

Product Environmental Profile

MAX9 MINIATURE CIRCUIT BREAKER





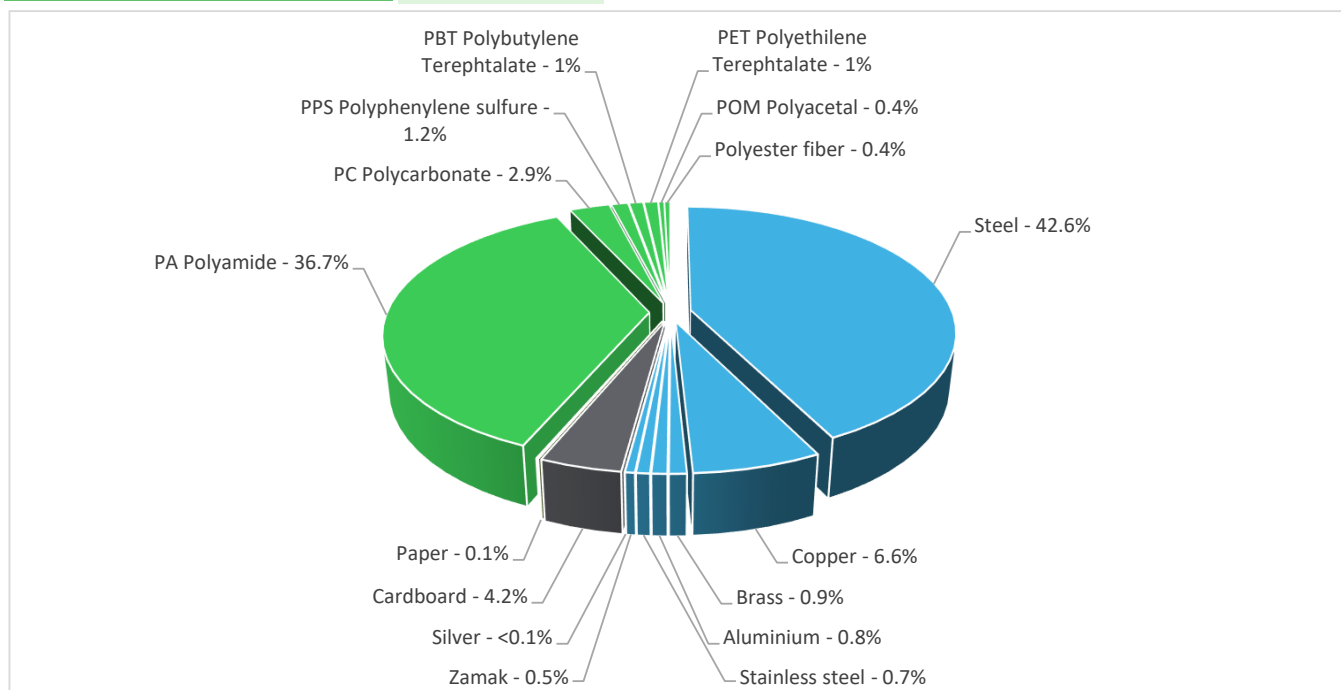
General information

Representative product	MAX9 MINIATURE CIRCUIT BREAKER - MX9MC216
Description of the product	MAX9 MCB are multi-standard circuit breakers which protect against short-circuit and overload currents.
Functional unit	<p>Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 415 V and rated current 16 A. This protection is ensured in accordance with the following parameters:</p> <ul style="list-style-type: none"> - Number of poles 2P - Rated breaking capacity 6000 A - Tripping curve C - IP20 in accordance with the standard IEC 60529



Constituent materials

Reference product mass	231.86 g	including the product, its packaging.
------------------------	----------	---------------------------------------



Plastics	43.6%
Metals	52.1%
Others	4.3%



Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this Directive.

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website

<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page>



Additional environmental information

The MAX9 MINIATURE CIRCUIT BREAKER presents the following relevant environmental aspects

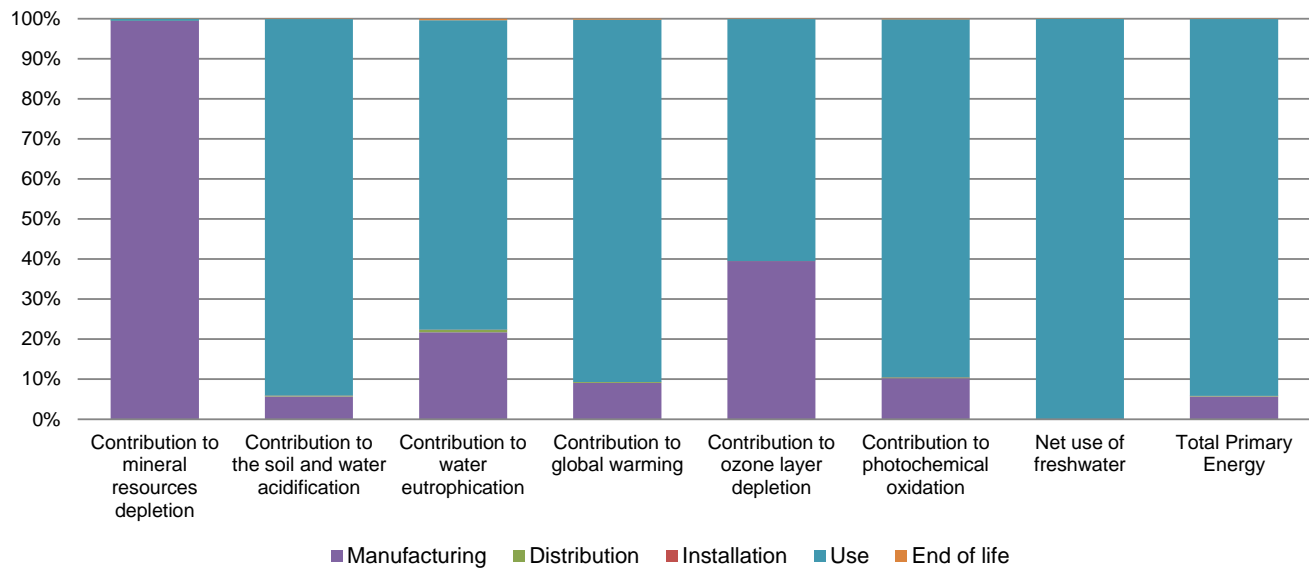
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 10.8 g, consisting of cardboard (94.83%), paper (5.17%)
Installation	Reference MX9MC116 does not require any installation operations.
Use	The product does not require special maintenance operations.
End of life	<p>End of life optimized to decrease the amount of waste and allow recovery of the product components and materials</p> <p>No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process.</p> <p>Recyclability potential: 51% Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).</p>



Environmental impacts

Reference life time	20 years			
Product category	Circuit-breakers			
Installation elements	No special components needed			
Use scenario	Load rate: 50% of In Use time rate: 30% of RLT			
Geographical representativeness	Europe			
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.			
Energy model used	Manufacturing	Installation	Use	End of life
	Manufacturing plant location: France	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		MAX9 MINIATURE CIRCUIT BREAKER - MX9MC216					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.32E-04	2.30E-04	0*	0*	1.29E-06	0*
Contribution to the soil and water acidification	kg SO ₂ eq	6.57E-02	3.74E-03	1.37E-04	0*	6.18E-02	6.82E-05
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	4.83E-03	1.05E-03	3.15E-05	5.93E-07	3.73E-03	1.91E-05
Contribution to global warming	kg CO ₂ eq	1.64E+01	1.49E+00	2.99E-02	0*	1.48E+01	3.64E-02
Contribution to ozone layer depletion	kg CFC11 eq	1.60E-06	6.32E-07	0*	0*	9.65E-07	1.54E-09
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	3.80E-03	3.89E-04	9.75E-06	0*	3.39E-03	7.11E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5.37E+01	1.49E-02	0*	0*	5.37E+01	0*
Total Primary Energy	MJ	3.14E+02	1.79E+01	4.23E-01	0*	2.96E+02	3.31E-01



Optional indicators		MAX9 MINIATURE CIRCUIT BREAKER - MX9MC216					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.79E+02	1.02E+01	4.20E-01	0*	1.68E+02	2.66E-01
Contribution to air pollution	m³	9.89E+02	3.48E+02	1.27E+00	0*	6.37E+02	2.40E+00
Contribution to water pollution	m³	1.09E+03	4.75E+02	4.92E+00	0*	6.11E+02	2.90E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.35E-02	1.35E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3.80E+01	3.65E-01	0*	0*	3.76E+01	0*
Total use of non-renewable primary energy resources	MJ	2.76E+02	1.75E+01	4.22E-01	0*	2.58E+02	3.31E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3.79E+01	3.25E-01	0*	0*	3.76E+01	0*
Use of renewable primary energy resources used as raw material	MJ	4.01E-02	4.01E-02	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.74E+02	1.49E+01	4.22E-01	0*	2.58E+02	3.31E-01
Use of non renewable primary energy resources used as raw material	MJ	2.61E+00	2.61E+00	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	1.34E+01	1.31E+01	0*	0*	7.72E-03	3.36E-01
Non hazardous waste disposed	kg	5.61E+01	9.31E-01	0*	0*	5.52E+01	0*
Radioactive waste disposed	kg	3.74E-02	5.41E-04	0*	0*	3.69E-02	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.51E-01	2.34E-02	0*	1.08E-02	0*	1.17E-01
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	5.01E-03	0*	0*	0*	0*	5.01E-03
Exported Energy	MJ	3.42E-05	3.22E-06	0*	3.10E-05	0*	0*

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

Life cycle assessment performed with EIME version 5.8.1, database version 2016-11 in compliance with ISO14044.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators* (based on compulsory indicators).

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	ENVPEP2205015_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	11/2022	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Validity period	5 years	Information and reference documents	www.pep-ecopassport.org
Independent verification of the declaration and data			
Internal	X	External	
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »			

Schneider Electric Industries SAS
Country Customer Care Center
<http://www.schneider-electric.com/contact>
35, rue Joseph Monier
CS 30323
F- 92506 Rueil Malmaison Cedex
RCS Nanterre 954 503 439
Capital social 896 313 776 €

www.schneider-electric.com

Published by Schneider Electric

ENVPEP2205015_V1

© 2017 - Schneider Electric – All rights reserved

11/2022