Product Environmental Profile

Modicon ABLS Optimized book power supply

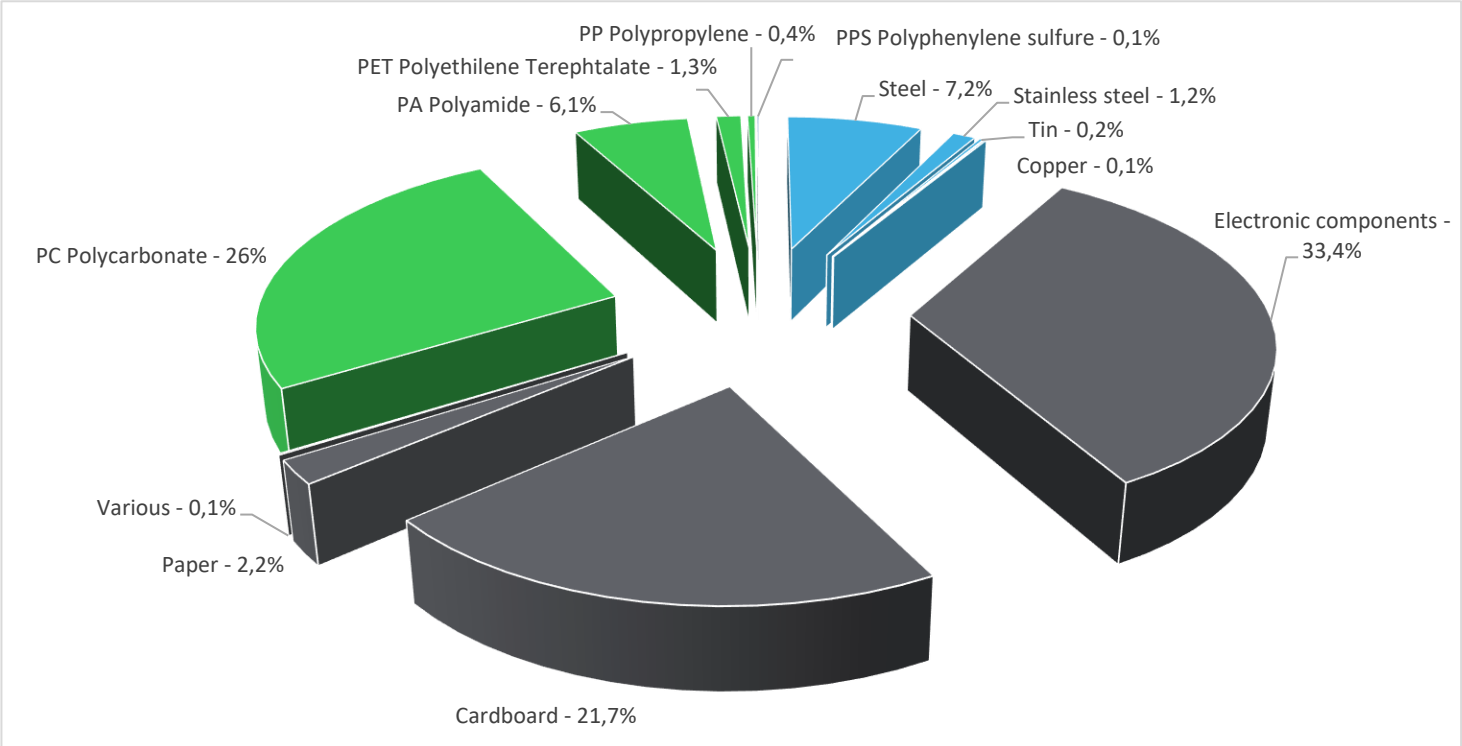
Schneider Electric

General information

Representative product	Modicon ABLS Optimized book power supply - ABLS1A24050
Description of the product	The ABLS Optimized type meets all the needs of simple automation systems with power ratings from 75 to 480 W and an output voltage of 12, 24 and 48 VDC.
Description of the range	Modicon ABLS optimized power supplies are designed to supply control circuits in industrial applications from 75 W up to 480 W. They are available in 2 casings (compact height 75 mm or book height 124mm) for a better adaptation to the enclosure. 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	To supply control circuits in industrial up to 480W at 100% for 10 years.

Constituent materials

Reference product mass	686,8 g including the product, its packaging and additional elements and accessories



	Plastics	33,9%
	Metals	8,7%
	Others	57,4%

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

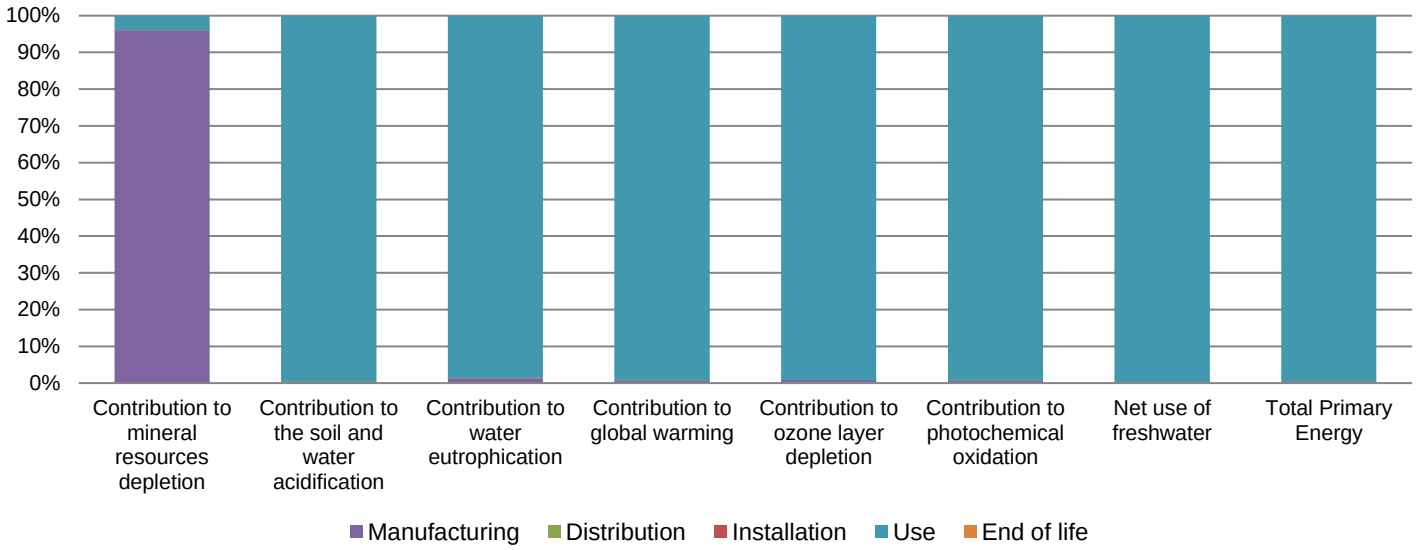
Additional environmental information

The Modicon ABLS Optimized book power supply presents the following relevent 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 158,1 g, consisting of cardboard (94,1%) and paper (7,9%) Product distribution optimised by setting up local distribution centres
Installation	ABLS1A24050 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 3 electronic cards (229,4g) 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: **28%** 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			
Use scenario	The dissipated power depends on the conditions under which the product is implemented and used.This dissipated power is 25 W for the ABLS1A24050 product.			
Geographical representativeness	Europe			
Technological representativeness	The ABLS Optimized type meets all the needs of simple automation systems with power ratings from 75 to 480 W and an output voltage of 12, 24 and 48 VDC.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: Thailand	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

Compulsory indicators	**Modicon ABLS Optimized book power supply - ABLS1A24050**						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2,38E-03	2,28E-03	0*	0*	9,32E-05	0*
Contribution to the soil and water acidification	kg SO_2 eq	4,49E+00	1,74E-02	0*	0*	4,48E+00	0*
Contribution to water eutrophication	kg PO_4^{3-} eq	2,74E-01	3,81E-03	9,32E-05	0*	2,70E-01	1,24E-04
Contribution to global warming	kg CO_2 eq	1,08E+03	8,08E+00	0*	0*	1,07E+03	3,87E-01
Contribution to ozone layer depletion	kg CFC11 eq	7,05E-05	5,96E-07	0*	0*	6,99E-05	1,34E-08
Contribution to photochemical oxidation	kg C_2H_4 eq	2,48E-01	1,55E-03	2,89E-05	0*	2,46E-01	0*
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	3,89E+03	0*	0*	0*	3,89E+03	0*
Total Primary Energy	MJ	2,15E+04	1,02E+02	0*	0*	2,14E+04	0*



Optional indicators		Modicon ABLS Optimized book power supply - ABLS1A24050					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1,23E+04	6,99E+01	1,24E+00	0*	1,22E+04	0*
Contribution to air pollution	m³	4,70E+04	7,87E+02	0*	0*	4,62E+04	7,80E+00
Contribution to water pollution	m³	4,59E+04	1,58E+03	1,46E+01	0*	4,43E+04	1,67E+01
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	3,43E-02	3,43E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	2,73E+03	5,24E+00	0*	0*	2,73E+03	0*
Total use of non-renewable primary energy resources	MJ	1,88E+04	9,67E+01	0*	0*	1,87E+04	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2,73E+03	2,37E+00	0*	0*	2,73E+03	0*
Use of renewable primary energy resources used as raw material	MJ	2,87E+00	2,87E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,88E+04	8,77E+01	0*	0*	1,87E+04	0*
Use of non renewable primary energy resources used as raw material	MJ	8,95E+00	8,95E+00	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	4,46E+00	2,80E+00	0*	0*	5,59E-01	1,10E+00
Non hazardous waste disposed	kg	4,00E+03	1,31E+00	0*	0*	4,00E+03	0*
Radioactive waste disposed	kg	2,67E+00	1,00E-03	0*	0*	2,67E+00	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	3,40E-01	4,37E-02	0*	1,53E-01	0*	1,43E-01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,05E-01	0*	0*	0*	0*	1,05E-01
Exported Energy	MJ	8,54E-03	8,10E-03	0*	4,39E-04	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.8.1, database version 2016-11 in compliance with ISO14044.

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 "contribution to the mineral resources depletion") of other products in this family may be proportional extrapolated by energy consumption values". For mineral resources depletion, impact may be proportional extrapolated by mass of the product.

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 number	ENVPEP2007005_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	07/2020	*Supplemented by*	PSR-0010-ed1.1-EN-2015 10 16
Validity period	5 years	*Information and reference documents*	www.pep-ecopassport.org

Independent verification of the declaration and data

Internal X External

The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »

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

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