

Product Environmental Profile

Lexium Integrated Drive ILE





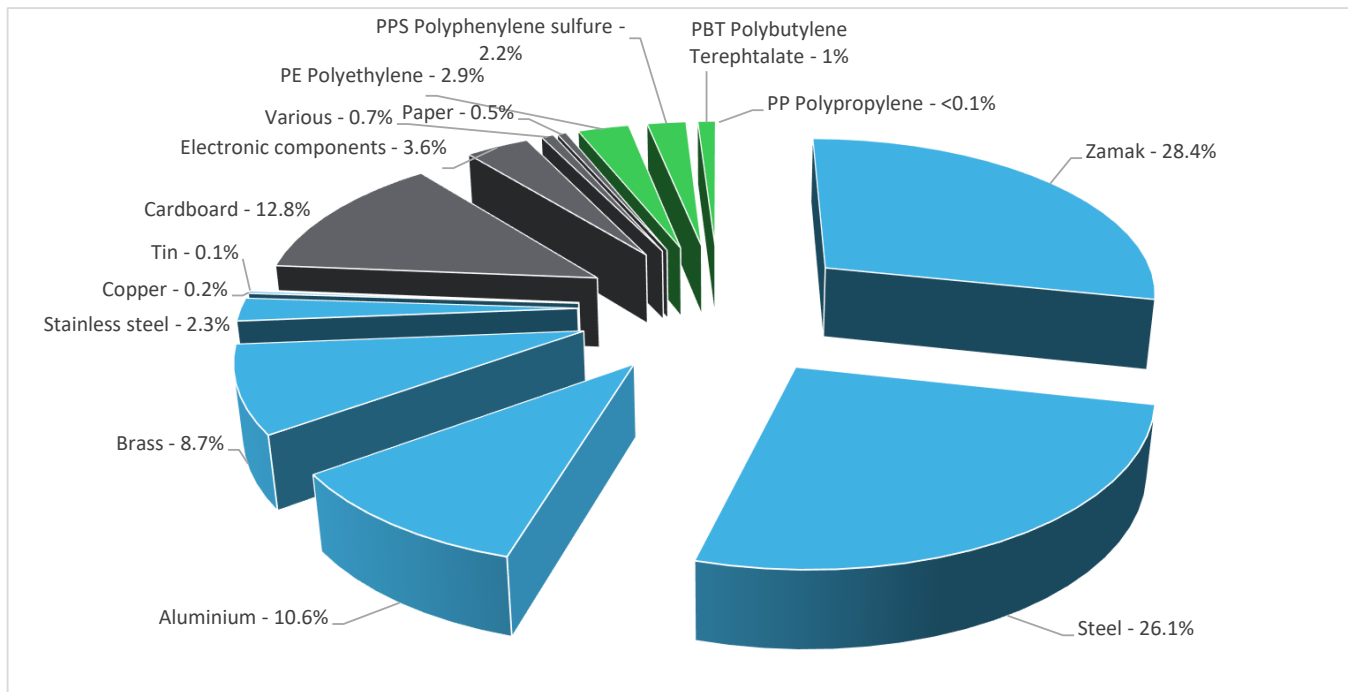
General information

Representative product	Lexium Integrated Drive ILE - ILE1F662S2017
Description of the product	The main purpose of the Lexium Integrated Drive ILE 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. 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	2060 g including the product, its packaging and additional elements and accessories
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Plastics	6.1%
Metals	76.4%
Others	17.6%



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 presents the following relevant environmental aspects

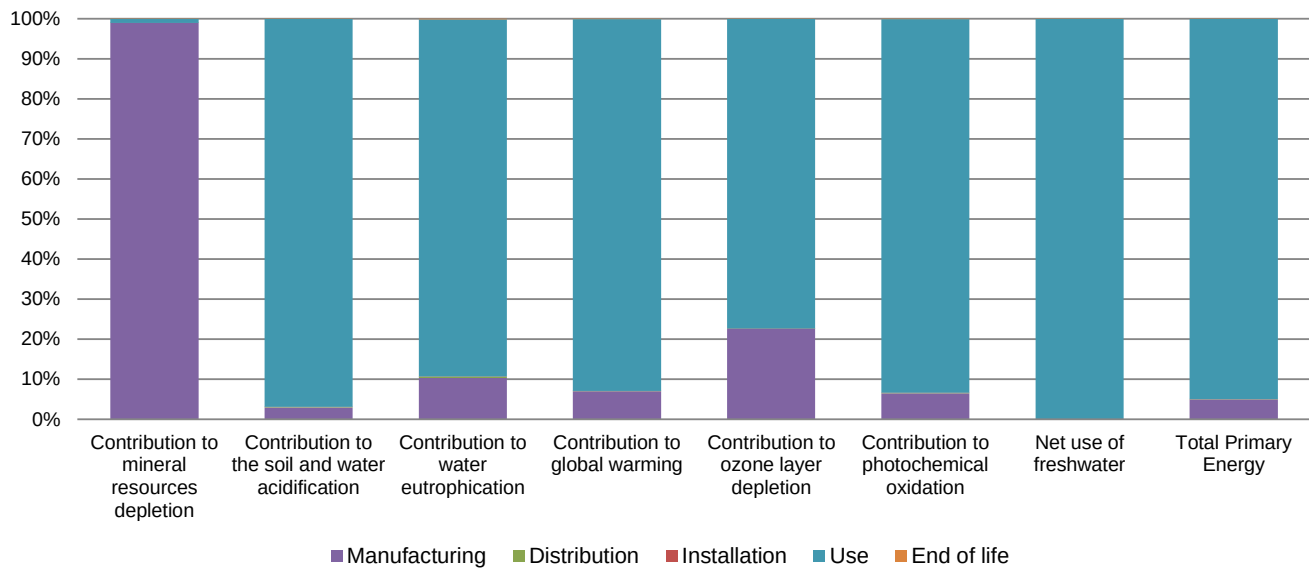
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 316.7 g, consisting of cardboard (92,5%), paper (5,9%) and polyethylene film (1,6%). Product 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: 69% 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 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 - ILE1F662S2017					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.28E-03	2.25E-03	0*	0*	2.42E-05	0*
Contribution to the soil and water acidification	kg SO ₂ eq	1.20E+00	3.57E-02	1.21E-03	0*	1.16E+00	5.44E-04
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	7.88E-02	8.12E-03	2.80E-04	1.63E-05	7.03E-02	1.49E-04
Contribution to global warming	kg CO ₂ eq	3.01E+02	2.10E+01	2.66E-01	0*	2.79E+02	2.76E-01
Contribution to ozone layer depletion	kg CFC11 eq	2.35E-05	5.34E-06	0*	0*	1.82E-05	1.46E-08
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	6.85E-02	4.44E-03	8.66E-05	0*	6.39E-02	5.65E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1.01E+03	1.35E-01	0*	0*	1.01E+03	0*
Total Primary Energy	MJ	5.87E+03	2.91E+02	3.76E+00	0*	5.57E+03	2.67E+00



Optional indicators		Lexium Integrated Drive ILE - ILE1F662S2017					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	3.37E+03	1.94E+02	3.73E+00	0*	3.17E+03	2.15E+00
Contribution to air pollution	m³	1.59E+04	3.89E+03	1.13E+01	0*	1.20E+04	1.89E+01
Contribution to water pollution	m³	1.29E+04	1.32E+03	4.37E+01	2.59E+00	1.15E+04	2.30E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	3.59E-01	3.59E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	7.18E+02	9.62E+00	0*	0*	7.09E+02	0*
Total use of non-renewable primary energy resources	MJ	5.15E+03	2.81E+02	3.75E+00	0*	4.86E+03	2.67E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	7.13E+02	4.11E+00	0*	0*	7.09E+02	0*
Use of renewable primary energy resources used as raw material	MJ	5.50E+00	5.50E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5.14E+03	2.75E+02	3.75E+00	0*	4.86E+03	2.67E+00
Use of non renewable primary energy resources used as raw material	MJ	6.79E+00	6.79E+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	2.54E+01	2.29E+01	0*	0*	1.45E-01	2.38E+00
Non hazardous waste disposed	kg	1.05E+03	5.98E+00	0*	0*	1.04E+03	0*
Radioactive waste disposed	kg	6.98E-01	2.91E-03	0*	0*	6.95E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.41E+00	1.52E-01	0*	3.65E-02	0*	1.22E+00
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	3.45E-02	0*	0*	0*	0*	3.45E-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	ENVPEP2011005_V1	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
Independent verification of the declaration and data			
Internal	X	External	
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 - Self-declared environmental claims (Type II environmental labelling) »			

Schneider Electric Industries SAS

Country Customer Care Center
<http://www.schneider-electric.com/contact>

35, rue Joseph Monier
CS 30323
F- 92506 Rueil Malmaison Cedex
RCS Nanterre 954 503 439
Capital social 896 313 776 €

www.schneider-electric.com

ENVPEP2011005_V1

Published by Schneider Electric

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11/2020