

Product datasheet

Specifications



panel mount meter EasyLogic PM1220H, class 0.5, RS485, LCD

METSEEM1220HCL5

Main

Range	EasyLogic
Product or component type	Energy meter

Complementary

Power quality analysis	total harmonic distortion
Device application	Energy monitoring

Type of measurement	Current Voltage Frequency Power factor Phase angle RPM Peak demand power Harmonic distorsion (I THD & U THD) Active power Active energy
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Metering type	Average current Iavg Phase currents Active power P, P1, P2, P3 Active, reactive, apparent energy (signed, four quadrant) Rotation speed Average voltage Vavg Calculated neutral current Unbalance current Unbalance voltage Frequency Voltage U21, U32, U13, V1, V2, V3 Demand power P, Q, S Power factor and displacement PF (signed, four quadrant) Phase current I1, I2, I3 RMS
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Counter functions	ON hour counting ON-load hour counting Power interruption
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[Us] rated supply voltage	48...277 V AC/DC
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Network frequency	50 Hz 60 Hz
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[In] rated current	1 A 5 A
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Type of network	3P 2P + N 1P + N 3P + N 2P
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Maximum power consumption in W	2 W at 36 V
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Display type	LCD display
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Display colour	Monochrome
Display digits	12 digit(s)
Communication of data	Reading of measurements All counters Revolution speed Last cleared log Instantaneous and demand values
Tamperproof of settings	Protected by access code
Sampling rate	32 samples/cycle
Measurement current	5...6000 mA
Signal	Voltage (impedance 5 MOhm)4 x Current 0.005...10 A (impedance 0.3 MOhm)6 x
Measurement voltage	46...277 V AC 50...60 Hz between phase and neutral 80...480 V AC 50...60 Hz between phases 277...999000 V AC 50...60 Hz with external VT
Frequency measurement range	45...65 Hz
Measurement accuracy	Current +/- 0.5 % Voltage +/- 0.5 % Frequency +/- 0.05 % Power factor +/- 0.01 Reactive power +/- 1 % Active power +/- 1 % Apparent power +/- 0.5 % Active energy +/- 0.5 % Reactive energy +/- 2 % Apparent energy +/- 0.5 % Harmonic distortion (I THD & U THD) +/- 5 %
Accuracy class	Class 0.5 active energy conforming to IEC 62053-21 Class 0.5 reactive energy conforming to IEC 62053-24
Demand intervals	1 s
Local signalling	Green LED: activity Red LED: output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh) LED: voltage indication
Communication port protocol	Modbus at 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps even/odd or none - 2 wires, insulation 2500 V
Communication port support	Screw connector: RS485
Data recording	Energy consumption logs
Material	Polycarbonate
Flame retardance	V-0 conforming to UL 94
Mounting mode	Flush-mounted
Mounting support	Framework
Provided equipment	Installation guide
Installation category	III
Type of installation	Indoor installation
Measurement category	Category III 480 V
Electrical insulation class	Class II
Connections - terminals	Current circuit: screw clamp terminals (bottom) 2.08...3.31 mm ² cable(s) Voltage circuit: screw clamp terminals (top) 0.82...3.31 mm ² cable(s) Control circuit: screw clamp terminals (top) 0.82...3.31 mm ² cable(s) Communication: screw clamp terminals (bottom) 0.33...3.31 mm ² cable(s)
Tightening torque	Current circuit: 0.9...1 N.m Philips No 2 screwdriver Voltage circuit: 0.9...1 N.m Philips No 2 screwdriver Control circuit: 0.9...1 N.m Philips No 2 screwdriver Communication: 0.5...0.6 N.m Philips no 1 screwdriver
Wire stripping length	Current circuit: 3.68 mm Voltage circuit: 7 mm Control circuit: 7 mm 7 mm
Standards	IEC 61010-1:ed. 3 UL 61010-1:ed. 3

Product certifications	CE conforming to IEC 61010-1 CULus conforming to UL 61010-1 CULus conforming to CSA C22.2 No 61010-1 C-Tick
Width	96 mm
Depth	13 mm outside: 49 mm panel:
Height	96 mm
Product weight	300 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 Emission tests conforming to FCC part 15 class A Emission tests conforming to FCC part 15 Subpart C Emission tests conforming to FCC part 15 Subpart E
Overvoltage category	III
IP degree of protection	IP51 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	-20...70 °C
Operating altitude	<= 2000 m
Service life	7 year(s)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	9.65 cm
Package 1 Width	21.08 cm
Package 1 Length	24.13 cm
Package 1 Weight	544.311 g

Offer Sustainability

EU RoHS Directive	Under investigation
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

Recommended replacement(s)