# Product data sheet
## Characteristics

# S8650B4C0H6E1A0A
## ION8650 meter 64MB, FT21 panel, 120VAC/160VDC 60Hz, Ethernet No I/O

Green Premium™ Product



## Main

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|---|---|
| Range | PowerLogic |
| Product name | PowerLogic ION8650 |
| Device short name | ION8650B |
| Product or Component Type | Energy and power quality meter |

## Complementary

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|---|---|
| Power quality analysis | Harmonic distortion<br>Programmablity (logic and math functions)<br>Voltage sag and swell detection<br>Up to the 63rd harmonic<br>IEC 61000-4-15 flicker<br>Transient capture<br>EN 50160 compliance report<br>IEC 61000-4-30 class S power quality measurement<br>Magnitude harmonic up to the 40th<br>EN 50160 ed. 4 power quality monitoring |
| Device Application | Demand and power factor control<br>Load curtailment<br>Tariff metering<br>Energy pulsing and totalisation<br>Instrument transformer correction<br>Equipment monitoring and control<br>Co-generation and IPP monitoring |
| Type of measurement | Power factor total<br>Power factor per phase<br>Apparent power total<br>Apparent power per phase<br>Active power total<br>Active power per phase<br>Reactive power total<br>Reactive power per phase<br>Current<br>Voltage<br>Frequency |
| Supply voltage | 120...277 V AC 47...63 Hz<br>120...480 V AC 47...63 Hz<br>65...120 V AC 47...63 Hz<br>80...160 V DC |
| Network Frequency | 60 Hz |
| Outlet standard | American |
| Line Rated Current | 1 A<br>2 A<br>5 A |
| Poles description | 3P<br>3P + N<br>1P + N |
| Power consumption in VA | 24 VA |
| Maximum power consumption in VA | 33 VA |
| Display Type | FSTN transflective LCD |

| | |
|---|---|
| Form designation | 36S 2½-element 4<br>9 3-element 4<br>35 2-element 3<br>29 2½-element 4 |
| Sampling rate | 1024 samples/cycle |
| Measurement current | 0.001…24 A |
| Input type | Current 0.01...20 A 0.05 Ohm) |
| Measurement voltage | 57…277 V AC phase to neutral<br>100…480 V AC phase to phase |
| Number of inputs | 0 |
| Measurement accuracy | Current 0.1 %<br>Voltage 0.1 %<br>Power 0.1 %<br>Power factor 0.1 %<br>Frequency 0.001 Hz<br>Energy 0.1 % |
| Accuracy class | Class 0.2S energy IEC 62053-22<br>Class 0.2S energy IEC 62053-23<br>Class 0.2 energy ANSI C12.20 |
| Number of Outputs | 2 pulse |
| Communication port protocol | TCP/IP 10/100 Mbit/s<br>DNP3 300...115200 bauds<br>ION 300...115200 bauds<br>DLMS 300...115200 bauds<br>Modbus 57600 bauds<br>Ansi C12.18 <= 19200 bauds<br>DNP3 10/100 Mbit/s<br>ION 10/100 Mbit/s<br>IEC 61850 ed. 2 10/100 Mbit/s<br>Modbus RTU, master/slave 300...115200 bauds<br>Modbus TCP, master/slave 10/100 Mbit/s<br>EtherGate |
| Communication port support | RJ45 ETHERNET<br>SUB-D 9 RS485/RS232<br>Infrared<br>Terminal block RS485 |
| Time synchronisation protocol | IRIG-B<br>GPS: Truetime/Datum |
| Data recording | Historical logs<br>Harmonics logs<br>Revenue logs<br>Sag and swell logs<br>GPS synchronisation<br>Data logs<br>Time stamping<br>Alarms<br>Event logs |
| Transmission Rate | 57600 bauds<br>300...115200 bauds<br><= 19200 bauds<br>10/100 Mbit/s |
| Memory capacity | 64 MB |
| Web services | Robust security logs<br>Web server<br>Alarm notification by e-mail<br>Port addressing user designed |
| Ethernet service | SNMP-Traps and SYSLOG<br>Enable/Disable serial ports<br>Enable/disable Ethernet protocols |
| Tamperproof of settings | Protected by access code |
| Provided Equipment | Break out panel |
| Compatibility code | ION8650B |

## Environment

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|---|---|
| Electromagnetic compatibility | Electrostatic discharge immunity test IEC 61000-4-2<br>Susceptibility to electromagnetic fields IEC 61000-4-3<br>Electrical fast transient/burst immunity test IEC 61000-4-4<br>1.2/50 µs shock waves immunity test IEC 61000-4-5<br>Conducted and radiated emissionsB CISPR 22<br>Conducted RF disturbances IEC 61000-4-6<br>Immunity to impulse waves IEC 61000-4-12 |
| Mounting Mode | Flush-mounted |
| Enclosure Type | FT21 switchboard |
| Type of Installation | Indoor installation |
| Overvoltage category | III |
| IP degree of protection | Back IP30<br>Front face IP50 |
| Relative humidity | 5…95 % |
| Pollution degree | 2 |
| Ambient air temperature for operation | -40…185 °F (-40…85 °C) |
| Ambient Air Temperature for Storage | -40…185 °F (-40…85 °C) |
| Operating altitude | 0...9842.52 ft (0...3000 m) |
| Standards | ANSI C12.1<br>IEC 62052-11 |
| Width | 6.42 in (163 mm) |
| Depth | 8.98 in (228 mm) |
| Height | 11.22 in (285 mm) |
| Net Weight | 15.43 lb(US) (7 kg) |

## Ordering and shipping details

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|---|---|
| Category | 09759-POWERLOGIC ION 8650B HARDWARE |
| Discount Schedule | PM1S |
| Returnability | Yes |
| Country of origin | CA |

## Packing Units

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|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 11.42 in (29.0 cm) |
| Package 1 Width | 11.42 in (29.0 cm) |
| Package 1 Length | 16.14 in (41.0 cm) |
| Package 1 Weight | 15.43 lb(US) (7.0 kg) |

## Offer Sustainability

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