Product data sheet
Characteristics

METSEION92140
PowerLogic™ ION9000 meter, LVDC, DIN mount, 192 mm display, B2B adapter, HW kit



Main

Range	PowerLogic
Product or component type	Energy and power quality meter
Device short name	ION92040
Product name	PowerLogic ION9000
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 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	20...60 V DC +/- 10 %
Ride-through time	500 Ms 60 V DC typical
[In] rated current	1 A 5 A
Poles description	3P + N + E
Power consumption in VA	15 W at 20...60 V DC
Maximum power consumption in VA	38 W at 20...60 V DC
Display resolution	800 x 480 pixels
Display type	Remote LCD display Colour touchscreen
Sampling rate	1024 samples/cycle
Measurement current	0.01…20 A
Analogue 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	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
Memory capacity	2 GB
Cybersecurity	Syslog protocol support Robust security logs Port hardening Enable/Disable communication ports Hardware metrology lock
Web services	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
Ethernet service	DHCP client Device Profile Web Services (DPWS) Rapid Scanning Tree Protocol (RSTP) FTP/HTTP/HTTPS
Communication service	Compliant reports Power quality summary Energy report EcoStruxure Power Events Analysis SMTP e-mail notification SNMP
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	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
Width	160 Mm
Depth	135.3 Mm
Height	160 Mm
Net weight	1.5 Kg
Market segment	Data center Healthcare Semiconductor Pharmaceutical Chemical Energy Mining

Environment

Electromagnetic compatibility	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
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 Height	27.100 Cm
Package 1 Width	36.700 Cm
Package 1 Length	28.200 Cm
Package 1 Weight	3.588 Kg

Offer Sustainability

Recyclability potential, in %	6
Total lifecycle Carbon footprint	875 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	260.3470338117002
Carbon footprint of the manufacturing phase [A1 to A3]	260 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2.1317086659467686
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	2.2641076302352148
Carbon footprint of the installation phase [A5]	2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	602.9313330204241
Carbon footprint of the use phase [B2, B3, B4, B6]	603 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	6.934975819574542
Carbon footprint of the end-of-life phase [C1 to C4]	7 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	875
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	593f15dc-c512-4cf6-ac2d-78a614f80e12
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised