Product Environmental Profile

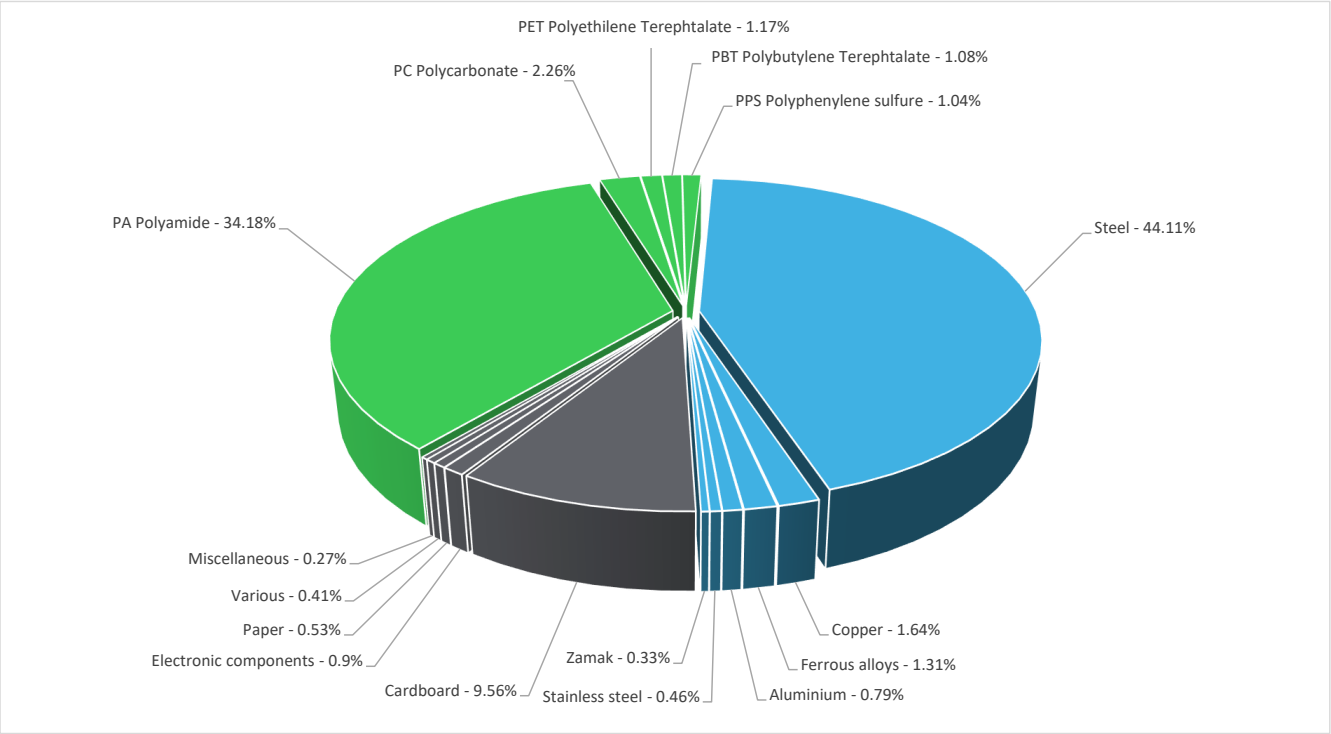
Easy9 BICO - MINIATURE CIRCUIT BREAKER

General information

Reference product	Easy9 MCB 1P 16A C 6000A 240V - EZ9F76116
Description of the product	The Easy9 Bico Miniature Circuit Breaker provides protection of installation against short circuits and overload.
Functional unit	Protect during 20 years the installation against overloads and short-circuits in circuit with an assigned voltage [U] of 240 V AC and rated current [In] of 16 A. This protection is ensured in accordance with the following parameters: - Number of poles [Np] - 1P - Rated breaking capacity [Icn] - 6000 A - Tripping curve [Cd] - C - Degree of protection against the ingress of solid foreign objects and water with harmful effects in accordance with the standard IEC 60529 - IP20 This product complies with the IEC 60898-1 standard.

Constituent materials

Reference product mass	121.6 g	including the product, its packaging and additional elements and accessories



	Metals	48.6%
	Plastics	39.7%
	Others	11.7%

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:	**54%**	Recyclability rate has been calculated based on REEECY'LAB 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 product does not require special installation procedure and requires little to no energy to install.			
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	India			
Energy model used	**[A1 - A3]**	**[A5]**	**[B6]**	**[C1 - C4]**
	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; IN

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		Easy9 BICO - MINIATURE CIRCUIT BREAKER - EZ9F76116						
Impact indicators	Unit	Total	Manufacturing [A1 - A3]	Distribution [A4]	Installation [A5]	Use [B1 - B7]	End of Life [C1 - C4]	Loads and Benefits [D]
Contribution to climate change	kg CO2 eq	4.85E+01	6.73E-01	6.01E-02	2.15E-02	4.75E+01	2.96E-01	-2.34E-01
Contribution to climate change-fossil	kg CO2 eq	4.85E+01	6.66E-01	6.01E-02	2.06E-02	4.74E+01	2.96E-01	-2.33E-01
Contribution to climate change-biogenic	kg CO2 eq	1.24E-02	6.40E-03	0*	9.56E-04	4.61E-03	4.87E-04	-1.50E-03
Contribution to climate change-land use and land use change	kg CO2 eq	6.54E-09	0*	0*	0*	0*	6.54E-09	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	3.54E-07	7.81E-08	9.20E-11	1.42E-09	2.73E-07	1.21E-09	-3.51E-08
Contribution to acidification	mol H+ eq	3.68E-01	3.93E-03	3.82E-04	8.54E-05	3.63E-01	6.59E-04	-1.66E-03
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	2.90E-05	1.07E-05	2.25E-08	1.55E-07	4.19E-06	1.40E-05	-4.68E-07
Contribution to eutrophication marine	kg N eq	3.93E-02	4.74E-04	1.79E-04	2.26E-05	3.85E-02	1.47E-04	-1.42E-04
Contribution to eutrophication, terrestrial	mol N eq	4.52E-01	5.20E-03	1.96E-03	1.71E-04	4.43E-01	1.29E-03	-1.61E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.31E-01	1.69E-03	4.95E-04	4.56E-05	1.28E-01	4.34E-04	-5.71E-04
Contribution to resource use, minerals and metals	kg Sb eq	1.20E-04	1.20E-04	0*	0*	3.21E-07	3.98E-07	-6.62E-05
Contribution to resource use, fossils	MJ	7.71E+02	1.19E+01	8.37E-01	2.24E-01	7.47E+02	1.12E+01	-5.00E+00
Contribution to water use	m3 eq	2.68E+00	0*	0*	9.19E-03	2.10E+00	6.99E-01	-1.09E-01

Inventory flows Indicators		Easy9 BICO - MINIATURE CIRCUIT BREAKER - EZ9F76116						
Inventory flows	Unit	Total	Manufact. [A1 - A3]	Distribution [A4]	Installation [A5]	Use [B1 - B7]	End of Life [C1 - C4]	Loads and Benefits [D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.18E+01	1.82E-01	0*	1.61E-02	4.16E+01	1.29E-02	-1.01E-02
Contribution to use of renewable primary energy resources used as raw material	MJ	8.40E-02	8.40E-02	0*	0*	0*	0*	-7.17E-02
Contribution to total use of renewable primary energy resources	MJ	4.19E+01	2.66E-01	0*	1.61E-02	4.16E+01	1.29E-02	-8.17E-02
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7.70E+02	1.06E+01	8.37E-01	2.24E-01	7.47E+02	1.12E+01	-5.00E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.22E+00	1.22E+00	0*	0*	0*	0*	0.00E+00

Contribution to total use of non-renewable primary energy resources	MJ	7.71E+02	1.19E+01	8.37E-01	2.24E-01	7.47E+02	1.12E+01	-5.00E+00
Contribution to use of secondary material	kg	8.65E-03	8.65E-03	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	m^3	6.43E-02	0*	0*	2.14E-04	4.89E-02	1.81E-02	-2.53E-03
Contribution to hazardous waste disposed	kg	7.49E+00	5.92E+00	0*	0*	1.46E+00	1.08E-01	-5.26E+00
Contribution to non hazardous waste disposed	kg	8.99E+00	6.34E-01	2.11E-03	7.00E-02	8.24E+00	4.68E-02	-2.90E-01
Contribution to radioactive waste disposed	kg	5.75E-04	2.66E-04	1.50E-06	9.39E-06	2.96E-04	2.22E-06	-9.67E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	6.74E-02	0*	0*	1.18E-02	0*	5.55E-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 v5.9.4, 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 :	ENVPEP2402003_V1-EN	*Drafting rules*	PEP-PCR-ed4-2021 09 06
Validity period	5 years	*Supplemented by*	PSR-0005-ed2-2016 03 29
Date of issue	03/2024	*Information and reference documents*	www.pep-ecopassport.org

Independent verification of the declaration and data, in compliance with ISO 14021 : 2016

Internal X External

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

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. Type II environmental declarations »

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