

# Product Environmental Profile

ATV310 3PH 400V 22Kw with filter

Altivar Machine





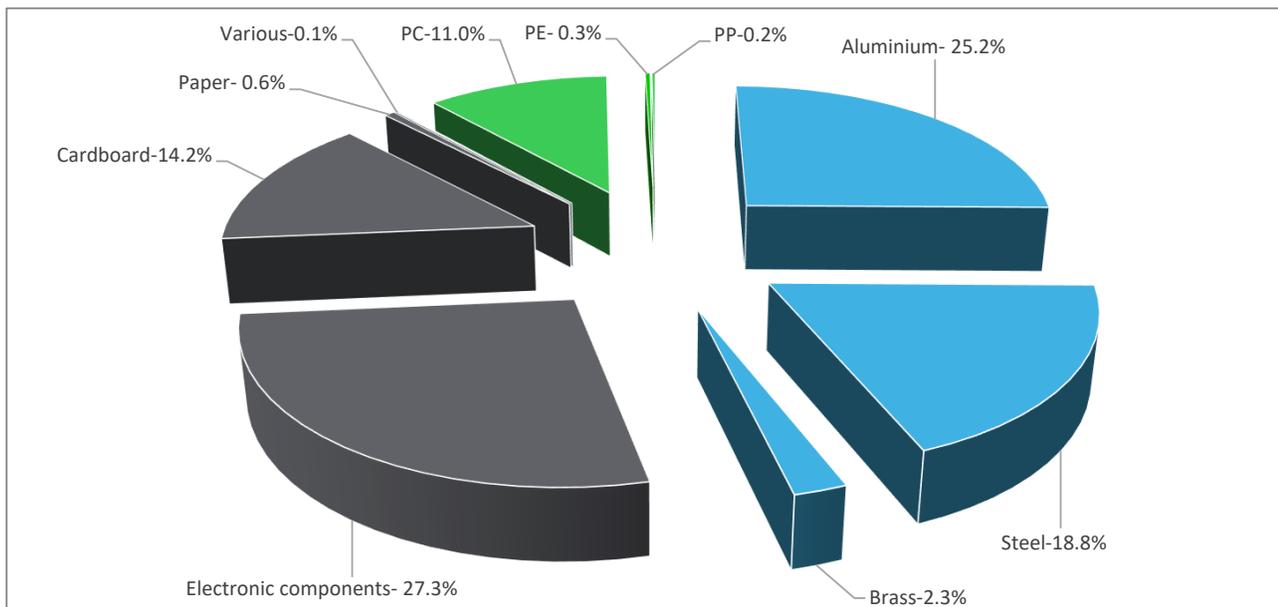
## General information

<b>Representative product</b>	ATV310 3PH 400V 22Kw with filter - ATV310HD22N4EF
<b>Description of the product</b>	The Altivar Machine ATV310 Power extension driver is a variable speed for three-phase asynchronous and synchronous motors.
<b>Description of the range</b>	Altivar Machine  The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.
<b>Functional unit</b>	To control the speed and torque of synchronous or asynchronous electric motor for general application during 10 years. The usage profile taken into account is 80% uptime in use phase at 75% loading rate and a 20% uptime.  Rated supply voltage:400 V Motor Power Kw:22 Kw for heavy duty Motor Power HP:30 HP for heavy duty Phase :3 HP for heavy duty Line current:64.2 A at 380 V for heavy duty and 53.2 A at 460 V for heavy duty



## Constituent materials

<b>Reference product mass</b>	11350 g including the product, its packaging and additional elements and accessories
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	Plastics	11.5%
	Metals	46.3%
	Others	42.2%

## 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 ATV310 3PH 400V 22Kw with filter presents the following relevant environmental aspects

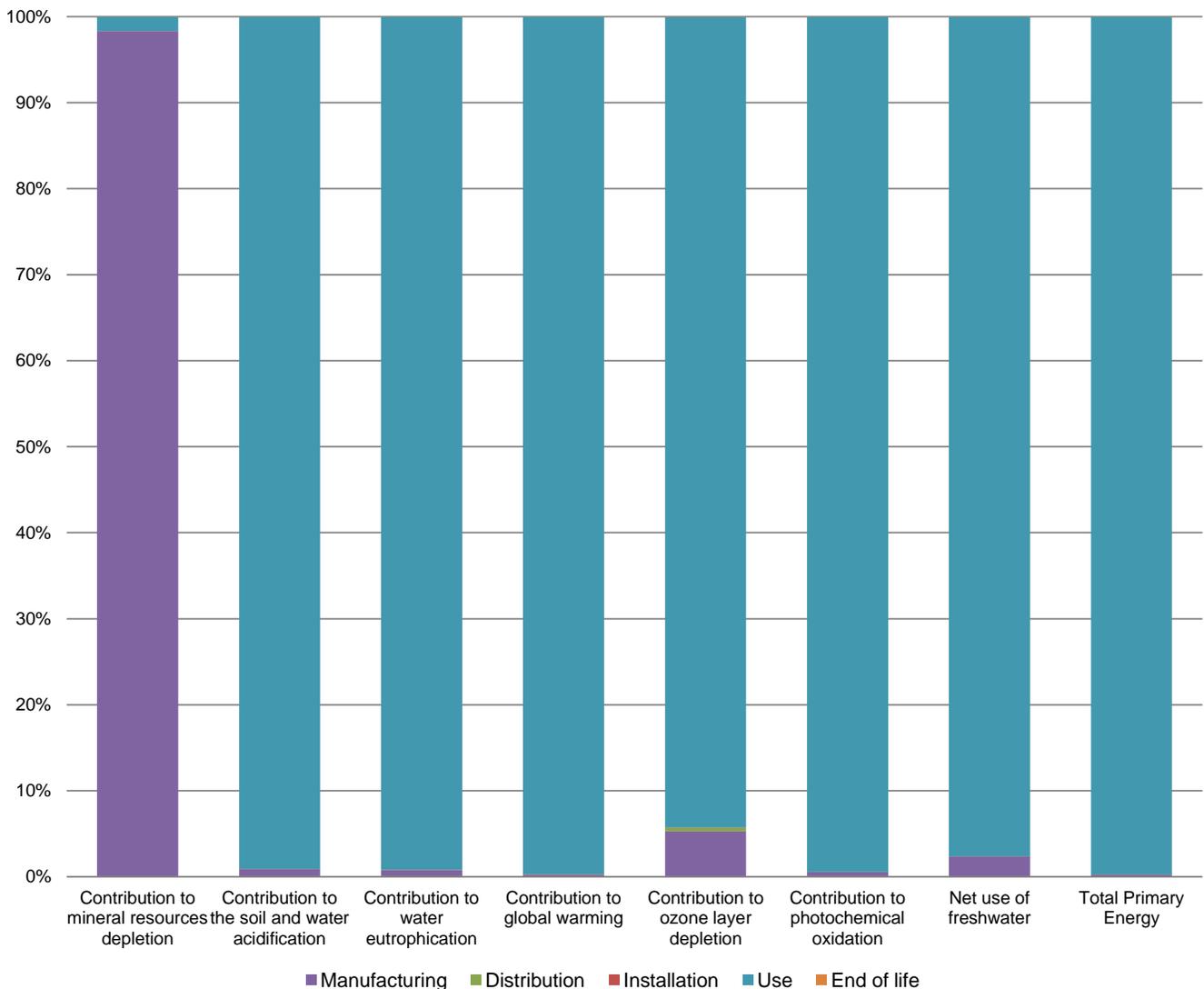
<b>Design</b>	Indicate all the eco-design improvements brought to the product at the design phase compared to previous offer range, refer to ecoDesign Way results
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 1600 g, consisting of Cardboard (1545 g) (96.56%), Paper (25 g) (1.56%) PE (30 g) (1.88%)  Product distribution optimised by setting up local distribution centres
<b>Installation</b>	The product 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  This product contains Electronic Board (Communication) (676.85 g) Electronic Board (Power) (621.34 g) Electrolyte Capacitors (912.00 g) Cable (low current) (189.80 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 <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>  Recyclability potential: <b>66%</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>	The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).
<b>Use scenario</b>	The product is in active mode 80% of the time with a power use of 685W and in stand-by mode 20% of the time with a power use of 14.4W, for 10 years.
<b>Geographical representativeness</b>	China

<b>Technological representativeness</b>	The Altivar Machine ATV310 Power extension driver is a variable speed for three-phase asynchronous and synchronous motors.			
<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; 220V; CN	Electricity mix; AC; consumption mix, at consumer; 220V; CN	Electricity mix; AC; consumption mix, at consumer; 220V; CN

Compulsory indicators		ATV310 3PH 400V 22Kw with filter - ATV310HD22N4EF					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1.29E-02	1.26E-02	0*	0*	2.16E-04	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	5.37E+01	4.84E-01	7.06E-03	0*	5.32E+01	0*
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	1.42E+01	1.12E-01	1.91E-03	0*	1.40E+01	0*
Contribution to global warming	kg CO <sub>2</sub> eq	4.92E+04	1.33E+02	0*	0*	4.91E+04	0*
Contribution to ozone layer depletion	kg CFC11 eq	4.15E-04	2.19E-05	1.94E-06	0*	3.91E-04	1.64E-07
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	6.32E+00	3.57E-02	0*	0*	6.29E+00	0*
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5.61E+01	1.33E+00	0*	0*	5.48E+01	0*
Total Primary Energy	MJ	8.05E+05	2.13E+03	0*	0*	8.03E+05	0*



Optional indicators		ATV310 3PH 400V 22Kw with filter - ATV310HD22N4EF					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	7.43E+05	1.07E+03	0*	0*	7.42E+05	0*
Contribution to air pollution	m <sup>3</sup>	5.11E+06	1.39E+04	0*	0*	5.09E+06	0*
Contribution to water pollution	m <sup>3</sup>	2.46E+06	1.69E+04	4.04E+02	0*	2.44E+06	3.80E+02
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2.34E+00	2.34E+00	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4.13E+04	9.14E+01	0*	0*	4.12E+04	0*
Total use of non-renewable primary energy resources	MJ	7.64E+05	2.04E+03	0*	0*	7.62E+05	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.13E+04	6.07E+01	0*	0*	4.12E+04	0*
Use of renewable primary energy resources used as raw material	MJ	3.07E+01	3.07E+01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7.64E+05	1.97E+03	0*	0*	7.62E+05	0*
Use of non renewable primary energy resources used as raw material	MJ	7.01E+01	7.01E+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	1.66E+03	6.19E+01	0*	0*	1.58E+03	1.49E+01
Non hazardous waste disposed	kg	9.68E+03	7.72E+02	0*	0*	8.90E+03	0*
Radioactive waste disposed	kg	4.03E-01	1.09E-01	5.53E-04	0*	2.93E-01	1.03E-04
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	8.44E+00	7.76E-01	0*	1.57E+00	0*	6.10E+00
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	5.73E-01	0*	0*	0*	0*	5.73E-01
Exported Energy	MJ	3.58E-02	3.13E-02	0*	4.50E-03	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).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

According to this environmental analysis, all the impacts (excepted "Mineral resources depletion") of other products in this family may be proportionally extrapolated by energy consumption values.

For "Mineral resources depletion", the impacts may be proportionally extrapolated by the products weights.

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	ENVPEP2007007	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	11/2020		
Validity period	5 years	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
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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