

# Product Environmental Profile

**Altivar Soft Starter ATS480 170A 208 to 690V AC control supply  
110 to 230V AC**

**Altivar Soft Starter**

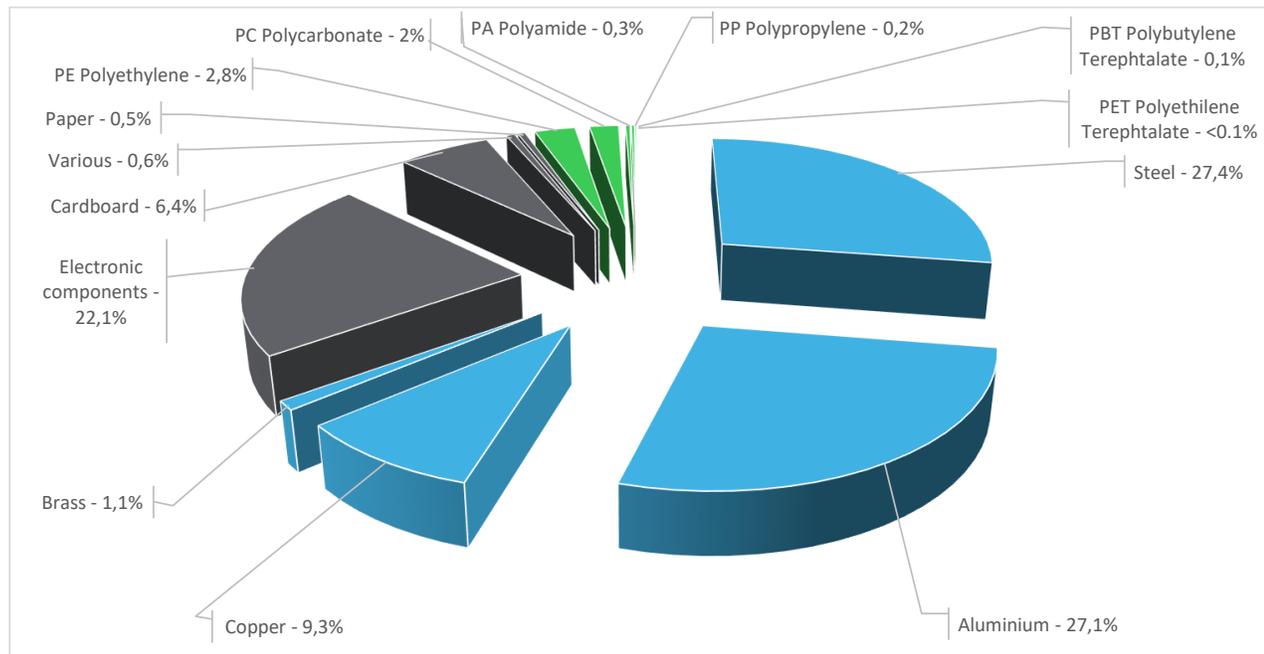


## General information

<b>Representative product</b>	Altivar Soft Starter ATS480 170A 208 to 690V AC control supply 110 to 230V AC - ATS480C17Y
<b>Description of the product</b>	The main function of the Altivar Soft Starter product range is primarily to intend for the soft starting and breaking of the rotational speed of an asynchronous electric motor for heavy duty industry and pumps.
<b>Description of the range</b>	This range consists of products ATS480 with ratings from 140A to 170A for operation on 208 to 690V AC control supply 110 to 230V AC, 3-phase supplies IP20.  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>	The aim of soft starter is to drive an asynchronous motor (squirrel cage) by limitation of the current during acceleration and deceleration phase with a torque control. It's based on three phases dimmer with Silicon controlled rectifier (thyristor). The rating of softstarter is given by nominal current 170 A in the case study which lead to drive several power motor depending of power network ie 230V power motor of 45kW and 690V power motor of 160kW. Calculation of the environmental impacts is based on 10 years of product service lifetime. The usage profile taken into account is 45% uptime in use phase, 45% uptime in stand by phase and 10% uptime in off phase.

## Constituent materials

**Reference product mass** 14,1 kg including the product, its packaging and additional elements and accessories



Plastics	5,5%
Metals	64,9%
Others	29,6%

## 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

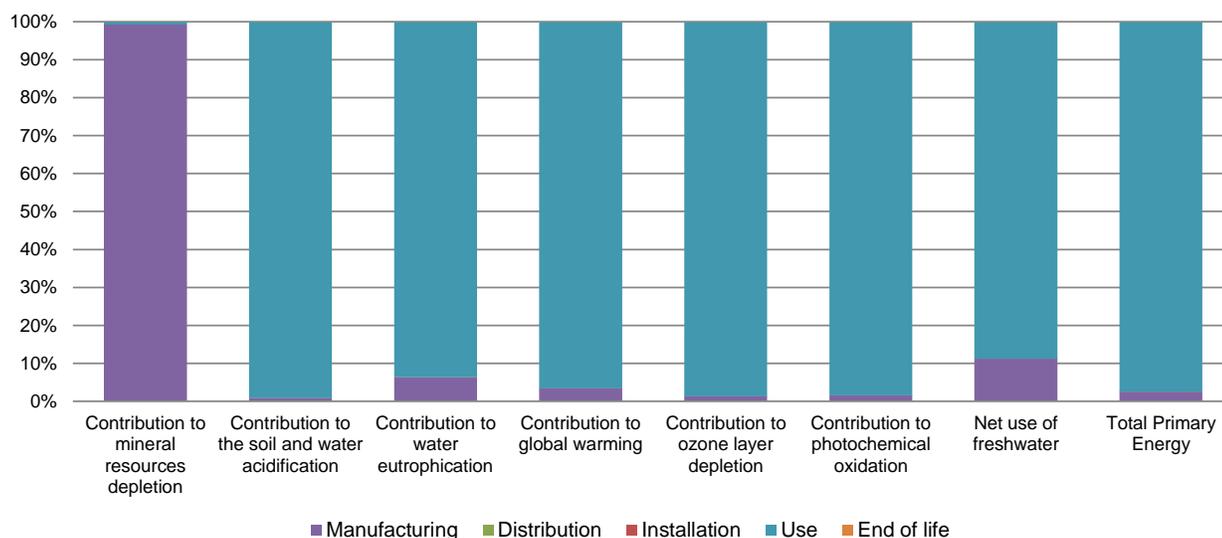
The Altivar Soft Starter ATS480 170A 208 to 690V AC control supply 110 to 230V AC presents the following relevant environmental aspects

<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 1501,8 g, consisting of cardboard (63%), PE foam (25%), dessicant dryer (5%), paper (5%) and PE film (2%) Product distribution optimised by setting up local distribution centres
<b>Installation</b>	The product does not require any installation operation.
<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 (705g), cables (48g), LCD (7g) and Batteries (2,9g) 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>71%</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 phase 45% of the time with a power use of 489 W, in stand-by phase 45% of the time with a power use of 20 W and in off phase 10% of the time with a power use of 0 W, for 10 years.			
<b>Geographical representativeness</b>	Europe			
<b>Technological representativeness</b>	The main function of the Altivar Soft Starter product range is primarily to intend for the soft starting and breaking of the rotational speed of an asynchronous electric motor for heavy duty industry and pumps.			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	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		Altivar Soft Starter ATS480 170A 208 to 690V AC control supply 110 to 230V AC - ATS480C17Y					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6,98E-02	6,92E-02	0*	0*	5,40E-04	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	9,04E+01	8,15E-01	0*	0*	8,96E+01	0*
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	3,59E+00	2,25E-01	1,91E-03	0*	3,36E+00	1,19E-03
Contribution to global warming	kg CO <sub>2</sub> eq	1,23E+04	4,19E+02	1,82E+00	0*	1,18E+04	2,30E+00
Contribution to ozone layer depletion	kg CFC11 eq	2,92E-03	3,76E-05	0*	0*	2,88E-03	0*
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	4,31E+00	6,97E-02	5,93E-04	0*	4,23E+00	4,33E-04
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	3,48E+01	3,92E+00	0*	0*	3,09E+01	0*
Total Primary Energy	MJ	2,46E+05	6,22E+03	2,57E+01	0*	2,40E+05	0*



Optional indicators		Altivar Soft Starter ATS480 170A 208 to 690V AC control supply 110 to 230V AC - ATS480C17Y					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1,27E+05	5,01E+03	2,56E+01	0*	1,22E+05	1,65E+01
Contribution to air pollution	m <sup>3</sup>	5,58E+05	4,93E+04	7,74E+01	0*	5,08E+05	1,46E+02
Contribution to water pollution	m <sup>3</sup>	5,29E+05	3,12E+04	2,99E+02	0*	4,97E+05	2,32E+02
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	5,93E+00	5,93E+00	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1,74E+04	2,39E+02	0*	0*	1,72E+04	0*
Total use of non-renewable primary energy resources	MJ	2,29E+05	5,98E+03	2,57E+01	0*	2,23E+05	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,74E+04	2,18E+02	0*	0*	1,72E+04	0*
Use of renewable primary energy resources used as raw material	MJ	2,01E+01	2,01E+01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2,29E+05	5,93E+03	2,57E+01	0*	2,23E+05	0*
Use of non renewable primary energy resources used as raw material	MJ	4,60E+01	4,60E+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	1,27E+03	1,25E+03	0*	0*	0*	1,79E+01
Non hazardous waste disposed	kg	4,44E+04	8,99E+01	0*	0*	4,43E+04	0*
Radioactive waste disposed	kg	3,62E+01	3,58E-02	0*	0*	3,61E+01	0*

Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,17E+01	1,11E+00	0*	1,19E+00	0*	9,44E+00
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	3,10E-01	0*	0*	0*	0*	3,10E-01
Exported Energy	MJ	3,21E-03	2,86E-04	0*	2,92E-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 v5.9.1, database version 2020-12 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.

To extrapolate the impact to another product from the range, apply the following extrapolation rules to each indicator per life cycle stage:

MANUFACTURING(i) = Mass of (product+packaging) in grams / Mass of (reference product+reference packaging) in grams

DISTRIBUTION (i) = Mass of (product+packaging) in grams / Mass of (reference product+reference packaging) in grams

INSTALLATION (i) = Mass of (packaging) in grams / Mass of (reference packaging) in grams

USE (i) = Power dissipated in Watts / Power dissipated of the reference product in Watts

END OF LIFE (i) = Mass of (product) in grams / Mass of (reference product) in grams

TOTAL (i) =  $\Sigma$  Life Cycle Stages (i)

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.

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Verifier accreditation N°	VH39	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
Date of issue	11/2021	Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010			
Internal	External	X	
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINEN)			
PEP are compliant with XP C08-100-1 :2016			
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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