

Product Environmental Profile

PM8000/ION7400 Series Transducer Power Meter





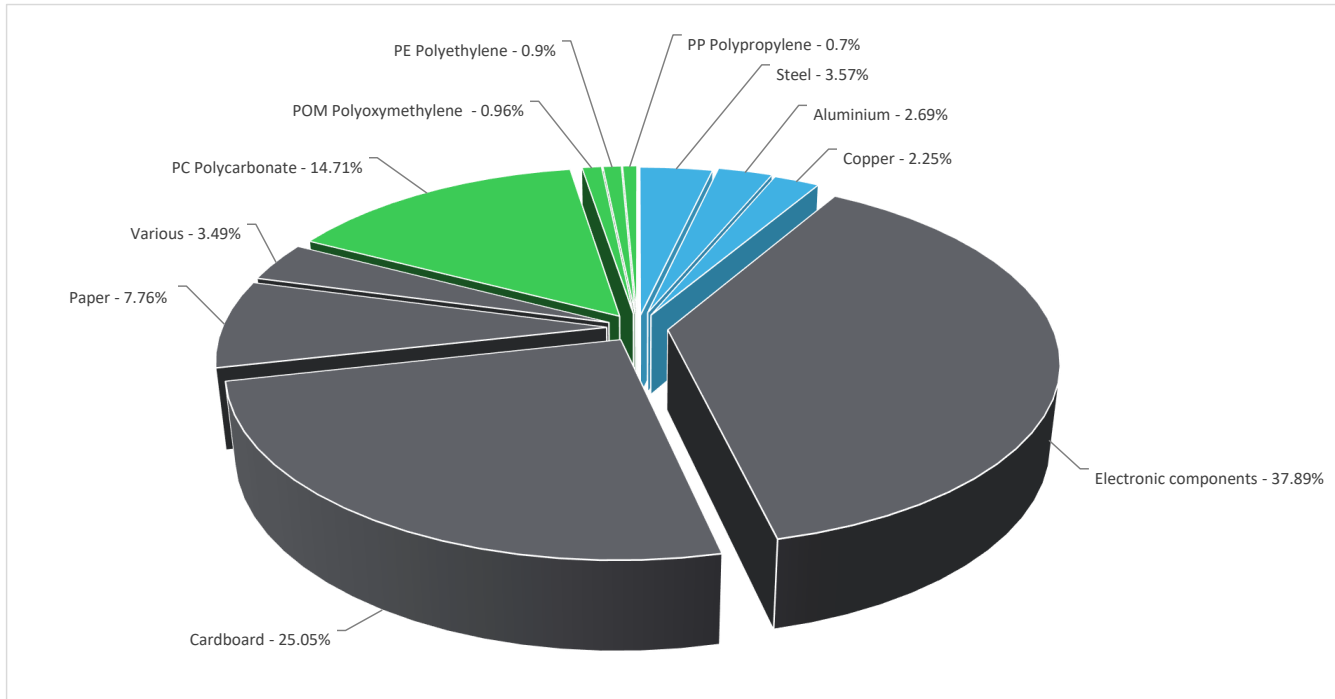
General information

Reference product	PM8000/ION7400 Series Transducer Power Meter - METSEPM8243
Description of the product	The PowerLogic PM8000 series meters are compact, cost-effective multifunction power meters that will help you ensure reliability and efficiency of your power-critical facility. They reveal and provide understanding of complex power quality conditions enabling action to be taken to mitigate any issue. The PowerLogic PM8000 series meters have the versatility to perform nearly any job you need a meter to do, wherever you need it! The modular, flexible ION technology architecture enables a simple, building block approach for customizing each meter to any application. With patented Disturbance Direction Detection, revenue grade accuracy, multiple communication ports, onboard power quality analysis and web interface.
Description of the range	Single product
Functional unit	The functional unit of the PowerLogic PM8000 series is a high-precision power and energy meter designed for advanced monitoring and analysis. It operates with a low power consumption of 4.7 W in active mode and supports 100% runtime, with a total energy consumption of 411.72 kWh for active components for 10 years. It features robust cybersecurity with secure protocols (HTTPS, SFTP), Syslog support, and 50 configurable user accounts. With 512 MB memory, it supports 50 data logs, waveform captures, alarms, energy trends, and custom web pages. It offers precise event timestamping to ± 1 ms using PTP, NTP, IRIG-B, GPS, and network time sync. The device includes 3 digital inputs, 1 digital output, and supports up to 4 I/O modules (relays, analog/digital I/Os). It operates in harsh environments (-25 to +70°C, 5–95% humidity, up to 3000 m altitude) and mounts via DIN rail with optional remote display.
Specifications are:	The PM8243 is a high-performance power and energy meter designed for advanced monitoring and analysis in electrical networks. It supports a wide supply voltage range (90–415 V AC / 110–415 V DC) and operates at 50/60 Hz with a sampling rate of 256 samples per cycle. It measures current (50–10000 mA) and voltage (57–690 V AC) with high accuracy ($\pm 0.1\%$ for current and voltage, $\pm 0.2\%$ for active energy). The device features multiple communication protocols including Modbus RTU/TCP, ION, DNP3, and IEC 61850 over Ethernet and RS485, with support for IPv6, FTP/SFTP, HTTPS, and email notifications. It includes 512 MB memory for extensive data logging (harmonics, waveform, events, etc.), and complies with international standards like IEC 62053-22 and IEEE 1588. The unit is DIN rail mountable, IP30 rated, and operates in harsh environments (-25 to 70°C, up to 3000 m altitude). It offers robust cybersecurity features and is certified by CE, CULus, and others.



Constituent materials

Reference product mass 854 g including the product, its packaging, additional elements and accessories



Plastics	17.3%
Metals	8.5%
Others	74.2%

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:	13%	The recyclability rate was calculated from the recycling rates of each material making up the product based on REEECYLAB 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 consumption	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 special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal)		
Use scenario	The product is in active mode 100% of the time with a power use of 4.7 W, for 10 years		
Time representativeness	The collected data are representative of the year 2025		
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	
	CANADA	Global	
Energy model used	[A1 - A3]	[A5]	[B6]
	Electricity Mix; Low voltage; 2020; Europe,EU Electricity Mix; Low voltage; 2020; France, FR Electricity Mix; Low voltage; 2020; China, CN	No energy used	Electricity Mix; Low voltage; 2020; United States, US Electricity Mix; Low voltage; 2020; France, FR Electricity Mix; Low voltage; 2020; India, IN Electricity Mix; Low voltage; 2020; China, CN Asia Pacific, APAC
			[C1 - C4]
			Global, European and French datasets are used.

Detailed results of the optional indicators mentioned in PCRd4 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/ION7400 Series Transducer Power Meter - METSEPM8243						
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	2.37E+02	3.20E+01	5.74E-01	4.51E-01	2.03E+02	1.53E+00	-4.72E-01
Contribution to climate change-fossil	kg CO2 eq	2.36E+02	3.25E+01	5.74E-01	3.90E-02	2.01E+02	1.53E+00	-2.50E-01
Contribution to climate change-biogenic	kg CO2 eq	1.26E+00	-4.12E-01	0*	4.12E-01	1.26E+00	3.84E-04	-2.22E-01
Contribution to climate change-land use and land use change	kg CO2 eq	1.49E-04	1.49E-04	0*	0*	0*	3.38E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	6.83E-06	5.30E-06	5.07E-07	0*	1.01E-06	4.76E-09	-6.15E-08
Contribution to acidification	mol H+ eq	1.36E+00	1.74E-01	2.50E-03	1.49E-04	1.18E+00	1.45E-03	-4.38E-03
Contribution to eutrophication, freshwater	kg P eq	6.36E-04	1.39E-04	6.73E-08	0*	4.90E-04	7.49E-06	1.50E-06
Contribution to eutrophication marine	kg N eq	1.57E-01	1.85E-02	1.15E-03	6.91E-05	1.37E-01	5.71E-04	2.86E-05
Contribution to eutrophication, terrestrial	mol N eq	1.85E+00	2.08E-01	1.24E-02	7.12E-04	1.62E+00	5.98E-03	-5.57E-04
Contribution to photochemical ozone formation - human health	kg COVNM eq	5.20E-01	6.31E-02	4.08E-03	1.69E-04	4.51E-01	1.48E-03	-5.25E-04
Contribution to resource use, minerals and metals	kg Sb eq	4.89E-03	4.86E-03	0*	0*	3.36E-05	0*	-5.91E-05
Contribution to resource use, fossils	MJ	5.35E+03	3.88E+02	7.15E+00	0*	4.95E+03	3.15E+00	-4.91E+00
Contribution to water use	m3 eq	2.63E+01	1.44E+01	2.91E-02	2.78E-02	1.18E+01	6.74E-02	-1.91E-01

Inventory flows Indicators		PM8000/ION7400 Series Transducer Power Meter - METSEPM8243						
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	5.62E+02	3.48E+01	0*	0*	5.27E+02	9.64E-02	-9.00E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	2.47E+00	2.47E+00	0*	0*	0*	0*	2.66E+00
Contribution to total use of renewable primary energy resources	MJ	5.65E+02	3.73E+01	0*	0*	5.27E+02	9.64E-02	1.76E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5.34E+03	3.79E+02	7.15E+00	0*	4.95E+03	3.15E+00	-4.91E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	9.09E+00	9.09E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	5.35E+03	3.88E+02	7.15E+00	0*	4.95E+03	3.15E+00	-4.91E+00
Contribution to use of secondary material	kg	1.67E-01	1.67E-01	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	6.11E-01	3.32E-01	6.79E-04	6.47E-04	2.76E-01	1.68E-03	-4.44E-03
Contribution to hazardous waste disposed	kg	8.77E+01	8.23E+01	0*	0*	5.08E+00	3.20E-01	-4.64E+00
Contribution to non hazardous waste disposed	kg	5.11E+01	1.74E+01	0*	2.86E-01	3.32E+01	2.41E-01	-5.00E-01
Contribution to radioactive waste disposed	kg	9.26E-03	4.30E-03	1.14E-04	0*	4.84E-03	1.24E-05	-4.07E-04
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	7.81E-02	7.89E-03	0*	0*	0*	7.02E-02	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	7.39E-04	4.51E-05	0*	0*	0*	6.94E-04	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 8.38E-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%)

Mandatory Indicators		PM8000/ION7400 Series Transducer Power Meter - METSEPM8243							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	2.03E+02	0*	0*	0*	0*	0*	2.03E+02	0*
Contribution to climate change-fossil	kg CO2 eq	2.01E+02	0*	0*	0*	0*	0*	2.01E+02	0*
Contribution to climate change-biogenic	kg CO2 eq	1.26E+00	0*	0*	0*	0*	0*	1.26E+00	0*
Contribution to climate change-land use and land use change	kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	1.01E-06	0*	0*	0*	0*	0*	1.01E-06	0*
Contribution to acidification	mol H+ eq	1.18E+00	0*	0*	0*	0*	0*	1.18E+00	0*
Contribution to eutrophication, freshwater	kg P eq	4.90E-04	0*	0*	0*	0*	0*	4.90E-04	0*
Contribution to eutrophication marine	kg N eq	1.37E-01	0*	0*	0*	0*	0*	1.37E-01	0*
Contribution to eutrophication, terrestrial	mol N eq	1.62E+00	0*	0*	0*	0*	0*	1.62E+00	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	4.51E-01	0*	0*	0*	0*	0*	4.51E-01	0*
Contribution to resource use, minerals and metals	kg Sb eq	3.36E-05	0*	0*	0*	0*	0*	3.36E-05	0*
Contribution to resource use, fossils	MJ	4.95E+03	0*	0*	0*	0*	0*	4.95E+03	0*
Contribution to water use	m3 eq	1.18E+01	0*	0*	0*	0*	0*	1.18E+01	0*

Inventory flows Indicators		PM8000/ION7400 Series Transducer Power Meter - METSEPM8243							
Inventory flows	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	5.27E+02	0*	0*	0*	0*	0*	5.27E+02	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	5.27E+02	0*	0*	0*	0*	0*	5.27E+02	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.95E+03	0*	0*	0*	0*	0*	4.95E+03	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	4.95E+03	0*	0*	0*	0*	0*	4.95E+03	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m ³	2.76E-01	0*	0*	0*	0*	0*	2.76E-01	0*
Contribution to hazardous waste disposed	kg	5.08E+00	0*	0*	0*	0*	0*	5.08E+00	0*
Contribution to non hazardous waste disposed	kg	3.32E+01	0*	0*	0*	0*	0*	3.32E+01	0*
Contribution to radioactive waste disposed	kg	4.84E-03	0*	0*	0*	0*	0*	4.84E-03	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	0*	0*	0*	0*	0*

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

Life cycle assessment performed with EIME version v6.3.2-2, database version 2025-04 in compliance with ISO14044, EF3.1 method is applied, for biogenic carbon storage, assessment methodology -1/1 is used

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.

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		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Verifier accreditation N°	VH42	Information and reference documents	www.pep-ecopassport.org
Date of issue	11-2025	Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006			
Internal External X			
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)			
PEPs are compliant with NF C08-100-1:2022 and EN 50693:2019 or NF E38-500 :2022			
The components of the present PEP may not be compared with components from any other program.			
Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			



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