

Product Environmental Profile

Canalis for EV





General information

Reference product	Canalis for EV
Product Configuration	The product used for the analysis is the typical configuration of Canalis for EV 400A which consists of: KEV0400EP2400W, KEV0400ES1B, KEV0400CP2400B, KEV0400TS1B, KEV0400SE1, KEV0400SR2400, KEV0400SC1200W, KEV0400FS1, KEV0400FP1, KEV0400SB1, KEV0400EC1W, KEV0400BP1000B, KEV0400BV1B, KEV0400TR2400W, KEV0400CO1W, KEV0400TR1200W, KEV0400CS1, KEV0400SR1200, KEV0400SC2400W, KSA80EZ5, KSA250ED43012, KSB32CP, KSA250AB4.
Description of the product	<p>The Canalis for EV is the complete Busbar solution for outdoor EV charging infrastructure.</p> <p>The large-scale deployment of charging infrastructure in outdoor car parks is essential to support the transition to electric vehicles. Busbar trunking system is perfect for easily create flexible and scalable solutions.</p> <p>Canalis for EV is a plug-and-play system, powered by Canalis KS and based on a modular design. It is composed of prefabricated parts which are available through the distribution network.</p> <p>Canalis for EV offers several benefits compared to the standard solution through cables.</p> <ul style="list-style-type: none"> • Flexible: compatible with many chargers • Scalable: expandable whenever required • Simple: easy to select, easy to order, easy to transport, easy to install, maintain, and extend
Description of the range	Single product
Functional unit	<p>To transport and distribute electrical power for the EV charging infrastructure in outdoor environment according to the appropriate use scenario during the reference service life of the product of 20 years with following technical characteristics,</p> <ul style="list-style-type: none"> • Rated insulating voltage: 690V • IK degree of protection: IK08 & IK10 conforming in accordance with the standard IEC 62262 • Regulations: compliant with IEC 61439-6
Specifications are:	<ul style="list-style-type: none"> • Busbar trunking rated current: 250A • Tap-off units with fuses or circuit breakers : 250A • Length of busbar trunking sections: 3m. Customized lengths available

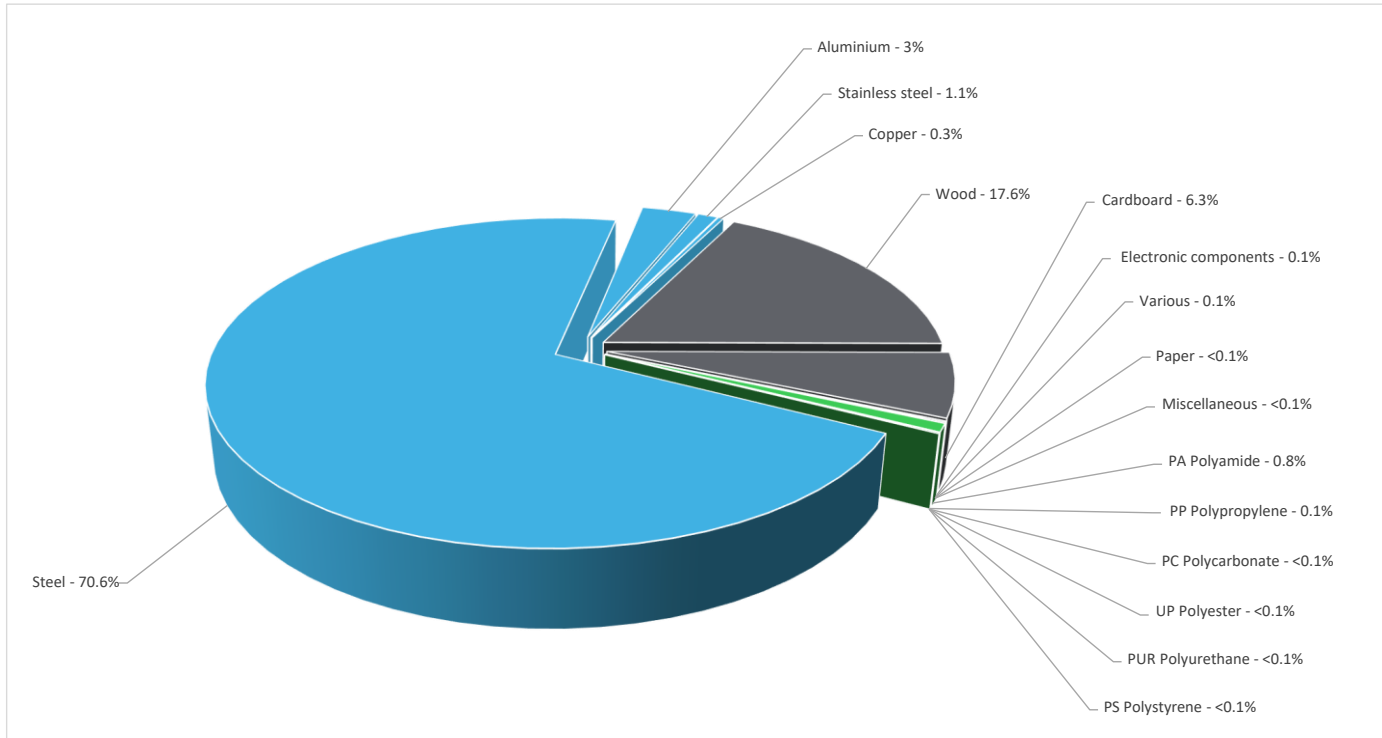
Lists of Components Included in the Configuration:

Components	Description & Size (mm)	Qty	Device	Device Description
KEV0400CP2400B	Canalis EV 1 X Charger Pillar 2400 Black	2	Charger Pillars	Charger pillars are playing two roles: Supporting the canopy and supporting the chargers. Pillars can be installed on concrete base or prefabricated casted base.
KEV0400TS1B	Canalis EV 1 X Charger Pillar Support Bl	2		
KEV0400EP2400W	Canalis EV 1 X Feed Pillar 2400 White	1	End Feed Pillar	Feed pillars are playing two roles: supporting the canopy and Incoming cable routing. Pillar can be installed on concrete base or prefabricated casted base.
KEV0400ES1B	Canalis EV 1 X Feed Pillar Support Black	1		
KEV0400SR1200	Canalis EV 2 X Side Rails 1200	2	Horizontal Structure & Side Closures	Horizontal Structure are mounted above the Charger & End feed pillar for cable routing to EVLink Pro AC Charger.
KEV0400SR2400	Canalis EV 2 X Side Rails 2400	2		
KEV0400SB1	Canalis EV 2 X Side Brackets	1		
KEV0400SC1200W	Canalis EV 2 X Side Closures 1200 White	2		
KEV0400SC2400W	Canalis EV 2 X Side Closures 1200 White	2		
KEV0400TR1200W	Canalis EV 1 X Top Roof 1200 White	2	Canopy	Canopy used as Roof top connections and End closure for the Feed Pillars.
KEV0400TR2400W	Canalis EV 1 X Top Roof 2400 White	1		
KEV0400CO1W	Canalis EV 1 X Top Roof Connection White	2		
KEV0400EC1W	Canalis EV 2 X End Closures White	1		
KSB32CP	TAP OFF unit 32A for 2 Power Sockets L x W x H = 165 x 437.5 x 108	4	Tap-OFF Units with Isolator, 8 Modules 3L+N+PE Polarity, Copper cable Lugs connection	These tap-off units accept most modular devices. They have a window in front for visual and physical access to the devices. A transparent cover seals the window. Maximum rated current 32A for 8 modules.
KSA250AB4	End Feed Box 250 A L x W x H = 501 x 173.5 x 308	1	Feed Unit Aluminium Busbar Trunking, 3L+N+PE Polarity Right or left mounting	Feed Unit used to feed a KS line by cables or directly from the bus bars in a switchboard for 250 to 400 A rating. It can be mounted on the end of a straight length Supplied with end cover.
KSA250ED43012	Straight Distribution Length 3M 250 A L x W x H = 5000 x 54 x 146	1	Straight Length Aluminium Busbar Trunking, 3L+N+PE Polarity Number of outlets is 10	These components carry the current and supply loads. They constitute the basic structure of the line.
KSA80EZ5	Fixing Bracket L x W x H = 142 x 435 x 80	2	Universal and Rear fixing brackets	Canalis fixing bracket for KSA Easy to floor mounting with 70 kg maximum load.



Constituent materials

Reference product mass 638177 g Including the product and its packaging.



Plastics	0.9%
Metals	75.0%
Others	24.1%



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:	96%	The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.
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Environmental impacts

Reference service life time	20 years			
Product category	Other equipments - Passive product - continuous operation			
Installation elements	The Product does not need any special installation operation.			
Use scenario	As Per PSR @ Load rate 30% and RLT 100%, The power dissipated by the Canalis KSA 250A is 5118.75 W for 20 years.			
Time representativeness	The collected data are representative of the year 2024			
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and representaive of the actual type of technologies used to make the product.			
Geographical representativeness	Europe			
Final assembly site	France (Dijon)			
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Low voltage; 2018; Europe, (A1-A2) Electricity Mix; Low voltage; 2018; France, FR (A3)	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 of the optional indicators mentioned in PCRed4 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 for EV					
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to climate change	kg CO2 eq	3.76E+04	2.82E+03	1.24E+02	1.80E+02	3.31E+04	1.36E+03	-2.04E+03
Contribution to climate change-fossil	kg CO2 eq	3.74E+04	2.80E+03	1.24E+02	1.23E+02	3.30E+04	1.36E+03	-2.03E+03
Contribution to climate change-biogenic	kg CO2 eq	1.22E+02	1.97E+01	0*	5.73E+01	4.41E+01	3.66E-01	-1.64E+01
Contribution to climate change-land use and land use change	kg CO2 eq	4.01E-04	3.95E-04	0*	0*	0*	6.18E-06	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	2.55E-04	1.12E-04	1.90E-07	7.25E-07	1.41E-04	9.42E-07	-2.94E-04
Contribution to acidification	mol H+ eq	2.05E+02	1.03E+01	7.87E-01	1.75E-01	1.89E+02	4.82E+00	-1.24E+01
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	1.11E-01	6.57E-03	4.66E-05	1.32E-03	9.06E-02	1.29E-02	-4.21E-03
Contribution to eutrophication marine	kg N eq	2.47E+01	1.79E+00	3.69E-01	7.42E-02	2.14E+01	1.02E+00	-1.21E+00
Contribution to eutrophication, terrestrial	mol N eq	3.57E+02	1.92E+01	4.05E+00	5.86E-01	3.22E+02	1.12E+01	-1.38E+01
Contribution to photochemical ozone formation - human health	kg COVNM eq	8.03E+01	6.52E+00	1.02E+00	1.57E-01	6.89E+01	3.76E+00	-4.77E+00
Contribution to resource use, minerals and metals	kg Sb eq	6.84E-02	6.56E-02	0*	0*	2.40E-03	4.21E-04	-5.47E-01
Contribution to resource use, fossils	MJ	1.08E+06	1.37E+05	1.73E+03	5.20E+02	8.43E+05	9.47E+04	-4.37E+04
Contribution to water use	m3 eq	2.43E+03	7.60E+02	4.72E-01	1.02E+01	1.17E+03	4.94E+02	-7.88E+02

Inventory flows Indicators			Canalis for EV					
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.63E+05	8.30E+02	0*	5.54E+02	1.62E+05	0*	-3.46E+02
Contribution to use of renewable primary energy resources used as raw material	MJ	2.68E+03	2.68E+03	0*	0*	0*	0*	-1.25E+03
Contribution to total use of renewable primary energy resources	MJ	1.66E+05	3.51E+03	0*	5.54E+02	1.62E+05	0*	-1.59E+03
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.08E+06	1.37E+05	1.73E+03	5.20E+02	8.43E+05	9.47E+04	-4.37E+04
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.24E+02	2.24E+02	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	1.08E+06	1.37E+05	1.73E+03	5.20E+02	8.43E+05	9.47E+04	-4.37E+04
Contribution to use of secondary material	kg	3.20E+01	3.20E+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	5.67E+01	1.77E+01	1.10E-02	2.38E-01	2.73E+01	1.15E+01	-1.84E+01
Contribution to hazardous waste disposed	kg	5.50E+03	4.88E+03	0*	1.08E+00	6.18E+02	6.96E-01	-4.32E+04
Contribution to non hazardous waste disposed	kg	6.22E+03	1.33E+03	4.36E+00	1.02E+02	4.76E+03	2.36E+01	-1.84E+03
Contribution to radioactive waste disposed	kg	2.14E+00	1.13E+00	3.11E-03	5.07E-03	9.96E-01	3.48E-03	-9.74E-01
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	5.71E+02	7.24E+01	0*	3.45E+01	0*	4.64E+02	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	5.41E+01	1.10E+01	0*	3.86E+01	0*	4.59E+00	0.00E+00
* represents less than 0.01% of the total life cycle of the reference flow								
Contribution to biogenic carbon content of the product	kg of C	0.00E+00						
Contribution to biogenic carbon content of the associated packaging	kg of C	5.52E+01						

* The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%)

Mandatory Indicators		Canalis for EV							
Impact indicators	Unit	[B1 - B7]	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	3.31E+04	0*	0*	0*	0*	0*	3.31E+04	0*
Contribution to climate change-fossil	kg CO2 eq	3.30E+04	0*	0*	0*	0*	0*	3.30E+04	0*
Contribution to climate change-biogenic	kg CO2 eq	4.41E+01	0*	0*	0*	0*	0*	4.41E+01	0*
Contribution to climate change-land use and land use change	kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	1.41E-04	0*	0*	0*	0*	0*	1.41E-04	0*
Contribution to acidification	mol H+ eq	1.89E+02	0*	0*	0*	0*	0*	1.89E+02	0*
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	9.06E-02	0*	0*	0*	0*	0*	9.06E-02	0*
Contribution to eutrophication marine	kg N eq	2.14E+01	0*	0*	0*	0*	0*	2.14E+01	0*
Contribution to eutrophication, terrestrial	mol N eq	3.22E+02	0*	0*	0*	0*	0*	3.22E+02	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	6.89E+01	0*	0*	0*	0*	0*	6.89E+01	0*
Contribution to resource use, minerals and metals	kg Sb eq	2.40E-03	0*	0*	0*	0*	0*	2.40E-03	0*
Contribution to resource use, fossils	MJ	8.43E+05	0*	0*	0*	0*	0*	8.43E+05	0*
Contribution to water use	m3 eq	1.17E+03	0*	0*	0*	0*	0*	1.17E+03	0*

Inventory flows Indicators		Canalis for EV							
Inventory flows	Unit	[B1 - B7]	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.62E+05	0*	0*	0*	0*	0*	1.62E+05	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	1.62E+05	0*	0*	0*	0*	0*	1.62E+05	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	8.43E+05	0*	0*	0*	0*	0*	8.43E+05	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	8.43E+05	0*	0*	0*	0*	0*	8.43E+05	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m³	2.73E+01	0*	0*	0*	0*	0*	2.73E+01	0*
Contribution to hazardous waste disposed	kg	6.18E+02	0*	0*	0*	0*	0*	6.18E+02	0*
Contribution to non hazardous waste disposed	kg	4.76E+03	0*	0*	0*	0*	0*	4.76E+03	0*
Contribution to radioactive waste disposed	kg	9.96E-01	0*	0*	0*	0*	0*	9.96E-01	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	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 v6.2.1, database version 2024-04 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

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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Verifier accreditation N°	VH08	Information and reference documents	www.pep-ecopassport.org
Date of issue	07-2024	Validity period	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)			
PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022			
The components of the present PEP may not be compared with components from any other program.			
Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			



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