Product Environmental Profile

Acti9 - iC60 - Residual current breaker with overcurrent protection - 2P - 16A - C curve - 10000A/15kA - A type - 30mA

Representative of all Residual current breaker with overcurrent protection (RCBO) Acti9 iC60

PEP ecoPASSPORT®

SGS Italia S.p.A.
Via Caldera, 21
20153 MILANO

VERIFIED

DATE: 2024-11-28

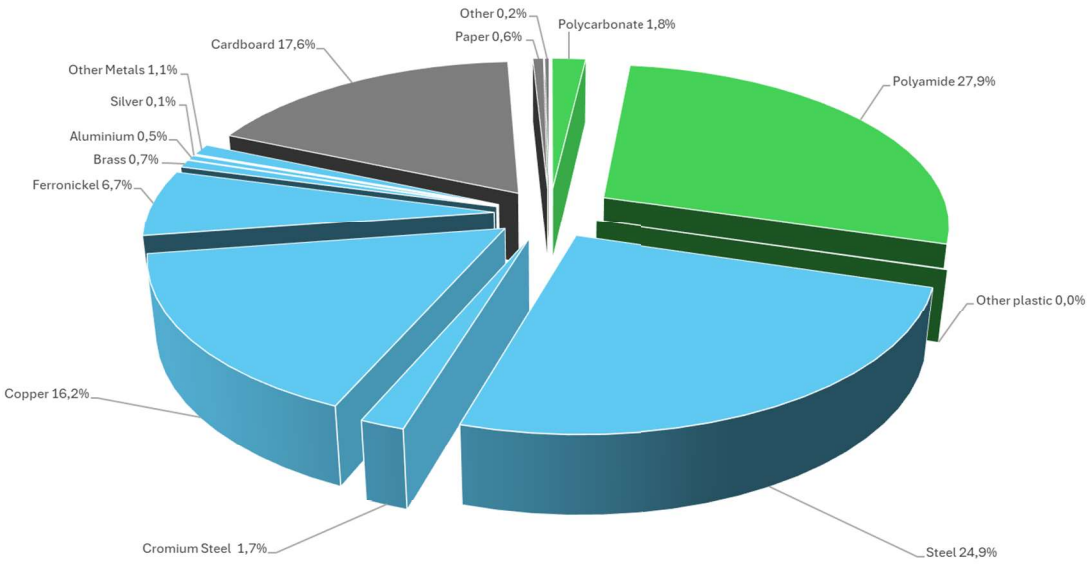
Schneider Electric

General information

Reference product	Residual current breaker with overcurrent protection (RCBO), Acti9 iC60, 2P, 16A, C curve, 10000A/15kA, A type, 30mA - A9D17216
Description of the product	The RCBO Acti9 iC60 provides a protection for final circuits against overcurrents and insulation fault
Description of the range	The products of the range are: All other Residual current breaker with overcurrent protection iC60
	The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology.
Functional unit	Protect the installation from overloads and short circuits in a circuit with rated voltage 230/240 V (Ue), rated current 16 A (In), with 2P poles, a rated breaking capacity of 4500 A (Icn) or 6 kA (Icu), and the tripping curve C, in the Household/Commercial application area, according to the appropriate use scenario, and during the reference service life of the product of 20 years.

Constituent materials

Reference product mass	260 g	including the product and its packaging



	Plastics	29.7%
	Metals	51.9%
	Others	18.4%

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:	65%	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	Differential circuit breaker			
Manufacturing	The manufacturing takes place in three different countries: Italy, Germany and Portugal.			
Distribution	The average scenario for Europe is applied			
Installation elements	No special components needed. The End of Life of packaging material is modelled in accordance with Eurostat data 2022 for EU27			
Use scenario	Application area: Household / Commercial Load rate = 20 % 16A (In) Use rate = 30% over 20 years (RLT)			
End of Life	Based on Eurostat 2021 data (Waste_electrical_and_electronic_equipment_2023-10)			
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			
Geographical representativeness	Europe			
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Italy, IT (2022 Residual Mix) Germany, DE (2022 Residual Mix) Portugal, PT (2023 Supplier Mix)	Europe (2022 Country Mix)	Europe (2022 Country Mix)	Europe (2022 Country Mix)

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), 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		RCBO Acti9 iC60 - A9D17216						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Loads and Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to Climate change - total	kg CO2 eq	4.54E+00	2.45E+00	4.04E-02	2.18E-02	1.69E+00	3.36E-01	-7.53E+00
Contribution to Climate change - Fossil	kg CO2 eq	4.38E+00	2.43E+00	4.04E-02	5.51E-03	1.63E+00	2.75E-01	-7.49E+00
Contribution to Climate change - Biogenic	kg CO2 eq	1.50E-01	9.09E-03	1.32E-05	1.62E-02	6.42E-02	6.06E-02	-3.91E-02
Contribution to Climate change - Land use and LU change	kg CO2 eq	8.22E-03	3.05E-03	9.91E-07	2.22E-07	5.16E-03	7.28E-06	-6.85E-03
Contribution to Ozone depletion	kg CFC11 eq	4.92E-08	2.18E-08	8.24E-10	8.55E-11	2.57E-08	7.70E-10	-6.88E-08
Contribution to Acidification	mol H+ eq	5.80E-02	4.96E-02	1.01E-04	3.04E-05	8.14E-03	1.26E-04	-8.93E-02
Contribution to Eutrophication, freshwater	kg P eq	3.82E-04	2.22E-04	3.38E-08	1.65E-08	1.59E-04	1.39E-06	-1.57E-03
Contribution to Eutrophication, marine	kg N eq	4.96E-03	3.73E-03	3.85E-05	1.76E-05	1.05E-03	1.22E-04	-1.83E-02
Contribution to Eutrophication, terrestrial	mol N eq	5.71E-02	4.42E-02	4.22E-04	1.46E-04	1.19E-02	4.78E-04	-2.34E-01
Contribution to Photochemical ozone formation	kg NMVOC eq	1.83E-02	1.39E-02	1.75E-04	5.91E-05	3.94E-03	1.96E-04	-5.88E-02
Contribution to Resource use, minerals and metals	kg Sb eq	7.97E-04	7.97E-04	1.33E-09	2.51E-10	1.02E-07	3.90E-09	-8.43E-03
Contribution to Resource use, fossils	MJ	7.22E+01	3.16E+01	5.33E-01	7.04E-02	3.94E+01	5.37E-01	-9.15E+01
Contribution to Water use	m3 depriv.	1.97E+00	1.55E+00	2.26E-04	-1.76E-04	4.28E-01	-1.02E-02	-2.09E+00
Contribution to Particulate matter	disease inc.	2.17E-07	1.92E-07	2.65E-09	7.07E-10	1.87E-08	2.45E-09	-5.69E-07
Contribution to Ionising radiation	kBq U-235 eq	4.17E-01	6.01E-02	7.26E-05	7.06E-06	3.56E-01	2.81E-04	-2.37E-01
Contribution to Ecotoxicity, freshwater	CTUe	6.70E+01	6.05E+01	1.81E-02	1.15E-01	3.12E+00	3.23E+00	-5.65E+02
Contribution to Human toxicity, cancer	CTUh	4.41E-08	4.36E-08	3.04E-12	4.09E-12	5.40E-10	4.29E-11	-6.41E-07
Contribution to Human toxicity, non-cancer	CTUh	4.98E-07	4.81E-07	2.66E-10	4.01E-10	9.65E-09	6.06E-09	-4.91E-07
Contribution to Land use	Pt	2.38E+01	1.81E+01	1.19E-03	2.15E-03	5.62E+00	5.79E-02	-2.51E+01

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	1.61E+01	5.26E+00	1.85E-03	1.87E-04	1.08E+01	8.08E-03	-6.97E+00
Contribution to use of renewable primary energy resources used as raw material	MJ	6.08E-01	6.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to total use of renewable primary energy resources	MJ	1.55E+01	5.82E+00	1.65E-03	1.66E-04	9.69E+00	7.27E-03	-6.97E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7.22E+01	3.16E+01	5.33E-01	7.04E-02	3.94E+01	5.37E-01	-9.23E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.38E+00	2.38E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	7.57E+01	3.41E+01	5.33E-01	7.04E-02	4.05E+01	5.38E-01	-6.97E+00
Contribution to use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to net use of freshwater	m³	7.45E-02	4.15E-02	1.37E-05	0.00E+00	3.29E-02	3.23E-05	-6.27E-02
Contribution to hazardous waste disposed	kg	7.31E-03	1.49E-04	7.11E-03	3.53E-06	4.85E-07	5.43E-05	-2.21E-03
Contribution to non hazardous waste disposed	kg	8.85E-02	5.83E-02	6.15E-03	1.58E-05	2.26E-03	2.18E-02	-6.51E-02
Contribution to radioactive waste disposed	kg	3.31E-04	3.43E-05	7.83E-06	5.01E-08	4.11E-09	2.89E-04	-1.52E-04
Contribution to components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to exported energy, termal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to biogenic carbon content of the product	kg de C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	2.09E-02	2.09E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Life cycle assessment performed with Simapro version v9.6.0.1 Ecoinvent database version 3.10 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-01321-V01.01-EN	*Drafting rules*	PCR-ed4-EN-2021 09 06
Verifier accreditation N°	VH51	*Supplemented by*	PSR-0005-ed3.1-EN-2023 12 08
Date of issue	11/2024	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years

Independent verification of the declaration and data, in compliance with ISO 14025 : 2010

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

The components of the present PEP may not be compared with components from any other program.

Document in compliance with ISO 14025 : 2010 « 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

Published by Schneider Electric

SCHN-01321-V01.01-EN

Nov-24