

# Product Environmental Profile

**iEM2455 100A CI 1 MID Energy meter RS485**

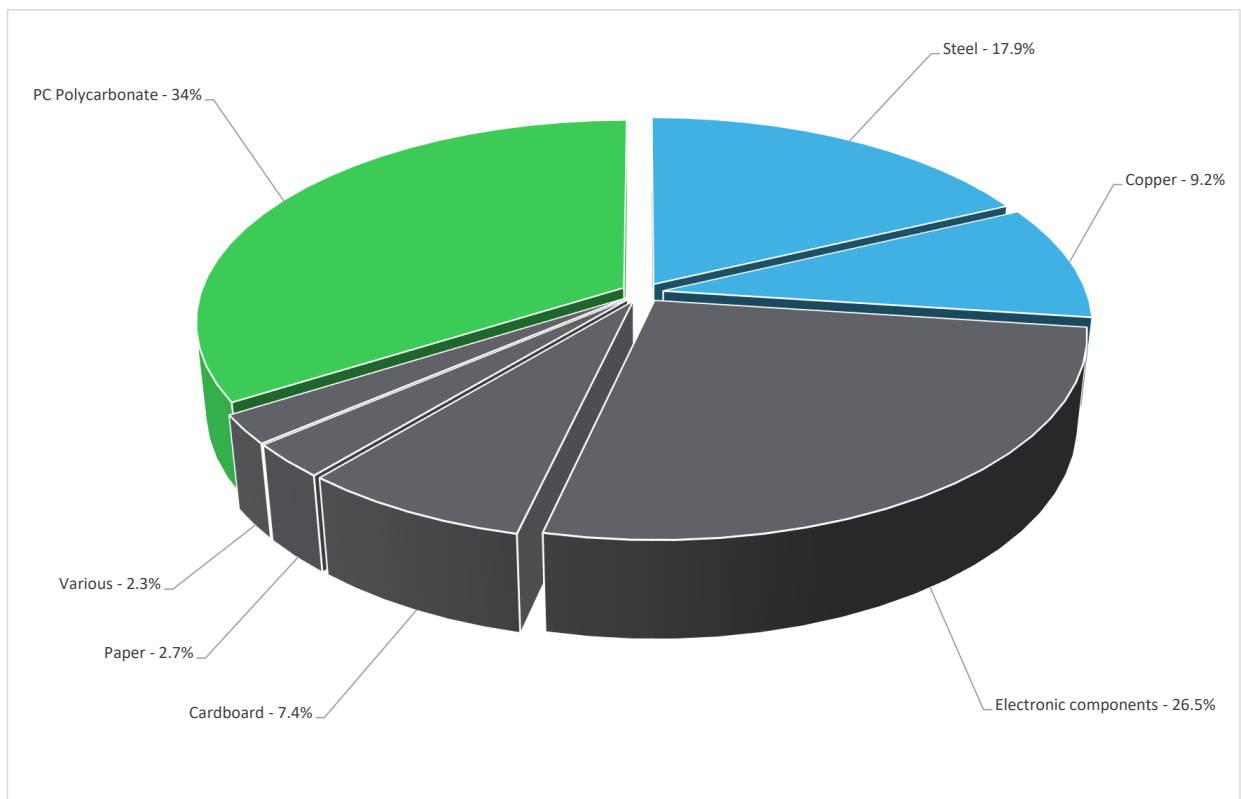


## General information

Reference product	iEM2455 100A CI 1 MID Energy meter RS485 - A9MEM2455
Description of the product	The Acti9 iEM2455 energy meter offer a single-phase DIN rail-mounted energy meters fitted for basic metering. This product family can be used to monitor power consumption for each sector, unit or workshop and manage electrical installation for building management
Description of the range	Single product
Functional unit	The iEM2455 is a single phase meter which measures the forward and reverse energy with a blue backlight LCD display.
Specifications are:	Operational voltage: 195 to 253 V Maximum rated current (Imax): 5 A / 100 A Network frequency: 50 - 60Hz Pollution degree: 2 IP51 front Degree of protection in accordance with the standard IEC 60529

## Constituent materials

Reference product mass	184 g	including the product, its packaging and additional elements and accessories
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Plastics	34.00%
Metals	27.10%
Others	38.90%

## Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website  
<https://www.se.com/ww/en/work/support/green-premium/>

## Additional environmental information

<b>End Of Life</b>	Recyclability potential:	<b>32%</b>	The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.
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## Environmental impacts

<b>Reference service life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	This product does not require any installation operations.			
<b>Use scenario</b>	The product is in active mode 25% of the time with a power use of 0.26W, in stand-by mode 75% of the time with a power use of 0.24W for 10 years			
<b>Time representativeness</b>	The collected data are representative of the year 2024			
<b>Technological representativeness</b>	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 représentaive of the actual type of technologies used to make the product.			
<b>Geographical representativeness</b>	Rest of the World			
<b>Energy model used</b>	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; High voltage; 2018; China, CN	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR
		Electricity Mix; Low voltage; 2018; Netherlands, NL	Electricity Mix; Low voltage; 2018; Netherlands, NL	Electricity Mix; Low voltage; 2018; Netherlands, NL
		Electricity Mix; Low voltage; 2018; Chile, CL	Electricity Mix; Low voltage; 2018; Chile, CL	Electricity Mix; Low voltage; 2018; Chile, CL
		Electricity Mix; Low voltage; 2018; Spain, ES	Electricity Mix; Low voltage; 2018; Spain, ES	Electricity Mix; Low voltage; 2018; Spain, ES
Electricity Mix; Low voltage; 2018; Italy, IT		Electricity Mix; Low voltage; 2018; Italy, IT	Electricity Mix; Low voltage; 2018; Italy, IT	

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.schneider-electric.com/contact>

Mandatory Indicators		iEM2455 100A CI 1 MID Energy meter RS485 - A9MEM2455						
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	1.43E+01	6.14E+00	4.77E-01	0*	7.21E+00	4.60E-01	-1.70E-01
Contribution to climate change-fossil	kg CO2 eq	1.42E+01	6.10E+00	4.77E-01	0*	7.21E+00	4.56E-01	-1.66E-01
Contribution to climate change-biogenic	kg CO2 eq	4.30E-02	3.42E-02	0*	0*	5.15E-03	3.69E-03	-3.63E-03
Contribution to climate change-land use and land use change	kg CO2 eq	1.00E-04	1.00E-04	0*	0*	0*	8.24E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	2.59E-06	2.14E-06	4.19E-07	0*	3.26E-08	2.42E-09	-3.05E-08
Contribution to acidification	mol H+ eq	8.19E-02	3.90E-02	1.96E-03	9.90E-06	3.99E-02	1.00E-03	-3.64E-03
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	1.70E-04	2.91E-05	5.56E-08	0*	2.85E-05	1.13E-04	-2.50E-07
Contribution to eutrophication marine	kg N eq	1.21E-02	6.24E-03	8.91E-04	4.68E-06	4.72E-03	2.25E-04	-1.17E-04
Contribution to eutrophication, terrestrial	mol N eq	1.44E-01	6.74E-02	9.67E-03	4.76E-05	6.45E-02	2.56E-03	-1.37E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	4.33E-02	2.42E-02	3.22E-03	1.14E-05	1.52E-02	6.93E-04	-6.27E-04
Contribution to resource use, minerals and metals	kg Sb eq	1.19E-03	1.19E-03	0*	0*	5.05E-07	3.55E-06	-6.35E-05
Contribution to resource use, fossils	MJ	3.18E+02	8.68E+01	5.91E+00	0*	2.17E+02	7.90E+00	-3.60E+00
Contribution to water use	m3 eq	2.06E+00	1.57E+00	2.41E-02	1.74E-03	2.56E-01	2.05E-01	-1.90E-01

Inventory flows Indicators		iEM2455 100A CI 1 MID Energy meter RS485 - A9MEM2455						
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	3.54E+01	2.11E+00	0*	0*	3.32E+01	9.06E-02	-9.48E-02
Contribution to use of renewable primary energy resources used as raw material	MJ	3.83E-01	3.83E-01	0*	0*	0*	0*	-1.48E-03
Contribution to total use of renewable primary energy resources	MJ	3.58E+01	2.49E+00	0*	0*	3.32E+01	9.06E-02	-9.63E-02
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.15E+02	8.40E+01	5.91E+00	0*	2.17E+02	7.90E+00	-3.60E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.87E+00	2.87E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	3.18E+02	8.68E+01	5.91E+00	0*	2.17E+02	7.90E+00	-3.60E+00
Contribution to use of secondary material	kg	4.32E-04	4.32E-04	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	5.04E-02	3.77E-02	5.61E-04	4.05E-05	5.95E-03	6.09E-03	-4.46E-03
Contribution to hazardous waste disposed	kg	2.60E+01	2.58E+01	0*	0*	1.38E-01	5.02E-02	-5.31E+00
Contribution to non hazardous waste disposed	kg	2.86E+00	1.92E+00	4.83E-04	1.90E-02	8.56E-01	7.23E-02	-1.08E-01
Contribution to radioactive waste disposed	kg	1.54E-03	1.35E-03	9.44E-05	0*	9.25E-05	3.56E-06	-5.02E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	6.21E-02	7.55E-03	0*	0*	0*	5.46E-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	5.81E-04	7.80E-05	0*	0*	0*	5.03E-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 de C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	5.81E-03

Mandatory Indicators		iEM2455 100A CI 1 MID Energy meter RS485 - A9MEM2455							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	7.21E+00	0*	0*	0*	0*	0*	7.21E+00	0*
Contribution to climate change-fossil	kg CO2 eq	7.21E+00	0*	0*	0*	0*	0*	7.21E+00	0*
Contribution to climate change-biogenic	kg CO2 eq	5.15E-03	0*	0*	0*	0*	0*	5.15E-03	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	3.26E-08	0*	0*	0*	0*	0*	3.26E-08	0*
Contribution to acidification	mol H+ eq	3.99E-02	0*	0*	0*	0*	0*	3.99E-02	0*
Contribution to eutrophication, freshwater	kg (PO4)³⁻ eq	2.85E-05	0*	0*	0*	0*	0*	2.85E-05	0*
Contribution to eutrophication marine	kg N eq	4.72E-03	0*	0*	0*	0*	0*	4.72E-03	0*
Contribution to eutrophication, terrestrial	mol N eq	6.45E-02	0*	0*	0*	0*	0*	6.45E-02	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.52E-02	0*	0*	0*	0*	0*	1.52E-02	0*
Contribution to resource use, minerals and metals	kg Sb eq	5.05E-07	0*	0*	0*	0*	0*	5.05E-07	0*
Contribution to resource use, fossils	MJ	2.17E+02	0*	0*	0*	0*	0*	2.17E+02	0*
Contribution to water use	m³ eq	2.56E-01	0*	0*	0*	0*	0*	2.56E-01	0*

Inventory flows Indicators		iEM2455 100A CI 1 MID Energy meter RS485 - A9MEM2455							
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	3.32E+01	0*	0*	0*	0*	0*	3.32E+01	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	3.32E+01	0*	0*	0*	0*	0*	3.32E+01	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.17E+02	0*	0*	0*	0*	0*	2.17E+02	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	2.17E+02	0*	0*	0*	0*	0*	2.17E+02	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	m³	5.95E-03	0*	0*	0*	0*	0*	5.95E-03	0*
Contribution to hazardous waste disposed	kg	1.38E-01	0*	0*	0*	0*	0*	1.38E-01	0*
Contribution to non hazardous waste disposed	kg	8.56E-01	0*	0*	0*	0*	0*	8.56E-01	0*
Contribution to radioactive waste disposed	kg	9.25E-05	0*	0*	0*	0*	0*	9.25E-05	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 v6.2, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 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.

Registration number :	ENVPEP2406006_V1	Drafting rules	PCR-4-ed4-EN-2021 09 06
Date of issue	06-2024	Supplemented by Information and reference documents	PSR-0005-ed3.1-EN-2023 12 08 <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14021 : 2016			
Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>			
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)			
PEPs are compliant with XP C08-100-1:2016 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 14021:2016 "Environmental labels and declarations. Type II environmental declarations"			

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