

# Product Environmental Profile

Easergy MiCOM 30 series, 24TE and 40TE devices

Range of products used for the protection of Power Systems



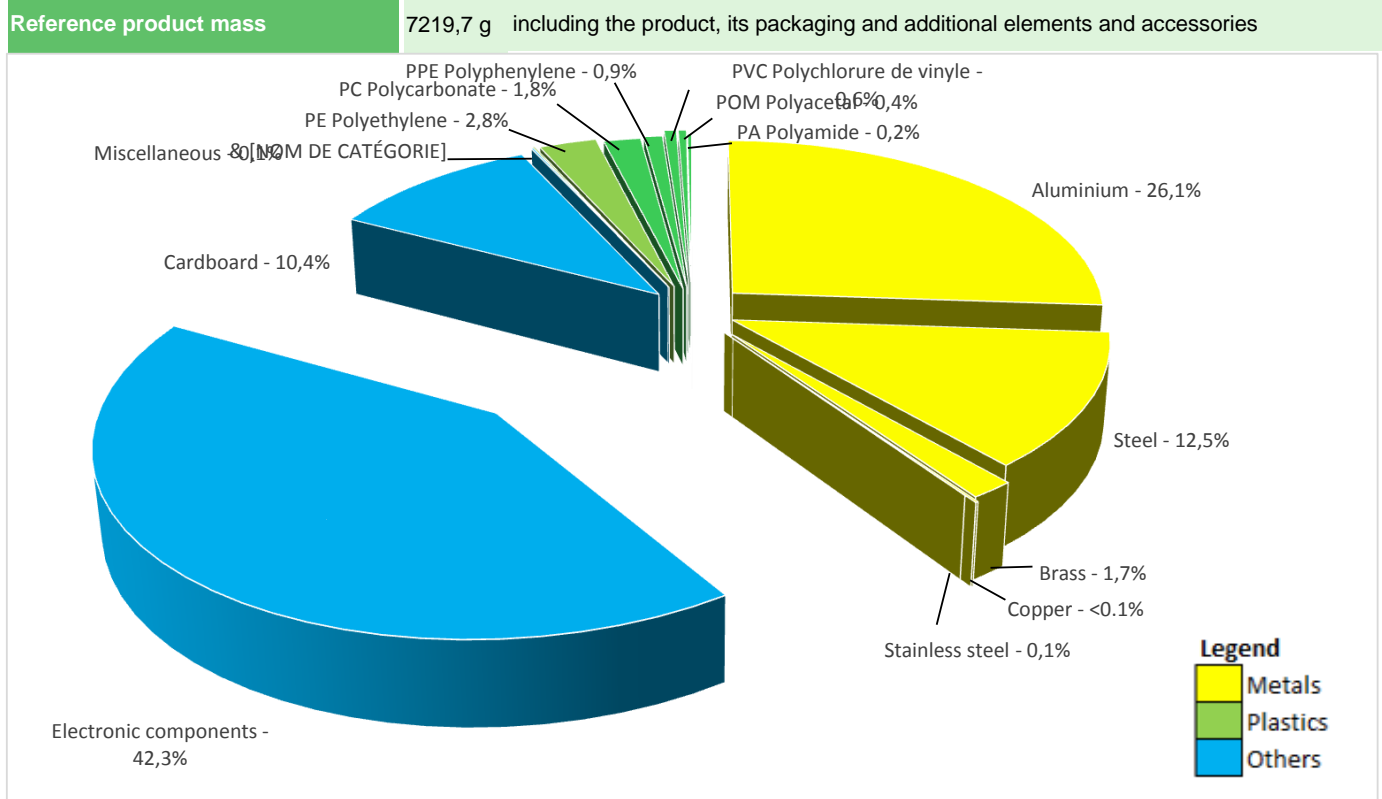


## General information

<b>Representative product</b>	Easergy MiCOM 30 series, 24TE and 40TE devices -P139 40TE
<b>Description of the product</b>	Protect power systems - Maximize energy availability and the profits generated by customer installation while protecting life and property.
<b>Description of the range</b>	Range of products used for the protection of Power Systems  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.
<b>Functional unit</b>	Protect power systems against faults, (short circuit, over load ...) 24h per day, for 10 years of continuous operations in Europe. The 10 years of operations in this document are defined for calculation purposes only, and are not representative of the effective lifetime of a these range products, which is more than 10 years.



## Constituent materials



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) 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) as mentioned in the Directive

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this 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](http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium_page)

## Additional environmental information

The Easergy MiCOM 30 series, 24TE and 40TE devices 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 956,9 g, consisting of Paper / cardboard (78%), plastic (17%), PE film (4%) Packaging recycled materials is 85% of total packaging mass. Product distribution optimised by setting up local distribution centres
<b>Installation</b>	This product does not require any installation operations.
<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 electronic cards (2900 g) and battery (9,37 g) 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  <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>  Recyclability potential: <b>58%</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).

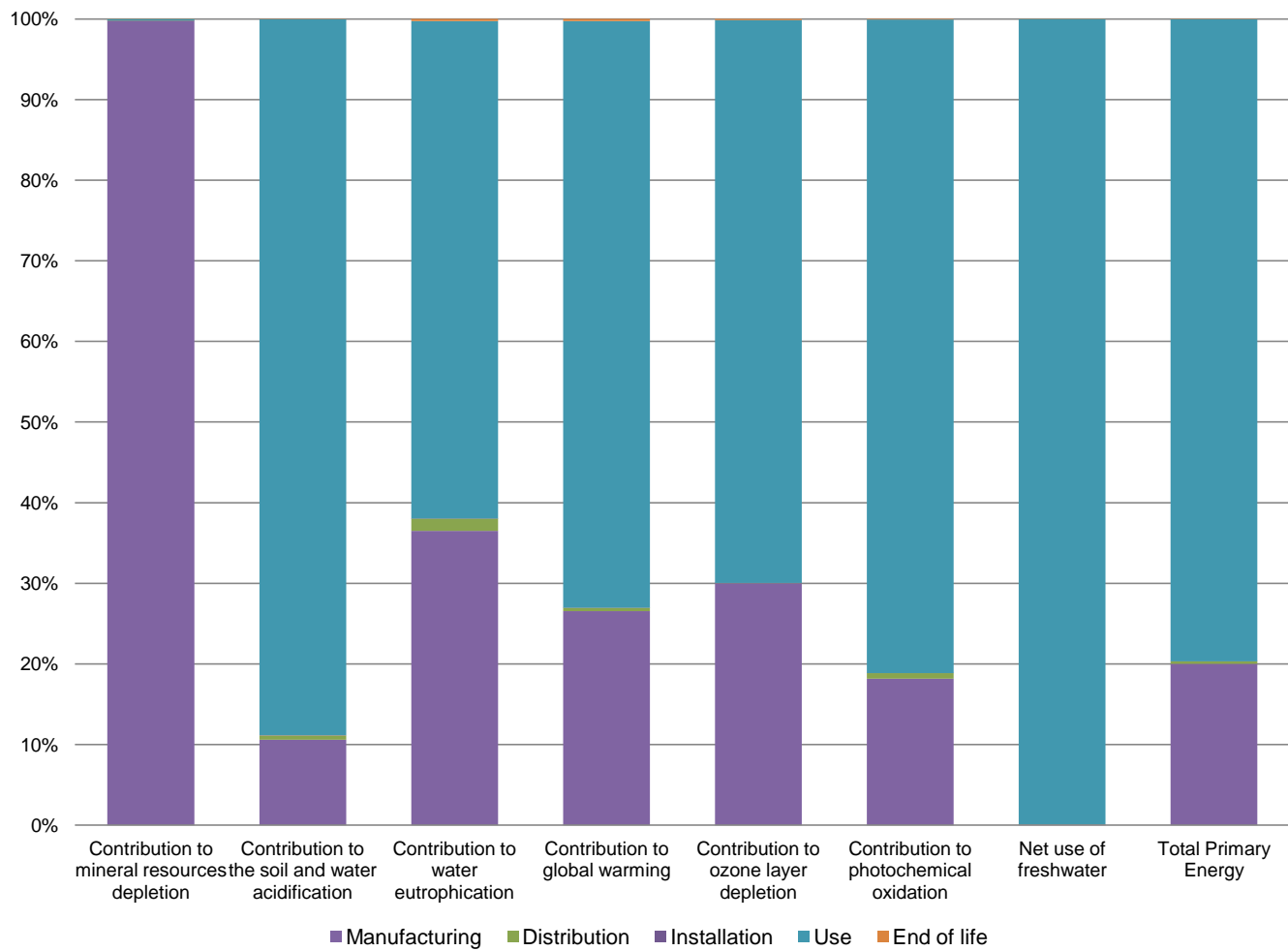
## Environmental impacts

<b>Reference life time</b>	10 years			
<b>Product category</b>	Active products			
<b>Installation elements</b>	End of life of the packaging			
<b>Use scenario</b>	Only the standby mode (30W) is considered to be 100% of the time, since the consumption time in active mode is negligible. No Sleep mode or Stop mode.  Protection relay is designed to operate at their nominal rate (a.k.a standby mode), and to immediately switch to a higher rate (a.k.a. active mode) when a fault is detected on the protected electrical equipment.			
<b>Geographical representativeness</b>	World wide			
<b>Technological representativeness</b>	Protect power systems - Maximize energy availability and the profits generated by customer installation while protecting life and property.			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Energy model used: UK	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

Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	5,49E-02	5,48E-02	0*	0*	1,12E-04	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	6,05E+00	6,40E-01	3,47E-02	0*	5,37E+00	3,03E-03
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	5,26E-01	1,92E-01	8,02E-03	6,49E-05	3,24E-01	1,43E-03
Contribution to global warming	kg CO <sub>2</sub> eq	1,77E+03	4,70E+02	7,51E+00	0*	1,29E+03	4,39E+00
Contribution to ozone layer depletion	kg CFC11 eq	1,20E-04	3,61E-05	1,52E-08	0*	8,39E-05	1,60E-07
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	3,64E-01	6,62E-02	2,49E-03	0*	2,95E-01	2,58E-04

Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4,67E+03	3,80E+00	0*	0*	4,67E+03	0*
Total Primary Energy	MJ	3,23E+04	6,46E+03	1,06E+02	0*	2,57E+04	1,32E+01



Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	2,08E+04	6,11E+03	1,05E+02	0*	1,46E+04	1,24E+01
Contribution to air pollution	m <sup>3</sup>	1,00E+05	4,42E+04	3,29E+02	0*	5,54E+04	9,48E+01
Contribution to water pollution	m <sup>3</sup>	9,09E+04	3,63E+04	1,23E+03	1,05E+01	5,31E+04	2,09E+02
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1,36E+00	1,36E+00	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3,44E+03	1,68E+02	0*	0*	3,27E+03	0*
Total use of non-renewable primary energy resources	MJ	2,89E+04	6,29E+03	1,06E+02	0*	2,24E+04	1,32E+01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3,42E+03	1,53E+02	0*	0*	3,27E+03	0*
Use of renewable primary energy resources used as raw material	MJ	1,56E+01	1,56E+01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2,88E+04	6,24E+03	1,06E+02	0*	2,24E+04	1,32E+01
Use of non renewable primary energy resources used as raw material	MJ	5,05E+01	5,05E+01	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	3,48E+02	3,35E+02	0*	1,11E+00	6,71E-01	1,17E+01
Non hazardous waste disposed	kg	5,42E+03	6,15E+02	0*	0*	4,80E+03	0*
Radioactive waste disposed	kg	3,29E+00	8,27E-02	0*	0*	3,21E+00	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	4,99E+00	5,52E-01	0*	8,12E-01	0*	3,63E+00
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,16E+00	1,18E-03	0*	0*	0*	1,16E+00
Exported Energy	MJ	0,00E+00	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 EIME© v5.6.0.1 , database version 2016-12.


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 RMD) of other products in this family may be proportional extrapolated by energy consumption values". For RMD, impact may be proportional extrapolated by mass of the product.

Other products in this family : P132 24TE, P132 40TE, P433 24TE, P433 40TE, P435 40TE, P439 40TE, P532 40TE, P631 24TE, P631 40TE, P632 40TE, P633 40TE, P138 40TE, P436 40TE, P438 40TE

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.

<i>Registration N°</i>	SCHN-00246-V01.01-EN	<i>Drafting rules</i>	PCR-ed3-EN-2015 04 02
<i>Verifier accreditation N°</i>	VH26	<i>Supplemented by</i>	PSR-0005-ed2-FR-2016 03 29
<i>Date of issue</i>	10/2017	<i>Information and reference documents</i>	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		<i>Validity period</i>	5 years
<i>Independent verification of the declaration and data, in compliance with ISO 14025 : 2010</i>			
Internal	External	X	
<i>The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)</i>			
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »</i>			

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