

Product Environmental Profile

ATV320 1.5kW 3PH 400V COMPACT CONTROL

ATV320 – 0.37kW - 1.5kW 3PH 400V; 1.1kW - 2.2kW 1PH/ 3PH 200V; 0.75kW - 1.5kW 3PH 600V compact control



Schneider
Electric



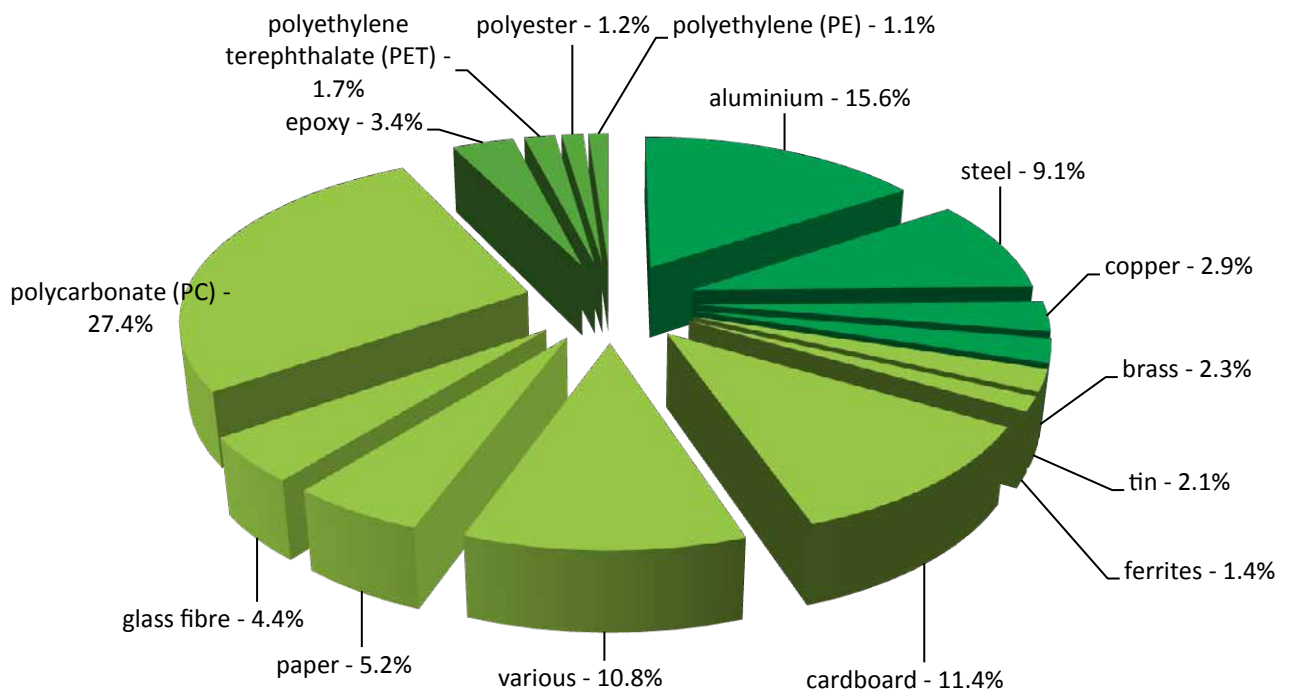
General information

| | |
|-----------------------------------|--|
| Representative product | ATV320 1.5kW 3PH 400V COMPACT CONTROL -ATV320U15N4C |
| Description of the product | To control the speed and variate of an synchronous electric motor for general application |
| Description of the range | ATV320–0.37kW - 1.5kW 3PH400V;1.1kW - 2.2kW 1PH/3PH200V;0.75kW - 1.5kW 3PH600V compact control 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. |
| Functional unit | To control the speed and variate of an synchronous electric motor for general application during 10 years and a 46% use rate, in accordance with the relevant standards. |



Constituent materials

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|-------------------------------|---|
| Reference product mass | 1541.6 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 ATV320 1.5kW 3PH 400V COMPACT CONTROL presents the following relevant environmental aspects

| | |
|----------------------|--|
| Design | Products are designed to be "Green Premium". |
| 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 247.7 g, consisting of cardboard (71.38%), paper(27.37%), polyethylene(1.21%), packaging recycled materials is 16.14% of total packaging mass. Product distribution optimised by setting up local distribution centres |
| Installation | Does not require any special 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 Electronic card (354.47g) Electronia capacitor (120.10g) Cable (7.20g) Steel (141.92g) Alumimium (183.36g) PC (416.07g) 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: 60% Based on "EcoDEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME). |

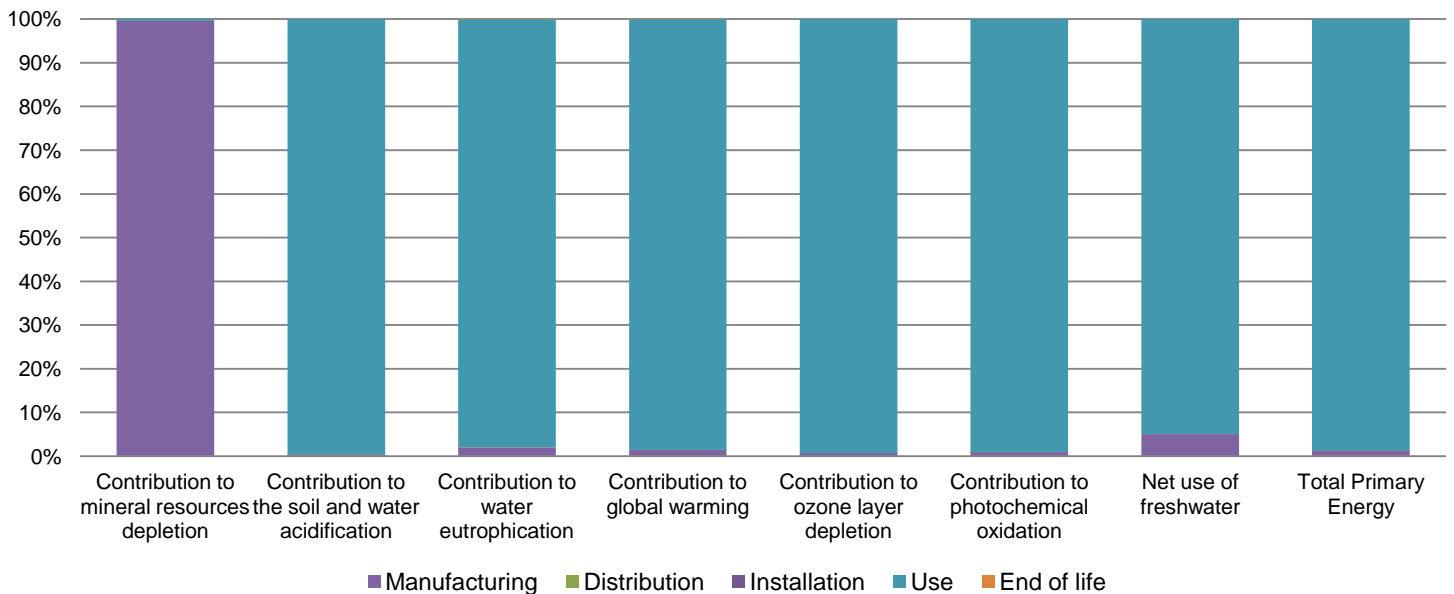


Environmental impacts

| | | | |
|---|---|---|---|
| Reference life time | 10 years | | |
| Product category | Active products | | |
| Installation elements | No special components needed | | |
| Use scenario | Consumed power is 60.9 W 46 % of the time in Active mode, 0 W 54 % of the time in Standby mode, 0 W 0 % of the time in Sleep mode and 0 W 0 % of the time in Off mode. The product is in active mode 46% of the time with a power use of 60.9W and in stand-by mode 54% of the time with a power use of 0.0W, for 10 years | | |
| Geographical representativeness | Worldwide | | |
| Technological representativeness | To control the speed and variate of an synchronous electric motor for general application | | |
| Energy model used | Manufacturing | Installation | Use |
| | Energy model used: Indonesia | Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27 |
| | | | End of life Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27 |

| Compulsory indicators | | ATV320 1.5kW 3PH 400V COMPACT CONTROL - ATV320U15N4C | | | | | |
|--|-------------------------------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 1,60E-02 | 1,59E-02 | 0* | 0* | 6,60E-05 | 0* |
| Contribution to the soil and water acidification | kg SO ₂ eq | 1,10E+01 | 4,64E-02 | 0* | 0* | 1,10E+01 | 0* |
| Contribution to water eutrophication | kg PO ₄ ³⁻ eq | 4,19E-01 | 8,23E-03 | 2,09E-04 | 0* | 4,11E-01 | 1,90E-04 |
| Contribution to global warming | kg CO ₂ eq | 1,47E+03 | 2,15E+01 | 1,99E-01 | 0* | 1,45E+03 | 4,66E-01 |
| Contribution to ozone layer depletion | kg CFC11 eq | 3,54E-04 | 2,46E-06 | 0* | 0* | 3,52E-04 | 0* |
| Contribution to photochemical oxidation | kg C ₂ H ₄ eq | 5,23E-01 | 4,85E-03 | 6,48E-05 | 0* | 5,18E-01 | 0* |

| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
|-----------------------|------|----------|---------------|--------------|--------------|----------|-------------|
| Net use of freshwater | m3 | 3,98E+00 | 1,99E-01 | 0* | 0* | 3,78E+00 | 0* |
| Total Primary Energy | MJ | 2,97E+04 | 3,84E+02 | 0* | 0* | 2,94E+04 | 0* |



| Optional indicators | | ATV320 1.5kW 3PH 400V COMPACT CONTROL - ATV320U15N4C | | | | | |
|---|----------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to fossil resources depletion | MJ | 1,52E+04 | 2,76E+02 | 2,79E+00 | 0* | 1,49E+04 | 2,39E+00 |
| Contribution to air pollution | m ³ | 6,48E+04 | 2,63E+03 | 8,46E+00 | 0* | 6,21E+04 | 1,74E+01 |
| Contribution to water pollution | m ³ | 6,53E+04 | 4,48E+03 | 3,27E+01 | 0* | 6,08E+04 | 3,56E+01 |
| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 1,80E-01 | 1,80E-01 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 2,11E+03 | 9,68E+00 | 0* | 0* | 2,10E+03 | 0* |
| Total use of non-renewable primary energy resources | MJ | 2,76E+04 | 3,75E+02 | 2,81E+00 | 0* | 2,73E+04 | 2,86E+00 |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 2,11E+03 | 6,03E+00 | 0* | 0* | 2,10E+03 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 3,65E+00 | 3,65E+00 | 0* | 0* | 0* | 0* |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 2,76E+04 | 3,53E+02 | 2,81E+00 | 0* | 2,73E+04 | 2,86E+00 |
| Use of non renewable primary energy resources used as raw material | MJ | 2,12E+01 | 2,12E+01 | 0* | 0* | 0* | 0* |
| Use of non 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 | 5,11E+01 | 4,83E+01 | 0* | 4,96E-01 | 0* | 2,29E+00 |
| Non hazardous waste disposed | kg | 5,43E+03 | 6,51E+00 | 0* | 0* | 5,42E+03 | 0* |
| Radioactive waste disposed | kg | 4,42E+00 | 4,26E-03 | 0* | 0* | 4,42E+00 | 0* |

| Other environmental information | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
|---------------------------------|------|----------|---------------|--------------|--------------|-----|-------------|
| Materials for recycling | kg | 8,71E-01 | 1,02E-01 | 0* | 0* | 0* | 7,68E-01 |
| Components for reuse | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for energy recovery | kg | 1,12E-01 | 2,74E-03 | 0* | 1,24E-02 | 0* | 9,64E-02 |
| 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).

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

The mineral resources depletion of the product of the family maybe proportional extrapolated by mass of product.

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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|---|---------------|---------------------------|--|
| Registration N° | ENVPEP1512003 | Drafting rules | PCR-ed3-EN-2015 04 02 |
| Date of issue | 03/2016 | | |
| 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 » | | | |
| Environmental data in alignment with EN 15804 : 2012 + A1 : 2013 | | | |

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