

Product Environmental Profile

PM8000 Series Integrated Power Meter



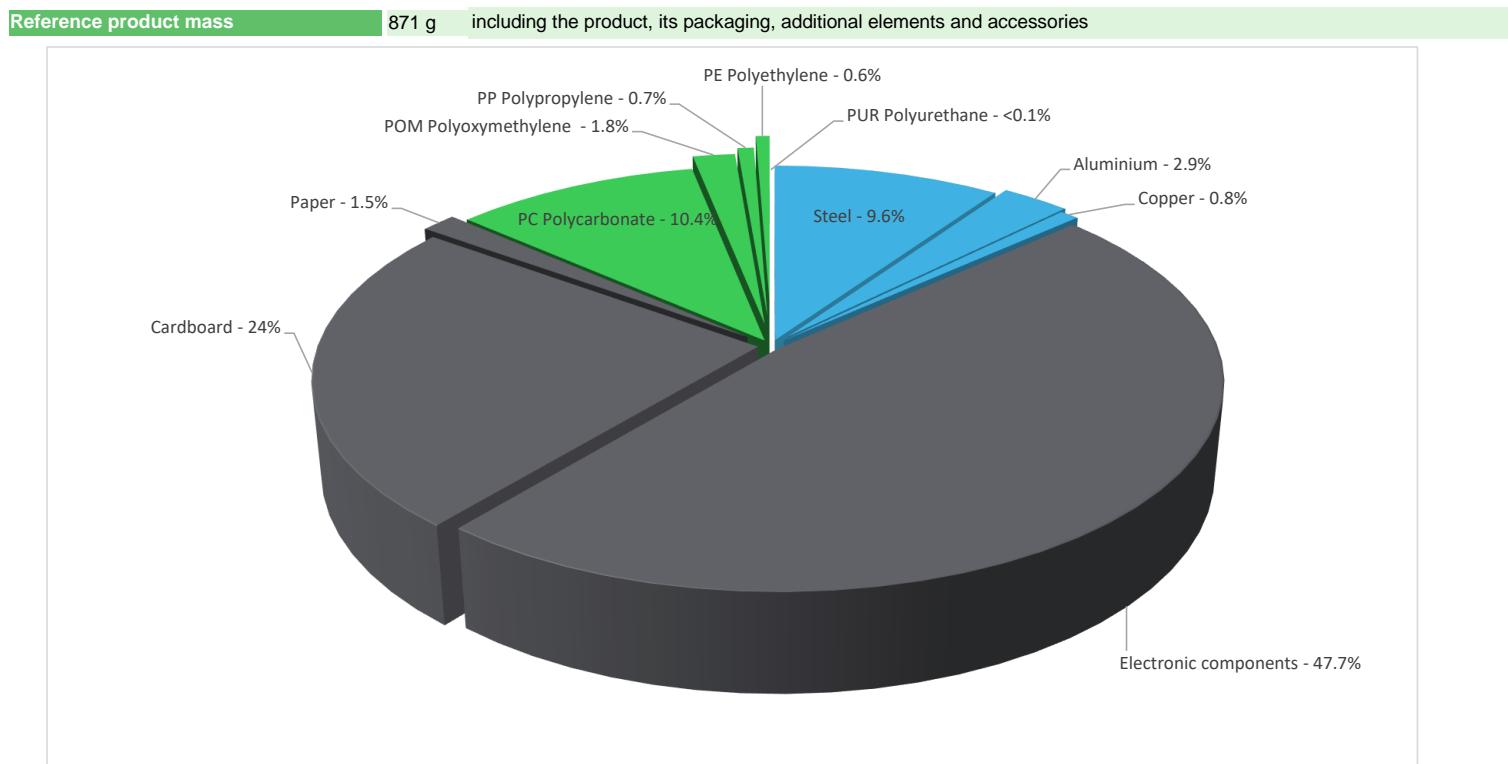


General information

Reference product	PM8000 Series Integrated Power Meter - METSEPM8140
Description of the product	The PowerLogic PM8140 comes in a flush mount form factor with integrated display. It is designed to help you ensure reliability and efficiency of your power-critical facility. With its modular, flexible, and power ION technology, you can build custom applications for each meter. It comes with revenue grade accuracy, multiple communication ports, and a color graphical display. Certified by third party labs for Class 0.2S energy accuracy (IEC62052-11, IEC62053-24, IEC62053-22). Cybersecurity features include secure protocols (HTTPs, sFTP, Secure ION), security event logging, Syslog protocol. Ability to enable/disable communication ports and support 50 configurable user account to help manage access. With 64MB of memory to support up to 10 data logs (160 channels), 50+ user-definable alarms, waveform captures upto 128 samples/cycle, 1/2 cycle RMS logging. The storage can also be used for custom web pages, min/max logs, energy trends, and Time of Use. The ability to timestamp events to +/-1ms utilizing time synchronization. Time synch method that include PTP (IEEE1588), NTP, IRIG-B, GPS ASCII (RS485) and network time set function. 3 digital inputs and one digital output, plus the ability to add up to 4 option modules. I/O option modules include 2 relays and 6 digital inputs or 2 analog outputs and 4 analog inputs. Wide control power range of 90-415 VAC / 110-415 VDC. Operating environment of -25 to +70°C; Humidity rating of 5% to 95%; Altitude up to 3000 m.
Description of the range	The products of the range are: PM8000 Series Integrated Power Meter The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology.
Functional unit	Technical data: Supply Voltage 90...415 V AC 45...65 Hz +/- 10 % 110...415 V DC +/- 10 % Measurement voltage 57...400 V AC 42...69 Hz between phase and neutral 100...690 V AC 42...69 Hz between phases Measurement current 50...10000 mA



Constituent materials



Plastics	13.5%
Metals	13.3%
Others	73.2%



Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric website
<https://www.se.com>



Additional environmental information

End Of Life	Recyclability potential:	17%	The recyclability rate was calculated from the recycling rates of each material making up the product based on REEECYCLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the EIME database and the related PSR was taken. If no data was found a conservative assumption was used (0% recyclability).
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Environmental impacts

Reference service life time	10 years			
Product category	Other equipments - Active product			
Life cycle of the product	The manufacturing, the distribution, the installation, the use and the end of life were taken into consideration in this study			
Electricity consumtions	The electricity consumed during manufacturing processes is considered for each part of the product individually, the final assembly generates a negligible consumption			
Installation elements	The product does not require any installation operations			
Use scenario	The product is in active mode 10% of the time with a power use of 5 W, and in standby mode 90% of the time with a power use of 4.7 W, for 10 years.			
Time representativeness	The collected data are representative of the year 2024			
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and representative of the actual type of technologies used to make the product.			
Geographical representativeness	Final assembly site	Use phase	End-of-life	
	Mechanicsburg	USA	USA	
	[A1 - A3]	[A5]	[B6]	
			[C1 - C4]	
Energy model used	Electricity Mix; Low voltage; 2020; China, CN Electricity Mix; Low voltage; 2020; France, FR Electricity Mix; Low voltage; 2020; Europe, EU-27 Electricity Mix; Low voltage; 2020; Global, GLO Electricity Mix; Low voltage; 2020; Japan, JP	No energy used	Electricity Mix; Low voltage; 2020; United States, US	Global, European and French datasets are used.

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.se.com/contact>

Mandatory Indicators		PM8000 Series Integrated Power Meter - METSEPM8140						
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to climate change	kg CO2 eq	2.98E+02	9.66E+01	3.76E-01	0*	1.99E+02	1.78E+00	-6.38E-01
Contribution to climate change-fossil	kg CO2 eq	2.97E+02	9.65E+01	3.76E-01	0*	1.98E+02	1.78E+00	-6.27E-01
Contribution to climate change-biogenic	kg CO2 eq	1.14E+00	1.09E-01	0*	0*	1.03E+00	5.57E-04	-1.13E-02
Contribution to climate change-land use and land use change	kg CO2 eq	1.58E-04	1.58E-04	0*	0*	0*	5.51E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.78E-05	1.66E-05	3.32E-07	0*	7.71E-07	7.32E-09	-9.25E-08
Contribution to acidification	mol H+ eq	1.33E+00	4.14E-01	1.64E-03	0*	9.08E-01	1.92E-03	-4.98E-03
Contribution to eutrophication, freshwater	kg P eq	6.04E-04	2.64E-04	0*	0*	3.31E-04	9.87E-06	-1.66E-06
Contribution to eutrophication marine	kg N eq	1.63E-01	4.75E-02	7.52E-04	5.60E-05	1.14E-01	6.98E-04	-3.66E-04
Contribution to eutrophication, terrestrial	mol N eq	1.89E+00	5.24E-01	8.15E-03	5.75E-04	1.35E+00	7.24E-03	-4.15E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	5.39E-01	1.57E-01	2.67E-03	1.37E-04	3.78E-01	1.82E-03	-1.48E-03
Contribution to resource use, minerals and metals	kg Sb eq	9.41E-03	9.38E-03	0*	0*	3.02E-05	0*	-1.12E-04
Contribution to resource use, fossils	MJ	5.31E+03	9.78E+02	4.69E+00	0*	4.32E+03	4.22E+00	-1.18E+01
Contribution to water use	m3 eq	4.57E+01	3.55E+01	1.91E-02	2.20E-02	1.00E+01	7.01E-02	-2.49E-01

Inventory flows Indicators		PM8000 Series Integrated Power Meter - METSEPM8140						
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	6.09E+02	8.14E+01	0*	0*	5.27E+02	1.35E-01	-2.85E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	4.55E+00	4.55E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of renewable primary energy resources	MJ	6.13E+02	8.59E+01	0*	0*	5.27E+02	1.35E-01	-2.85E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5.30E+03	9.70E+02	4.69E+00	0*	4.32E+03	4.22E+00	-1.18E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	7.80E+00	7.80E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	5.31E+03	9.78E+02	4.69E+00	0*	4.32E+03	4.22E+00	-1.18E+01
Contribution to use of secondary material	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m³	1.05E+00	8.18E-01	4.45E-04	5.12E-04	2.33E-01	1.81E-03	-5.79E-03
Contribution to hazardous waste disposed	kg	1.54E+02	1.50E+02	0*	0*	3.73E+00	4.19E-01	-8.87E+00
Contribution to non hazardous waste disposed	kg	6.01E+01	3.01E+01	0*	2.31E-01	2.95E+01	2.42E-01	-7.88E-01
Contribution to radioactive waste disposed	kg	1.94E-02	1.23E-02	7.49E-05	0*	6.98E-03	1.36E-05	-5.36E-04
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.43E-01	3.07E-02	0*	0*	0*	1.12E-01	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	1.26E-03	1.53E-04	0*	0*	0*	1.11E-03	0.00E+00

* represents less than 0.01% of the total life cycle of the reference flow

Contribution to biogenic carbon content of the product	kg of C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg of C	6.43E-02

* The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%)

Life cycle assessment performed with EIME version v6.2.4, database version 2024-01 in compliance with ISO14044, EF3.1 method is applied, for biogenic carbon storage, assessment methodology -1/1 is used

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

Registration number :	SCHN-02138-V01.01-EN	Drafting rules	PEP-PCR-ed4-2021 09 06		
		Supplemented by	PSR-0005-ed3-2023 12 08		
Verifier accreditation N°	0	Information and reference documents	www.pep-ecopassport.org		
Date of issue	2025-09	Validity period	5 years		
<i>Independent verification of the declaration and data, in compliance with ISO 14025 : 2006</i>					
Internal	External <input checked="" type="checkbox"/>				
<i>The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)</i>					
<i>PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022</i>					
<i>The components of the present PEP may not be compared with components from any other program.</i>					
<i>Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"</i>					
					

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