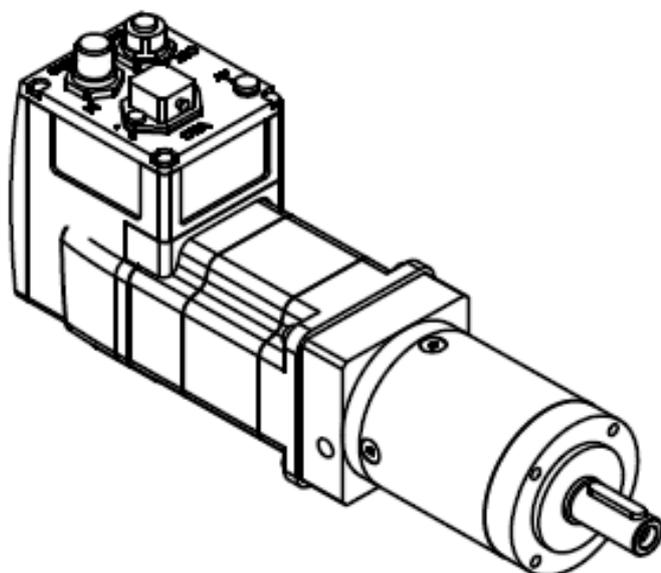


Product Environmental Profile

Lexium Integrated Drive ILE with Gearbox





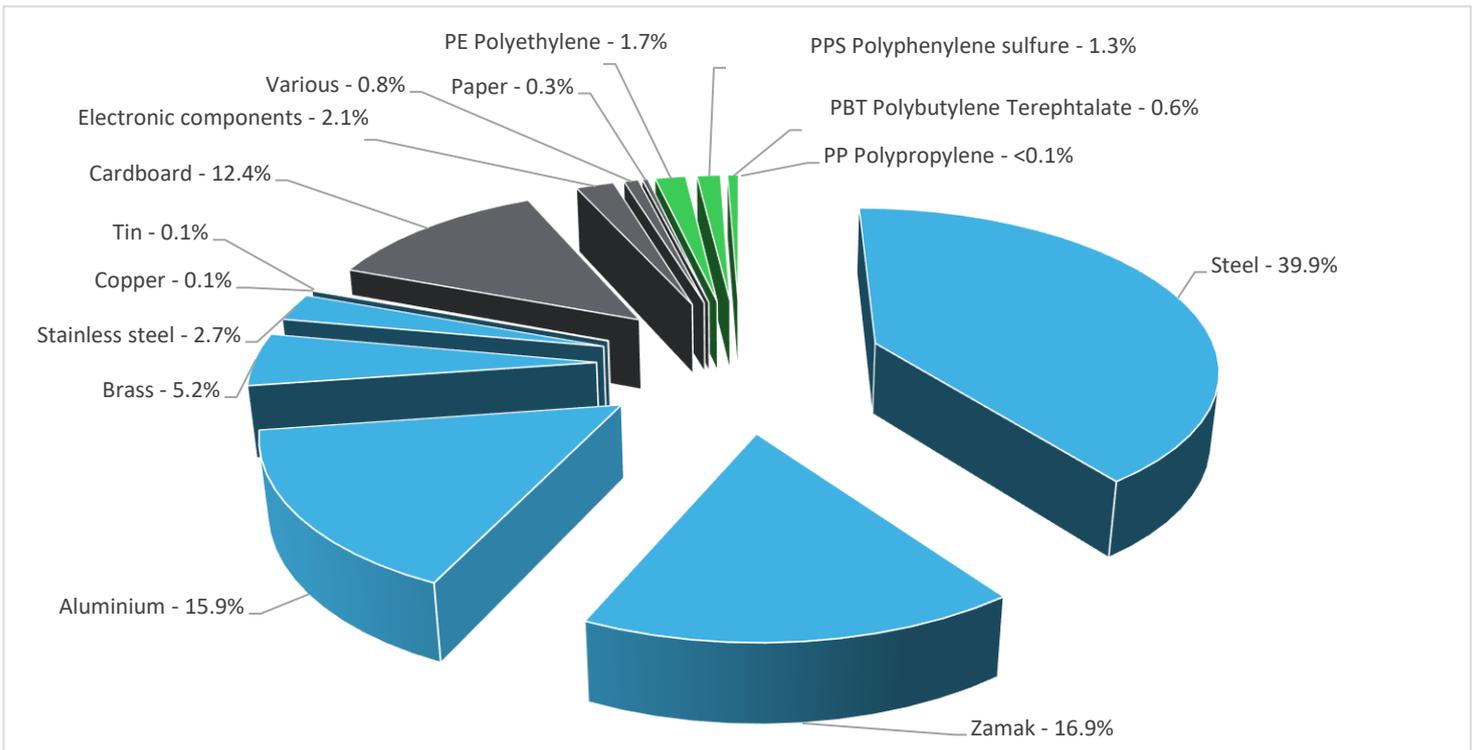
General information

| | |
|-----------------------------------|---|
| Representative product | Lexium Integrated Drive ILE with Gearbox - ILE1F662S2019 |
| Description of the product | The main purpose of the Lexium Integrated Drive ILE with gearbox is to control the variation of the rotational speed and position of a DC brushless electric motor |
| Description of the range | This range consists of Integrated Drives ILE with brushless DC motors with ratings from 3.8A to 5A for operation on 24V to 36V, DC-Supply with gearboxes. 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 coordinate and synchronize motion control with stepper, servo or burshless DC motor 70% of the time for 10 years |



Constituent materials

Reference product mass 3400 g including the product, its packaging and additional elements and accessories



| | |
|----------|-------|
| Plastics | 3.6% |
| Metals | 80.8% |
| Others | 15.6% |



Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) 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), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate– BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) 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

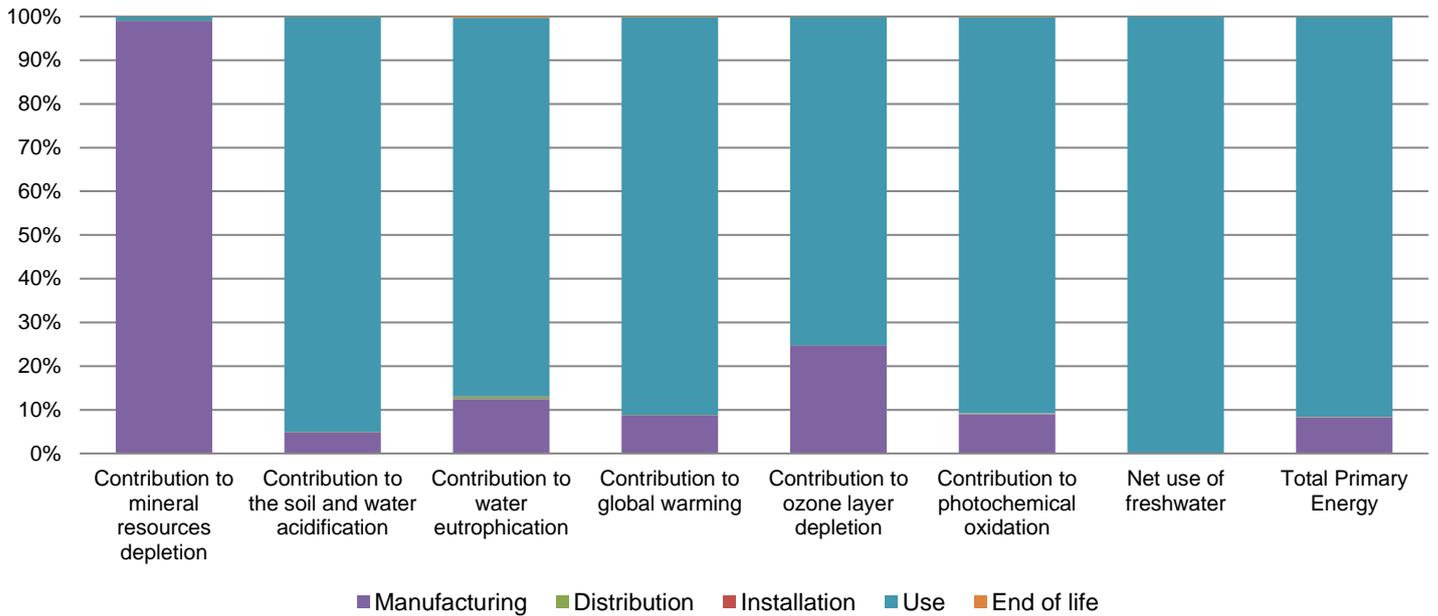
The Lexium Integrated Drive ILE with Gearbox presents the following relevant environmental aspects

| | |
|----------------------|---|
| 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 486.6 g, consisting of cardboard (92,5%), paper (5,9%) and polyethylene film (1,6%). Product distribution optimised by setting up local distribution centres |
| Installation | ILE1F662S2017 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 three electronic cards (83,02g) 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: 79% 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 | | | |
| Installation elements | No special components needed | | | |
| Use scenario | The use scenario is: - Active phase: consumed power 25 W during 20 % uptime - Standby phase: consumed power 3 W during 50 % uptime - Off phase: consumed power 0 W during 30 % uptime | | | |
| Geographical representativeness | Europe | | | |
| Technological representativeness | The main purpose of the Lexium Integrated Drive ILE with gearbox is to control the variation of the rotational speed and position of a DC brushless electric motor | | | |
| Energy model used | Manufacturing | Installation | Use | End of life |
| | Energy model used: Germany | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 |

| Compulsory indicators | | Lexium Integrated Drive ILE with Gearbox - ILE1F662S2019 | | | | | |
|--|-------------------------------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 2.35E-03 | 2.32E-03 | 0* | 0* | 2.42E-05 | 0* |
| Contribution to the soil and water acidification | kg SO ₂ eq | 1.23E+00 | 5.85E-02 | 2.00E-03 | 0* | 1.16E+00 | 9.02E-04 |
| Contribution to water eutrophication | kg PO ₄ ³⁻ eq | 8.11E-02 | 1.01E-02 | 4.61E-04 | 2.50E-05 | 7.03E-02 | 2.34E-04 |
| Contribution to global warming | kg CO ₂ eq | 3.06E+02 | 2.65E+01 | 4.39E-01 | 0* | 2.79E+02 | 3.93E-01 |
| Contribution to ozone layer depletion | kg CFC11 eq | 2.42E-05 | 5.98E-06 | 0* | 0* | 1.82E-05 | 2.20E-08 |
| Contribution to photochemical oxidation | kg C ₂ H ₄ eq | 7.05E-02 | 6.34E-03 | 1.43E-04 | 7.73E-06 | 6.39E-02 | 9.52E-05 |
| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Net use of freshwater | m3 | 1.01E+03 | 1.72E-01 | 0* | 0* | 1.01E+03 | 0* |
| Total Primary Energy | MJ | 6.08E+03 | 5.00E+02 | 6.20E+00 | 0* | 5.57E+03 | 4.48E+00 |



| Optional indicators | | Lexium Integrated Drive ILE with Gearbox - ILE1F662S2019 | | | | | |
|---|----------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to fossil resources depletion | MJ | 3.42E+03 | 2.46E+02 | 6.16E+00 | 0* | 3.17E+03 | 3.60E+00 |
| Contribution to air pollution | m ³ | 1.66E+04 | 4.58E+03 | 1.87E+01 | 0* | 1.20E+04 | 3.17E+01 |
| Contribution to water pollution | m ³ | 1.32E+04 | 1.59E+03 | 7.21E+01 | 3.98E+00 | 1.15E+04 | 3.67E+01 |
| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 8.66E-01 | 8.66E-01 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 7.24E+02 | 1.50E+01 | 0* | 0* | 7.09E+02 | 0* |
| Total use of non-renewable primary energy resources | MJ | 5.36E+03 | 4.85E+02 | 6.19E+00 | 0* | 4.86E+03 | 4.47E+00 |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 7.15E+02 | 6.11E+00 | 0* | 0* | 7.09E+02 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 8.88E+00 | 8.88E+00 | 0* | 0* | 0* | 0* |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 5.35E+03 | 4.77E+02 | 6.19E+00 | 0* | 4.86E+03 | 4.47E+00 |
| Use of non renewable primary energy resources used as raw material | MJ | 7.45E+00 | 7.45E+00 | 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 | 2.95E+01 | 2.57E+01 | 0* | 0* | 1.45E-01 | 3.73E+00 |
| Non hazardous waste disposed | kg | 1.05E+03 | 1.10E+01 | 0* | 0* | 1.04E+03 | 0* |
| Radioactive waste disposed | kg | 7.02E-01 | 6.87E-03 | 0* | 0* | 6.95E-01 | 0* |
| Other environmental information | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Materials for recycling | kg | 2.68E+00 | 2.74E-01 | 0* | 3.65E-02 | 0* | 2.37E+00 |
| Components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for energy recovery | kg | 3.48E-02 | 0* | 0* | 0* | 0* | 3.48E-02 |
| Exported Energy | MJ | 6.42E-03 | 6.42E-03 | 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 v5.8.1, database version 2016-11 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.

Depending on the impact analysis, the environmental indicators (without "contribution to Mineral Resources Depletion" and "contribution to ozone layer depletion") of other products in this family may be proportional extrapolated by energy consumption values. For mineral Resources Depletion, impact may be proportional extrapolated by mass of the product. For ozone layer depletion, 20% is caused by manufacturing and 80% is caused by the use phase therefore 20% of the impact may be proportional extrapolated by mass of the product and 80% may be proportional extrapolated by energy consumption values.

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 | ENVPEP1411012_V2 | Drafting rules | PCR-ed3-EN-2015 04 02 |
| Date of issue | 11/2020 | | |
| Validity period | 5 years | Information and reference documents | www.pep-ecopassport.org |
| <i>Independent verification of the declaration and data</i> | | | |
| Internal | X | External | |
| <i>The elements of the present PEP cannot be compared with elements from another program.</i> | | | |
| <i>Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i> | | | |

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ENVPEP1411012_V2

Published by Schneider Electric

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11/2020