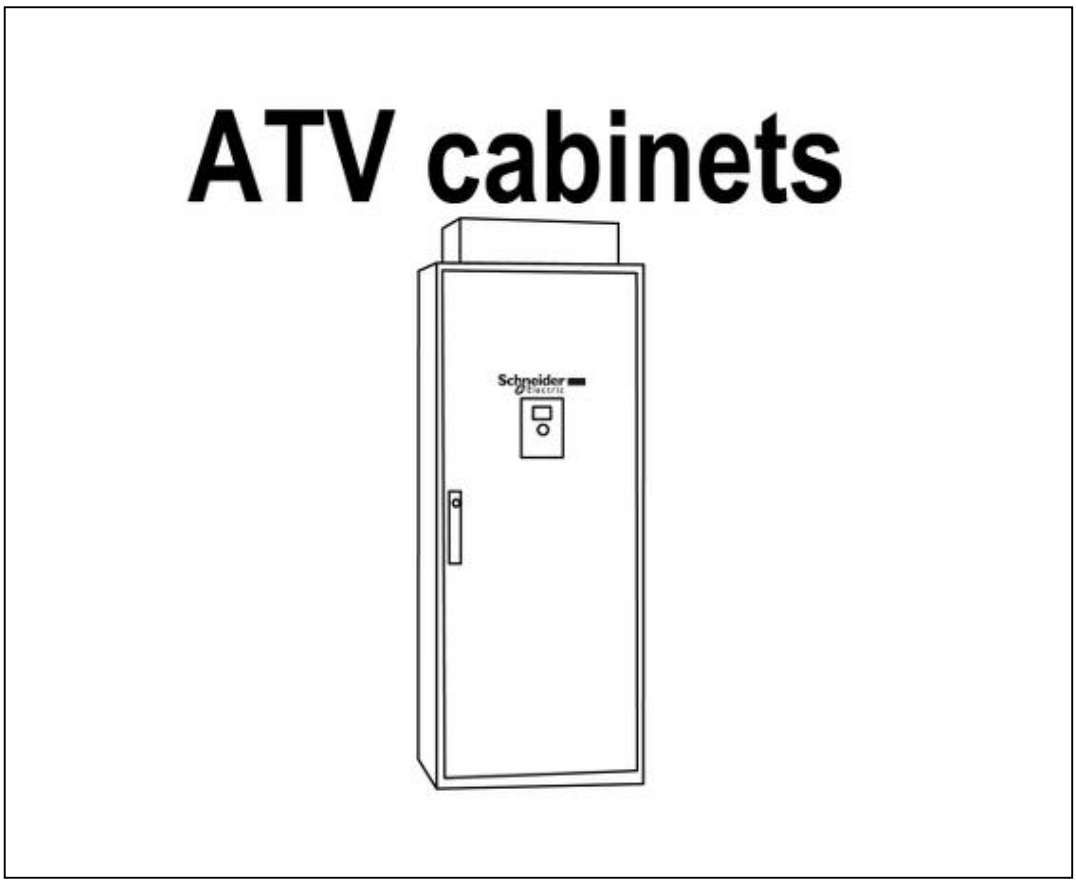
Product Environmental Profile

Resistance braking unit - 200 kW - 400 V - for variable speed drive

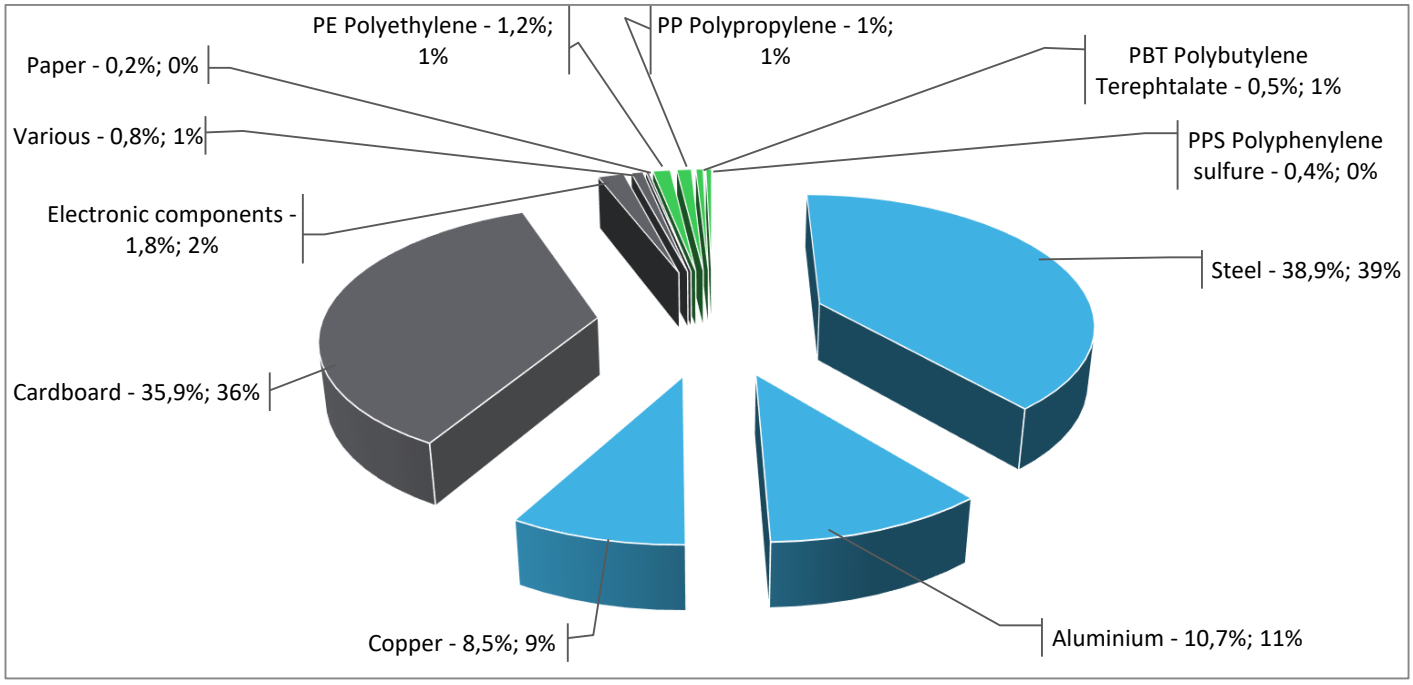


General information

Representative product	Resistance braking unit - 200 kW - 400 V - for variable speed drive - VW3A7101
Description of the product	Braking units allow Altivar Process drives to operate while braking to a stop or in braking to a stop or in "generator" mode, dissipating energy in the braking resistor.
Functional unit	Braking to a stop the variable speed drive for 10 years.

Constituent materials

Reference product mass	48 kg	including the product, its packaging and additional elements and accessories



	Plastics	3%
	Metals	58%
	Others	39%

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

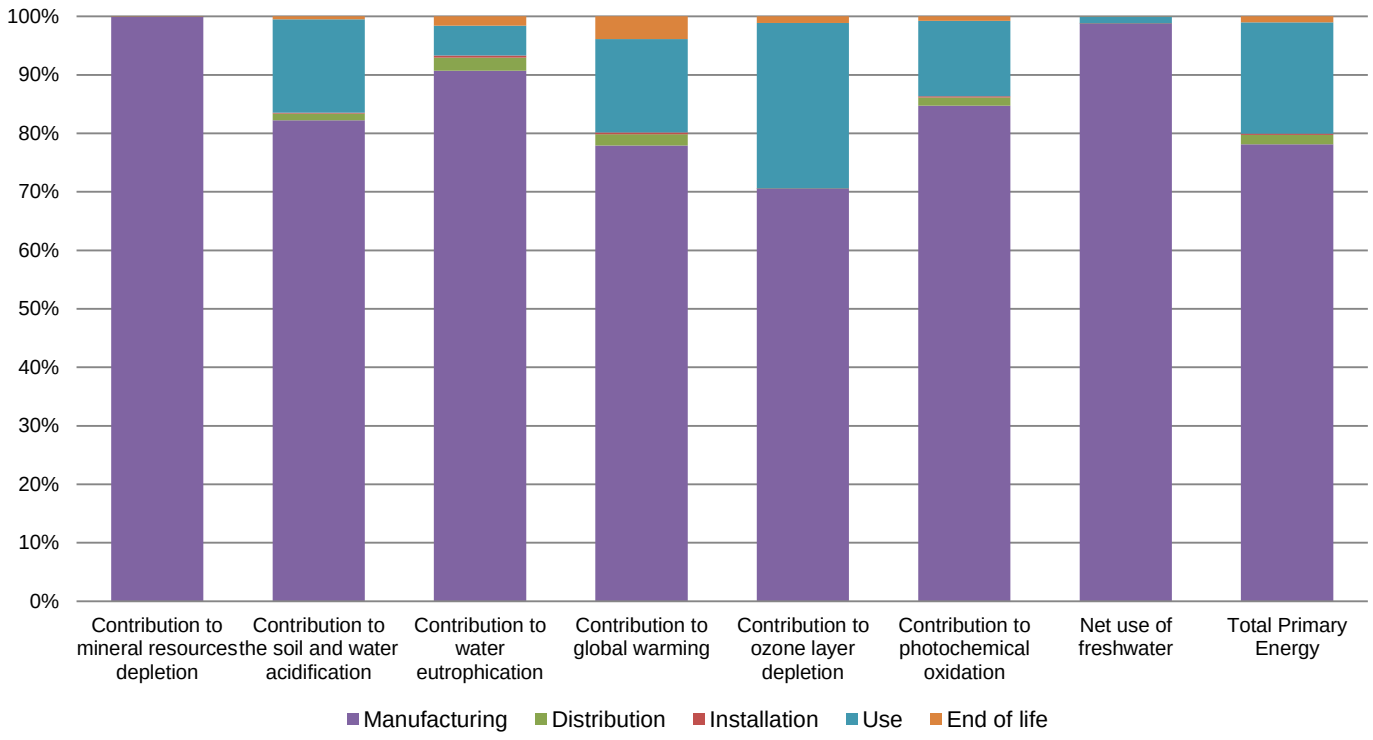
Additional environmental information

The Resistance braking unit - 200 kW - 400 V - for variable speed drive presents the following relevent environmental aspects	
Manufacturing	Manufactured at a production site complying with the regulations
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 18066,7 g, consisting of Paper and carboard (98%); others (2%)
Installation	The product does not require any installation operation. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).
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 (6,75 kg) and cables (84,85 g) that should be separated from the stream of waste so as to optimize end-of-life treatment. Recyclability potential: **75%** 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	Other equipments - Active product			
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 10 years.			
Geographical representativeness	Europe			
Technological representativeness	Braking units allow Altivar Process drives to operate while braking to a stop or in braking to a stop or in "generator" mode, dissipating energy in the braking resistor.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: China	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		Resistance braking unit - 200 kW - 400 V - for variable speed drive - VW3A7101					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3,06E-02	3,06E-02	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO_2 eq	2,45E+00	2,01E+00	2,83E-02	4,09E-03	3,91E-01	1,20E-02
Contribution to water eutrophication	kg PO_4^{3-} eq	2,89E-01	2,62E-01	6,51E-03	1,06E-03	1,47E-02	4,64E-03
Contribution to global warming	kg CO_2 eq	3,23E+02	2,52E+02	6,19E+00	9,82E-01	5,17E+01	1,25E+01
Contribution to ozone layer depletion	kg CFC11 eq	4,44E-05	3,14E-05	1,25E-08	0*	1,26E-05	4,93E-07
Contribution to photochemical oxidation	kg C_2H_4 eq	1,44E-01	1,22E-01	2,02E-03	3,06E-04	1,85E-02	1,12E-03
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1,20E+01	1,18E+01	0*	0*	1,35E-01	7,55E-03
Total Primary Energy	MJ	5,51E+03	4,30E+03	8,76E+01	1,28E+01	1,05E+03	5,55E+01



Optional indicators		Resistance braking unit - 200 kW - 400 V - for variable speed drive - VW3A7101					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	3,06E+03	2,38E+03	8,70E+01	1,27E+01	5,33E+02	4,50E+01
Contribution to air pollution	m³	7,23E+04	6,93E+04	2,63E+02	3,97E+01	2,22E+03	3,95E+02
Contribution to water pollution	m³	2,61E+04	2,20E+04	1,02E+03	1,49E+02	2,17E+03	7,49E+02
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1,79E+01	1,79E+01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	2,25E+02	1,50E+02	1,17E-01	0*	7,50E+01	5,61E-02
Total use of non-renewable primary energy resources	MJ	5,28E+03	4,15E+03	8,74E+01	1,28E+01	9,73E+02	5,55E+01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,71E+02	9,57E+01	1,17E-01	2,17E-02	7,50E+01	5,61E-02
Use of renewable primary energy resources used as raw material	MJ	5,40E+01	5,40E+01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5,20E+03	4,07E+03	8,74E+01	1,28E+01	9,73E+02	5,55E+01
Use of non renewable primary energy resources used as raw material	MJ	8,20E+01	8,20E+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	2,42E+03	2,38E+03	0*	0*	0*	4,60E+01
Non hazardous waste disposed	kg	6,01E+02	4,07E+02	2,20E-01	2,94E-01	1,93E+02	1,59E-01
Radioactive waste disposed	kg	3,39E-01	1,81E-01	1,57E-04	0*	1,58E-01	3,21E-04
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	4,54E+01	4,33E+00	0*	1,78E+01	0*	2,33E+01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2,92E+00	0*	0*	0*	0*	2,92E+00
Exported Energy	MJ	5,62E-02	5,28E-03	0*	5,09E-02	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, database version 2020-12 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	ENVPEP2010014_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	08/2022	*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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Published by Schneider Electric