Product data sheet
Characteristics

METSEPM5110
power meter PowerLogic PM5110, modbus, up to 15th Harmonic, 1DO 33 alarms



Main

Range	PowerLogic
Product name	PowerLogic PM5000
Product or component type	Power meter
Device short name	PM5110

Complementary

Power quality analysis	Up to the 15th harmonic
Device application	Power monitoring
Type of measurement	Current Voltage Frequency Power factor Energy Active and reactive power
[Us] rated supply voltage	90...450 V AC 45...65 Hz 100...300 V DC
Network frequency	50 Hz 60 Hz
[In] rated current	1 A 5 A
Poles description	1P + N 3P + N 3P
Maximum power consumption in VA	11 VA at 415 V
Ride-through time	80 Ms 120 V AC typical 100 Ms 230 V AC typical 100 Ms 415 V AC typical 50 Ms 125 V DC typical
Display type	Monochrome graphic LCD
Display resolution	128 x 128 pixels
Sampling rate	64 samples/cycle
Measurement current	50…8500 MA
Analogue input type	Voltage (impedance 5 MOhm) Current (impedance <= 0.3 mOhm)
Measurement voltage	35…760 V AC 45...65 Hz between phases 20…440 V AC 45...65 Hz between phase and neutral
Frequency measurement range	45…65 Hz
Number of inputs	0

Measurement accuracy	Active energy +/- 0.5 % Reactive energy +/- 2 % Active power +/- 0.5 % Apparent power +/- 0.5 % Frequency +/- 0.05 % Power factor +/- 0.5 Current +/- 0.5 % Voltage +/- 0.5 % Apparent energy +/- 0.5 % Reactive power +/- 2 %
Accuracy class	Class 0.5S active energy conforming to IEC 62053-22
Number of outputs	1 digital
Communication port protocol	Modbus RTU and ASCII at 9.6, 19.2 and 38.4 kbauds even/odd or none - 2 wires, insulation 2500 JBUS
Communication port support	RS485
Data recording	Time stamping Min/Max of instantaneous values
Connections - terminals	Voltage circuit: screw terminal block4 Control circuit: screw terminal block2 Current transformer: screw terminal block6 Input/Output circuit: screw terminal block6 RS485 link: screw terminal block4
Mounting mode	Flush-mounted
Mounting support	Framework
Standards	UL 61010-1 EN 50470-3 EN 50470-1 IEC 62053-22:2020 IEC 60529 IEC 62053-24 IEC 61557-12:2015 IEC 62053-23:2020 IEC 62052-11:2020 IEC 62052-31:2015
Product certifications	CE conforming to IEC 61010-1[RETURN]CULus conforming to UL 61010-1
Width	96 Mm
Depth	72 Mm
Height	96 Mm
Net weight	380 G

Environment

Electromagnetic compatibility	Voltage dips and interruptions immunity test class A conforming to IEC 61000-4-11 Limits for harmonic current emissions class A conforming to IEC 61000-3-2 Electrostatic discharge level 4 conforming to IEC 61000-4-2 Conducted RF disturbances level 3 conforming to IEC 61000-4-6 Magnetic field at power frequency level 4 conforming to IEC 61000-4-8 Conducted and radiated emissions - test level: 150 kHz...80 MHz class B conforming to EN 55022 Immunity to conducted disturbances - test level: 150 kHz...80 MHz conforming to IEC 61000-4-6 Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3 Surge immunity test class B conforming to IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to IEC 61000-4-11
IP degree of protection	IP54 display: conforming to IEC 60529 IP30 rear: conforming to IEC 60529
Relative humidity	5…95 % at 50 °C non-condensing
Pollution degree	2
Ambient air temperature for operation	-25…70 °C meter -20…70 °C display -25…-20 °C (with reduced performance) display
Ambient air temperature for storage	-40…85 °C
Operating altitude	2000 m CAT III

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	16.000 Cm
Package 1 Width	12.600 Cm
Package 1 Length	12.600 Cm
Package 1 Weight	478.000 G
Unit Type of Package 2	S03
Number of Units in Package 2	12
Package 2 Height	30.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	6.345 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	96
Package 3 Height	75.000 Cm
Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	61.820 Kg

Offer Sustainability

Recyclability potential, in %	4
Total lifecycle Carbon footprint	182 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	13.690464535148205
Carbon footprint of the manufacturing phase [A1 to A3]	14 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.06523067065820948
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.027333678458057422
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	167.0655433140378
Carbon footprint of the use phase [B2, B3, B4, B6]	167 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	1.0182764848915156
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	182
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	2869ba20-8929-483b-9301-6e9169536ade
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
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 a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised