Product Environmental Profile

Altivar Soft Starter ATS430 110A

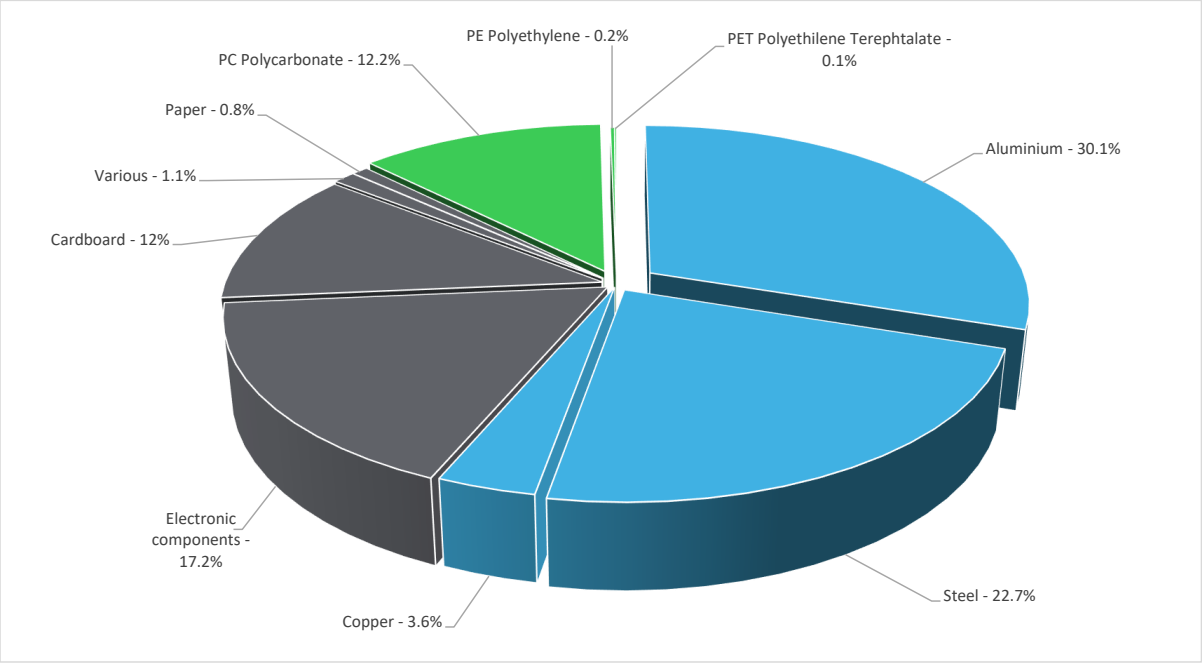
Altivar Soft Starter ATS430

General information

Reference product	Altivar Soft Starter ATS430 110A 208 to 600V AC control supply 110 to 230V AC - ATS430C11S6
Description of the product	The main function of the Altivar Soft Starter ATV430 is primarily to intend for the soft starting and breaking of the rotational speed of an asynchronous motor for normal duty industry.
Description of the range	The products of the range are: This range consists of products ATS430 with ratings from 62A to 110A for operation on 208 to 600V AC control supply 110 to 230V AC, 3-phase supplies. The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology.
Functional unit	The aim of soft starter is to drive an asynchronous motor (squirrel cage) by limitation of the current during acceleration phase with a torque control. It's based on two phases dimmer with silicon controlled rectifier (thyristor). The rating of softstarter is given by nominal current 110A in the case study which lead to drive several power motor depending of power network voltage ie 230V power motor of 30kW and 500V power motor of 75kW. Calculation of the environmental impacts is based on 20 years of product service lifetime. The usage profile taken into account is 50% uptime in use phase and 50% uptime in stand by phase.

Constituent materials

Reference product mass	7600 g	including the product, its packaging and additional elements and accessories



Plastic	12.50%
Metals	56.40%
Others	31.10%

Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website
https://www.se.com/ww/en/work/support/green-premium/

Additional environmental information

End Of Life	Recyclability potential:	**65%**	The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.

Environmental impacts

Reference service life time	20 years
Product category	Contactors - Industrial
Installation elements	The product does not require any installation operations.
Use scenario	The product is in active phase 50% of the time with a power use of 60 W and in stand-by phase 50% of the time with a power use of 15 W, for 20 years.
Time representativeness	The collected data are representative of the year 2023
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and représentaive of the actual type of technologies used to make the product.
Geographical representativeness	Europe

Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; High voltage; 2018; Indonesia, ID	Electricity Mix; Low voltage; 2018; Europe, EU-27	Electricity Mix; Low voltage; 2018; Europe, EU-27	Electricity Mix; Low voltage; 2018; Europe, EU-27

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

Mandatory Indicators		Altivar Soft Starter ATS430 110A 208 to 600V AC control supply 110 to 230V AC - ATS430C11S6						
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to climate change	kg CO2 eq	2.87E+03	1.64E+02	1.48E+00	1.07E+00	2.69E+03	1.40E+01	-4.08E+01
Contribution to climate change-fossil	kg CO2 eq	2.87E+03	1.63E+02	1.48E+00	1.02E+00	2.69E+03	1.39E+01	-3.97E+01
Contribution to climate change-biogenic	kg CO2 eq	5.33E+00	1.63E+00	0*	4.99E-02	3.59E+00	5.83E-02	-1.14E+00
Contribution to climate change-land use and land use change	kg CO2 eq	1.10E-03	1.09E-03	0*	0*	0*	1.46E-06	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	3.05E-05	1.89E-05	0*	1.39E-08	1.15E-05	1.11E-07	-5.53E-06
Contribution to acidification	mol H+ eq	1.68E+01	1.38E+00	9.37E-03	3.09E-03	1.54E+01	3.59E-02	-3.01E-01
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	9.91E-03	6.39E-04	0*	2.43E-05	7.37E-03	1.87E-03	-1.49E-04
Contribution to eutrophication marine	kg N eq	1.93E+00	1.67E-01	4.39E-03	1.34E-03	1.75E+00	8.81E-03	-2.36E-02
Contribution to eutrophication, terrestrial	mol N eq	2.82E+01	1.80E+00	4.82E-02	9.34E-03	2.62E+01	9.71E-02	-2.58E-01
Contribution to photochemical ozone formation - human health	kg COVNM eq	6.22E+00	5.68E-01	1.22E-02	2.14E-03	5.60E+00	2.85E-02	-8.79E-02
Contribution to resource use, minerals and metals	kg Sb eq	2.24E-02	2.22E-02	0*	0*	1.95E-04	5.86E-05	-2.48E-03
Contribution to resource use, fossils	MJ	7.19E+04	2.87E+03	2.06E+01	1.04E+01	6.86E+04	4.03E+02	-6.01E+02
Contribution to water use	m3 eq	1.39E+02	3.96E+01	0*	9.73E-02	9.53E+01	3.81E+00	-1.12E+01

Inventory flows Indicators		Altivar Soft Starter ATS430 110A 208 to 600V AC control supply 110 to 230V AC - ATS430C11S6						
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.33E+04	7.80E+01	0*	1.37E+00	1.32E+04	1.47E+00	-1.93E+01
Contribution to use of renewable primary energy resources used as raw material	MJ	2.02E+01	2.02E+01	0*	0*	0*	0*	-1.45E+01
Contribution to total use of renewable primary energy resources	MJ	1.33E+04	9.82E+01	0*	1.37E+00	1.32E+04	1.47E+00	-3.38E+01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw	MJ	7.19E+04	2.82E+03	2.06E+01	1.04E+01	6.86E+04	4.03E+02	-6.00E+02
Contribution to use of non renewable primary energy resources used as raw material	MJ	5.05E+01	5.05E+01	0*	0*	0*	0*	-3.13E-01
Contribution to total use of non-renewable primary energy resources	MJ	7.19E+04	2.87E+03	2.06E+01	1.04E+01	6.86E+04	4.03E+02	-6.01E+02
Contribution to use of secondary material	kg	5.27E-03	5.27E-03	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m^3	3.24E+00	9.35E-01	0*	2.27E-03	2.22E+00	8.87E-02	-2.62E-01
Contribution to hazardous waste disposed	kg	3.55E+02	3.04E+02	0*	0*	5.03E+01	1.35E+00	-2.03E+02
Contribution to non hazardous waste disposed	kg	5.13E+02	1.23E+02	5.19E-02	4.61E-01	3.87E+02	1.43E+00	-5.98E+01
Contribution to radioactive waste disposed	kg	1.50E-01	6.85E-02	3.70E-05	5.67E-05	8.11E-02	1.12E-04	-4.55E-02
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	5.00E+00	6.39E-01	0*	6.67E-03	0*	4.35E+00	0.00E+00
Contribution to materials for energy recovery	kg	1.51E-07	1.51E-07	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	9.15E-02	6.45E-03	0*	4.29E-02	0*	4.21E-02	0.00E+00

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

Contribution to biogenic carbon content of the product	kg de C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	2.82E-01

Mandatory Indicators		Altivar Soft Starter ATS430 110A 208 to 600V AC control supply 110 to 230V AC - ATS430C11S6							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	2.69E+03	0*	0*	0*	0*	0*	2.69E+03	0*
Contribution to climate change-fossil	kg CO2 eq	2.69E+03	0*	0*	0*	0*	0*	2.69E+03	0*
Contribution to climate change-biogenic	kg CO2 eq	3.59E+00	0*	0*	0*	0*	0*	3.59E+00	0*
Contribution to climate change-land use and land use change	kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	1.15E-05	0*	0*	0*	0*	0*	1.15E-05	0*
Contribution to acidification	mol H+ eq	1.54E+01	0*	0*	0*	0*	0*	1.54E+01	0*
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	7.37E-03	0*	0*	0*	0*	0*	7.37E-03	0*
Contribution to eutrophication marine	kg N eq	1.75E+00	0*	0*	0*	0*	0*	1.75E+00	0*
Contribution to eutrophication, terrestrial	mol N eq	2.62E+01	0*	0*	0*	0*	0*	2.62E+01	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	5.60E+00	0*	0*	0*	0*	0*	5.60E+00	0*
Contribution to resource use, minerals and metals	kg Sb eq	1.95E-04	0*	0*	0*	0*	0*	1.95E-04	0*
Contribution to resource use, fossils	MJ	6.86E+04	0*	0*	0*	0*	0*	6.86E+04	0*
Contribution to water use	m3 eq	9.53E+01	0*	0*	0*	0*	0*	9.53E+01	0*

Inventory flows Indicators		Altivar Soft Starter ATS430 110A 208 to 600V AC control supply 110 to 230V AC - ATS430C11S6							
Inventory flows	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.32E+04	0*	0*	0*	0*	0*	1.32E+04	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	1.32E+04	0*	0*	0*	0*	0*	1.32E+04	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6.86E+04	0*	0*	0*	0*	0*	6.86E+04	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	6.86E+04	0*	0*	0*	0*	0*	6.86E+04	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m^3	2.22E+00	0*	0*	0*	0*	0*	2.22E+00	0*
Contribution to hazardous waste disposed	kg	5.03E+01	0*	0*	0*	0*	0*	5.03E+01	0*
Contribution to non hazardous waste disposed	kg	3.87E+02	0*	0*	0*	0*	0*	3.87E+02	0*
Contribution to radioactive waste disposed	kg	8.11E-02	0*	0*	0*	0*	0*	8.11E-02	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	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 v6.1, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request

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 :	SCHN-00918-V01.01-EN	*Drafting rules*	PCR-4-ed4-EN-2021 09 06
		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Verifier accreditation N°	VH45	*Information and reference documents*	www.pep-ecopassport.org
Date of issue	05-2024	*Validity period*	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006			
Internal	External X		
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain) *PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022* *The components of the present PEP may not be compared with components from any other program.* *Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"*			

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