Product Environmental Profile

ATV660 DRIVE SYSTEMS IP23 315 / 250 KW 400V









General information

Reference product

ATV660 DRIVE SYSTEMS IP23 315 / 250 KW 400V - ATV660C31Q4X1

Description of the product

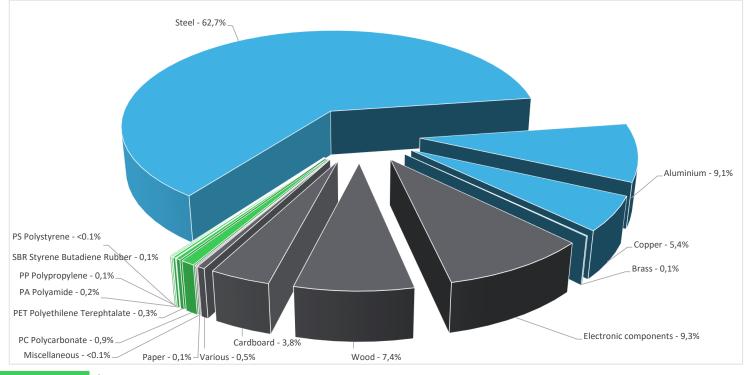
The main function of the Altivar Process product range is the speed control and variation of a synchronous, asynchronous or reluctance electric motor for fluid management and industrial applications.

To adapt the speed and torque of synchronous, asynchronous or reluctance motor to the machine's operating point. Calculation of the environmental impacts is based on 10 years of product service lifetime. The usage profile taken into account is 73% uptime in use phase at 80% loading rate and 27% uptime in stand by phase.



Constituent materials

including the product, its packaging and additional elements and accessories 445 kg



Plastics 1,60% Metals 77,30% 21,10% Others

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:

77%

Recyclability rate has been calculated based on REEECY'LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).

Tenvironmental impacts

| Reference service life time | 10 years | | | | | |
|----------------------------------|---|--|--|---|--|--|
| Product category | Other equipments - Active product | | | | | |
| Installation elements | No special components needed | | | | | |
| Use scenario | The product is in active phase 73% of the time at 80% loading rate with a power use of 7391,2W and in stand-by phase 27% of the time with a power use of 76W, for 10 years. | | | | | |
| Technological representativeness | The main function of the Altivar Process product range is the speed control and variation of a synchronous, asynchronous or reluctance electric motor for fluid management and industrial applications. | | | | | |
| Geographical representativeness | Europe | | | | | |
| | [A1 - A3] | [A5] | [B6] | [C1 - C4] | | |
| Energy model used | Electricity Mix; Production mix; Low voltage; CN | Electricity Mix; Production mix; Low voltage; UE-27 | Electricity Mix; Production mix; Low voltage; UE-27 | Electricity Mix; Production mix; Low voltage; UE-27 | | |

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), 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 | | | ATV660 DRIVE SYSTEMS IP23 315 / 250 KW 400V - ATV660C31Q4X1 | | | | | |
|--|------------------|----------|---|--------------|--------------|-----------|-------------|-----------------------|
| Impact indicators | Unit | Total | Manufact. | Distribution | Installation | Use | End of Life | Loads and Benefits |
| | | | [A1 - A3] | [A4] | [A5] | [B1 - B7] | [C1 - C4] | [D] |
| Contribution to climate change | kg CO2 eq | 3,19E+05 | 1,31E+04 | 9,96E+01 | 5,87E+01 | 3,05E+05 | 8,77E+02 | 5,18E-01 |
| Contribution to climate change-fossil | kg CO2 eq | 3,19E+05 | 1,31E+04 | 9,96E+01 | 7,62E+01 | 3,05E+05 | 8,71E+02 | 5,18E-01 |
| Contribution to climate change-biogenic | kg CO2 eq | 2,33E+02 | 4,41E+01 | 0* | 0* | 2,00E+02 | 6,28E+00 | -7,16E-06 |
| Contribution to climate change-land use and land use change | kg CO2 eq | 8,93E-05 | 6,40E-06 | 0* | 0* | 0* | 8,29E-05 | 0,00E+00 |
| Contribution to ozone depletion | kg CFC-11 eq | 2,66E-03 | 1,12E-03 | 5,23E-05 | 2,11E-06 | 1,47E-03 | 7,88E-06 | 0,00E+00 |
| Contribution to acidification | mol H+ eq | 2,06E+03 | 1,07E+02 | 5,16E-01 | 0* | 1,95E+03 | 3,84E+00 | 1,83E-03 |
| Contribution to eutrophication, freshwater | kg (PO4)³- eq | 4,83E-01 | 3,69E-02 | 0* | 4,19E-04 | 2,69E-01 | 1,77E-01 | 1,98E-07 |
| Contribution to eutrophication marine | kg N eq | 2,43E+02 | 2,43E+01 | 2,40E-01 | 4,41E-02 | 2,17E+02 | 9,09E-01 | 2,81E-04 |
| Contribution to eutrophication, terrestrial | mol N eq | 2,89E+03 | 2,65E+02 | 2,61E+00 | 3,60E-01 | 2,61E+03 | 6,87E+00 | 3,06E-03 |
| Contribution to photochemical ozone formation - human health | kg COVNM eq | 7,95E+02 | 7,22E+01 | 7,56E-01 | 1,06E-01 | 7,19E+02 | 2,34E+00 | 8,89E-04 |
| Contribution to resource use, minerals and metals | kg Sb eq | 1,92E+00 | 1,90E+00 | 0* | 0* | 8,85E-03 | 4,99E-03 | 4,78E-08 |
| Contribution to resource use, fossils | MJ | 5,99E+06 | 2,47E+05 | 1,28E+03 | 0* | 5,69E+06 | 5,88E+04 | 1,17E+01 |
| Contribution to water use | m3 eq | 2,08E+04 | 2,90E+03 | 3,16E+00 | 1,37E+01 | 1,19E+04 | 5,93E+03 | 5,32E-02 |

Additional indicators for the French regulation are available as well

| Inventory flows Indicators | | | ATV660 [| ORIVE SYSTEMS I | P23 315 / 250 KW | 400V - ATV6600 | C31Q4X1 | |
|---|---------|----------|-----------|-----------------|------------------|----------------|-------------|-----------------------|
| Inventory flows | Unit | Total | Manufact. | Distribution | Installation | Use | End of Life | Loads and Benefits |
| | | | [A1 - A3] | [A4] | [A5] | [B1 - B7] | [C1 - C4] | [D] |
| Contribution to use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 7,07E+05 | 3,61E+03 | 0* | 1,64E+02 | 7,03E+05 | 1,54E+02 | 9,72E-05 |
| Contribution to use of renewable primary energy resources used as raw material | MJ | 1,02E+03 | 1,02E+03 | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to total use of renewable primary energy resources | MJ | 7,08E+05 | 4,64E+03 | 0* | 1,64E+02 | 7,03E+05 | 1,54E+02 | 9,72E-05 |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 5,99E+06 | 2,46E+05 | 1,28E+03 | 0* | 5,69E+06 | 5,88E+04 | 6,02E+00 |
| Contribution to use of non renewable primary energy resources used as raw material | MJ | 1,26E+03 | 1,26E+03 | 0* | 0* | 0* | 0* | 5,67E+00 |
| Contribution to total use of non-renewable primary energy resources | MJ | 5,99E+06 | 2,47E+05 | 1,28E+03 | 0* | 5,69E+06 | 5,88E+04 | 1,17E+01 |
| Contribution to use of secondary material | kg | 1,76E+01 | 1,76E+01 | 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 | m³ | 5,00E+02 | 6,75E+01 | 7,35E-02 | 3,18E-01 | 2,78E+02 | 1,54E+02 | 1,24E-03 |
| Contribution to hazardous waste disposed | kg | 4,26E+04 | 3,48E+04 | 0* | 0* | 7,36E+03 | 5,03E+02 | 5,25E-03 |
| Contribution to non hazardous waste disposed | kg | 5,20E+04 | 3,76E+03 | 0* | 1,28E+02 | 4,81E+04 | 9,28E+00 | 2,30E-03 |
| Contribution to radioactive waste disposed | kg | 7,62E+00 | 1,97E+00 | 1,28E-02 | 1,45E-02 | 5,61E+00 | 3,49E-03 | 0,00E+00 |
| Contribution to components for reuse | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to materials for recycling | kg | 3,36E+02 | 7,79E-02 | 0* | 2,68E+01 | 0* | 3,09E+02 | 0,00E+00 |
| Contribution to materials for energy recovery | kg | 5,63E-08 | 5,63E-08 | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to exported energy | MJ | 2,30E+01 | 2,17E+00 | 0* | 2,09E+01 | 0* | 0* | 0,00E+00 |
| Contribution to biogenic carbon content of the product | kg de C | 0,00E+00 | 0* | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to biogenic carbon content of the associated backaging | kg de C | 0,00E+00 | 0* | 0* | 0* | 0* | 0* | 0,00E+00 |

 $^{^{\}star}$ represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

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.

ENVPEP2307024_V1 Registration number : PEP-PCR-ed4-2021 09 06 Drafting rules Information and Date of issue 2023/11/28 www.pep-ecopassport.org reference documents Validity period 5 years

Independent verification of the declaration and data, in compliance with ISO 14021 : 2016

Internal External

The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)

PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019

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. Type II environmental declarations »

Schneider Electric Industries SAS

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