

Product Environmental Profile

SEPAM 40

Protection of electrical network, medium voltage network (0,4 to 250 KV)





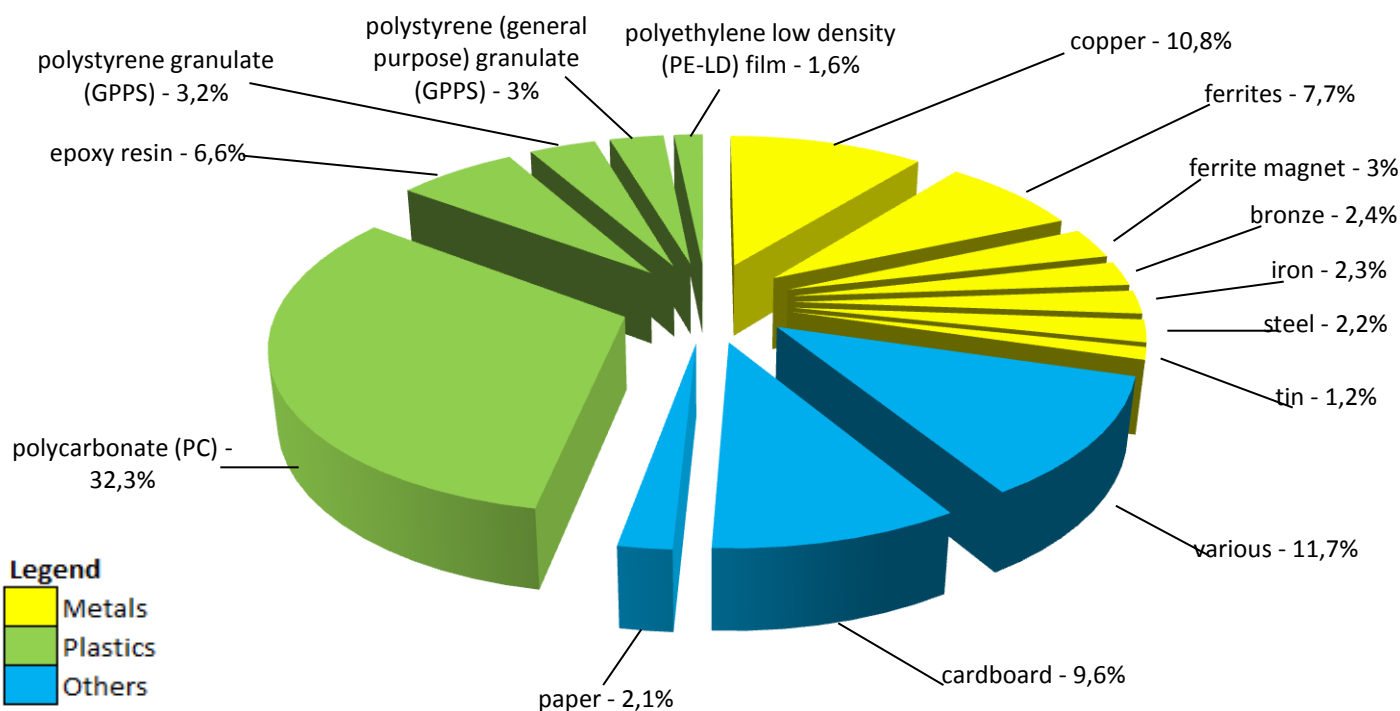
General information

Representative product	SEPAM 40 -59604
Description of the product	Protect electrical network, medium voltage network - Maximize energy availability and the profits generated by customer installation while protecting life and property.
Description of the range	Protection of electrical network, medium voltage network (0,4 to 250 KV) 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.
Functional unit	Protect electrical systems against faults, (short circuit, over load ...) 24h per day, for 10 years of continuous operations in Europe.



Constituent materials

Reference product mass 2285 g including the product, its packaging and additional elements and accessories



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>



Additional environmental information

The SEPAM 40 presents the following relevant environmental aspects

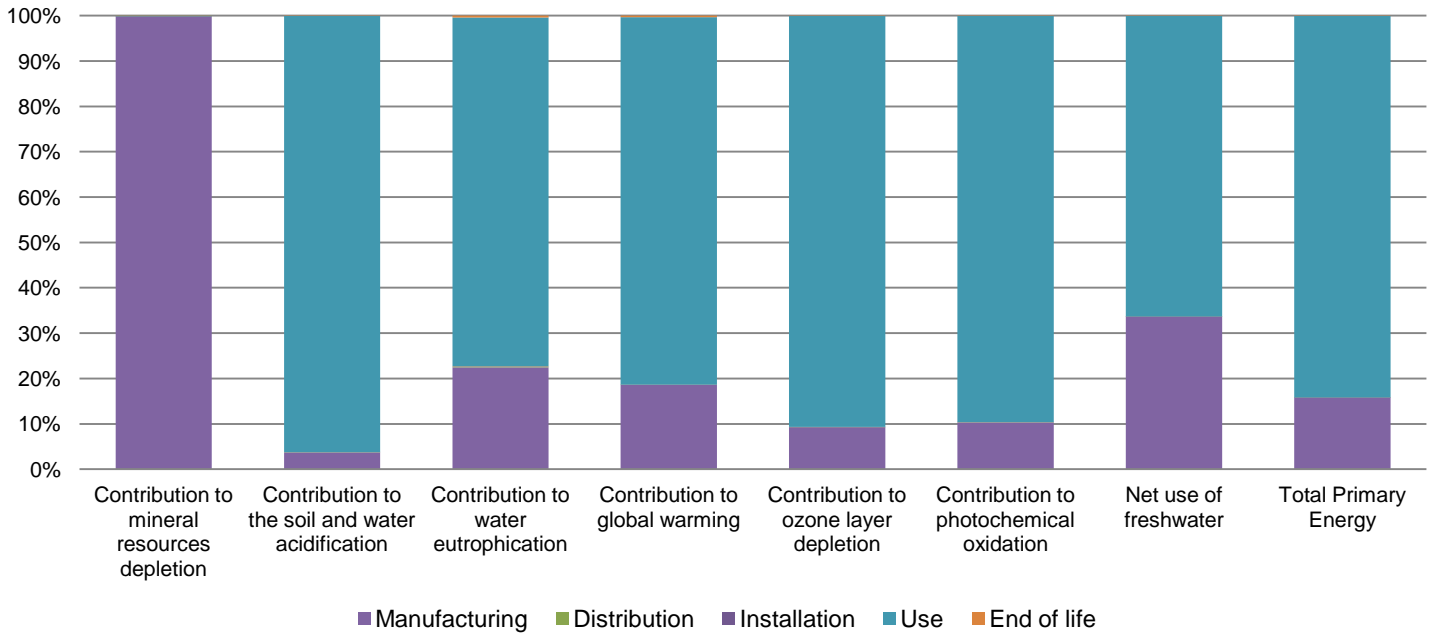
Design	Previous range was Sepam 2000 : 9 to 12kgs for 10 to 15W Current range is Sepam 20, 40 & 48 : 1.7 to 1.9kgs for 4.5 to 6W
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 381,4 g, consisting of cardboard (59%), paper (12%), PE film (11%), plastic thermoformed (18%) Product distribution optimised by setting up local distribution centres
Installation	This product does not require any installation operations.
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 electronic cards (947g) 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 http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page Recyclability potential: 44% 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	10 years			
Product category	Active products			
Installation elements	End of live of the packaging			
Use scenario	Only standby mode (6W) is considered as 100% of the time, because consumed power in active mode is negligible. No Sleep mode nor Off mode.			
Geographical representativeness	Europe			
Technological representativeness	Protect electrical network, medium voltage network - Maximize energy availability and the profits generated by customer installation while protecting life and property.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: France	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		SEPAM 40 - 59604					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1,59E-02	1,58E-02	0*	0*	1,41E-05	0*
Contribution to the soil and water acidification	kg SO ₂ eq	2,44E+00	9,02E-02	1,35E-03	0*	2,35E+00	9,85E-04
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	1,14E-01	2,57E-02	3,10E-04	3,01E-05	8,80E-02	4,42E-04
Contribution to global warming	kg CO ₂ eq	3,83E+02	7,12E+01	2,95E-01	5,27E-02	3,10E+02	1,30E+00
Contribution to ozone layer depletion	kg CFC11 eq	8,32E-05	7,73E-06	0*	0*	7,54E-05	6,11E-08
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	1,24E-01	1,28E-02	9,61E-05	0*	1,11E-01	8,27E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1,22E+00	4,11E-01	0*	0*	8,09E-01	7,14E-04
Total Primary Energy	MJ	7,48E+03	1,18E+03	4,17E+00	0*	6,29E+03	4,88E+00



Optional indicators		SEPAM 40 - 59604					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4,14E+03	9,36E+02	4,14E+00	5,08E-01	3,20E+03	4,10E+00
Contribution to air pollution	m ³	2,12E+04	7,89E+03	1,25E+01	4,00E+00	1,33E+04	3,02E+01
Contribution to water pollution	m ³	2,26E+04	9,50E+03	4,85E+01	4,64E+00	1,30E+04	6,15E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1,01E-01	1,01E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4,80E+02	3,00E+01	0*	0*	4,50E+02	0*
Total use of non-renewable primary energy resources	MJ	7,00E+03	1,15E+03	4,16E+00	0*	5,84E+03	4,87E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4,74E+02	2,46E+01	0*	0*	4,50E+02	0*
Use of renewable primary energy resources used as raw material	MJ	5,41E+00	5,41E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6,97E+03	1,12E+03	4,16E+00	0*	5,84E+03	4,87E+00
Use of non renewable primary energy resources used as raw material	MJ	3,23E+01	3,23E+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	1,01E+02	9,59E+01	0*	4,97E-01	0*	4,11E+00
Non hazardous waste disposed	kg	1,18E+03	1,49E+01	0*	0*	1,16E+03	0*
Radioactive waste disposed	kg	9,57E-01	1,11E-02	0*	0*	9,46E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,23E+00	1,32E-01	0*	2,68E-01	0*	8,35E-01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	3,46E-01	6,19E-03	0*	5,61E-03	0*	3,35E-01
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 v5.5, database version 2015-04.

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.

Range Sepam 20-40-48.

Sepam 40, Sepam 48 and Sepam 20 have similar functionalities and have also the same profile of mission. They are used in the same conditions.

Regarding Sepam 40 & Sepam 48, they have the same hardware, difference comes from firmware.

Regarding Sepam 40 and Sepam 20, visually, the difference between Sepam 20 and Sepam 40 is almost imperceptible. The Sepam 40 has only one additional connector of 6 pins. (voltage inputs signals)

Depending on the impact analysis, the environmental indicators (without RMD) of Sepam 20 may be proportional extrapolated by energy consumption values:

- Sepam 40 : 6 W
- Sepam 20 : 4,5 w

Depending always on the impact analysis, the environmental indicators of Sepam 20 may be also proportional extrapolated by the surface of PCB card. Sepam 40 PCBA surface is greater than 24 % from Sepam 20.

NB: Electronic "technology" of the Sepam 20 and the Sepam 40 is similar too because the design of the Sepam 40 followed that one of the Sepam 20.

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.

Registration N°	ENVPEP1604001_V01	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	10/2016	Supplemented by	PSR-0005-ed1-2012 12 11
Validity period	5 years	Information and reference	www.pep-ecopassport.org
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010			
Internal	X	External	
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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