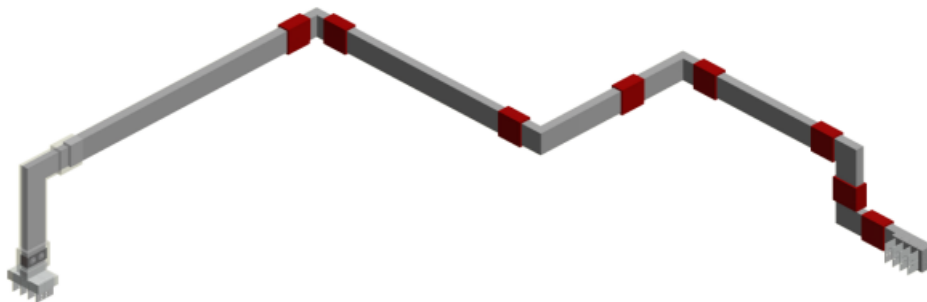


Product Environmental Profile

Canalis KRA

Canalis KRA from 400 to 5000A





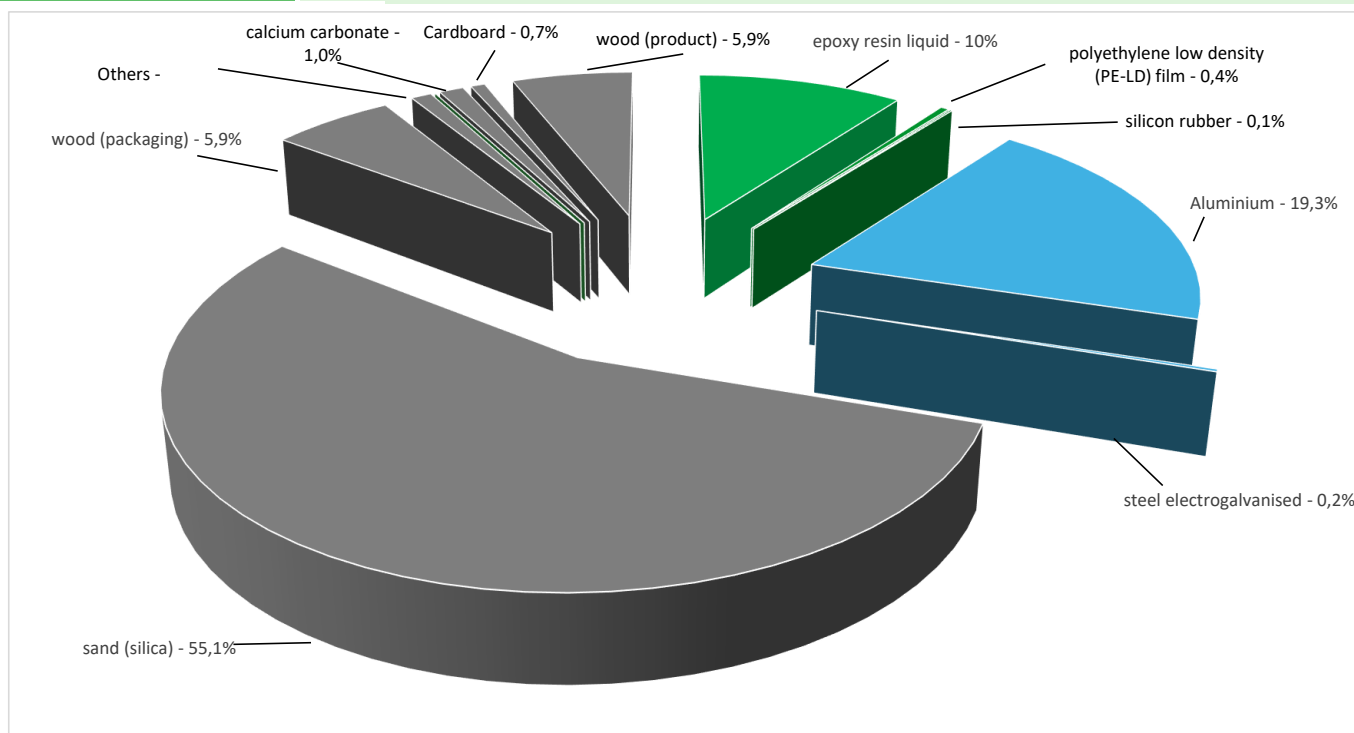
General information

Representative product	<p>Canalis KRA -Busbar Trunking system</p> <p>The representative product used for the analysis is the typical product, KRA 2500A, which consists of:</p> <ul style="list-style-type: none"> - 1 straight feed unit (cat No. KRA2500ER41) - 3 edgewise elbows (cat No. KRA2500LC4A / KRA2500LC4C) - 3 straight feeder lengths (cat No. KRA2500ET430 / KRA2500ET425 / KRA2500ET420) - 3 flat elbows (cat No. KRA2500LP4C / KRA2500LP4B) - 1 long feed unit (cat No. KRA2500EL41) - 10 junction block (cat No. KRA2500YA4) - 3 casting molds (cat No. KRB0270EM10) - 13 x cast resin material fillers and resin including hardener (cat No. KRB0000RH1 / KRB0000MF1) - 1 demoulding agent (cat No. KRB0000DA1)
Description of the product	The Busbar Trunking system is a power distribution system for high power. It provides a safe electrical connection between two electrical devices.
Description of the range	<p>Canalis KRA from 400 to 5000A</p> <p>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</p>
Functional unit	As per PSR-0005-ed2-EN-2016 03 29 section 3.13: To connect during 20 years from 2 to 50 clamping units between 2 or more devices with a rated connecting capacity from 400 to 5000A, a rated voltage 1000V max, a short time withstand current up to 100kA



Constituent materials

Reference product mass	1401 kg including the product, its packaging and additional elements and accessories
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Plastics	10,50%
Metals	19,50%
Others	70,00%



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		
Manufacturing	Manufactured at a BKS production site ISO14001 certified		
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 99,1 kg, consisting of wood (83.3%), cardboard (10.4%) and plastic (6.3%) Product distribution optimised by setting up local distribution centres		
Installation	The product does not require special elements for installation, except 0,5kg of a demoulding agent		
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		
	No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life End of life treatment process.		
	Recyclability potential:	46%	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 service life time	20 years			
Product category	Passive products - continuous operation			
Installation elements	Demoulding agent (0.5 kg)			
Use scenario	Total losses of the product are 6,674 kW. As it is used for 20 years, the total electricity consumption is 1,17E+06 kWh.			
Geographical representativeness	Europe			
Technological representativeness	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production			
Energy model used	Manufacturing	Installation	Use	End of life
	Electricity Mix; Low voltage; 2018; Switzerland, CH	Electricity Mix; Low voltage; 2018; Europe, EU-27	Electricity Mix; Low voltage; 2018; Europe, EU-27	Electricity Mix; Low voltage; 2018; Europe, EU-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			Canalis KRA 2500A					
Impact indicators	Unit	Total	Manufacturing [A1 - A3]	Distribution [A4]	Installation [A5]	Use [B1 - B7]	End of Life [C1 - C4]	Benefits [D]
Contribution to climate change	kg CO2 eq	4,88E+05	7,06E+03	3,15E+02	1,78E+02	4,80E+05	1,48E+03	-1,91E+03
Contribution to climate change-fossil	kg CO2 eq	1,14E+03	2,82E+02	0,00E+00	9,86E+01	6,40E+02	2,24E+02	-7,03E+01
Contribution to climate change-biogenic	kg CO2 eq	4,87E+05	6,78E+03	3,15E+02	7,99E+01	4,79E+05	1,26E+03	-1,84E+03
Contribution to climate change-land use and land use change	kg CO2 eq	1,35E-04	1,35E-04	0,00E+00	0,00E+00	0,00E+00	1,83E-03	0,00E+00
Contribution to ozone depletion	kg CFC-11 eq	2,83E-03	7,64E-04	4,83E-07	2,40E-07	2,05E-03	6,54E-05	-3,65E-04
Contribution to acidification	mol H+ eq	2,79E+03	4,51E+01	1,99E+00	1,27E-01	2,74E+03	1,35E+01	-1,65E+01
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	1,39E+00	6,24E-02	1,18E-04	2,25E-04	1,31E+00	3,46E+00	-1,07E-02
Contribution to eutrophication marine	kg N eq	3,18E+02	5,60E+00	9,35E-01	6,20E-02	3,11E+02	1,75E+00	-1,35E+00
Contribution to eutrophication, terrestrial	mol N eq	4,75E+03	6,08E+01	1,03E+01	5,89E-01	4,67E+03	2,32E+01	-1,48E+01
Contribution to photochemical ozone formation - human health	kg COVNM eq	1,02E+03	1,87E+01	2,59E+00	1,57E-01	9,98E+02	5,39E+00	-4,92E+00
Contribution to resource use, minerals and metals	kg Sb eq	7,00E-02	3,80E-02	1,24E-05	-7,58E-06	3,47E-02	9,94E-02	2,28E-04
Contribution to resource use, fossils	MJ	1,23E+07	1,15E+05	4,39E+03	3,54E+02	1,22E+07	1,50E+04	-3,55E+04
Contribution to water use	m3 eq	2,01E+04	3,05E+03	1,20E+00	1,39E+01	1,70E+04	3,00E+03	-4,22E+02

Additional indicators for the French regulation are available as well

Inventory flows Indicators			Canalis KRA 2500A					
Inventory flows	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	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	2,35E+06	5,25E+03	5,86E+00	1,95E+00	2,35E+06	-1,65E+01	-1,78E+03
Contribution to use of renewable primary energy resources used as raw material	MJ	4,46E+03	4,46E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to total use of renewable primary energy resources	MJ	2,36E+06	9,71E+03	5,86E+00	1,95E+00	2,35E+06	-1,65E+01	-1,78E+03
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,23E+07	1,09E+05	4,39E+03	3,54E+02	1,22E+07	3,66E+03	-3,55E+04
Contribution to use of non renewable primary energy resources used as raw material	MJ	5,91E+03	5,91E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to total use of non-renewable primary energy resources	MJ	1,23E+07	1,15E+05	4,39E+03	3,54E+02	1,22E+07	3,66E+03	-3,55E+04
Contribution to use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to use of renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to use of non renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to net use of freshwater	m³	4,70E+02	7,10E+01	2,78E-02	3,23E-01	3,95E+02	3,39E+00	-9,83E+00
Contribution to hazardous waste disposed	kg	9,34E+03	5,74E+02	0,00E+00	-6,36E-02	8,96E+03	-1,97E+02	-1,78E+02
Contribution to non hazardous waste disposed	kg	8,00E+04	1,03E+04	1,11E+01	1,05E+02	6,90E+04	5,80E+02	-4,65E+03
Contribution to radioactive waste disposed	kg	2,22E+01	7,61E+00	7,87E-03	3,45E-03	1,44E+01	1,33E-01	-3,74E+00
Contribution to components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to materials for recycling	kg	2,54E+02	5,75E+01	0,00E+00	5,60E-01	0,00E+00	1,96E+02	0,00E+00
Contribution to materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to exported energy	MJ	6,48E+01	2,26E+01	0,00E+00	1,79E+01	0,00E+00	2,44E+01	0,00E+00
Contribution to biogenic carbon content of the product	kg de C	3,51E+01	3,51E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	3,53E+01	3,53E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assesment performed with EIME version v6.0.3 database version 2023-02 in compliance with ISO 14044

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>

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 extrapolation rules have been defined as follow: as all the products are composed of the same materials, only weights are changing. For "manufacturing", "distribution" and "benefits and loads beyond the system boundaries" phases, the coefficient is the mass of the product considered with the packaging, divided by the mass of the reference product with the packaging. For the "installation" phase, the coefficient is the mass of the packaging of the product considered, divided by the mass of the packaging of the reference product. For the "use" phase, the coefficient is the electricity consumption of the product considered, divided by the electricity consumption of the reference product. For the "end of life" phase, the coefficient is the mass of the product considered without the packaging, divided by the mass of the reference product without the packaging.

Extrapolation rules						
Product reference	Manufact.	Distribution	Installation	Use	End of Life	Benefits
	[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
KRA 400A	0,29	0,29	0,80	0,17	0,25	0,29
KRA 630A	0,29	0,29	0,80	0,35	0,25	0,29
KRA 800A	0,29	0,29	0,80	0,38	0,25	0,29
KRA 1000A	0,35	0,35	0,80	0,46	0,31	0,35
KRA 1250A	0,39	0,39	0,80	0,57	0,35	0,39
KRC 1400A	0,47	0,47	0,80	0,60	0,44	0,47
KRA 1600A	0,61	0,61	0,96	0,57	0,59	0,61
KRA 2000A	0,86	0,86	0,97	0,71	0,85	0,86
KRA 2500A - Reference product	1,00	1,00	1,00	1,00	1,00	1,00
KRA 3200A	1,39	1,39	1,58	1,20	1,37	1,39
KRA 4000A	1,64	1,64	1,60	1,48	1,64	1,64
KRA 5000A	1,88	1,88	1,63	2,00	1,90	1,88

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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Date of issue	07/2023	Validity period	www.pep-ecopassport.org 5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006			
Internal External X			
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 14025 : 2006 « Environmental labels and declarations. Type III environmental declarations »			



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