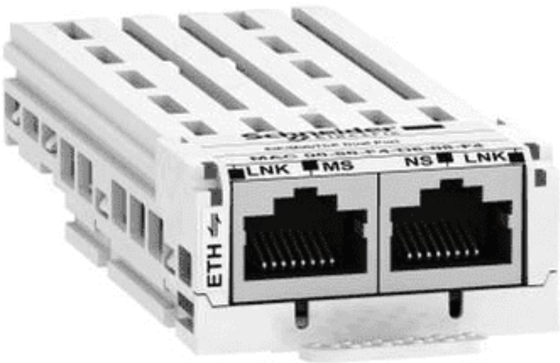
Product Environmental Profile

Ethernet/IP, ModbusTCP communication module - 2RJ45

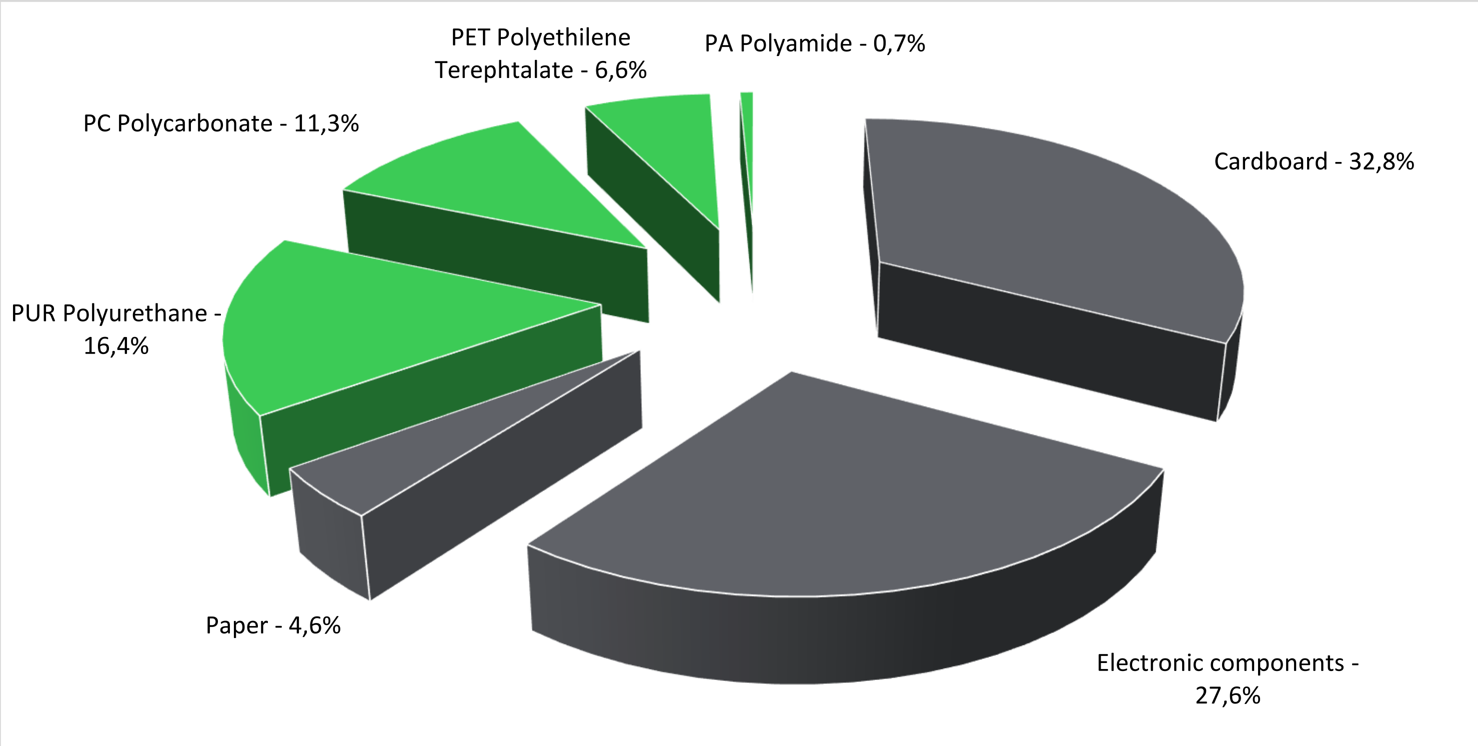


General information

Representative product	Ethernet/IP, ModbusTCP communication module - 2RJ45 - VW3A3720
Description of the product	Communication module
Functional unit	To link the Altivar speed variator to the network, with 2 connectors RJ45, Ethernet IP/Modbus TCP during 20 years. The usage profile taken into account is 100% uptime in use phase.

Constituent materials

Reference product mass	149,29 g	including the product, its packaging and additional elements and accessories



Plastics	35,0%
Metals	0,0%
Others	65,0%

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

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

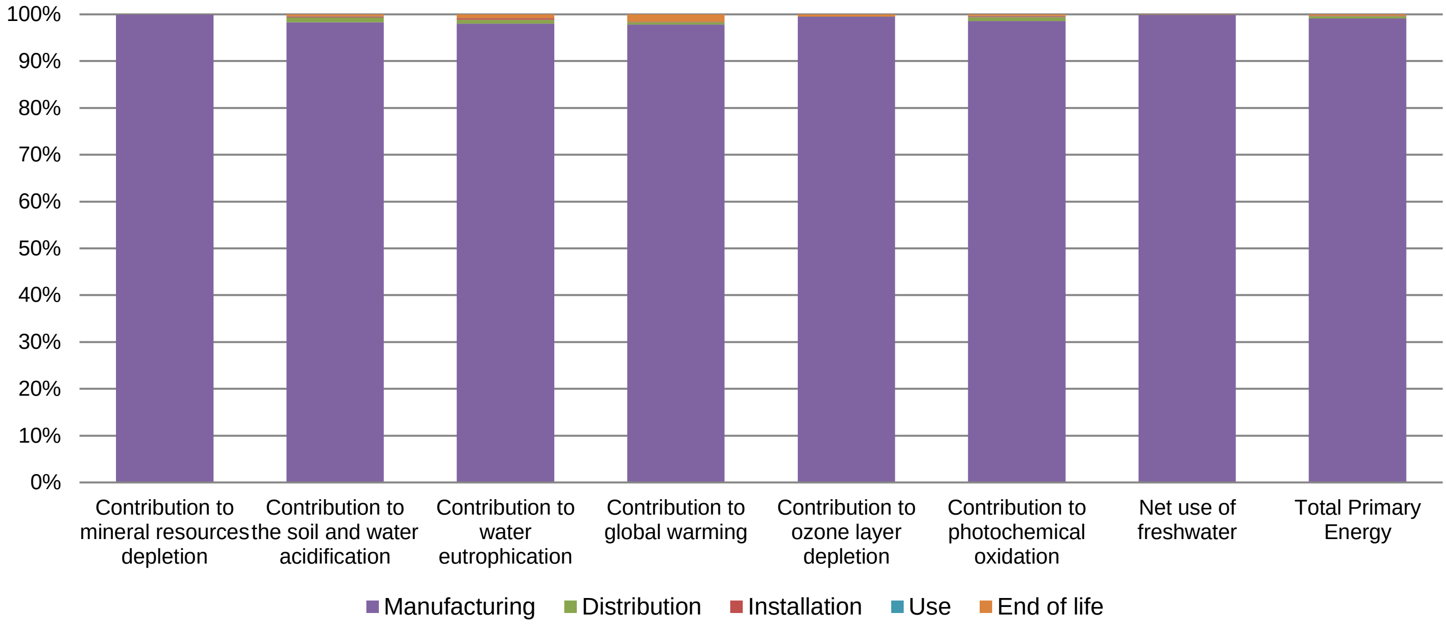
Additional environmental information

The Ethernet/IP, ModbusTCP communication module - 2RJ45 presents the following relevent environmental aspects			
Design	Indicate all the eco-design improvements brought to the product at the design phase compared to previous offer range, refer to ecoDesign Way results		
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 92,5 g, consisting of Cardboard (54%), plastics (PU 27%, PET 10,8% and PC 1%) and papers (7,2%)		
Installation	The product does not require any installation operation.		
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 PWB (20g) that should be separated from the stream of waste so as to optimize end-of-life treatment. No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process.		
	Recyclability potential:	**13%**	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 - continuous operation			
Installation elements	The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).			
Use scenario	The product is in active mode 100% of the time with a power use of 1W for 20 years. You can also refer to support table: https://schneider-electric.box.com/s/un94xtvdhijefzip4az10j0xvmenyv3r			
Geographical representativeness	Europe			
Technological representativeness	Communication module			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: Indonesia	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		Ethernet/IP, ModbusTCP communication module - 2RJ45 - VW3A3720					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2,33E-03	2,33E-03	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO_2 eq	9,03E-03	8,87E-03	8,79E-05	2,26E-05	4,46E-06	3,67E-05
Contribution to water eutrophication	kg PO_4^{3-} eq	2,54E-03	2,49E-03	2,03E-05	8,62E-06	0*	2,04E-05
Contribution to global warming	kg CO_2 eq	4,32E+00	4,22E+00	1,93E-02	5,40E-03	5,90E-04	6,75E-02
Contribution to ozone layer depletion	kg CFC11 eq	5,12E-07	5,10E-07	0*	0*	1,43E-10	2,30E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	7,82E-04	7,71E-04	6,28E-06	1,68E-06	2,11E-07	2,83E-06
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5,84E-02	5,83E-02	0*	0*	0*	3,23E-05
Total Primary Energy	MJ	5,70E+01	5,65E+01	2,72E-01	7,00E-02	1,20E-02	1,51E-01



Optional indicators		Ethernet/IP, ModbusTCP communication module - 2RJ45 - VW3A3720					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4,18E+01	4,14E+01	2,71E-01	6,85E-02	6,08E-03	1,24E-01
Contribution to air pollution	m³	4,18E+02	4,16E+02	8,19E-01	2,91E-01	0*	1,09E+00
Contribution to water pollution	m³	5,61E+02	5,54E+02	3,17E+00	8,01E-01	0*	2,71E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	4,72E-02	4,72E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1,74E+00	1,74E+00	3,63E-04	3,46E-04	8,56E-04	0*
Total use of non-renewable primary energy resources	MJ	5,52E+01	5,47E+01	2,72E-01	6,97E-02	1,11E-02	1,51E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,49E+00	1,49E+00	3,63E-04	3,46E-04	8,56E-04	0*
Use of renewable primary energy resources used as raw material	MJ	2,52E-01	2,52E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5,31E+01	5,26E+01	2,72E-01	6,97E-02	1,11E-02	1,51E-01
Use of non renewable primary energy resources used as raw material	MJ	2,10E+00	2,10E+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	2,39E+01	2,37E+01	0*	0*	0*	1,55E-01
Non hazardous waste disposed	kg	1,54E+00	1,52E+00	6,84E-04	9,22E-03	2,21E-03	3,85E-04
Radioactive waste disposed	kg	6,47E-04	6,43E-04	4,87E-07	4,17E-07	1,80E-06	1,09E-06
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7,74E-02	1,03E-02	0*	5,94E-02	0*	7,67E-03
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,90E-02	0*	0*	0*	0*	1,90E-02
Exported Energy	MJ	1,79E-04	1,66E-05	0*	1,62E-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 manufacturing 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	ENVPEP2010006_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	12/2020	*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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