

Product Environmental Profile

SM_AirSeT-QM





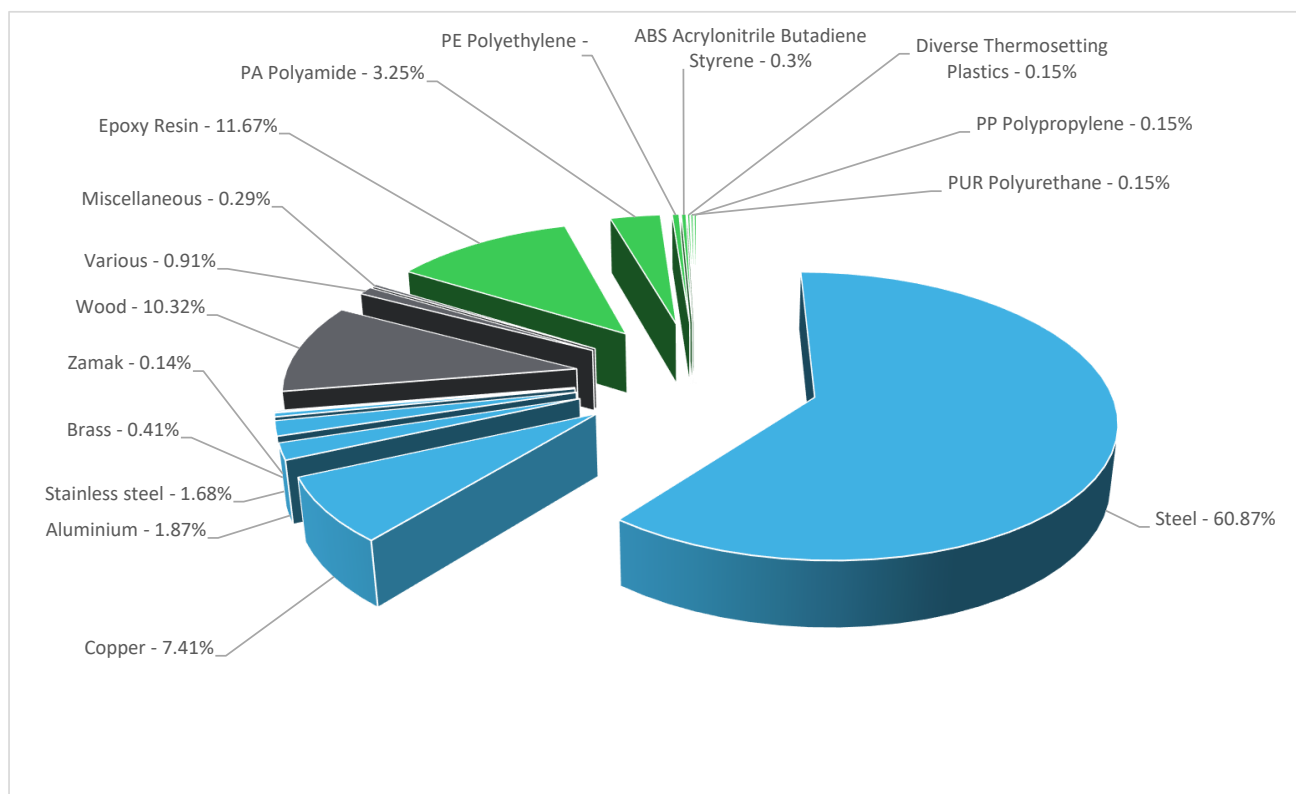
General information

Representative product	SM_AirSeT-QM
Description of the product	The main purpose of the SM_AirSeT is to switch from 1kV to 24kV
Functional unit	To switch and break from 1kV to 24kV to ensure an assumed a RLT (Reference Life Time) of 20 years with In = 100A



Constituent materials

Reference product mass	180000 g including the product, its packaging and additional elements and accessories
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Plastics	16.1%
Metals	72.4%
Others	11.5%



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 SM_AirSeT-QM presents the following relevant environmental aspects

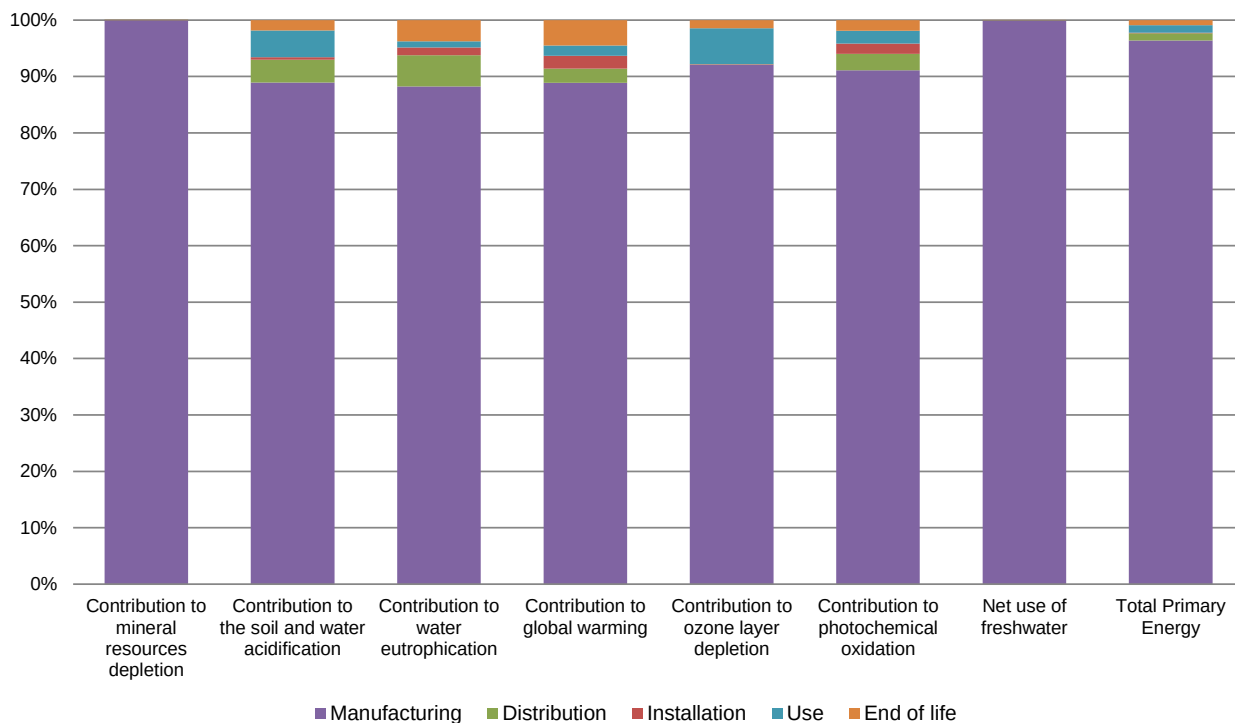
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified		
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive		
	Packaging weight is 21636.3 g, consisting of wood (87.5%), Steel (9.5%), Plastic (2%) and cardboard (1%)		
	Product distribution optimised by setting up local distribution centres		
Installation	No		
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 Electronics & Other material that should be separated from the stream of waste so as to optimize end-of-life treatment.		
	Recyclability potential:	92%	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	20 years		
Product category	Other equipments - Passive product - continuous operation		
Installation elements	Packaging is treated according to local regulation		
Use scenario	Load rate: 30% of In Use time rate: 100% of RLT Power Dissipation at 100% load rate is 0.95256 W and at 30%, Load rate is 0.07776 W		
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
	Energy model used: France	Electricity Mix; AC; consumption mix, at consumer; 1kV - 60kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; 1kV - 60kV; EU-27

Compulsory indicators		SM_AirSeT-QM					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3.04E-02	3.04E-02	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO ₂ eq	1.31E+00	1.17E+00	5.30E-02	5.56E-03	6.22E-02	2.40E-02
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	2.20E-01	1.94E-01	1.22E-02	2.96E-03	2.37E-03	8.30E-03
Contribution to global warming	kg CO ₂ eq	4.55E+02	4.04E+02	1.16E+01	1.02E+01	8.39E+00	2.04E+01
Contribution to ozone layer depletion	kg CFC11 eq	3.20E-05	2.95E-05	2.35E-08	2.21E-08	2.04E-06	4.62E-07
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	1.30E-01	1.18E-01	3.78E-03	2.35E-03	2.95E-03	2.45E-03
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m ³	6.08E+01	6.07E+01	0*	0*	2.19E-02	1.33E-02
Total Primary Energy	MJ	1.27E+04	1.23E+04	1.64E+02	1.19E+01	1.70E+02	1.13E+02



Optional indicators		SM_AirSeT-QM					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4.10E+03	3.75E+03	1.63E+02	1.09E+01	8.64E+01	9.03E+01
Contribution to air pollution	m³	8.88E+04	8.69E+04	4.94E+02	2.44E+02	3.54E+02	8.39E+02
Contribution to water pollution	m³	1.39E+05	1.35E+05	1.91E+03	1.20E+02	3.53E+02	1.19E+03
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.81E+01	1.81E+01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3.11E+02	2.98E+02	2.19E-01	2.36E-01	1.22E+01	1.26E-01
Total use of non-renewable primary energy resources	MJ	1.24E+04	1.20E+04	1.64E+02	1.17E+01	1.58E+02	1.13E+02
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.12E+02	9.90E+01	2.19E-01	2.36E-01	1.22E+01	1.26E-01
Use of renewable primary energy resources used as raw material	MJ	1.99E+02	1.99E+02	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.20E+04	1.15E+04	1.64E+02	1.17E+01	1.58E+02	1.13E+02
Use of non renewable primary energy resources used as raw material	MJ	4.55E+02	4.55E+02	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	2.16E+03	2.07E+03	0*	0*	0*	8.36E+01
Non hazardous waste disposed	kg	1.76E+02	1.36E+02	4.13E-01	8.48E+00	3.12E+01	3.50E-01
Radioactive waste disposed	kg	1.10E-01	8.34E-02	2.94E-04	2.76E-04	2.57E-02	5.31E-04
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	8.30E+01	8.36E+00	0*	3.17E+00	0*	7.15E+01
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	4.37E+00	0*	0*	0*	0*	4.37E+00
Exported Energy	MJ	6.50E+00	6.11E-01	0*	5.89E+00	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.9.3, database version 2020-12 in compliance with ISO14044.

The manufacturing phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

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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Internal		External ☒	
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)			
PEP are compliant with XP C08-100-1 :2016			
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »			





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