

# Product data sheet

## Characteristics

M7650B1E0B6F1A0A  
 ION7650, wDispl, 10MB 1024s, 1A  
 240VAC/300VDC 60Hz - RS+T2+E+F - 8I+3R  
 +4O



### Main

Range	PowerLogic
Device short name	ION7650
Product or component type	Energy and power quality meter

### Complementary

Power quality analysis	<ul style="list-style-type: none"> <li>harmonic distortion</li> <li>voltage sag and swell detection</li> <li>waveform capture</li> <li>compliance monitoring</li> <li>dip and swell, transient</li> <li>disturbance direction detection</li> <li>programmability (logic and math functions)</li> <li>setpoint learning</li> <li>up to the 63rd harmonic</li> </ul>
Device application	<ul style="list-style-type: none"> <li>Energy pulsing and totalisation</li> <li>Load curtailment</li> <li>Equipment monitoring and control</li> <li>Co-generation and IPP monitoring</li> <li>Tariff metering</li> <li>Instrument transformer correction</li> <li>Demand and power factor control</li> </ul>
Type of measurement	<ul style="list-style-type: none"> <li>Current</li> <li>Voltage</li> <li>Frequency</li> <li>Apparent power total</li> <li>Power factor total</li> <li>Apparent power per phase</li> <li>Power factor per phase</li> <li>Active power total</li> <li>Active power per phase</li> <li>Reactive power total</li> <li>Reactive power per phase</li> </ul>
Supply voltage	<ul style="list-style-type: none"> <li>110...300 V DC</li> <li>85...240 V AC 47...63 Hz</li> </ul>

Network frequency	60 Hz
[In] rated current	1 A
Type of network	1P + N 3P 3P + N
Power consumption in VA	20 VA
Maximum power consumption in VA	45 VA
Display resolution	320 x 240 pixels QVGA
Display type	Backlit LCD
Sampling rate	1024 samples/cycle
Measurement current	0...1 A
Input type	Current 0.005...20 A (impedance 0.015 Ohm)
Measurement voltage	100...600 V AC phase to phase 57...347 V AC phase to neutral
Frequency measurement range	42...69 Hz
Number of inputs	8 digital 120 V DC
Measurement accuracy	Current 0.1 % 1...5 A Voltage 0.1 % 57...288 V Energy 0.2 %
Accuracy class	Class 0.2S energy conforming to IEC 62053-22
Number of outputs	3 relay 4 solid state
Communication port protocol	Telnet DNP3 at <= 115.2 kbits/s ION at <= 115.2 kbits/s Modbus at <= 115.2 kbits/s IEC 61850 TCP/IP at 10/100 Mbit/s
Communication port support	RS485 Infrared SUB-D 9: RS232 SC: fiber optic
Data recording	Data logs Trending/forecasting Min/max of instantaneous values Event logs GPS synchronisation Time stamping Sequence of event recording
Transmission rate	<= 115.2 kbits/s 10/100 Mbit/s
Memory capacity	10 MB
Web services	Web server
Tamperproof of settings	Protected by access code
Compatibility code	ION7650

## Environment

Electromagnetic compatibility	Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 Electrostatic discharge conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields conforming to IEC 61000-4-3 1.2/50 µs shock waves immunity test conforming to IEC 61000-4-5 Conducted and radiated emissions B conforming to CISPR 22
Mounting mode	Flush-mounted
Mounting support	Enclosure door
Type of installation	Indoor installation
Overvoltage category	III
IP degree of protection	IP30 back: conforming to IEC 60529 IP50 front face: conforming to IEC 60529
Relative humidity	5...95 %
Pollution degree	2

Ambient air temperature for operation	-20...70 °C
Ambient air temperature for storage	-40...85 °C
Operating altitude	0...2000 m
Standards	IEC 61010-1
Width	192 mm
Depth	174 mm
Height	192 mm
Net weight	1.9 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>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
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