Product Environmental Profile

EasyPact TVS differential thermal overload relay
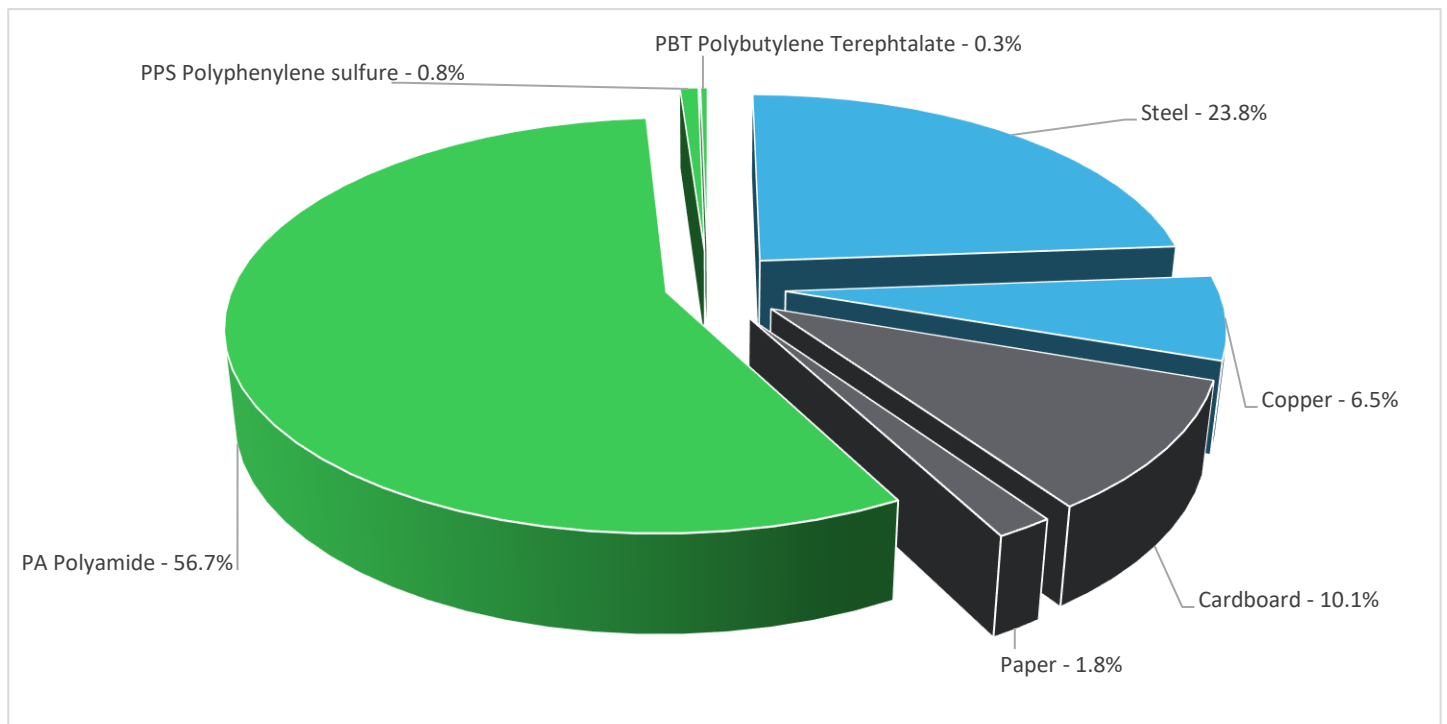
General information

Representative product	EasyPact TVS differential thermal overload relay - LRE08
Description of the product	The main purpose of the thermal overload relays is to detect overload currents in order to protect the motor.
Functional unit	Switch on and off during 20 years electrical power supply of a downstream installation with an electrical and mechanical control. The function unit is characterized by 3 poles, a control circuit voltage 24V with current 5A, and a power voltage 690V AC with thermal protection adjustment range 2.5-4 A.

Constituent materials

Reference product mass	168 g	including the product, its packaging and additional elements and accessories

PPS Polyphenylene sulfure - 0.8%
PBT Polybutylene Terephtalate - 0.3%
Steel - 23.8%
Copper - 6.5%
Cardboard - 10.1%
Paper - 1.8%
PA Polyamide - 56.7%

Plastics	57.8%
Metals	30.3%
Others	11.9%

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

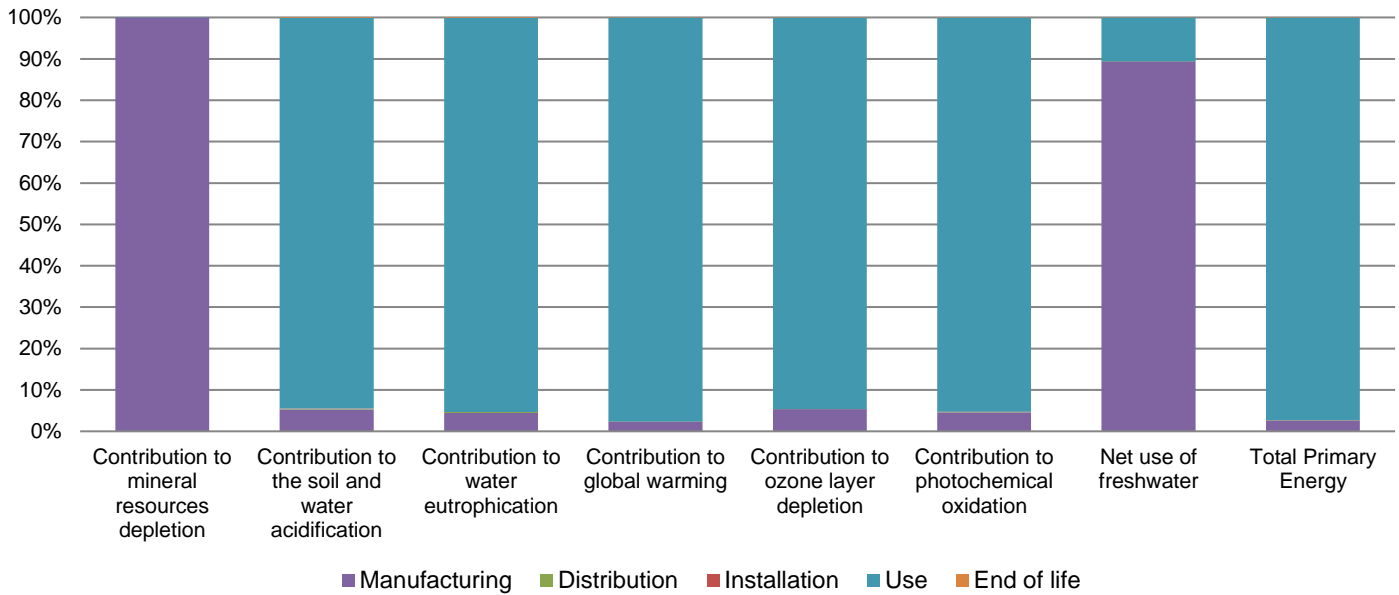| **The EasyPact TVS differential thermal overload relay presents the following relevent environmental aspects**	
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 17.2 g, consisting of cardboard (100%) Product distribution optimised by setting up local distribution centres
Installation	Ref LRE08 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 This product contains Plastic with brominated FR(34.34g) that should be separated from the stream of waste so as to optimize end-of-life treatment. The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page Recyclability potential: **31%** 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	Other equipments - Passive product - non-continuous operation
Installation elements	No special components needed
Use scenario	load rate / rated current (In): 30 % of In percentage of utilization time: 30%
Geographical representativeness	India
Technological representativeness	The main purpose of the thermal overload relays is to detect overload currents in order to protect the motor.

Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: China	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		**EasyPact TVS differential thermal overload relay - LRE08**					
Impact indicators	**Unit**	**Total**	**Manufacturing**	**Distribution**	**Installation**	**Use**	**End of Life**
Contribution to mineral resources depletion	kg Sb eq	7.67E-03	7.67E-03	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO_2 eq	4.55E-02	2.39E-03	9.90E-05	0*	4.30E-02	4.72E-05
Contribution to water eutrophication	kg PO_4^{3-} eq	1.19E-02	5.29E-04	2.28E-05	0*	1.13E-02	1.41E-05
Contribution to global warming	kg CO_2 eq	4.21E+01	9.55E-01	2.17E-02	0*	4.11E+01	2.92E-02
Contribution to ozone layer depletion	kg CFC11 eq	1.21E-06	6.51E-08	0*	0*	1.14E-06	1.10E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	5.77E-03	2.67E-04	7.06E-06	0*	5.49E-03	4.83E-06
Resources use	**Unit**	**Total**	**Manufacturing**	**Distribution**	**Installation**	**Use**	**End of Life**
Net use of freshwater	m3	4.23E-01	3.78E-01	0*	0*	4.49E-02	0*
Total Primary Energy	MJ	6.48E+02	1.74E+01	3.06E-01	0*	6.30E+02	2.25E-01

| | Manufacturing | Distribution | Installation | Use | End of life |

Optional indicators		EasyPact TVS differential thermal overload relay - LRE08				
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	5.97E+02	1.25E+01	3.05E-01	0*	5.84E+02	1.81E-01
Contribution to air pollution	m³	4.26E+03	1.92E+02	9.22E-01	0*	4.06E+03	1.65E+00
Contribution to water pollution	m³	2.41E+03	3.50E+02	3.56E+00	0*	2.05E+03	2.09E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.97E-03	1.97E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3.03E+01	7.46E-01	0*	0*	2.95E+01	0*
Total use of non-renewable primary energy resources	MJ	6.18E+02	1.66E+01	3.06E-01	0*	6.01E+02	2.25E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.99E+01	3.54E-01	0*	0*	2.95E+01	0*
Use of renewable primary energy resources used as raw material	MJ	3.93E-01	3.93E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6.16E+02	1.42E+01	3.06E-01	0*	6.01E+02	2.25E-01
Use of non renewable primary energy resources used as raw material	MJ	2.36E+00	2.36E+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	7.12E+00	5.63E+00	0*	0*	1.23E+00	2.58E-01
Non hazardous waste disposed	kg	7.52E+00	7.03E-01	7.70E-04	0*	6.81E+00	0*
Radioactive waste disposed	kg	8.19E-04	3.33E-04	5.49E-07	0*	4.84E-04	1.10E-06
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7.81E-02	1.32E-02	0*	1.71E-02	0*	4.78E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	4.88E-03	0*	0*	0*	0*	4.88E-03
Exported Energy	MJ	5.44E-05	5.11E-06	0*	4.93E-05	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.9.3, database version 2022-01 in compliance with ISO14044.

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.

Registration number	ENVPEP2108001_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	11/2022	*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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