Product data sheet
Characteristics

METSEION92040
PowerLogic™ ION9200 meter, DIN mount, 192 mm display, B2B adapter, HW kit

Main

Range	PowerLogic
Device short name	ION92040
Product or component type	Energy and power quality meter
Device application	WAGES metering Power monitoring Medium voltage Net metering High voltage
Metering type	Peak demand currents Demand power P, Q, S Peak demand power PM, QM, SM Demand current I1, I2, I3, I4, I5
Provided equipment	Mounting hardware Remote display Remote display adapter Mounting instructions

Complementary

Power quality analysis	Waveform capture Disturbance direction detection Up to the 63rd harmonic Total demand distortion Total harmonic distortion EN 50160 compliance checking Conforming to IEEE 519 harmonic limit Conforming to IEC 61000-4-30 : class A compliance reporting Up to the 127th harmonic with software Dip, swell and transient Half cycle data acquisition Conforming to IEEE 519 compliance reporting
Type of measurement	Apparent power total Apparent power per phase Active and reactive energy Active and reactive power total Active and reactive power per phase Harmonic distorsion (I THD & U THD) Voltage sags and swells Current sags and swells Apparent energy Voltage Current

	Frequency Power factor total Power factor per phase
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 20 A 5 A
Type of network	3P + N + E
Power consumption in VA	38 VA at 480 V AC <= 80 VA at 480 V
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) 5 current (impedance 0.3 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	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 output(s) 2 form C relay output output(s)
Communication port protocol	IEC 61850 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 Ethernet Modbus TCP/IP daisy chain at 10/100 Mbit/s DHCP DNS
Communication port support	2 RS485 removable screw terminal block
Port Ethernet	10/100BASE-TX 2 RJ45
Communication gateway	Ethernet/Serial
Time synchronisation protocol	IRIG-B GPS SNTP NTP PTP
Data recording	Data logs Event logs Min/Max of instantaneous values Sequence of event recording Time stamping Trending/Forecasting GPS synchronisation Alarm logs

	User-definable data logs Continuous logging or snapshot Configuration change Power outage User login/logout
Memory capacity	2 GB
Cybersecurity	Port hardening Robust security logs Enable/Disable communication ports Syslog protocol support Hardware metrology lock
Web services	Alarm notification by e-mail Web page Viewing of captured waveform TLS 1.2 Pass/Fail report for IEEE 519 ITIC (CBEMA) curve SEMI curve NEMA motor derating curve Push historical data via mail Pass/Fail report for EN 50160
Ethernet service	Rapid Scanning Tree Protocol (RSTP) DHCP client Device Profile Web Services (DPWS) FTP/HTTP/HTTPS
Communication service	SMTP e-mail notification SNMP Compliant reports Power quality summary Energy report EcoStruxure Power Events Analysis
Tamperproof of settings	Protected by sealable cover
Mounting support	DIN rail meter device Door cut-out remote display
Electrical insulation class	Class III conforming to EN/IEC 62052-11
Isolation voltage	400...690 V III conforming to EN 61010-1 ed. 3 347...600 V III conforming to UL 61010-1 ed. 3 347...600 V III conforming to CSA C22.2 No 61010-1 ed. 3
Width	160 mm
Depth	135.3 mm
Height	160 mm
Product weight	1.5 kg

Environment

Electromagnetic compatibility	Surge immunity test conforming to IEC 61000-4-5 Electrostatic discharge immunity test conforming to IEC 61000-4-2 Immunity to impulse waves conforming to IEC 61000-4-12 EMC immunity conforming to IEC 62052-11 Immunity to radiated fields conforming to IEC 61000-4-3 EMC immunity conforming to IEC 61326-1 Surge withstand conforming to ANSI C37.90.1 Immunity to fast transients conforming to IEC 61000-4-4 EMC immunity conforming to IEC 61000-6-5 Conducted and radiated emissions class B conforming to EN 55032 Conducted and radiated emissions conforming to EN 55011 Surge withstand conforming to IEEE C37.90.1 Immunity to conducted disturbances conforming to IEC 61000-4-6 Immunity to magnetic fields at network frequency conforming to IEC 61000-4-8 Conducted and radiated emissions class B conforming to ICES-003 Immunity to conducted disturbances - test level: 2...150 kHz conforming to CLC/TR 50579 Conducted and radiated emissions class B conforming to FCC Part 15 Voltage dips and interruptions immunity test conforming to IEC 61000-4-11
IP degree of protection	Front : IP65 Rear : IP30
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	IEC 61010-1 IEC 62053-23 UL 61010-1 IEC 61557-12 IEC 61850 IEC 62052-11 IEC 61326-1 ANSI C12.20 ANSI C37.90.1 IEC 61000-4-15 IEC 61000-4-30 IEC 62052-31 IEC 62053-22 IEC 62053-24 IEC 62586
Quality labels	ISO 9001 ISO 14000