Product data sheet
Characteristics

METSEPM2220
EasyLogic PM2220, Power & Energy meter, up to the 15th harmonic, LCD display, RS485, class 1



Main

Range	EasyLogic
Product name	EasyLogic PM2200
Product or component type	Power meter
Device short name	PM2220

Complementary

Device application	Power monitoring Sub billing
Power quality analysis	Total harmonic distortion up to the 15th 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	Active, reactive, apparent energy (signed, four quadrant) Current I, I1, I2, I3 Peak demand currents Peak demand power PM, QM, SM Unbalance current Active power P, P1, P2, P3 Reactive power Q, Q1, Q2, Q3 Demand power P, Q, S Voltage U, U21, U32, U13, V, V1, V2, V3 Apparent power S, S1, S2, S3 Calculated neutral current
Accuracy class	Class 1 active energy conforming to IEC 62053-21 Class 1 reactive energy conforming to IEC 62053-24 Class 5 harmonic distortion (I THD & U THD)
Measurement accuracy	Apparent power +/- 1 % Active energy +/- 1 % Reactive energy +/- 1 % Active power +/- 1 % 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	44...277 V AC 45...65 Hz +/- 10 % 44...277 V DC +/- 10 %
Network frequency	50 Hz 60 Hz
Ride-through time	100 Ms 120 V AC typical 400 Ms 230 V AC typical 50 Ms 125 V DC typical
[In] rated current	1 A 5 A
Maximum power consumption in VA	6 VA at 277 V AC
Maximum power consumption in W	3.3 W (power lines (AC)) 2 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	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	Spanish French English Russian Portuguese German Chinese
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	PM2220

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	11.800 Cm
Package 1 Width	8.800 Cm
Package 1 Length	12.000 Cm
Package 1 Weight	356.000 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	7.012 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	78.000 Kg

Offer Sustainability

Recyclability potential, in %	14
Total lifecycle Carbon footprint	129 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	11.469745047433399
Carbon footprint of the manufacturing phase [A1 to A3]	11 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1.890033360398359
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.03774647548545719
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]	0.6773501992981074
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	129
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