

Product Environmental Profile

TeSys D





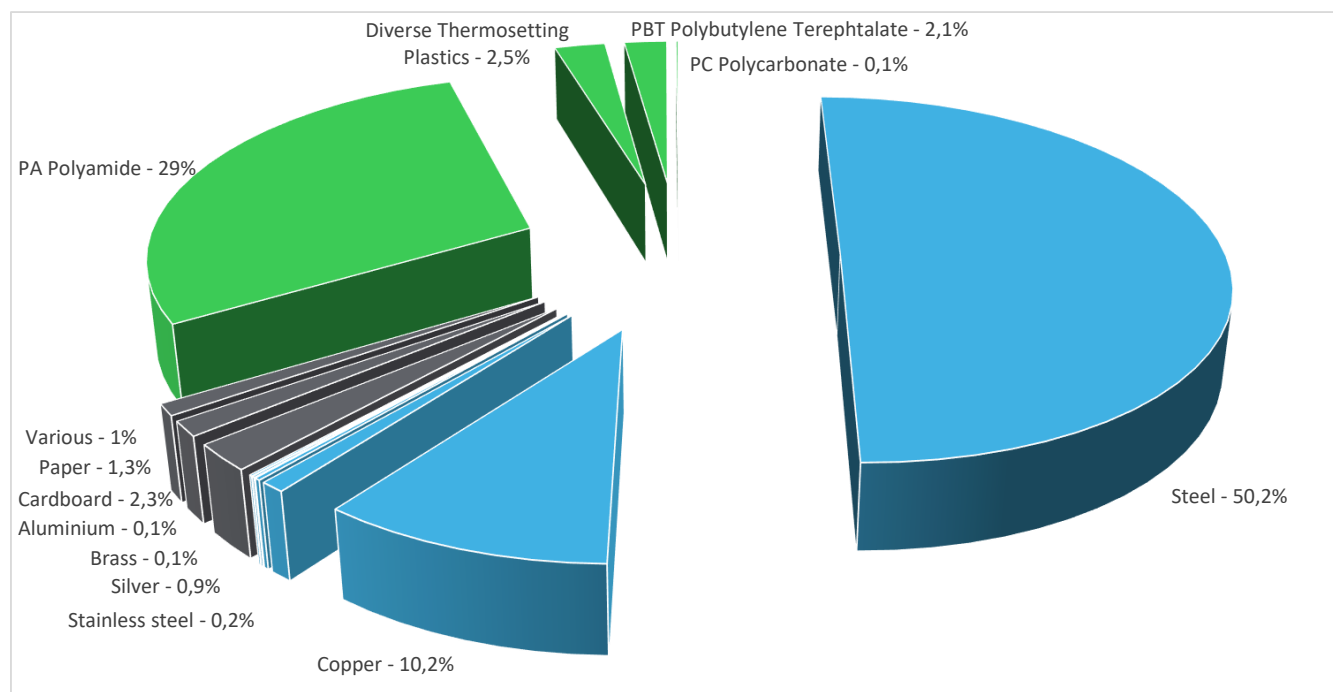
General information

Representative product	TeSys D - LC1D50AP7
Description of the product	Three-poles contactor for motorized applications from 22kW to 400V. The data used to make this PEP are the most representative of the product studied. No missing data is to be declared.
Functional unit	Switch on and off during 20 years electrical power supply of a downstream installation with an electrical and/or mechanical control. The functional unit is characterized by a type 1 NO + 1 NC, a control circuit voltage 230 V AC, a power circuit voltage 690 V and a maximum allowed intensity by the power circuit 810A.



Constituent materials

Reference product mass 879 g including the product, its packaging and additional elements and accessories



Plastics	33,7%
Metals	61,7%
Others	4,6%



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 TeSys D presents the following relevant environmental aspects

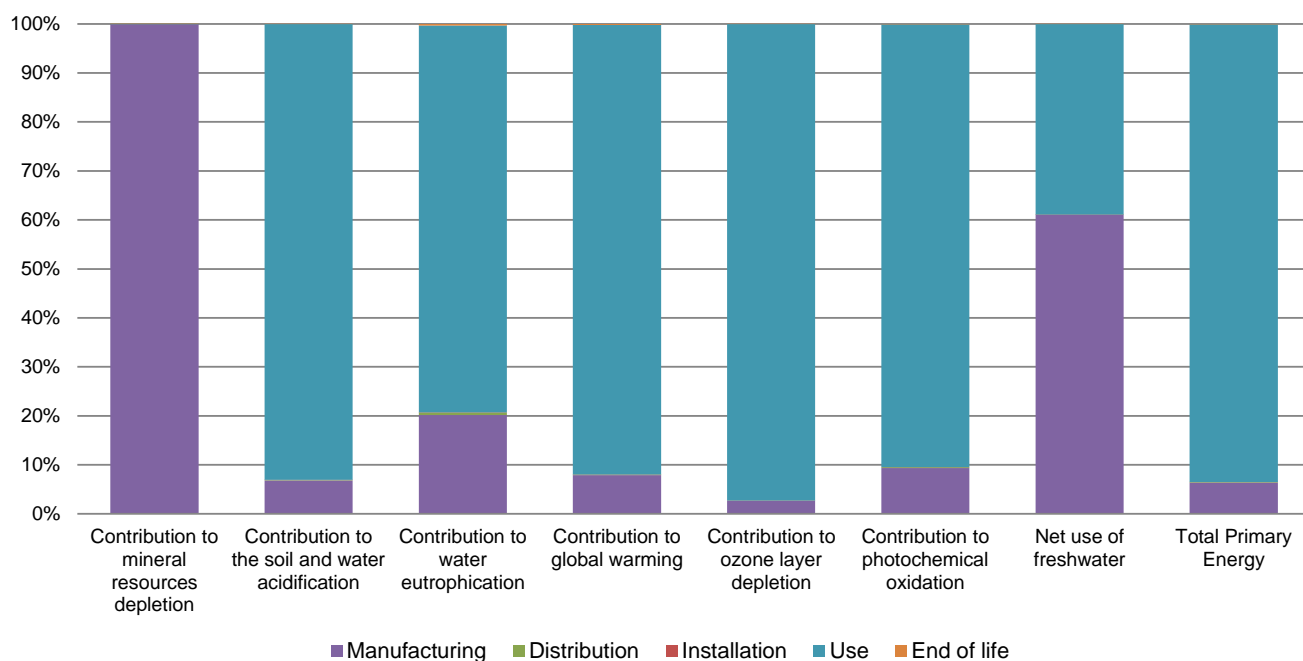
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 31,2 g, consisting of cardboard (65%), paper (35%) Packaging recycled materials is 85% of total packaging mass. Product distribution optimised by setting up local distribution centres
Installation	Ref LC1D50AP7 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 plastic parts with brominated FR 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: 60% Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment)



Environmental impacts

Reference life time	20 years			
Product category	Contactor, remote control switch, combinations, starters			
Installation elements	No special components needed			
Use scenario	Load factor : 50% of 810 A Use rate: 50% of 20 years			
Geographical representativeness	Europe			
Technological representativeness	Three-poles contactor for motorized applications from 22kW to 400V. The data used to make this PEP are the most representative of the product studied. No missing data is to be declared.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: China	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		TeSys D - LC1D50AP7						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Contribution to mineral resources depletion	kg Sb eq	6,25E-03	6,24E-03	0*	0*	2,77E-06	0*	
Contribution to the soil and water acidification	kg SO ₂ eq	4,94E-01	3,38E-02	5,18E-04	0*	4,60E-01	2,47E-04	
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	2,18E-02	4,39E-03	1,19E-04	0*	1,72E-02	6,69E-05	
Contribution to global warming	kg CO ₂ eq	6,62E+01	5,22E+00	1,13E-01	0*	6,08E+01	1,21E-01	
Contribution to ozone layer depletion	kg CFC11 eq	1,52E-05	4,16E-07	0*	0*	1,48E-05	5,48E-09	
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	2,40E-02	2,25E-03	3,70E-05	0*	2,17E-02	2,59E-05	
Resources use		Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4,08E-01	2,49E-01	0*	0*	1,59E-01	1,10E-04	
Total Primary Energy	MJ	1,32E+03	8,34E+01	1,60E+00	0*	1,23E+03	1,21E+00	



Optional indicators		TeSys D - LC1D50AP7					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	6,69E+02	4,01E+01	1,59E+00	0*	6,26E+02	9,69E-01
Contribution to air pollution	m ³	4,02E+03	1,40E+03	4,82E+00	0*	2,61E+03	8,69E+00
Contribution to water pollution	m ³	3,70E+03	1,12E+03	1,87E+01	0*	2,55E+03	1,03E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	5,75E-02	5,75E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	9,03E+01	2,24E+00	0*	0*	8,81E+01	0*
Total use of non-renewable primary energy resources	MJ	1,23E+03	8,11E+01	1,60E+00	0*	1,14E+03	1,21E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	8,98E+01	1,65E+00	0*	0*	8,81E+01	0*
Use of renewable primary energy resources used as raw material	MJ	5,85E-01	5,85E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,22E+03	7,34E+01	1,60E+00	0*	1,14E+03	1,21E+00
Use of non renewable primary energy resources used as raw material	MJ	7,71E+00	7,71E+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	5,72E+01	5,60E+01	0*	0*	0*	1,16E+00
Non hazardous waste disposed	kg	2,29E+02	1,88E+00	0*	0*	2,27E+02	0*
Radioactive waste disposed	kg	1,86E-01	9,67E-04	0*	0*	1,85E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	5,72E-01	7,90E-02	0*	0*	0*	4,93E-01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,46E-02	0*	0*	0*	0*	1,46E-02
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 v5.8.1, database version 2018-11 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).

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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<i>Verifier accreditation N°</i>	VH25	<i>Supplemented by</i>	PSR-0005-ed2-EN-2016 03 29
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		<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>PEP are compliant with XP C08-100-1 :2016</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>			



Schneider Electric Industries SAS
ROSELYNE THAI
roselyne.thai@schneider-electric.com

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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