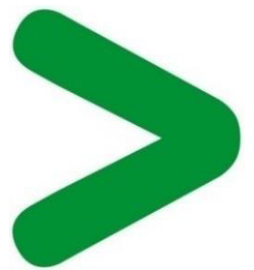


Product Environmental Profile

8501X Control Relays





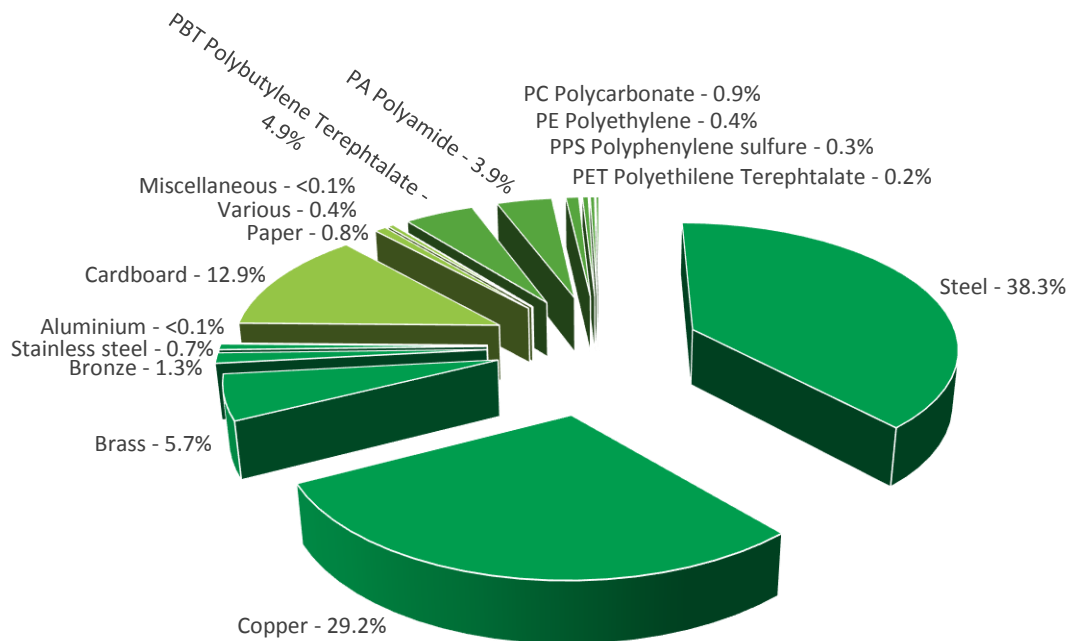
General information

Representative product	8501X Control Relays -8501XDO40V62Y414
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.
Description of the range	<p>The range consists of 8501X series designed with heavy-duty modular construction for greater flexibility and longer life applications, and provides with 2 to 12 N.C and N.O contact poles with rating AC voltage range from 24 to 600 and rating DC voltage range from 6 to 250.</p> <p>The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.</p>
Functional unit	To control a circuit by a low-power signal with complete electrical isolation between control and controlled circuits, or where several circuits must be controlled by one signal during 20 years with a 30% use rate, in compliance with French standards.



Constituent materials

Reference product mass 1519.85 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

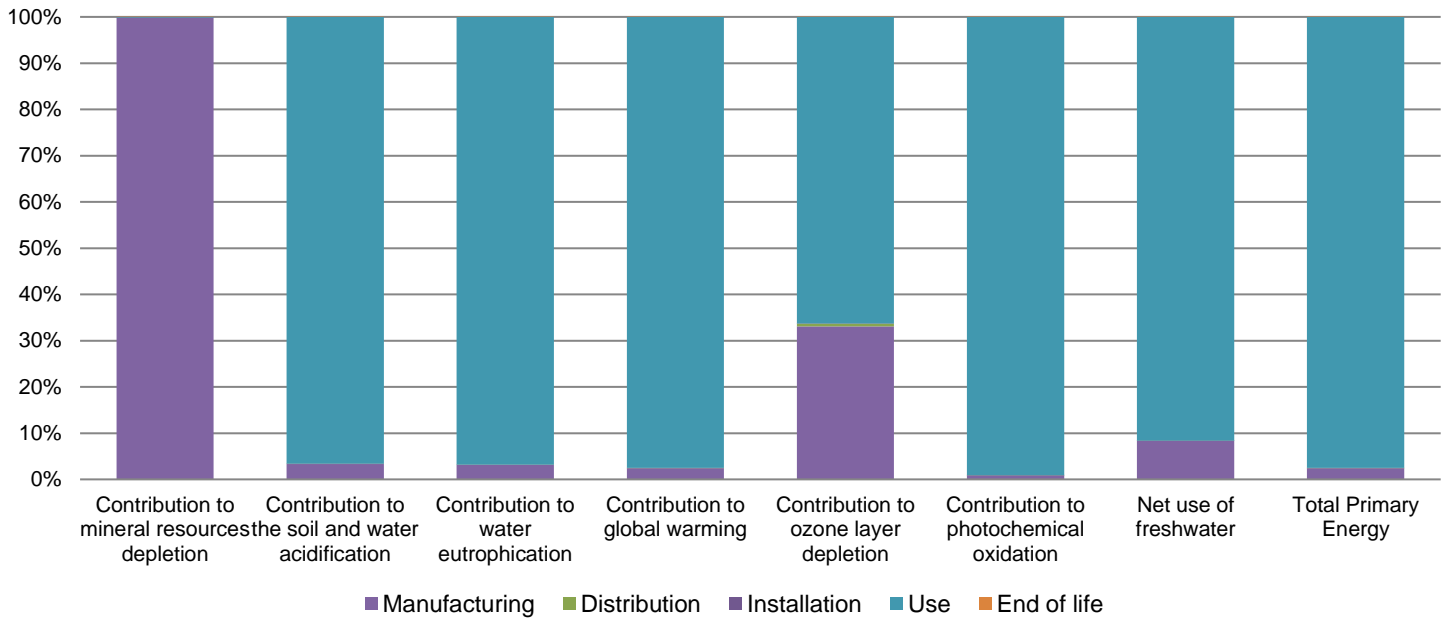
The 8501X Control Relays presents the following relevant environmental aspects

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 214.8 g, consisting of cardboard (91.3%), paper (5.7%), PE film (3%)
Installation	Ref 8501XDO40V62Y414 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: 38% 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			
Use scenario	Product dissipation is 44.9 W full load, loading rate is 30% and service uptime percentage is 30% The product is in active mode 30% of the time with a power use of 44.9W and 70% of the time in OFF mode, for 20 years			
Geographical representativeness	US			
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: Mexico	Electricity mix; AC; consumption mix, at consumer; 120V; US	Electricity mix; AC; consumption mix, at consumer; 120V; US	Electricity mix; AC; consumption mix, at consumer; 120V; US

Compulsory indicators		8501X Control Relays - 8501XDO40V62Y414					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1.42E-02	1.41E-02	0*	0*	1.61E-05	0*
Contribution to the soil and water acidification	kg SO ₂ eq	1.62E+00	5.34E-02	1.08E-03	0*	1.56E+00	3.87E-04
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	4.26E-01	1.32E-02	2.90E-04	0*	4.12E-01	9.60E-05
Contribution to global warming	kg CO ₂ eq	1.68E+03	4.07E+01	4.07E-01	0*	1.63E+03	0*
Contribution to ozone layer depletion	kg CFC11 eq	4.47E-05	1.48E-05	2.88E-07	0*	2.96E-05	9.23E-09
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	2.53E-01	2.19E-03	0*	0*	2.51E-01	4.08E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m ³	3.15E+00	2.63E-01	4.89E-04	0*	2.89E+00	0*
Total Primary Energy	MJ	2.26E+04	5.49E+02	5.03E+00	0*	2.20E+04	0*



Optional indicators		8501X Control Relays - 8501XDO40V62Y414					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	2.64E+04	5.66E+02	5.14E+00	0*	2.59E+04	0*
Contribution to air pollution	m³	1.43E+05	4.03E+03	1.43E+01	0*	1.39E+05	0*
Contribution to water pollution	m³	8.25E+04	1.84E+03	6.01E+01	0*	8.06E+04	1.51E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	4.72E-01	4.72E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1.33E+03	1.08E+01	0*	0*	1.32E+03	0*
Total use of non-renewable primary energy resources	MJ	2.12E+04	5.38E+02	5.03E+00	0*	2.07E+04	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.33E+03	1.02E+01	0*	0*	1.32E+03	0*
Use of renewable primary energy resources used as raw material	MJ	6.06E-01	6.06E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.12E+04	5.32E+02	5.03E+00	0*	2.07E+04	0*
Use of non renewable primary energy resources used as raw material	MJ	6.05E+00	6.05E+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	1.16E+02	6.96E+01	0*	4.25E-01	4.37E+01	2.11E+00
Non hazardous waste disposed	kg	2.64E+02	1.43E+01	0*	0*	2.50E+02	0*
Radioactive waste disposed	kg	2.73E-02	1.47E-03	8.23E-05	0*	2.57E-02	9.33E-06
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	5.68E-01	7.21E-02	0*	5.76E-03	0*	4.90E-01
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	9.15E-03	1.16E-03	0*	6.40E-05	0*	7.92E-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 v5.6, database version 2017-01.

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

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

Ozone layer depletion (ODP) are 33% proportional to the weight of the product and 67% proportional to the energy consumption of the product. Abiotic depletion or Mineral Resources Depletion (ADPe) is proportional to the weight of the product. For other impact categories are proportional to the energy consumption of the product.

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 N°	ENVPEP1310013_V2	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	06/2017	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, 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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