

# Product Environmental Profile

## SM\_AirSeT-IM

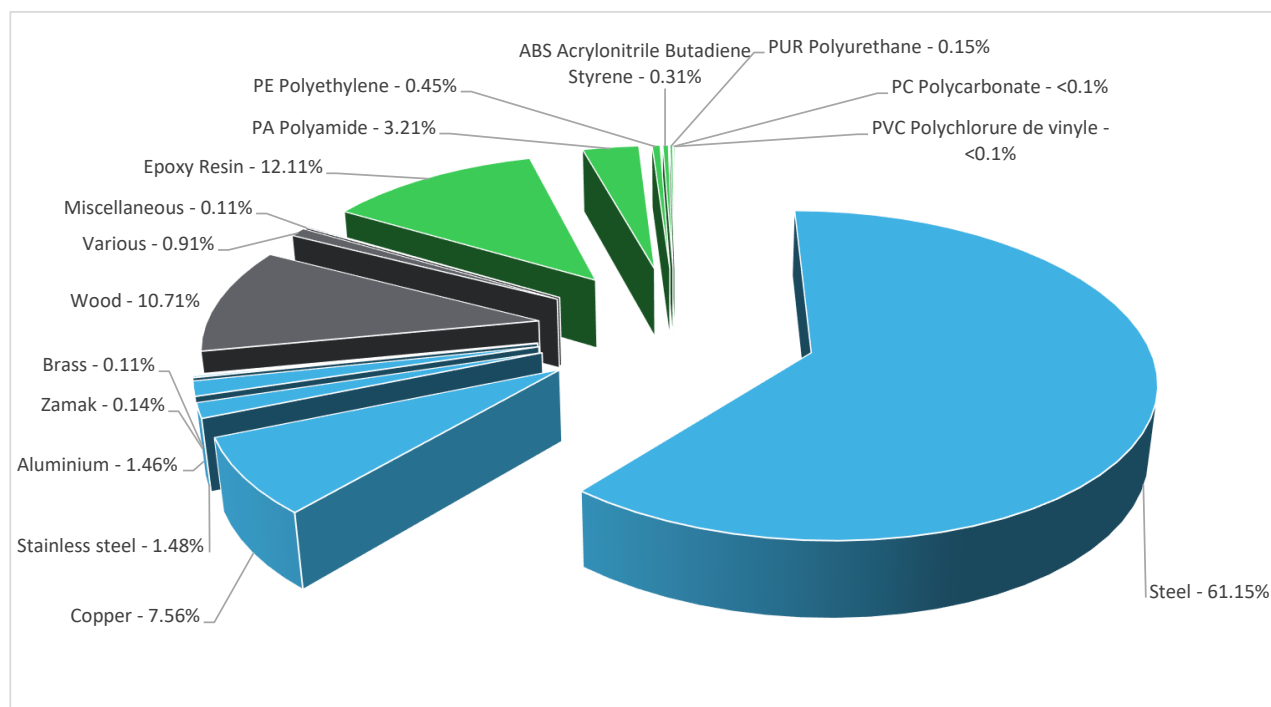


## General information

<b>Representative product</b>	SM_AirSeT-IM
<b>Description of the product</b>	The main purpose of the SM_AirSeT is to switch from 1kV to 24kV
<b>Functional unit</b>	To switch and break from 1kV to 24kV to ensure an assumed a RLT (Reference Life Time) of 20 years with In = 630A

## Constituent materials

<b>Reference product mass</b>	180000 g including the product, its packaging and additional elements and accessories
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Plastics	16.4%
Metals	71.9%
Others	11.7%

## 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-IM presents the following relevant environmental aspects

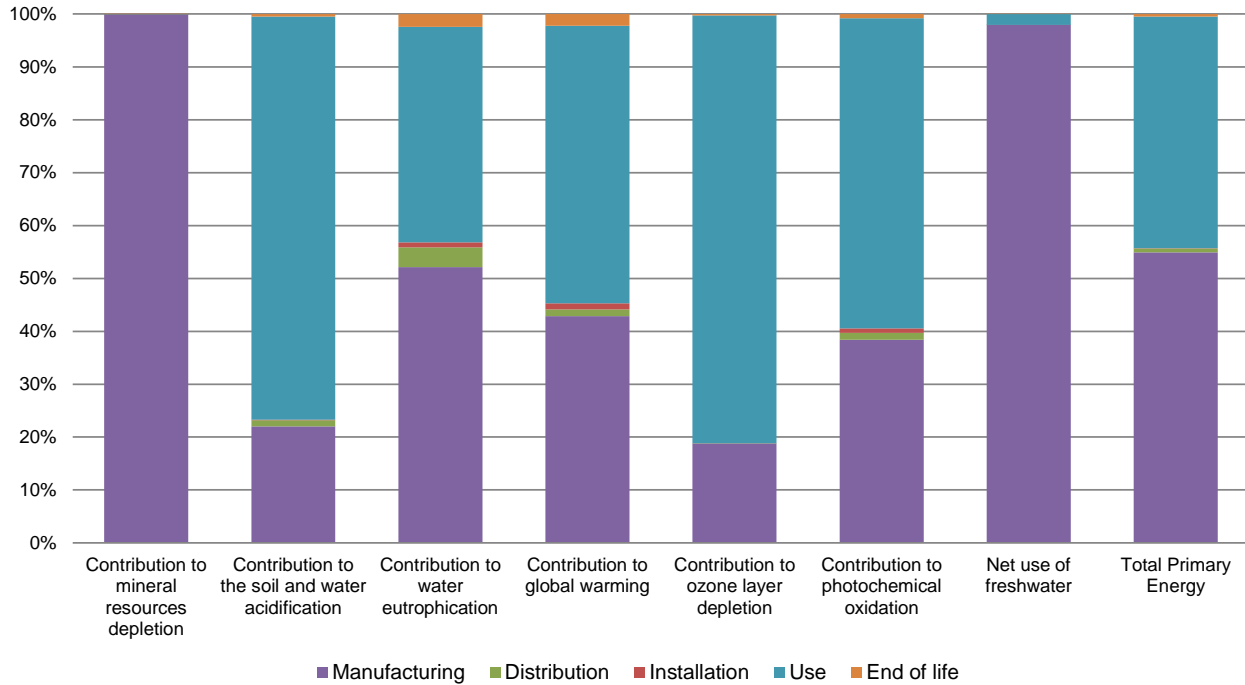
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 21694.8 g, consisting of wood (87.5%), Steel (9.5%), Plastic (3%) and cardboard (0.5%) Product distribution optimised by setting up local distribution centres
<b>Installation</b>	No
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	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: <b>92%</b> 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

<b>Reference life time</b>	20 years			
<b>Product category</b>	Other equipments - Passive product - continuous operation			
<b>Installation elements</b>	Packaging is treated according to local regulation			
<b>Use scenario</b>	Load rate: 30% of In Use time rate: 100% of RLT Power Dissipation at 100% load rate is 53.5815 W and at 30%, Load rate is 4.822335 W			
<b>Geographical representativeness</b>	Europe			
<b>Technological representativeness</b>	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			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	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	Electricity Mix; AC; consumption mix, at consumer; 1kV - 60kV; EU-27

Impact indicators	Unit	SM_AirSeT-IM					
		Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.63E-02	2.62E-02	0*	0*	2.16E-05	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	4.59E+00	1.01E+00	5.30E-02	5.57E-03	3.50E+00	2.30E-02
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	3.27E-01	1.70E-01	1.22E-02	2.97E-03	1.33E-01	8.05E-03
Contribution to global warming	kg CO <sub>2</sub> eq	8.99E+02	3.85E+02	1.16E+01	1.02E+01	4.72E+02	2.00E+01
Contribution to ozone layer depletion	kg CFC11 eq	1.42E-04	2.67E-05	2.35E-08	2.21E-08	1.15E-04	4.41E-07
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	2.83E-01	1.09E-01	3.78E-03	2.35E-03	1.66E-01	2.34E-03
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	6.03E+01	5.91E+01	0*	0*	1.23E+00	1.29E-02
Total Primary Energy	MJ	2.19E+04	1.20E+04	1.64E+02	1.19E+01	9.58E+03	1.08E+02



Optional indicators		SM_AirSeT-IM						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Contribution to fossil resources depletion	MJ	8.68E+03	3.56E+03	1.63E+02	1.09E+01	4.86E+03	8.63E+01	
Contribution to air pollution	m³	1.01E+05	7.96E+04	4.94E+02	2.44E+02	1.99E+04	8.04E+02	
Contribution to water pollution	m³	1.57E+05	1.34E+05	1.91E+03	1.20E+02	1.98E+04	1.15E+03	
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Use of secondary material	kg	1.80E+01	1.80E+01	0*	0*	0*	0*	
Total use of renewable primary energy resources	MJ	9.80E+02	2.92E+02	2.19E-01	2.37E-01	6.87E+02	1.21E-01	
Total use of non-renewable primary energy resources	MJ	2.09E+04	1.17E+04	1.64E+02	1.17E+01	8.89E+03	1.08E+02	
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	7.81E+02	9.29E+01	2.19E-01	2.37E-01	6.87E+02	1.21E-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	2.04E+04	1.13E+04	1.64E+02	1.17E+01	8.89E+03	1.08E+02	
Use of non renewable primary energy resources used as raw material	MJ	4.45E+02	4.45E+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	1.86E+03	1.78E+03	0*	0*	0*	8.00E+01	
Non hazardous waste disposed	kg	1.89E+03	1.20E+02	4.13E-01	8.51E+00	1.76E+03	3.35E-01	
Radioactive waste disposed	kg	1.52E+00	7.48E-02	2.94E-04	2.77E-04	1.44E+00	5.07E-04	
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Materials for recycling	kg	7.94E+01	7.96E+00	0*	3.18E+00	0*	6.83E+01	
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	
Materials for energy recovery	kg	4.35E+00	0*	0*	0*	0*	4.35E+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 impacting of Abiotic depletion (elements, ultimate ultimate reserves), Net use of freshwater and Use phase impacting of Acidification potential of soil and water (total average for Europe), Ozone layer depletion ODP steady state. Manufacturing phase & use phase are impacting equally on the rest 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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Verifier accreditation N°	VH39	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Date of issue	05/2022	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010			
Internal	External	X	
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 »			



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](http://www.schneider-electric.com)

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