Product Environmental Profile

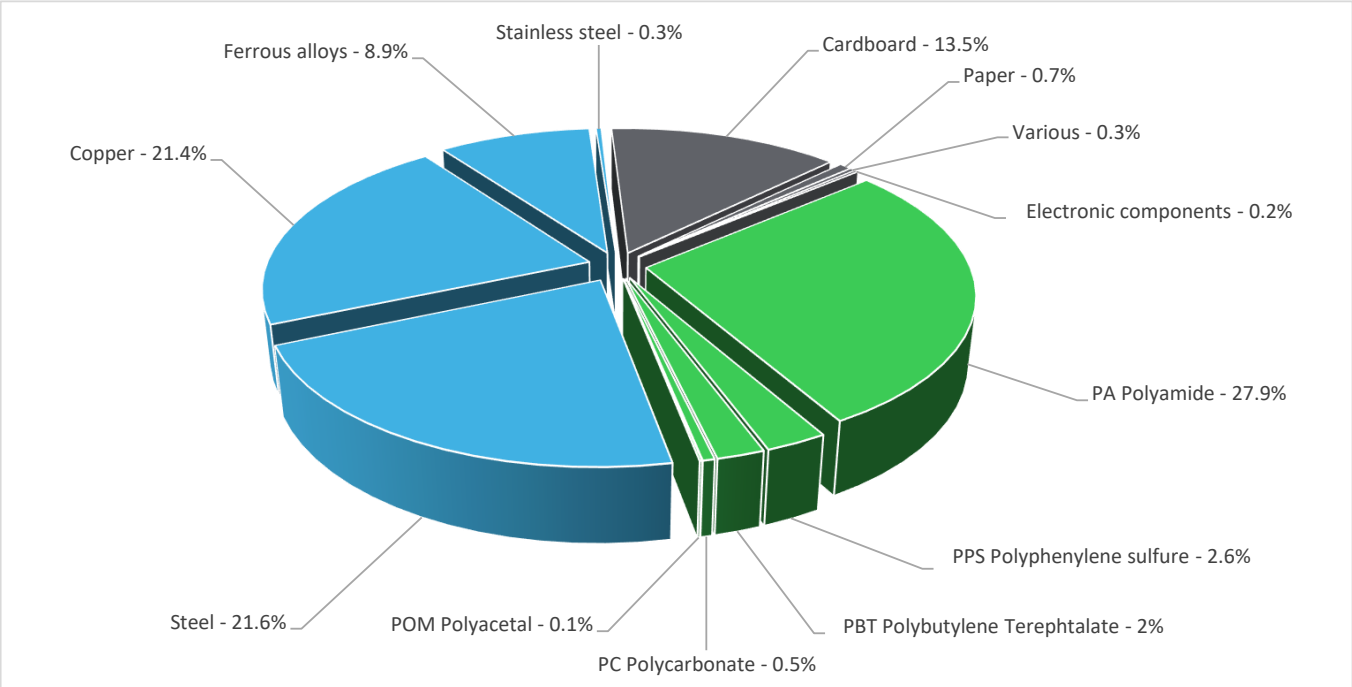
Easy9 Bico- Residual Current Circuit Breaker

General information

Representative product	Easy9 Bico- Residual Current Circuit Breaker - EZ9R35463
Description of the product	The main purpose of the Easy9 RCCB product range is to ensure protection of persons against electric shocks
Functional unit	Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 415V and rated current 63A. This protection is ensured in accordance with the following parameters: - Number of poles Np : 4 - Rated breaking capacity Icn : 630A

Constituent materials

Reference product mass	480 g	including the product, its packaging



Plastics	33.1%
Metals	52.2%
Others	14.7%

Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) 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), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate– BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) as mentioned in the 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

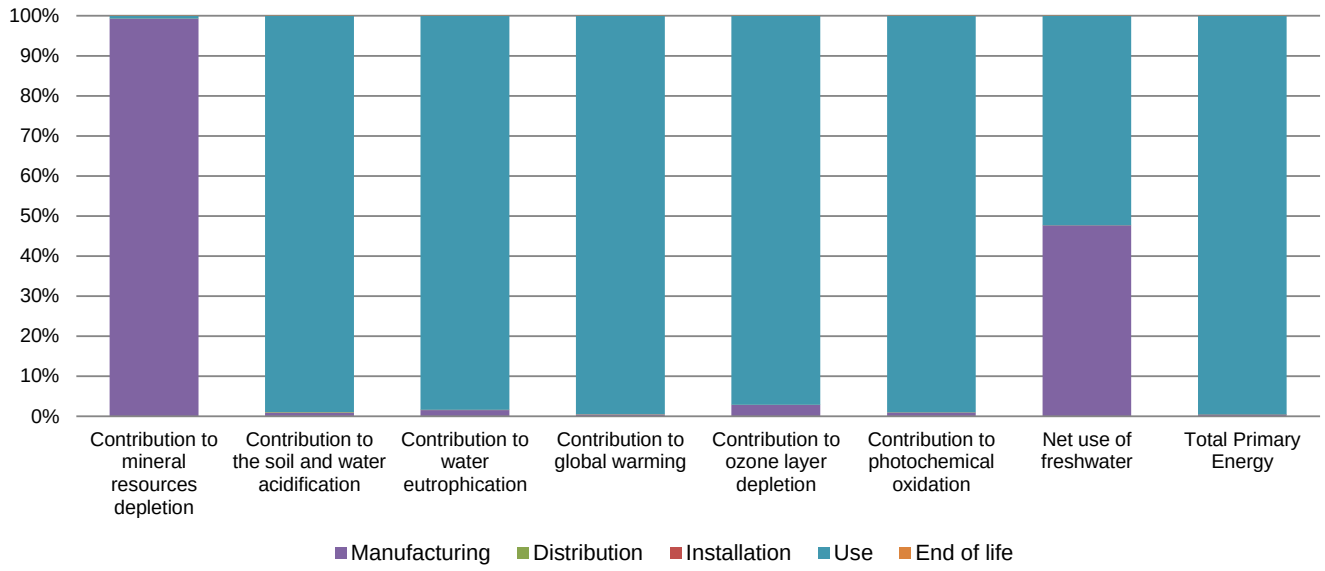
Additional environmental information

The Easy9 Bico- Residual Current Circuit Breaker presents the following relevent 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 65.8 g, consisting of Cardboard (98.7%) & Paper (1.3%) Product distribution optimised by setting up local distribution centres	
Installation	This product does not require special installation operation. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).	
Use	The product does not require special maintenance operations.	
End of life	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process. Recyclability potential: **52%**	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).

Environmental impacts

Reference life time	20 years			
Product category	Circuit-breakers			
Installation elements	This product does not requrie any special componets during installation			
Use scenario	The product is in active mode 30% of the time with a power use of 8.25W and in off mode 70% of the time with a power use of 0 W, for 20 years			
Geographical representativeness	India			
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**
	Manufacutring Plant Location: India	Electricity mix; AC; consumption mix, at consumer; 230V; IN	Electricity mix; AC; consumption mix, at consumer; 230V; IN	Electricity mix; AC; consumption mix, at consumer; 230V; IN

Compulsory indicators	**Easy9 Bico- Residual Current Circuit Breaker - EZ9R35463**						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	4.87E-04	4.84E-04	0*	0*	3.27E-06	0*
Contribution to the soil and water acidification	kg SO_2 eq	6.64E-01	6.11E-03	9.66E-04	0*	6.56E-01	1.25E-04
Contribution to water eutrophication	kg PO_4^{3-} eq	1.76E-01	2.69E-03	2.22E-04	0*	1.73E-01	3.46E-05
Contribution to global warming	kg CO_2 eq	6.31E+02	2.87E+00	2.15E-01	0*	6.27E+02	6.46E-02
Contribution to ozone layer depletion	kg CFC11 eq	1.80E-05	5.22E-07	0*	0*	1.75E-05	2.86E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	8.47E-02	7.52E-04	6.86E-05	0*	8.38E-02	1.31E-05
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1.31E+00	6.26E-01	0*	0*	6.86E-01	0*
Total Primary Energy	MJ	9.68E+03	4.09E+01	3.04E+00	0*	9.63E+03	0*



Optional indicators		Easy9 Bico- Residual Current Circuit Breaker - EZ9R35463					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	8.95E+03	2.81E+01	3.02E+00	0*	8.92E+03	0*
Contribution to air pollution	m³	6.29E+04	8.68E+02	8.81E+00	0*	6.20E+04	0*
Contribution to water pollution	m³	3.21E+04	7.05E+02	3.54E+01	0*	3.14E+04	5.27E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	7.82E-02	7.82E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4.52E+02	1.26E+00	0*	0*	4.51E+02	0*
Total use of non-renewable primary energy resources	MJ	9.22E+03	3.97E+01	3.04E+00	0*	9.18E+03	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.52E+02	1.01E+00	0*	0*	4.51E+02	0*
Use of renewable primary energy resources used as raw material	MJ	2.47E-01	2.47E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	9.22E+03	3.60E+01	3.04E+00	0*	9.18E+03	0*
Use of non renewable primary energy resources used as raw material	MJ	3.70E+00	3.70E+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	4.40E+01	2.47E+01	0*	0*	1.88E+01	6.15E-01
Non hazardous waste disposed	kg	1.06E+02	2.38E+00	0*	0*	1.04E+02	0*
Radioactive waste disposed	kg	8.22E-03	8.19E-04	5.44E-06	0*	7.39E-03	2.95E-06
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7.65E-01	4.84E-01	0*	6.55E-02	0*	2.16E-01
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	8.43E-03	0*	0*	0*	0*	8.43E-03
Exported Energy	MJ	2.08E-04	1.96E-05	0*	1.89E-04	0*	0*

** 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 2020-12 in compliance with ISO14044.

The Manufacturing phase is impacting on Indicators Abiotic depletion (elements, ultimate reserves) (ADPe for EN15804).The Manufacturing phase & Use phase are impacting equally on indicator of Net use of freshwater.The Use phase is impacting on the Indicators of Acidification potential of soil and water (total average for Europe) (A for PEP), Eutrophication (fate not incl.) (EP for EN15804), Photochemical oxidation (high NOx) (POCP for EN15804) & Global warming (GWP100) (GWP for EN15804), Ozone layer depletion ODP steady state (ODP for EN15804) & Total Prime Energy.

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	ENVPEP2212025_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	02/2023	*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) »

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