

# Product Environmental Profile

## MINIATURE CIRCUIT BREAKER

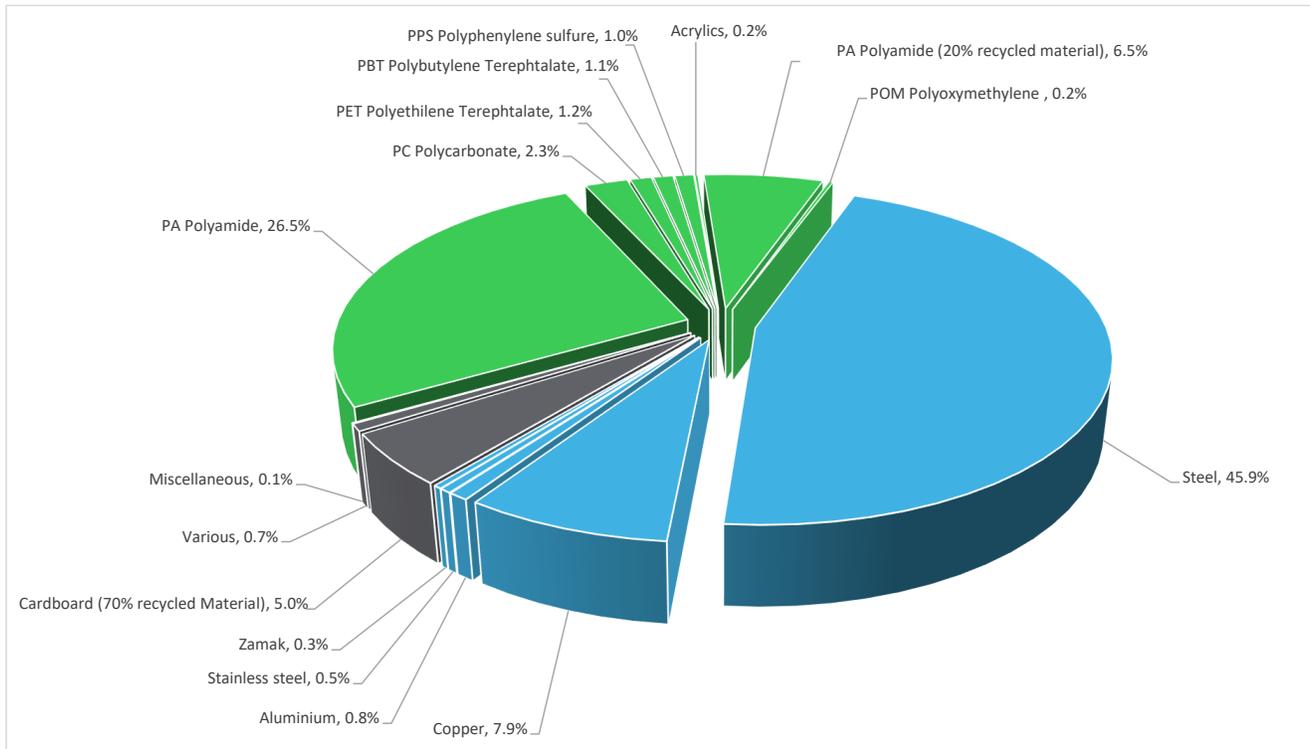


## General information

Reference product	MINIATURE CIRCUIT BREAKER - EZ9F57116
Description of the product	The MCB provides protection against overcurrent and overload in low voltage distribution systems. It is mainly used for household or similar applications.
Functional unit	Protect the installation from overloads and short circuits in a circuit with rated voltage [Ue] 240V, rated current [In] 16A, with [Np] single pole, a rated breaking capacity [Icn] 6000A in the Household/Commercial application area, according to the appropriate use scenario, and during the reference service life of the product of 20 years in accordance to an standard IEC 60898.

## Constituent materials

Reference product mass	121 g including the product, its packaging and additional elements and accessories
------------------------	--



Plastics	38.9%
Metals	55.4%
Others	5.7%

## 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

End Of Life	Recyclability potential:	57%	Recyclability rate has been calculated based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).
-------------	--------------------------	-----	--


**Environmental impacts**

Reference service life time	20 years			
Product category	Circuit-breakers			
Installation elements	The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).			
Use scenario	Load rate: 50% of 16A In Use time rate: 30% of the time over 20 years (RLT)			
Technological representativeness	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production.			
Geographical representativeness	Turkey and KSA			
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; TR	Electricity Mix; Production mix; Low voltage; TR	Electricity Mix; Production mix; Low voltage; TR

Detailed results, including all the impact 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			MINIATURE CIRCUIT BREAKER - EZ9F57116					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change	kg CO2 eq	2.14E+01	6.76E-01	3.49E-02	1.09E-02	2.04E+01	3.12E-01	-1.08E+00
Contribution to climate change-fossil	kg CO2 eq	2.14E+01	6.71E-01	3.49E-02	1.04E-02	2.04E+01	3.10E-01	-1.07E+00
Contribution to climate change-biogenic	kg CO2 eq	2.29E-02	5.55E-03	0*	4.84E-04	1.49E-02	1.93E-03	-5.90E-03
Contribution to climate change-land use and land use change	kg CO2 eq	3.21E-08	0*	0*	0*	0*	3.21E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	2.06E-07	8.11E-08	3.08E-08	7.20E-10	9.12E-08	1.95E-09	-1.67E-07
Contribution to acidification	mol H+ eq	1.28E-01	7.08E-03	1.52E-04	4.32E-05	1.20E-01	8.28E-04	-7.97E-03
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	7.77E-05	9.07E-06	0*	7.86E-08	8.97E-08	6.84E-05	6.67E-08
Contribution to eutrophication marine	kg N eq	1.50E-02	1.02E-03	6.97E-05	1.14E-05	1.37E-02	1.45E-04	-6.15E-04
Contribution to eutrophication, terrestrial	mol N eq	1.71E-01	1.12E-02	7.55E-04	8.64E-05	1.57E-01	1.69E-03	-7.23E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	4.99E-02	3.30E-03	2.47E-04	2.31E-05	4.58E-02	5.28E-04	-2.63E-03
Contribution to resource use, minerals and metals	kg Sb eq	1.39E-04	1.36E-04	0*	0*	5.67E-07	1.93E-06	-3.35E-04
Contribution to resource use, fossils	MJ	3.39E+02	1.20E+01	4.24E-01	1.13E-01	3.14E+02	1.17E+01	-2.41E+01
Contribution to water use	m3 eq	8.80E-01	0*	1.77E-03	4.65E-03	7.69E-01	1.21E-01	-5.65E-01

Inventory flows Indicators			MINIATURE CIRCUIT BREAKER - EZ9F57116					
Inventory flows	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	6.07E+01	2.08E-01	0*	8.13E-03	6.05E+01	4.70E-02	-3.32E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	4.68E-02	4.68E-02	0*	0*	0*	0*	9.79E-02
Contribution to total use of renewable primary energy resources	MJ	6.08E+01	2.55E-01	0*	8.13E-03	6.05E+01	4.70E-02	-2.34E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.38E+02	1.10E+01	4.24E-01	1.13E-01	3.14E+02	1.17E+01	-2.43E+01

Contribution to use of non renewable primary energy resources used as raw material	MJ	1.01E+00	1.01E+00	0*	0*	0*	0*	1.81E-01
Contribution to total use of non-renewable primary energy resources	MJ	3.39E+02	1.20E+01	4.24E-01	1.13E-01	3.14E+02	1.17E+01	-2.41E+01
Contribution to use of secondary material	kg	1.18E-02	1.18E-02	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	2.05E-02	0*	4.12E-05	1.08E-04	1.79E-02	2.82E-03	-1.32E-02
Contribution to hazardous waste disposed	kg	7.87E+00	7.28E+00	0*	0*	4.73E-01	1.17E-01	-2.66E+01
Contribution to non hazardous waste disposed	kg	3.80E+00	4.72E-01	0*	3.54E-02	3.24E+00	4.63E-02	-8.21E-01
Contribution to radioactive waste disposed	kg	6.88E-04	2.37E-04	6.93E-06	4.75E-06	4.37E-04	2.26E-06	-4.72E-04
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	7.05E-02	0*	0*	5.98E-03	0*	6.46E-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	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the product	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00

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

Life cycle assessment performed with EIME version 5.9.4, database version 2022-01 in compliance with ISO14044.

Detailed results, including all 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>

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-01058-V01.01-EN	Drafting rules	PEP-PCR-ed4-2021 09 06
Verifier accreditation N°	VH39	Supplemented by	PSR-0005-ed2-2016 03 29
Date of issue	01/2024	Information and reference documents	<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 14025 : 2006			
Internal	External	X	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019 or NF E38-500 :2022			
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14025 : 2006 « Environmental labels and declarations. Type III environmental declarations »			



Schneider Electric Industries SAS  
Country Customer Care Center  
<http://www.se.com/contact>  
35, rue Joseph Monier  
CS 30323  
F- 92500 Rueil Malmaison Cedex  
RCS Nanterre 954 503 439  
Capital social 928 298 512 €

[www.se.com](http://www.se.com)

SCHN-01058-V01.01-EN

Published by Schneider Electric

©2023 - Schneider Electric – All rights reserved

01/2024