Product data sheet
Characteristics

METSEPM2230
EasyLogic PM2230, Power & Energy meter, up to the 31st harmonic, LCD display, RS485, class 0.5S



Main

Range	EasyLogic
Product name	EasyLogic PM2200
Product or component type	Power meter
Device short name	PM2230

Complementary

Device application	Power monitoring Sub billing
Power quality analysis	Total harmonic distortion up to the 31st harmonic
Type of measurement	Apparent power min/max, total Active and reactive power min/max, total Current min/max, avg Voltage min/max, avg Frequency min/max, avg Total current harmonic distortion THD (I) per phase Total voltage harmonic distortion THD (U) per phase Power factor min/max, avg Apparent energy total Active and reactive energy total
Metering type	Calculated neutral current Active power P, P1, P2, P3 Current I, I1, I2, I3 Peak demand power PM, QM, SM Voltage U, U21, U32, U13, V, V1, V2, V3 Peak demand currents Reactive power Q, Q1, Q2, Q3 Demand power P, Q, S Unbalance current Active, reactive, apparent energy (signed, four quadrant) Apparent power S, S1, S2, S3
Accuracy class	Class 1 reactive energy conforming to IEC 62053-24 Class 0.5S active energy conforming to IEC 62053-22 Class 5 harmonic distortion (I THD & U THD)
Measurement accuracy	Apparent power +/- 0.5 % Active energy +/- 0.5 % Reactive energy +/- 1 % Active power +/- 0.5 % Voltage +/- 0.5 % Power factor +/- 0.01 Current +/- 0.5 % Frequency +/- 0.05 %
Measurement current	5…6000 MA

Measurement voltage	35…480 V AC 50/60 Hz between phases 20…277 V AC 50/60 Hz between phase and neutral 480…999000 V AC 50/60 Hz with external VT
Frequency measurement range	45…65 Hz
[Us] rated supply voltage	80...277 V AC 45...65 Hz +/- 10 % 100...277 V DC +/- 10 %
Network frequency	60 Hz 50 Hz
Ride-through time	50 Ms 120 V AC typical 50 Ms 230 V AC typical 50 Ms 125 V DC typical
[In] rated current	5 A 1 A
Maximum power consumption in VA	8 VA at 277 V AC
Maximum power consumption in W	3.3 W (power lines (AC)) 3.3 W at 277 V (power lines (DC))
Analogue input type	Current (impedance <= 0.3 mOhm) Voltage (impedance > 5 MOhm)
Tamperproof of settings	Protected by access code
Display type	Backlit LCD
Display colour	Monochrome
Display resolution	128 x 128 pixels
Refresh time	Configurable from 1 to 60 min
Information displayed	Demand current (past value) Demand current (present value) Demand power (past value) Demand power (present value) Voltage Current Frequency Energy consumption Harmonic distortion Power factor Active power Apparent power Reactive power Unbalanced in % Harmonic amplitude
Control type	4 x button
Local signalling	Red LED: output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh) Green LED: module operation and integrated communication
Number of inputs	0
Number of outputs	0
Communication port protocol	Modbus RTU at 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps even/odd or none - 2 wires, insulation
Communication port support	Screw terminal block: RS485
Data recording	Energy consumption logs Power logs Time stamping Min/Max for 8 parameters
Function available	Real time clock
Sampling rate	64 samples/cycle
Cybersecurity	Enable/Disable communication ports
Communication service	Remote monitoring
User language	Russian French Portuguese English Spanish Chinese German
Product certifications	CE conforming to IEC 61010-1 CULus conforming to UL 61010-1 CULus conforming to CSA C22.2 No 61010-1 RCM EAC C-Tick
Mounting mode	Clip-on
Mounting position	Vertical

Mounting support	Framework
Provided equipment	1 x installation guide
Measurement category	Category III 480 V Category II 480…600 V
Electrical insulation class	Double insulation Class II
Flame retardance	V-0 conforming to UL 94
Connections - terminals	Current transformer: screw connection (bottom) 6 Voltage inputs: screw connection (top) 4
Material	Polycarbonate
Width	96 Mm
Depth	Total : 76.09 mm Embedded : 61.64 mm
Height	96 Mm
Net weight	300 G
Compatibility code	PM2230

Environment

Service life	7 Year(S)
IP degree of protection	IP54 front: conforming to IEC 60529 IP30 body: conforming to IEC 60529
Relative humidity	5…95 % at 50 °C
Pollution degree	2
Ambient air temperature for operation	-10…60 °C
Ambient air temperature for storage	-25…70 °C
Operating altitude	<= 2000 m
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 Emission tests conforming to FCC part 15 class A
Overvoltage category	III

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	12.500 Cm
Package 1 Width	9.000 Cm
Package 1 Length	12.000 Cm
Package 1 Weight	355.000 G
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	30.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	7.025 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	144
Package 3 Height	75.000 Cm
Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	66.200 Kg

Offer Sustainability

Recyclability potential, in %	14
Total lifecycle Carbon footprint	131 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	12.61671955217674
Carbon footprint of the manufacturing phase [A1 to A3]	13 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2.079036696438195
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.04152112303400291
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	115.1788985041515
Carbon footprint of the use phase [B2, B3, B4, B6]	115 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.7450852192279181
Carbon footprint of the end-of-life phase [C1 to C4]	0.7 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	131
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	6599793e-9401-4187-a617-35919522fe23
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, which
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 and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised