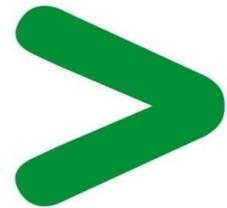


# Product Environmental Profile

## RXM.AB Miniature Plug-in Relay





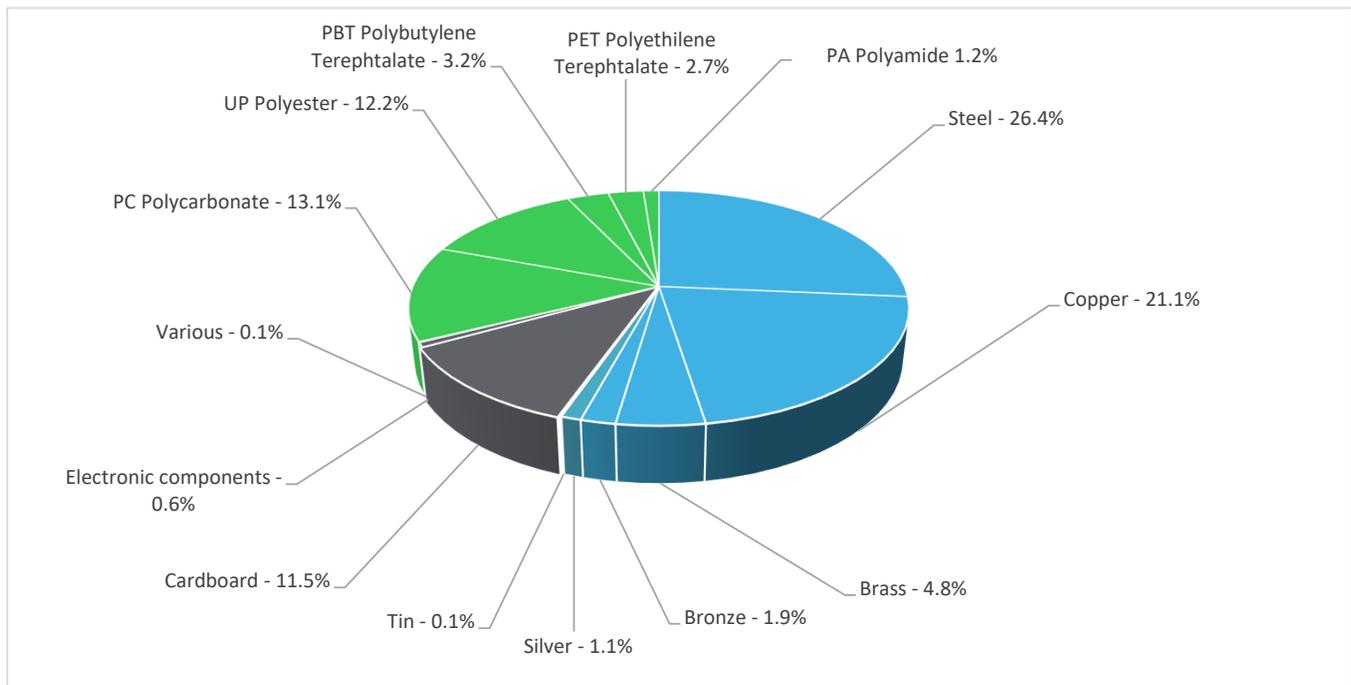
## General information

<b>Representative product</b>	RXM.AB Miniature Plug-in Relay - RXM4AB2P7
<b>Description of the product</b>	Relays are the switches which aim at closing and opening the circuits electronically as well as electromechanically. It controls the opening and closing of the circuit contacts of an electronic circuit
<b>Functional unit</b>	RXM.AB Miniature plug-in relay is 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. This range consists of RXM2AB, RXM3AB, RXM4AB/GB series. The range consists of miniature electromagnetic relays with 2, 3 or 4 C/O contacts with/without LED indicator and push button. The control voltage ranging from 24 Vac to 230 Vac and 12 Vdc.to 220Vdc with rated current 12A and product meets IEC 61810-1, UL 508 standards.



## Constituent materials

<b>Reference product mass</b>	40.6758 g including the product, its packaging and additional elements and accessories
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Plastics	32.4%
Metals	55.4%
Others	12.2%



## 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 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 RXM.AB Miniature Plug-in Relay presents the following relevant environmental aspects

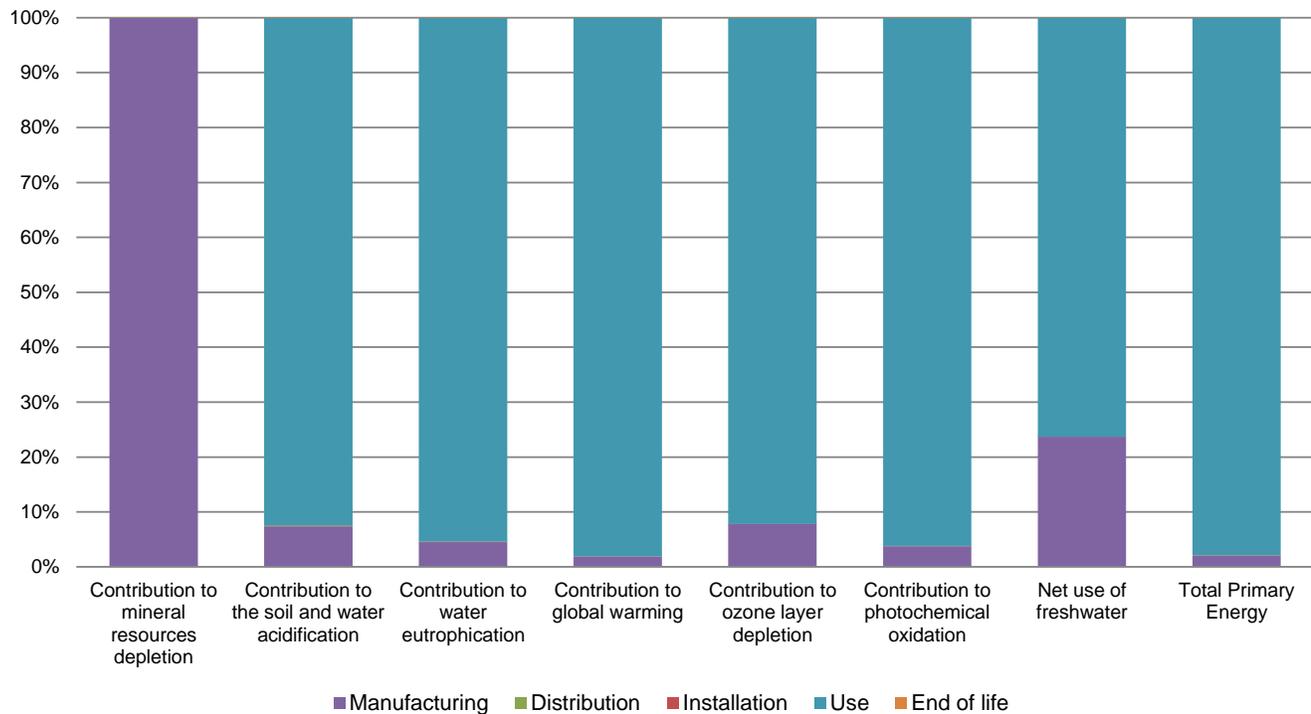
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 4.6 g, consisting of Cardboard(100%) Product distribution optimised by setting up local distribution centres
<b>Installation</b>	Does not require any installation operations
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	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: <b>55%</b> 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

<b>Reference life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	No special components needed			
<b>Use scenario</b>	The product is in active mode 20% of the time with a power use of 1.4 W and in off mode 80% of the time for 10 years			
<b>Geographical representativeness</b>	USA			
<b>Technological representativeness</b>	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.			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Energy model used: China	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		RXM.AB Miniature Plug-in Relay - RXM4AB2P7					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	4.66E-04	4.66E-04	0*	0*	1.67E-07	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	1.76E-02	1.30E-03	2.40E-05	0*	1.63E-02	1.07E-05
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	4.50E-03	2.02E-04	5.52E-06	0*	4.29E-03	2.91E-06
Contribution to global warming	kg CO <sub>2</sub> eq	1.73E+01	3.22E-01	5.25E-03	0*	1.70E+01	5.32E-03
Contribution to ozone layer depletion	kg CFC11 eq	3.34E-07	2.62E-08	0*	0*	3.08E-07	2.40E-10
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	2.71E-03	1.02E-04	1.71E-06	0*	2.60E-03	1.12E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	3.93E-02	9.33E-03	0*	0*	3.00E-02	4.76E-06
Total Primary Energy	MJ	2.34E+02	4.83E+00	7.42E-02	0*	2.29E+02	5.21E-02



Optional indicators		RXM.AB Miniature Plug-in Relay - RXM4AB2P7						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Contribution to fossil resources depletion	MJ	2.10E+02	3.39E+00	7.37E-02	0*	2.07E+02	4.19E-02	
Contribution to air pollution	m³	1.53E+03	8.82E+01	2.23E-01	0*	1.44E+03	3.76E-01	
Contribution to water pollution	m³	8.97E+02	5.86E+01	8.63E-01	0*	8.37E+02	4.45E-01	
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Use of secondary material	kg	2.12E-03	2.12E-03	0*	0*	0*	0*	
Total use of renewable primary energy resources	MJ	1.40E+01	2.73E-01	0*	0*	1.37E+01	0*	
Total use of non-renewable primary energy resources	MJ	2.20E+02	4.55E+00	7.41E-02	0*	2.15E+02	5.20E-02	
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.39E+01	1.82E-01	0*	0*	1.37E+01	0*	
Use of renewable primary energy resources used as raw material	MJ	9.13E-02	9.13E-02	0*	0*	0*	0*	
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.19E+02	4.15E+00	7.41E-02	0*	2.15E+02	5.20E-02	
Use of non renewable primary energy resources used as raw material	MJ	4.03E-01	4.03E-01	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	3.71E+00	3.21E+00	0*	0*	4.54E-01	5.19E-02	
Non hazardous waste disposed	kg	2.72E+00	1.25E-01	0*	0*	2.60E+00	0*	
Radioactive waste disposed	kg	3.61E-04	9.31E-05	1.33E-07	0*	2.67E-04	2.52E-07	
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Materials for recycling	kg	2.79E-02	3.95E-03	0*	4.57E-03	0*	1.94E-02	
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	
Materials for energy recovery	kg	6.54E-04	0*	0*	0*	0*	6.54E-04	
Exported Energy	MJ	1.45E-05	1.37E-06	0*	1.32E-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 v5.9.1, database version 2016-11 in compliance with ISO14044.

The ADPe is impacting in manufacturer phase and Rest of the environmental impacts are in the use phase of the life cycle (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	ENVPEP2106019_V1-EN	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	12/2021	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Validity period	5 years	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
<i>Independent verification of the declaration and data</i>			
Internal	X	External	
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i>			

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