Product data sheet
Characteristics

METSEPM5331
power meter PowerLogic PM5331, modbus, up to 31st Harmonic, 256KB 2DI/2DO 35 alarms, MID



Main

Range	PowerLogic
Product name	PowerLogic PM5000
Product or component type	Power meter
Device short name	PM5331

Complementary

Power quality analysis	Up to the 31st harmonic
Device application	Power monitoring Multi-tariff
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 3P + N
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	5…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…400 V AC 45...65 Hz between phase and neutral
Frequency measurement range	45…65 Hz
Number of inputs	2 digital

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	2 relay 2 digital
Information displayed	Tariff (4)
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	Alarm logs Min/Max of instantaneous values Data logs Time stamping Maintenance logs Event logs
Memory capacity	256 kB
Connections - terminals	Voltage circuit: screw terminal block4 Control circuit: screw terminal block2 Current transformer: screw terminal block6 Input/Output circuit: screw terminal block6 Relay output: screw terminal block4 Ethernet network: RJ45 connector
Mounting mode	Flush-mounted
Mounting support	Framework
Standards	EN 50470-3 IEC 62053-22:2020 IEC 61557-12:2015 UL 61010-1 IEC 62053-24 EN 50470-1 IEC 60529 IEC 62053-23:2020 IEC 62052-11:2020 IEC 62052-31:2015
Product certifications	CE conforming to IEC 61010-1 CULus conforming to UL 61010-1 MID conforming to EN 50470-1 MID conforming to EN 50470-3
Width	96 Mm
Depth	72 Mm
Height	96 Mm
Net weight	430 G

Environment

Electromagnetic compatibility	Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4 Surge immunity test level 4 conforming to IEC 61000-4-5 Voltage dips and interruptions immunity test level 3 conforming to IEC 61000-4-11 Limits for harmonic current emissions class A conforming to IEC 61000-3-2 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 class B conforming to EN 55022 Limitation of voltage changes, voltage fluctuations and flicker in low-voltage conforming to IEC 61 Electrostatic discharge - test level: 8 kV level 4 conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3 Voltage dips and interruptions immunity test - test level: 8 kV level 4 conforming to IEC 61000-4-1
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 3000 m CAT II

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13.000 Cm
Package 1 Width	11.500 Cm
Package 1 Length	12.500 Cm
Package 1 Weight	506.000 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	6.719 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	63.752 Kg

Offer Sustainability

Recyclability potential, in %	4
Total lifecycle Carbon footprint	186 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	13.57565980110084
Carbon footprint of the manufacturing phase [A1 to A3]	14 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.06468366293780521
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.027104465221511866
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	171.68554083633026
Carbon footprint of the use phase [B2, B3, B4, B6]	172 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	1.0097374787289033
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	186
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