Product Environmental Profile

Zelio Relay
RHK latching relay, 4CO, 5A, 220 VAC 50 Hz

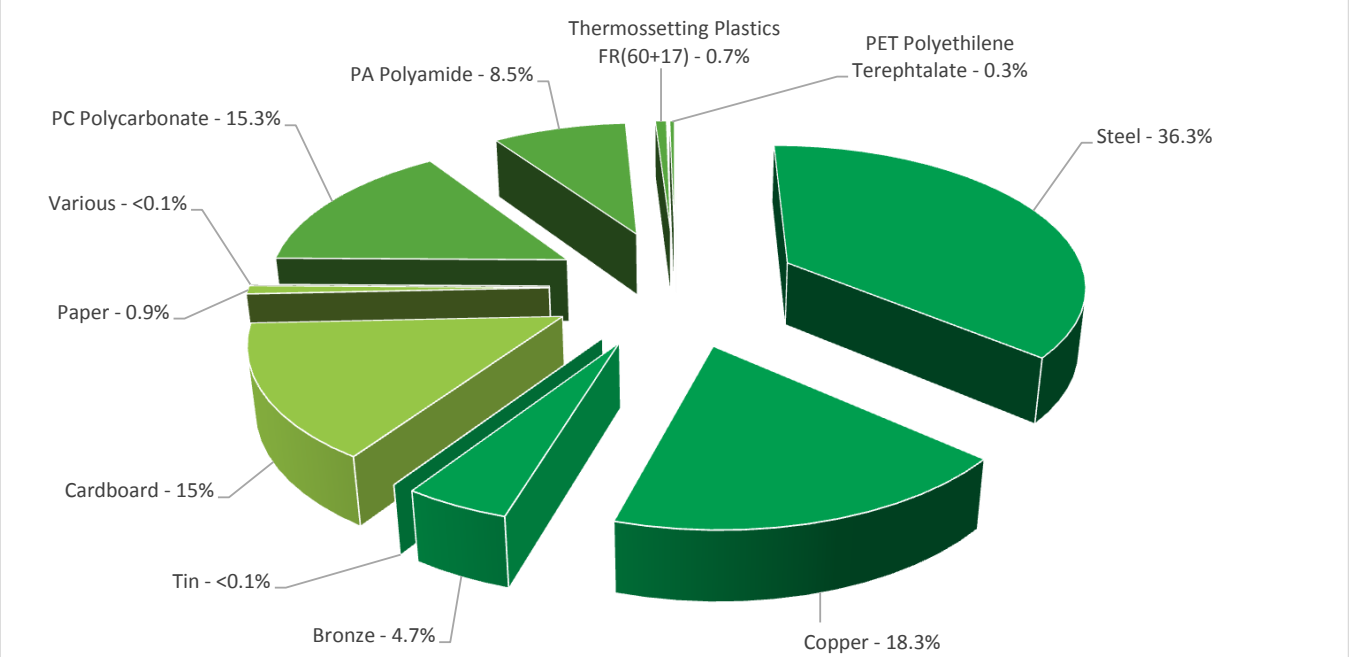
Schneider Electric

General information

Representative product	RHK latching relay, 4CO, 5A, 220 VAC 50 Hz -RHK411M
Description of the product	The product is an electrically operated switch which enables current to flow through it on one circuit and can switch a current on and off on a second circuit.
Functional unit	Switch on and off during 20 years electrical power supply of a downstream installation with an electrical and/or mechanical control. Latching relay, 4CO contact, Rated coil voltage: 220VAC, Rated contact load: 5A.

Constituent materials

Reference product mass	151.315 g	including the product, its packaging and additional elements and accessories



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

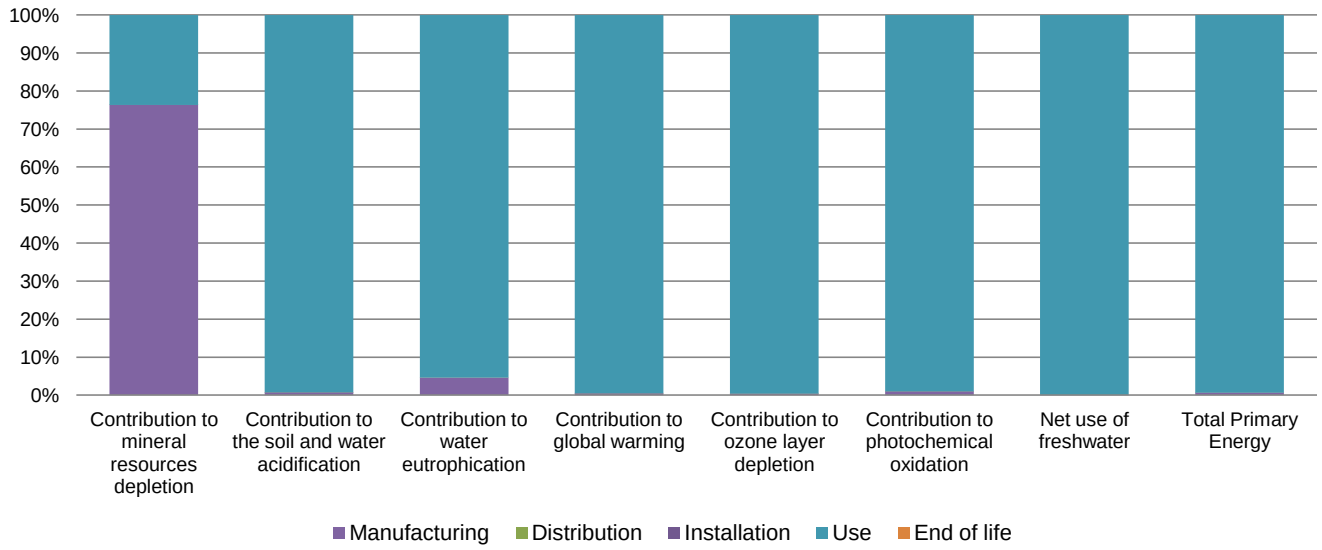
Additional environmental information

The RHK latching relay, 4CO, 5A, 220 VAC 50 Hz 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 25 g, consisting of Cardboard (23.24g), Paper (1.36g), PET Film (0.4g)
Installation	RHK411M does not require any installation operations.
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: **66%** 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	Passive products - non-continuous operation			
Installation elements	No special components needed			
Geographical representativeness	Europe			
Technological representativeness	The product is an electrically operated switch which enables current to flow through it on one circuit and can switch a current on and off on a second circuit.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: 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	**RHK latching relay, 4CO, 5A, 220 VAC 50 Hz - RHK411M**						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6,17E-05	4,70E-05	0*	0*	1,46E-05	0*
Contribution to the soil and water acidification	kg SO_2 eq	7,07E-01	5,41E-03	8,91E-05	0*	7,02E-01	0*
Contribution to water eutrophication	kg PO_4^{3-} eq	4,44E-02	2,02E-03	2,05E-05	0*	4,24E-02	1,02E-05
Contribution to global warming	kg CO_2 eq	1,69E+02	7,91E-01	1,95E-02	0*	1,68E+02	1,79E-02
Contribution to ozone layer depletion	kg CFC11 eq	1,10E-05	4,61E-08	0*	0*	1,10E-05	0*
Contribution to photochemical oxidation	kg C_2H_4 eq	3,90E-02	3,88E-04	6,36E-06	0*	3,86E-02	4,07E-06
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	6,10E+02	0*	0*	0*	6,10E+02	0*
Total Primary Energy	MJ	3,38E+03	2,25E+01	0*	0*	3,36E+03	0*



Optional indicators		RHK latching relay, 4CO, 5A, 220 VAC 50 Hz - RHK411M					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1,92E+03	1,09E+01	2,74E-01	0*	1,91E+03	0*
Contribution to air pollution	m³	7,47E+03	2,23E+02	8,30E-01	0*	7,24E+03	1,36E+00
Contribution to water pollution	m³	7,03E+03	8,64E+01	3,21E+00	0*	6,94E+03	1,58E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2,48E-02	2,48E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4,28E+02	7,23E-01	0*	0*	4,27E+02	0*
Total use of non-renewable primary energy resources	MJ	2,96E+03	2,18E+01	0*	0*	2,93E+03	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4,28E+02	2,34E-01	0*	0*	4,27E+02	0*
Use of renewable primary energy resources used as raw material	MJ	4,89E-01	4,89E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2,95E+03	2,05E+01	0*	0*	2,93E+03	0*
Use of non renewable primary energy resources used as raw material	MJ	1,22E+00	1,22E+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	4,47E+00	4,18E+00	0*	2,55E-02	8,77E-02	1,74E-01
Non hazardous waste disposed	kg	6,28E+02	3,14E-01	0*	0*	6,27E+02	0*
Radioactive waste disposed	kg	4,19E-01	2,16E-04	0*	0*	4,19E-01	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,27E-01	1,59E-02	0*	2,46E-02	0*	8,60E-02
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2,17E-03	2,76E-04	0*	0*	0*	1,90E-03
Exported Energy	MJ	0,00E+00	0*	0*	0*	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.5, database version 2016-11.

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.

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Validity period	5 years	*Information and reference documents*	www.pep-ecopassport.org

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

Internal X External

The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »

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