 0.1 % Current +/- 0.1 %
<b>Accuracy class</b>	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
<b>Number of outputs</b>	4 digital 2 form C relay output
<b>Communication port protocol</b>	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
<b>Communication port support</b>	RS485 2 removable screw terminal block
<b>Port Ethernet</b>	10/100BASE-TX 2 RJ45
<b>Communication gateway</b>	Ethernet/serial
<b>Time synchronisation protocol</b>	GPS IRIG-B NTP SNTP PTP
<b>Data recording</b>	Time stamping Min/max of instantaneous values User-definable data logs Continuous logging or snapshot Trending/forecasting Event logs Alarm logs Configuration change Power outage User login/logout Data logs GPS synchronisation Sequence of event recording
<b>Memory capacity</b>	2 GB

<b>Cybersecurity</b>	Syslog protocol support Robust security logs Port hardening Enable/disable communication ports Hardware metrology lock
<b>Web services</b>	Viewing of captured waveform Web page Pass/fail report for IEEE 519 Pass/fail report for EN 50160 ITIC (CBEMA) curve SEMI curve NEMA motor derating curve Alarm notification by e-mail TLS 1.2 Push historical data via mail
<b>Ethernet service</b>	DHCP client Device Profile Web Services (DPWS) Rapid Scanning Tree Protocol (RSTP) FTP/HTTP/HTTPS
<b>Communication service</b>	Compliant reports Power quality summary Energy report EcoStruxure Power Events Analysis SMTP e-mail notification SNMP
<b>Tamperproof of settings</b>	Protected by sealable cover
<b>Mounting support</b>	DIN rail meter device Door cut-out remote display
<b>Electrical insulation class</b>	Class III conforming to EN/IEC 62052-11
<b>Isolation voltage</b>	III400...690 V conforming to EN 61010-1:ed. 3 III347...600 V conforming to UL 61010-1:ed. 3 III347...600 V conforming to CSA C22.2 No 61010-1:ed. 3
<b>Width</b>	160 mm
<b>Depth</b>	135.3 mm
<b>Height</b>	160 mm
<b>Net weight</b>	1.5 kg
<b>Environment</b>	
<b>Electromagnetic compatibility</b>	EMC immunity conforming to IEC 62052-11 EMC immunity conforming to IEC 61326-1 EMC immunity conforming to IEC 61000-6-5 Electrostatic discharge immunity test conforming to IEC 61000-4-2 Immunity to radiated fields conforming to IEC 61000-4-3 Immunity to fast transients conforming to IEC 61000-4-4 Surge immunity test conforming to IEC 61000-4-5 Immunity to conducted disturbances conforming to IEC 61000-4-6 Immunity to magnetic fields at network frequency conforming to IEC 61000-4-8 Immunity to conducted disturbances - test level: 2...150 kHz conforming to CLC/TR 50579 Voltage dips and interruptions immunity test conforming to IEC 61000-4-11 Immunity to impulse waves conforming to IEC 61000-4-12 Conducted and radiated emissions conforming to EN 55011 Conducted and radiated emissions class B conforming to EN 55032 Conducted and radiated emissions class B conforming to FCC part 15 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
<b>IP degree of protection</b>	IP65 front: IP30 rear:
<b>Degree of protection</b>	UL type 12, front
<b>Relative humidity</b>	5...95 %
<b>Ambient air temperature for operation</b>	-25...70 °C
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Installation category</b>	III
<b>Operating altitude</b>	0...3000 m
<b>Standards</b>	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
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## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	30.0 cm
Package 1 Width	30.0 cm
Package 1 Length	41.0 cm
Package 1 Weight	3.6 kg
Unit Type of Package 2	S04
Number of Units in Package 2	2
Package 2 Height	30.0 cm
Package 2 Width	40.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	4.4 kg

## 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
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	Yes
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>

## Recommended replacement(s)