Product Environmental Profile

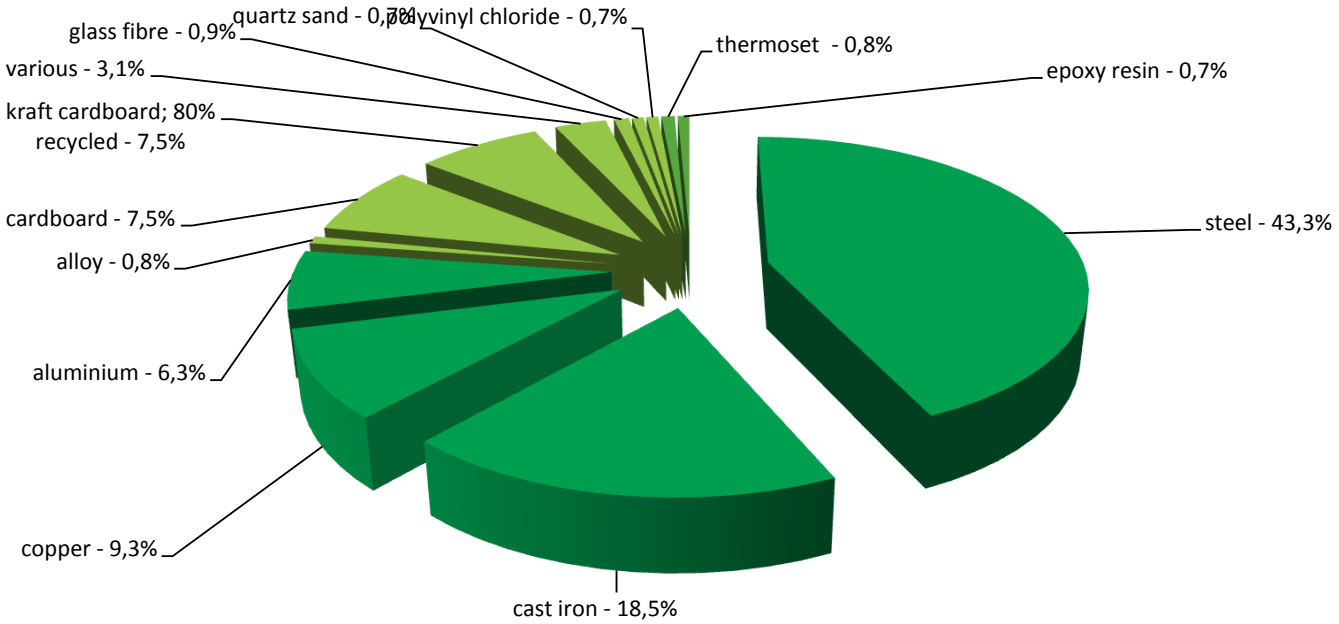
ATVRD15N4 ATV Regenerative Unit
15 kW 400V

General information

Representative product	ATV REGEN 15 kW 400V - ATVRD15N4
Description of the product	The main function of the ATV Regen product is to provide an option to regenerate energy back to the mains for customers. This option is to be associated to Altivar Drives products ranges 7,5 to 15 kW in a standard environment.
Functional unit	To provide energy to the customers mains, the Altivar Regen is associated with Drives and Electric Motors in the range of 7,5 to 15 kW during 10 years, a 40% in active phase and a 60% in stand-by phase.

Constituent materials

Reference product mass	14195,1 g including the product, its packaging and additional elements and accessories



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

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this 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

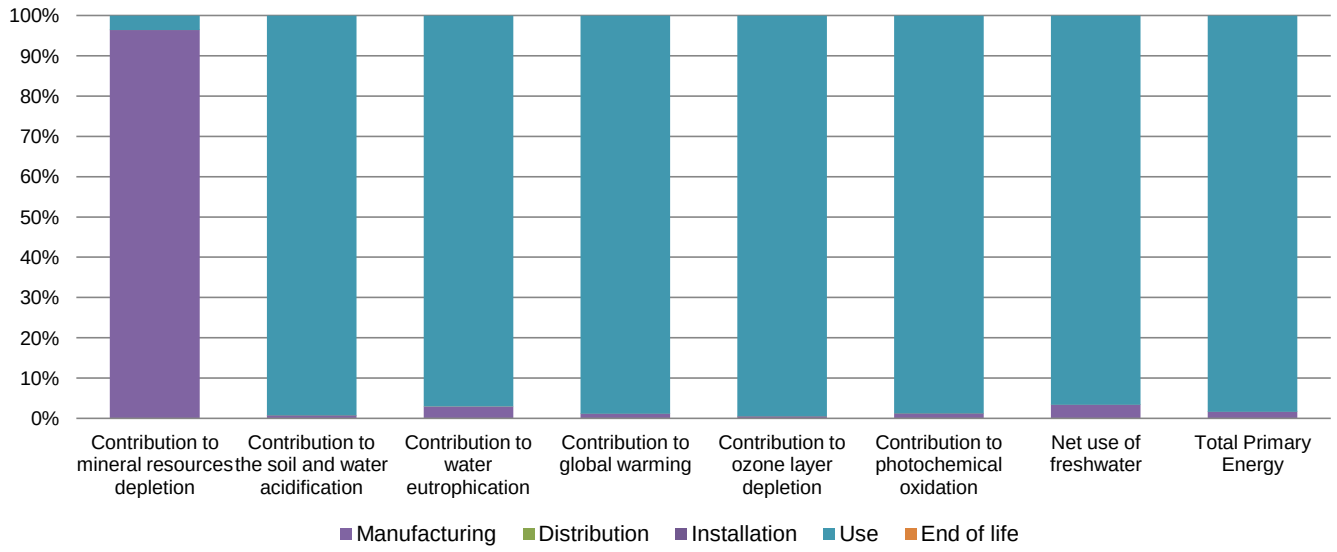
Additional environmental information

The ATV REGEN 15 kW 400V presents the following relevent environmental aspects	
Design	Regeneration of energy back to the mains of customers improve significantly the environmental behaviour of the applications during the Use phase.
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 2195,1 g, consisting of cardboard (90 %), dessicant (8 %) and PE film (2 %). Packaging recycled materials is 80% of total packaging mass. Product distribution optimised by setting up local distribution centres
Installation	The product 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 an electronic card (887,3 g) and cables (141,1 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: **81%** 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	Active products			
Installation elements	No special components needed			
Use scenario	Consumed power is 381 W 40 % of the time in Active mode, 12 W 60 % of the time in Standby mode, W 0 % of the time in Sleep mode and W 0 % of the time in Off mode. The product is in active phase 40% of the time with a power use of 381 W and in stand-by phase 60% of the time with a power use of 12 W, for 10 years.			
Geographical representativeness	Worldwide			
Technological representativeness	The main function of the ATV Regen product is to provide an option to regenerate energy back to the mains for customers. This option is to be associated to Altivar Drives products ranges 7,5 to 15 kW in a standard environment.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: Batam - 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	ATV REGEN 15 kW 400V - ATVRD15N4						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1,04E-02	1,00E-02	0*	0*	3,76E-04	0*
Contribution to the soil and water acidification	kg SO_2 eq	6,29E+01	4,83E-01	1,10E-02	0*	6,24E+01	0*
Contribution to water eutrophication	kg PO_4^{3-} eq	2,41E+00	6,99E-02	2,54E-03	0*	2,34E+00	1,16E-03
Contribution to global warming	kg CO_2 eq	8,36E+03	9,57E+01	2,43E+00	0*	8,25E+03	2,47E+00
Contribution to ozone layer depletion	kg CFC11 eq	2,02E-03	9,67E-06	0*	0*	2,01E-03	0*
Contribution to photochemical oxidation	kg C_2H_4 eq	2,99E+00	3,66E-02	7,94E-04	0*	2,95E+00	3,91E-04
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	2,23E+01	7,43E-01	0*	0*	2,15E+01	0*
Total Primary Energy	MJ	1,45E+05	2,30E+03	3,25E+01	0*	1,42E+05	1,84E+01



Optional indicators	ATV REGEN 15 kW 400V - ATVRD15N4						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	8,63E+04	1,18E+03	3,41E+01	0*	8,50E+04	1,72E+01
Contribution to air pollution	m³	3,72E+05	1,76E+04	1,08E+02	0*	3,54E+05	1,33E+02
Contribution to water pollution	m³	3,54E+05	6,49E+03	3,99E+02	0*	3,46E+05	3,22E+02
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	4,60E+00	4,60E+00	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1,21E+04	9,20E+01	0*	0*	1,20E+04	0*
Total use of non-renewable primary energy resources	MJ	1,33E+05	2,21E+03	3,25E+01	0*	1,30E+05	1,83E+01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,20E+04	6,60E+01	0*	0*	1,20E+04	0*
Use of renewable primary energy resources used as raw material	MJ	2,60E+01	2,60E+01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,33E+05	2,19E+03	3,25E+01	0*	1,30E+05	1,83E+01
Use of non renewable primary energy resources used as raw material	MJ	1,92E+01	1,92E+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	1,86E+02	1,68E+02	0*	2,31E+00	0*	1,50E+01
Non hazardous waste disposed	kg	3,09E+04	3,44E+01	0*	0*	3,09E+04	0*
Radioactive waste disposed	kg	2,52E+01	2,47E-02	0*	0*	2,52E+01	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,32E+01	1,65E+00	0*	2,09E+00	0*	9,43E+00
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	4,00E-01	1,37E-02	0*	0*	0*	3,86E-01
Exported Energy	MJ	0,00E+00	0*	0*	0*	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.5, database version 2015-04.

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.

Registration N°	ENVPEP1608001_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	42593		
Validity period	5 years	*Information and reference*	www.pep-ecopassport.org

Independent verification of the declaration and data, in compliance with ISO 14025 : 2010

Internal X External

The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »

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