Product data sheet
Characteristics

METSEION7400
Power quality meter, PowerLogic ION7400, Standard, integrated display, 512 MB, 256 s/c, THD, RVC



Main

Range	PowerLogic
Product name	PowerLogic ION7400
Product or component type	Power meter
Device short name	ION7400
Variant	Standard

Complementary

Power quality analysis	Conforming to EN 50160: 2010 compliance report Conforming to IEEE 519: 2014 compliance report Conforming to IEC 61000-4-30: class S power quality measurement Up to the 63rd harmonic Harmonic distortion Waveform capture Voltage sag and swell detection Programmablity (logic and math functions) Conforming to IEC 62586 power quality monitoring Conforming to IEC 61000-4-15 disturbance direction detection rapid voltage change
Device application	Revenue billing WAGES metering Data aggregation Power monitoring
Type of measurement	Current Voltage Frequency Active and reactive power total Apparent power total Power factor total Active and reactive power per phase, rms Apparent power per phase, rms Power factor per phase, rms Active and reactive energy Apparent energy
[Us] rated supply voltage	90...415 V AC 45...65 Hz +/- 10 % 110...415 V DC +/- 10 %
Network frequency	50 Hz 60 Hz
[In] rated current	10 A 5 A 1 A
Poles description	1P + N 3P 3P + N
Power consumption in VA	18 VA at 415 V AC
Display type	Colour TFT LCD

Display resolution	320 x 240 pixels QVGA
Sampling rate	256 samples/cycle
Measurement current	50…10000 MA
Analogue input type	Voltage (impedance 5 MOhm) 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	42…69 Hz
Number of inputs	3 digital 30 V AC 3 digital 60 V DC
Measurement accuracy	Current +/- 0.1 % Voltage +/- 0.1 % Active energy +/- 0.2 %
Accuracy class	Class 0.2S active energy conforming to IEC 62053-22 Class 0.2 active energy conforming to ANSI C12.20 Class 0.2 active power conforming to IEC 61557-12 Class 0.5S reactive energy conforming to IEC 62053-24 Class 0.5 power factor conforming to IEC 61557-12 Class 0.2 voltage conforming to IEC 61557-12 Class 0.2 current conforming to IEC 61557-12 Class 0.2 frequency conforming to IEC 61557-12 Class 0.2 active energy conforming to IEC 61557-12
Number of outputs	1 pulse
Information displayed	Voltage Current Frequency Power Energy consumption Harmonic distortion
Communication port protocol	Modbus RTU at 115 kbauds - 2-wire ION at 115 kbauds - 2-wire DNP3 IEC 61850 Modbus TCP/IP Ethernet Modbus TCP/IP daisy chain at 10/100 Mbit/s RSTP 801.1d 2004 Ansi C12.19 DLMS
Communication port support	ETHERNET Screw terminal block: RS485 Optical probe: fiber optic Mini B USB: USB
Communication network type	IPv6 (internet protocol)
Data recording	Alarm logs Waveform logs Sequence of event recording Event logs Sag and swell logs Data logs Harmonics logs GPS synchronisation Time stamping Trending/Forecasting Min/Max of instantaneous values 50 data recorders
Memory capacity	512 MB
Web services	Customizable home page File upload/download via FTP File upload/download via SFTP Web server Alarm notification by e-mail Viewing of captured waveform (FTP) Viewing of captured waveform (web) HTTPS server
Communication service	DHCP RSTP support NTP time synchronization SMTP e-mail notification PTP time synchronization

Cybersecurity	Syslog protocol support Robust security logs Enable/Disable communication ports Password protection Port hardening
Mounting mode	Flush-mounted
Mounting support	Framework
Type of installation	Indoor installation
Installation category	III
Isolation voltage	III400…690 V conforming to IEC 61010-1:ed. 3 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
Standards	IEC 62053-22 IEC 62052-11 IEC 62053-24 IEC 61557-12 IEC 61326-1 IEEE 1588 IEC 62586
Product certifications	CE[RETURN]CULus[RETURN]N998
Width	98 Mm
Depth	78.5 Mm
Height	112 Mm
Net weight	706 G

Environment

Electromagnetic compatibility	Electrostatic discharge conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 Surge immunity test conforming to IEC 61000-4-5 Conducted RF disturbances conforming to IEC 61000-4-6 Magnetic field at power frequency conforming to IEC 61000-4-8 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 55022 Conducted and radiated emissions conforming to EN 55011 Conducted and radiated emissions conforming to FCC part 15 Conducted and radiated emissions conforming to ICES-003 Conducted RF disturbances (2...150 Hz) conforming to CLC/TR 50579 Surge withstand conforming to IEEE C37.90.1
IP degree of protection	IP54 front: conforming to IEC 60529 IP30 body: conforming to IEC 60529
Relative humidity	5…95 %
Ambient air temperature for operation	-25…70 °C
Ambient air temperature for storage	-40…85 °C
Operating altitude	3000 m

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	14.0 Cm
Package 1 Width	14.0 Cm
Package 1 Length	18.5 Cm
Package 1 Weight	1.03 Kg

Offer Sustainability

Recyclability potential, in %	4
Total lifecycle Carbon footprint	215 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	67.44861060732515
Carbon footprint of the manufacturing phase [A1 to A3]	67 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2.470758320097675
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.006931684146468386

Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	142.0521727305075
Carbon footprint of the use phase [B2, B3, B4, B6]	142 kg CO2 eq.
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	2.541872514560216
Carbon footprint of the end-of-life phase [C1 to C4]	3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Recyclability	Product designed for enhanced end-of-life management and recycling
Total lifecycle Carbon footprint	215
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	23a3df3b-8f68-444e-b6b0-c97b248da7da
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
PVC free	Yes
End of life manual availability	End Of Life Information
Removable battery	No
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised