

Product Environmental Profile

PowerLogic™ Solid-Core Current Transformer – 4000A/5A (Horizontal/Vertical Busbar Applications)



Schneider
 **Electric**

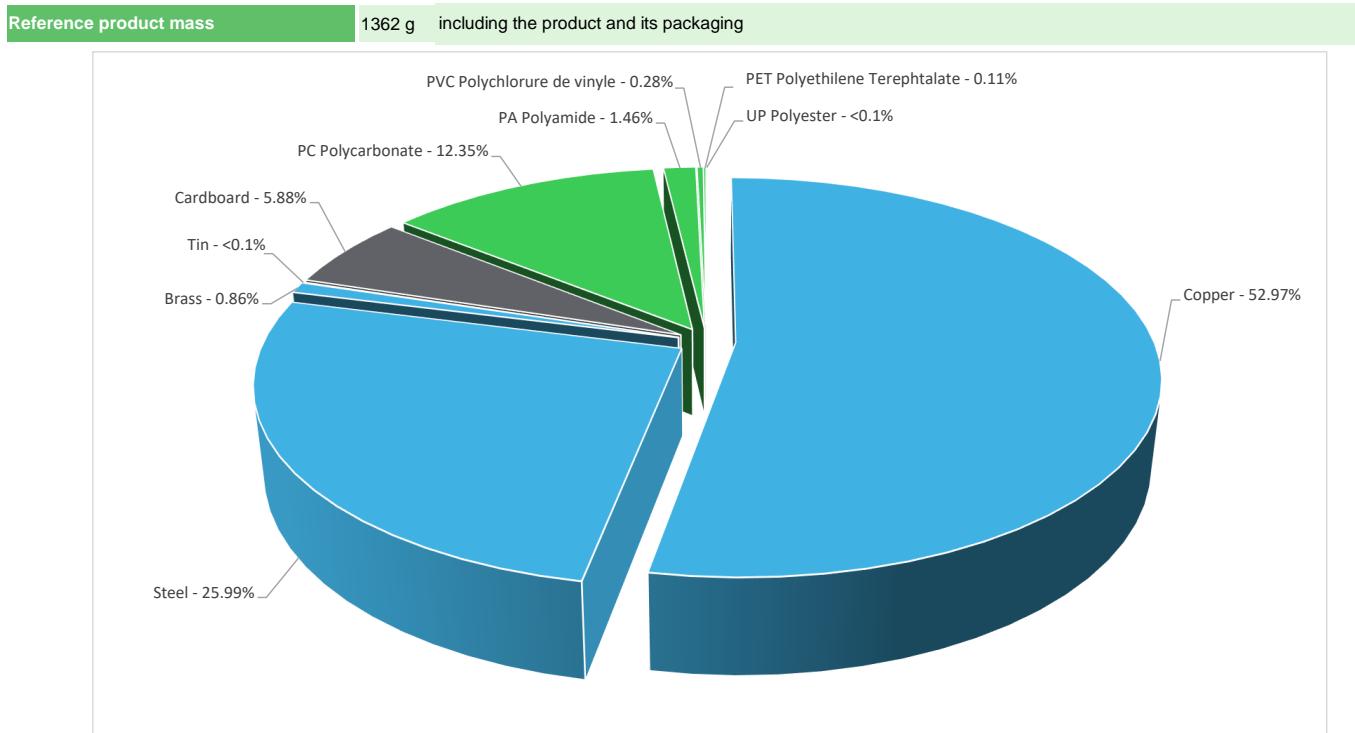


General information

Reference product	PowerLogic™ Solid-Core Current Transformer – 4000A/5A (Horizontal/Vertical Busbar Applications) - METSECT5DC400
Description of the product	The METSECT5DC400 is a tropicalised current transformer designed specifically for busbar applications in low-voltage electrical systems. It features a primary current rating of 4000 A and provides a standardized secondary output of 5 A. The transformer is compatible with busbars sized 127 x 54 mm.
Description of the range	Single product
Functional unit	To measure electrical current up to 4000 A in low-voltage systems and provide a standardized 5 A secondary output for monitoring and metering purposes. The product is designed for easy installation on busbars, supports large conductor profiles, and ensures reliable operation over a service life of 20 years.
Specifications are:	Primary Rated Current: 4000 A Secondary Rated Current: 5 A Rated Operating Voltage: < 720 V Frequency: 50 / 60 Hz Pollution Degree: 2 IP degree of protection: IP20 in accordance with the standard IEC 60529



Constituent materials



Plastics	14.2%
Metals	79.9%
Others	5.9%



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:	83%	The recyclability rate was calculated from the recycling rates of each material making up the product based on REEECY'LAB 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	20 years				
Product category	Other equipments - Passive product - continuous operation				
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	Power Dissipation 10.19 W, Load rate 60% of In and Use time rate 90%				
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		End-of-life
	Italy		Global		Global
	[A1 - A3]		[A5]	[B6]	[C1 - C4]
Energy model used	Electricity Mix; Low voltage; 2020; Europe, EU-27		No energy used	Electricity Mix; Low voltage; 2020; Brazil, BR	Global, European and French datasets are used.
				Electricity Mix; Low voltage; 2020; Asia Pacific, APAC	
				Electricity Mix; Low voltage; 2020; Mexico, MX	
				Electricity Mix; Low voltage; 2020; Indonesia, ID	
				Electricity Mix; Low voltage; 2020; Spain, ES	

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		PowerLogic™ Solid-Core Current Transformer – 4000A/5A (Horizontal/Vertical Busbar Applications) - METSECT5DC400						
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	2.83E+02	1.07E+01	1.04E+00	1.52E-01	2.69E+02	1.93E+00	-2.90E+00
Contribution to climate change-fossil	kg CO2 eq	2.81E+02	1.05E+01	1.04E+00	0*	2.68E+02	1.92E+00	-2.76E+00
Contribution to climate change-biogenic	kg CO2 eq	1.61E+00	1.69E-01	0*	1.24E-01	1.31E+00	7.29E-03	-1.42E-01
Contribution to climate change-land use and land use change	kg CO2 eq	2.55E-04	2.54E-04	0*	0*	0*	5.31E-07	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	7.11E-06	5.00E-06	9.19E-07	1.02E-09	1.15E-06	4.59E-08	-6.52E-07
Contribution to acidification	mol H+ eq	1.88E+00	1.72E-01	4.53E-03	0*	1.70E+00	8.12E-03	-1.23E-01
Contribution to eutrophication, freshwater	kg P eq	1.64E-04	2.98E-05	1.22E-07	3.27E-08	1.29E-04	4.57E-06	-4.06E-06
Contribution to eutrophication, marine	kg N eq	2.04E-01	1.46E-02	2.08E-03	4.23E-05	1.86E-01	1.55E-03	-2.47E-03
Contribution to eutrophication, terrestrial	mol N eq	2.91E+00	1.59E-01	2.25E-02	5.57E-04	2.71E+00	1.80E-02	-2.90E-02
Contribution to photochemical ozone formation - human health	kg COVNM eq	6.74E-01	5.92E-02	7.39E-03	1.19E-04	6.03E-01	4.82E-03	-1.60E-02
Contribution to resource use, minerals and metals	kg Sb eq	1.49E-03	1.41E-03	0*	0*	7.97E-05	2.50E-07	-1.55E-03
Contribution to resource use, fossils	MJ	4.80E+03	1.77E+02	1.30E+01	5.10E-01	4.58E+03	2.40E+01	-5.68E+01
Contribution to water use	m3 eq	2.77E+01	7.92E+00	5.29E-02	0*	1.95E+01	2.80E-01	-6.20E+00

Inventory flows Indicators		PowerLogic™ Solid-Core Current Transformer – 4000A/5A (Horizontal/Vertical Busbar Applications) - METSECT5DC400							
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 renewable primary energy used as energy	MJ	1.50E+03	8.77E+00	0*	0*	1.49E+03	1.78E+00	-3.22E+00	
Contribution to renewable primary energy used as raw material	MJ	1.61E+00	1.61E+00	0*	0*	0*	0*	0.00E+00	
Contribution to total renewable primary energy	MJ	1.51E+03	1.04E+01	0*	0*	1.49E+03	1.78E+00	-3.22E+00	
Contribution to non renewable primary energy used as energy	MJ	4.79E+03	1.71E+02	1.30E+01	5.10E-01	4.58E+03	2.40E+01	-5.68E+01	
Contribution to non renewable primary energy used as raw material	MJ	6.67E+00	6.67E+00	0*	0*	0*	0*	0.00E+00	
Contribution to total non renewable primary energy	MJ	4.80E+03	1.77E+02	1.30E+01	5.10E-01	4.58E+03	2.40E+01	-5.68E+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 fresh water	m³	6.48E-01	1.84E-01	1.23E-03	0*	4.54E-01	8.24E-03	-1.44E-01	
Contribution to hazardous waste disposed	kg	1.14E+02	1.08E+02	0*	3.00E-02	6.39E+00	1.61E-02	-1.20E+02	
Contribution to non hazardous waste disposed	kg	5.82E+01	4.76E+00	0*	0*	5.22E+01	1.22E+00	-1.20E+00	
Contribution to radioactive waste disposed	kg	9.43E-03	2.49E-03	2.07E-04	1.52E-06	6.66E-03	6.88E-05	-6.13E-04	
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00	
Contribution to materials for recycling	kg	1.21E+00	1.61E-01	0*	0*	0*	1.05E+00	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	1.19E-02	1.51E-03	0*	0*	0*	1.04E-02	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 2.22E-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		PowerLogic™ Solid-Core Current Transformer – 4000A/5A (Horizontal/Vertical Busbar Applications) - METSECT5DC400							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	2.69E+02	0*	0*	0*	0*	0*	2.69E+02	0*
Contribution to climate change-fossil	kg CO2 eq	2.68E+02	0*	0*	0*	0*	0*	2.68E+02	0*
Contribution to climate change-biogenic	kg CO2 eq	1.31E+00	0*	0*	0*	0*	0*	1.31E+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	1.15E-06	0*	0*	0*	0*	0*	1.15E-06	0*
Contribution to acidification	mol H+ eq	1.70E+00	0*	0*	0*	0*	0*	1.70E+00	0*
Contribution to eutrophication, freshwater	kg P eq	1.29E-04	0*	0*	0*	0*	0*	1.29E-04	0*
Contribution to eutrophication marine	kg N eq	1.86E-01	0*	0*	0*	0*	0*	1.86E-01	0*
Contribution to eutrophication, terrestrial	mol N eq	2.71E+00	0*	0*	0*	0*	0*	2.71E+00	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	6.03E-01	0*	0*	0*	0*	0*	6.03E-01	0*
Contribution to resource use, minerals and metals	kg Sb eq	7.97E-05	0*	0*	0*	0*	0*	7.97E-05	0*
Contribution to resource use, fossils	MJ	4.58E+03	0*	0*	0*	0*	0*	4.58E+03	0*
Contribution to water use	m³ eq	1.95E+01	0*	0*	0*	0*	0*	1.95E+01	0*

Inventory flows Indicators		PowerLogic™ Solid-Core Current Transformer – 4000A/5A (Horizontal/Vertical Busbar Applications) - METSECT5DC400							
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	1.49E+03	0*	0*	0*	0*	0*	1.49E+03	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	1.49E+03	0*	0*	0*	0*	0*	1.49E+03	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.58E+03	0*	0*	0*	0*	0*	4.58E+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	4.58E+03	0*	0*	0*	0*	0*	4.58E+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	m³	4.54E-01	0*	0*	0*	0*	0*	4.54E-01	0*
Contribution to hazardous waste disposed	kg	6.39E+00	0*	0*	0*	0*	0*	6.39E+00	0*
Contribution to non hazardous waste disposed	kg	5.22E+01	0*	0*	0*	0*	0*	5.22E+01	0*
Contribution to radioactive waste disposed	kg	6.66E-03	0*	0*	0*	0*	0*	6.66E-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 v6.2.2-5, 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.

Registration number :	ENVPEP2511027_V1	Drafting rules Supplemented by Information and reference documents	PEP-PCR-ed4-2021 09 06 PSR-0005-ed3.1-EN-2023 12 08 www.pep-ecopassport.org
Date of issue	11-2025	Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14021 : 2016			
Internal	X	External	
<p>The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)</p> <p>PEPs are compliant with NF C08-100-1:2022 and EN 50693:2019 or NF E38-500 :2022</p> <p>The components of the present PEP may not be compared with components from any other program.</p> <p>Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations"</p>			

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