

Product Environmental Profile

SpaceLogic KNX Switch Master





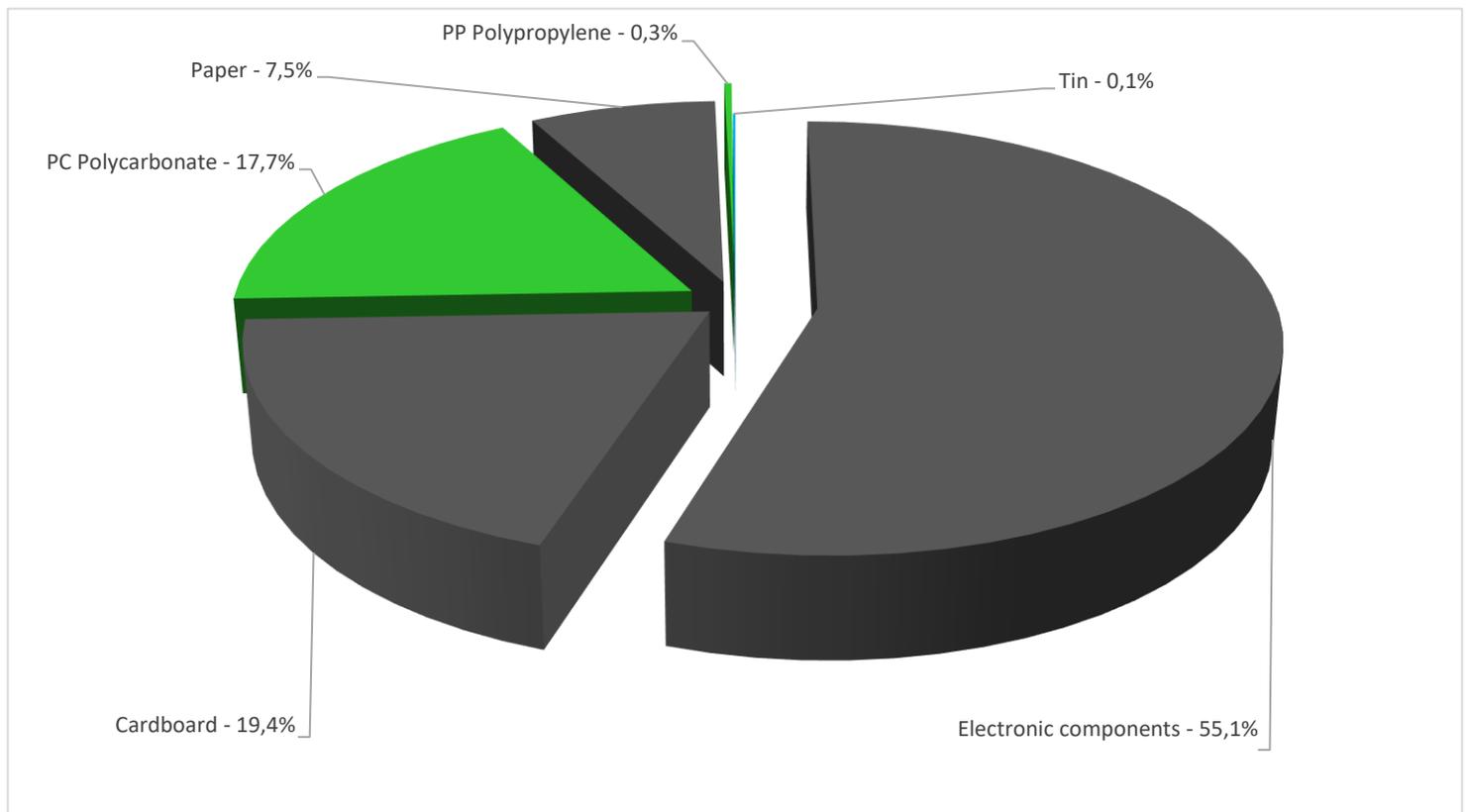
General information

Representative product	SpaceLogic KNX Switch Master - MTN6705-0008
Description of the product	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.
Functional unit	<p>Establish, support and interrupt for 10 years rated currents in normal conditions of circuit characterized by the current 16A, including any conditions specified for overload in operation characterized by the current 17.6A, for the operating voltage AC 250V and a current for short-circuit 23.2A for a specified time.</p> <ul style="list-style-type: none"> • EN 50428: EMC directive 2014 / 30 / EU + 2014/35/EU • EN 50491-3: 2014/35/EU • EN 50491-4-1: 2014/35/EU • EN 50491-5-1: EMC directive 2014 / 30 / EU • EN 50491-5-2: EMC directive 2014 / 30 / EU • EN 50581: 2011/65/EU



Constituent materials

Reference product mass 363 g including the product, its packaging and additional elements and accessories



Plastics	18.0%
Metals	0.1%
Others	82.0%

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

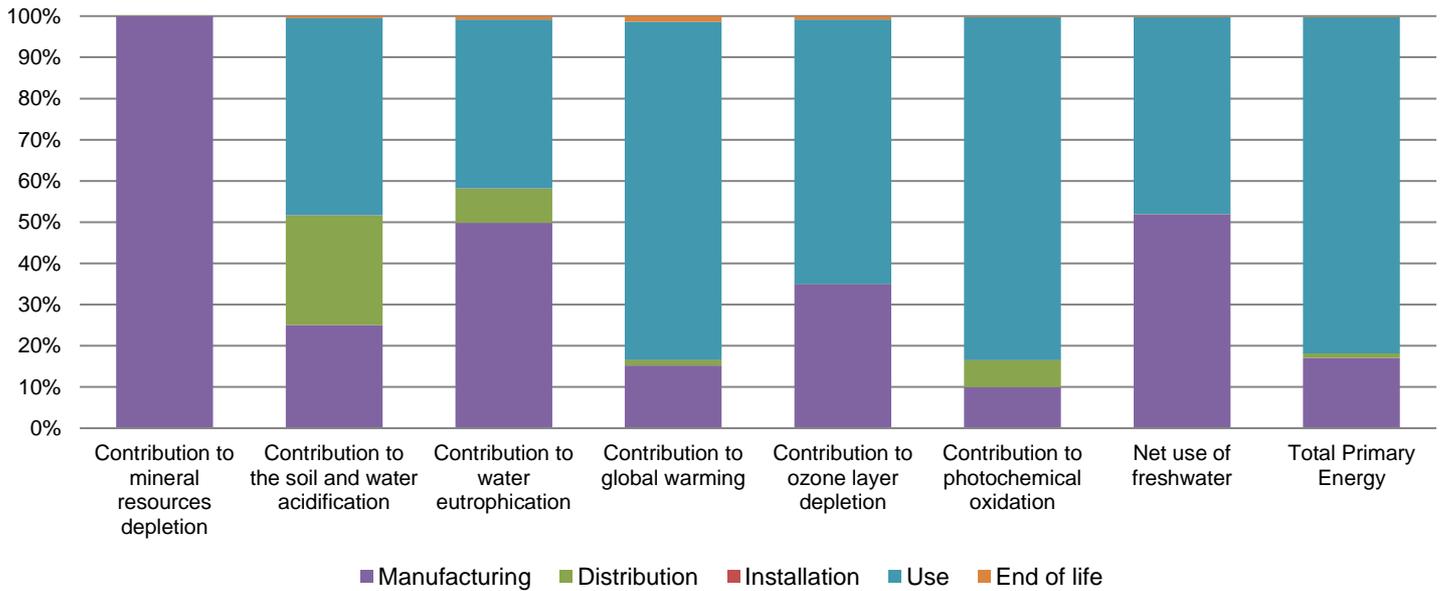
The SpaceLogic KNX Switch Master presents the following relevant environmental aspects

Design	Low power dissipation of switching channels due to robust and high-performance relays and power terminals. Also use high efficiency KNX bus coupling unit to save energy.
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 99.2 g, consisting of PP (1%), cardboard (72%), paper (27%) Product distribution optimised by setting up local distribution centres
Installation	Ref MTN6705-0008 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 electronic cards (31.9 g) 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: 33% 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	10 years			
Product category	Switches			
Installation elements	Packaging is being disposed during installation process.			
Use scenario	Load rate: 50% of 16A Use time rate: 30% of RLT			
Geographical representativeness	Germany, China, Italy, Sweden, Norway, Spain, France, UAE, rest of Europe			
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 in production.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: Latvia	Electricity mix; AC; consumption mix, at consumer; 230V; DE, 220V; CN, 230V; NO, 220V; IT	Electricity mix; AC; consumption mix, at consumer; 230V; DE, 220V; CN, 230V; NO, 220V; IT	Electricity mix; AC; consumption mix, at consumer; 230V; DE, 220V; CN, 230V; NO, 220V; IT

Compulsory indicators		SpaceLogic KNX Switch Master - MTN6705-0008					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3.91E-03	3.91E-03	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO ₂ eq	3.43E-02	8.60E-03	9.11E-03	2.25E-05	1.64E-02	1.63E-04
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	1.06E-02	5.27E-03	8.85E-04	5.77E-06	4.33E-03	9.05E-05
Contribution to global warming	kg CO ₂ eq	2.21E+01	3.36E+00	3.03E-01	5.42E-03	1.82E+01	2.99E-01
Contribution to ozone layer depletion	kg CFC11 eq	1.26E-06	4.41E-07	5.13E-10	0*	8.10E-07	1.03E-08
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	6.88E-03	6.86E-04	4.50E-04	1.69E-06	5.73E-03	1.26E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	6.15E-02	3.20E-02	2.32E-05	0*	2.94E-02	1.43E-04
Total Primary Energy	MJ	3.57E+02	6.10E+01	3.85E+00	7.06E-02	2.92E+02	6.73E-01



Optional indicators		SpaceLogic KNX Switch Master - MTN6705-0008					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	2.64E+02	3.72E+01	3.82E+00	7.00E-02	2.23E+02	5.56E-01
Contribution to air pollution	m ³	3.16E+03	5.35E+02	4.36E+01	0*	2.58E+03	4.85E+00
Contribution to water pollution	m ³	1.26E+03	4.59E+02	4.48E+01	8.18E-01	7.39E+02	1.20E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	9.54E-02	9.54E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3.38E+01	4.05E+00	4.89E-03	0*	2.98E+01	0*
Total use of non-renewable primary energy resources	MJ	3.23E+02	5.69E+01	3.84E+00	7.04E-02	2.62E+02	6.73E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3.38E+01	4.05E+00	4.89E-03	0*	2.98E+01	0*
Use of renewable primary energy resources used as raw material	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.20E+02	5.32E+01	3.84E+00	7.04E-02	2.62E+02	6.73E-01
Use of non renewable primary energy resources used as raw material	MJ	3.74E+00	3.74E+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	5.68E+00	4.15E+00	0*	0*	8.84E-01	6.39E-01
Non hazardous waste disposed	kg	3.93E+00	1.73E+00	9.23E-03	1.51E-03	2.18E+00	1.72E-03
Radioactive waste disposed	kg	1.64E-03	1.06E-03	6.40E-06	1.69E-07	5.65E-04	4.87E-06
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	2.00E-01	1.70E-02	0*	9.80E-02	0*	8.46E-02
Components for reuse	kg	3.82E-03	0*	0*	0*	0*	3.82E-03
Materials for energy recovery	kg	8.41E-02	0*	0*	0*	0*	8.41E-02
Exported Energy	MJ	3.11E-04	2.92E-05	0*	2.81E-04	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.8.1, database version 2016-11 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.

<i>Registration number :</i>	SCHN-00598-V01.01-EN	<i>Drafting rules</i>	PCR-ed3-EN-2015 04 02
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<i>Date of issue</i>	10/2020	<i>Information and reference documents</i>	www.pep-ecopassport.org
		<i>Validity period</i>	5 years
<i>Independent verification of the declaration and data, in compliance with ISO 14025 : 2010</i>			
<i>Internal</i>		<i>External</i>	X
<i>The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)</i>			
<i>PEP are compliant with XP C08-100-1 :2016</i>			
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »</i>			



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