

# Product datasheet

Specifications



## PowerLogic™ ION9000 meter. DIN mount. no display. HW kit

METSEION92030

Price: 104,215.76 ZAR

### Main

|                           |                                                                                                                                                                                 |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                     | PowerLogic                                                                                                                                                                      |
| Device Short Name         | ION92030                                                                                                                                                                        |
| Product Or Component Type | Energy and power quality meter                                                                                                                                                  |
| Device Application        | Power monitoring<br>WAGES metering<br>Net metering<br>Medium voltage<br>High voltage                                                                                            |
| Metering Type             | Demand current I1, I2, I3, I4, I5<br>Peak demand currents<br>Demand power P, Q, S<br>Peak demand power PM, QM, SM<br>Calculated active and reactive energy (+/- W.h, +/- VAR.h) |

### Complementary

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Quality Analysis    | EN 50160 compliance checking<br>conforming to IEEE 519 harmonic limit<br>conforming to IEC 61000-4-30: class A compliance reporting<br>conforming to IEEE 519 compliance reporting<br>waveform capture<br>total demand distortion<br>total harmonic distortion<br>up to the 63rd harmonic<br>up to the 127th harmonic with software<br>disturbance direction detection<br>dip, swell and transient<br>half cycle data acquisition<br>transient detection (20 µs) |
| Type Of Measurement       | Voltage sags and swells<br>Current sags and swells<br>Voltage<br>Current<br>Frequency<br>Active and reactive power total<br>Apparent power total<br>Active and reactive power per phase<br>Apparent power per phase<br>Power factor total<br>Power factor per phase<br>Active and reactive energy<br>Apparent energy<br>Harmonic distortion (I THD & U THD)                                                                                                      |
| [Us] Rated Supply Voltage | 90...480 V AC 45...66 Hz +/- 10 %<br>90...120 V AC 400 Hz +/- 10 %<br>110...480 V DC +/- 10 %                                                                                                                                                                                                                                                                                                                                                                    |
| Network Frequency         | 50 Hz<br>60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Ride-Through Time         | 100 ms 6 cycles at 60 Hz 120 V AC typical<br>400 ms 24 cycles at 60 Hz 240 V AC typical<br>1200 ms 72 cycles at 60 Hz 480 V AC typical                                                                                                                                                                                                                                                                                                                           |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

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

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [In] Rated Current              | 1 A<br>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 Type                    | Without display                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Sampling Rate                   | 1024 samples/cycle                                                                                                                                                                                                                                                                                                                                                                                                                |
| Measurement Current             | 0.01...20 A                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Input Type                      | Voltage (impedance 5 MOhm)<br>External CT (impedance 0.3 mOhm)5 x                                                                                                                                                                                                                                                                                                                                                                 |
| Measurement Voltage             | 57...400 V AC 42...69 Hz between phase and neutral<br>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 %<br>Current +/- 0.1 %                                                                                                                                                                                                                                                                                                                                                                                            |
| Accuracy Class                  | Class 0.1S active energy conforming to IEC 62053-22<br>Class 0.1 active energy conforming to IEC 61557-12<br>Class 0.1 active energy conforming to ANSI C12.20<br>Class 0.5S reactive energy conforming to IEC 62053-24<br>Class 0.1 current conforming to IEC 61557-12<br>Class 0.1 voltage conforming to IEC 61557-12<br>Class 0.1 active power conforming to IEC 61557-12<br>Class 0.5 power factor conforming to IEC 61557-12 |
| Number Of Outputs               | 4 digital<br>2 form C relay                                                                                                                                                                                                                                                                                                                                                                                                       |
| Communication Port Protocol     | Modbus RTU at 2400...115200 bps - 2-wire<br>ION at 2400...115200 bps - 2-wire<br>DNP3 at 2400...115200 bps - 2-wire<br>Modbus TCP at 10/100 Mbit/s<br>ION TCP at 10/100 Mbit/s<br>DNP3 TCP at 10/100 Mbit/s<br>IEC 61850<br>Ethernet Modbus TCP/IP daisy chain at 10/100 Mbit/s<br>DHCP<br>DNS<br>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<br>IRIG-B<br>NTP<br>SNTP<br>PTP                                                                                                                                                                                                                                                                                                                                                                                               |
| Data Recording                  | Time stamping<br>Min/max of instantaneous values<br>User-definable data logs<br>Continuous logging or snapshot<br>Trending/forecasting<br>Event logs<br>Alarm logs<br>Configuration change<br>Power outage<br>User login/logout<br>Data logs<br>GPS synchronisation<br>Sequence of event recording                                                                                                                                |
| Memory Capacity                 | 2 GB                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                             |                                                                                                                                                                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cybersecurity               | Syslog protocol support<br>Robust security logs<br>Port hardening<br>Enable/disable communication ports<br>Hardware metrology lock                                                                                                                      |
| Web Services                | Viewing of captured waveform<br>Web page<br>Pass/fail report for IEEE 519<br>Pass/fail report for EN 50160<br>ITIC (CBEMA) curve<br>SEMI curve<br>NEMA motor derating curve<br>Alarm notification by e-mail<br>TLS 1.2<br>Push historical data via mail |
| Ethernet Service            | DHCP client<br>Device Profile Web Services (DPWS)<br>Rapid Scanning Tree Protocol (RSTP)<br>FTP/HTTP/HTTPS                                                                                                                                              |
| Communication Service       | Compliant reports<br>Power quality summary<br>Energy report<br>EcoStruxure Power Events Analysis<br>SMTP e-mail notification<br>SNMP                                                                                                                    |
| Tamperproof Of Settings     | Protected by sealable cover                                                                                                                                                                                                                             |
| Mounting Support            | DIN rail                                                                                                                                                                                                                                                |
| Electrical Insulation Class | Class III conforming to EN/IEC 62052-11                                                                                                                                                                                                                 |
| Isolation Voltage           | III400...690 V conforming to EN 61010-1:ed. 3<br>III347...600 V conforming to UL 61010-1:ed. 3<br>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                                                                                                                                                                                                                                                  |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic Compatibility         | EMC immunity conforming to IEC 62052-11<br>EMC immunity conforming to IEC 61326-1<br>EMC immunity conforming to IEC 61000-6-5<br>Electrostatic discharge immunity test conforming to IEC 61000-4-2<br>Immunity to radiated fields conforming to IEC 61000-4-3<br>Immunity to fast transients conforming to IEC 61000-4-4<br>Surge immunity test conforming to IEC 61000-4-5<br>Immunity to conducted disturbances conforming to IEC 61000-4-6<br>Immunity to magnetic fields at network frequency conforming to IEC 61000-4-8<br>Immunity to conducted disturbances - test level: 2...150 kHz conforming to CLC/TR 50579<br>Voltage dips and interruptions immunity test conforming to IEC 61000-4-11<br>Immunity to impulse waves conforming to IEC 61000-4-12<br>Conducted and radiated emissions conforming to EN 55011<br>Conducted and radiated emissions class B conforming to EN 55032<br>Conducted and radiated emissions class B conforming to FCC part 15<br>Conducted and radiated emissions class B conforming to ICES-003<br>Surge withstand conforming to ANSI C37.90.1<br>Surge withstand conforming to IEEE C37.90.1 |
| Ip Degree Of Protection               | IP65 front:<br>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<br>ANSI C37.90.1<br>IEC 61000-4-15<br>IEC 61000-4-30<br>IEC 61010-1<br>IEC 61326-1<br>IEC 61557-12<br>IEC 61850<br>IEC 62052-11<br>IEC 62052-31<br>IEC 62053-22<br>IEC 62053-23<br>IEC 62053-24<br>IEC 62586<br>UL 61010-1 |
| Quality Labels                      | ISO 9001<br>ISO 14000                                                                                                                                                                                                                  |

## 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             | 2.5 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             | 3.2 kg  |

Sustainability



**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Transparency   RoHS/REACH

## Well-being performance

|                                                                                                              |     |
|--------------------------------------------------------------------------------------------------------------|-----|
|  Mercury Free               |     |
|  Rohs Exemption Information | Yes |

## Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant with Exemptions                                                                                                   |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a>                                                                                      |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |