

Product Environmental Profile

Renova Surface Switches





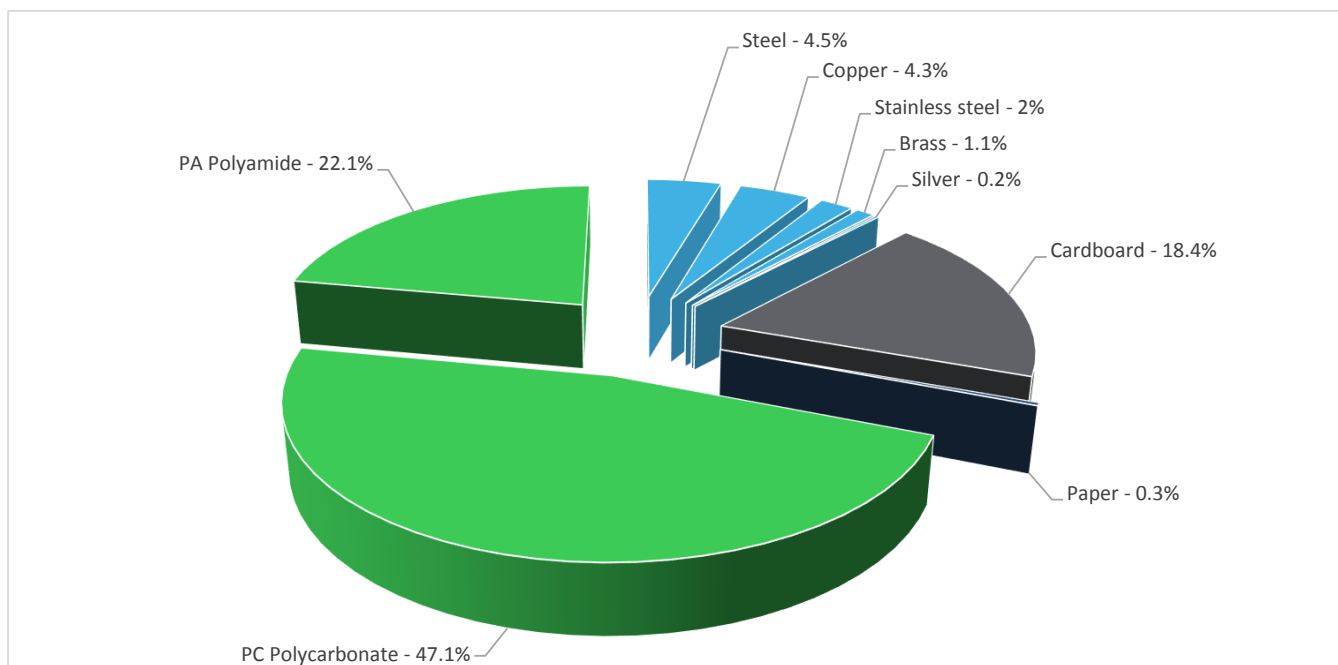
General information

Representative product	Renova Surface Switch two-way/1-pole [6/1] screwless black - WDE015921
Description of the product	The main purpose of the switch, rated at 16A 250V AC product range is to give a solution for the control of Electricity.
Functional unit	Establish, support and interrupt for 20 years rated currents in normal conditions of circuit characterized by the current 16A, including any conditions specified for overload in operation characterized by the current 16A, for the operating voltage 250V for a specified time with IP20 / IP21 protection in accordance with the standard IEC 60529.



Constituent materials

Reference product mass 73 g including the product, its packaging and additional elements and accessories



Plastics	69.2%
Metals	12.1%
Others	18.7%



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

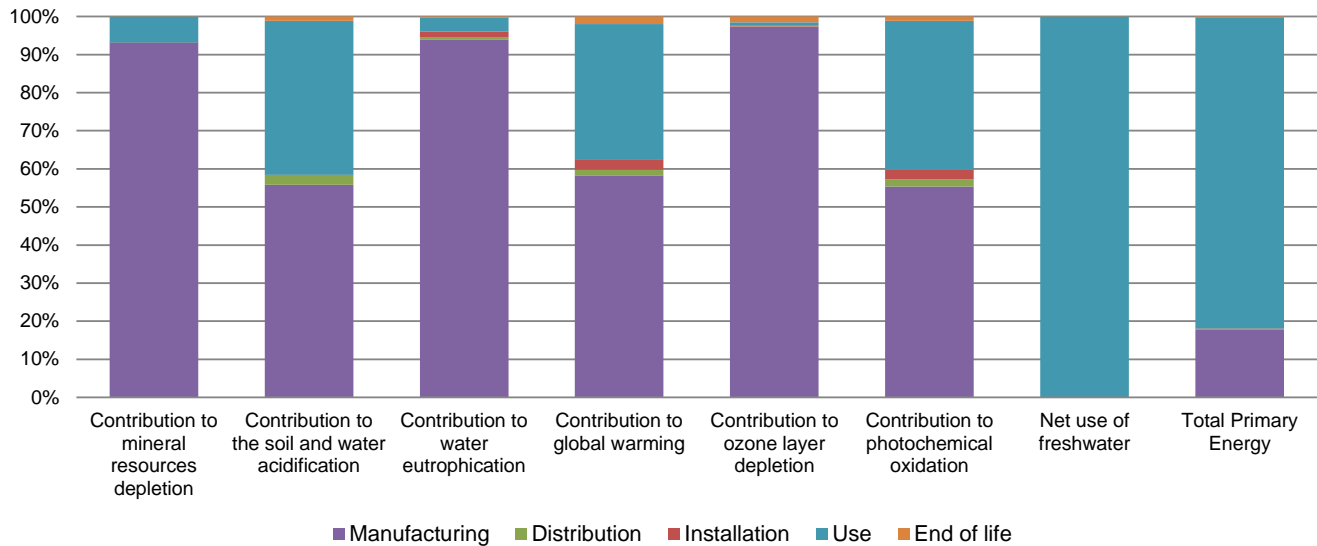
The Renova Surface Switches presents the following relevant environmental aspects

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 13.6 g, consisting of cardboard (98.52%), paper (1.48%) Product distribution optimised by setting up local distribution centres
Installation	The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials is accounted during the installation phase (including transport to disposal).
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 No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process. Recyclability potential: 13% 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	20 years			
Product category	Switches			
Installation elements	No special components needed			
Use scenario	Load rate: 50% of In Use time rate: 30% of RLT			
Geographical representativeness	Nordic countries: Sweden, Finland, Norway			
Technological representativeness	The main purpose of the switch, rated at 16A 250V AC product range is to give a solution for the control of Electricity.			
Energy model used	Manufacturing	Installation	Use	End of life
	Manufacturing plant: Elda, Poland	Electricity grid mix; AC; consumption mix, at consumer; 230V; SE	Electricity grid mix; AC; consumption mix, at consumer; 230V; SE	Electricity grid mix; AC; consumption mix, at consumer; 230V; SE

Compulsory indicators		Renova Surface Switches - WDE015921					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6.69E-06	6.23E-06	0*	0*	4.58E-07	0*
Contribution to the soil and water acidification	kg SO ₂ eq	1.67E-03	9.34E-04	4.30E-05	9.54E-07	6.76E-04	1.87E-05
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	2.23E-03	2.10E-03	9.91E-06	3.60E-05	8.25E-05	5.93E-06
Contribution to global warming	kg CO ₂ eq	6.65E-01	3.88E-01	9.42E-03	1.87E-02	2.36E-01	1.32E-02
Contribution to ozone layer depletion	kg CFC11 eq	2.87E-08	2.79E-08	1.91E-11	4.66E-11	2.46E-10	4.48E-10
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	1.69E-04	9.36E-05	3.07E-06	4.47E-06	6.61E-05	1.88E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m ³	1.87E+01	0*	0*	0*	1.87E+01	0*
Total Primary Energy	MJ	3.90E+01	6.90E+00	1.33E-01	0*	3.18E+01	8.77E-02



Optional indicators		Renova Surface Switches - WDE015921					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	7.07E+00	4.94E+00	1.32E-01	2.75E-03	1.93E+00	7.05E-02
Contribution to air pollution	m³	5.79E+01	3.75E+01	4.01E-01	6.74E-02	1.93E+01	6.49E-01
Contribution to water pollution	m³	1.32E+02	1.18E+02	1.55E+00	9.98E-01	1.11E+01	8.62E-01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2.11E-03	2.11E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1.27E+01	4.06E-01	0*	0*	1.23E+01	0*
Total use of non-renewable primary energy resources	MJ	2.62E+01	6.50E+00	1.33E-01	3.74E-03	1.95E+01	8.76E-02
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.25E+01	1.26E-01	0*	0*	1.23E+01	0*
Use of renewable primary energy resources used as raw material	MJ	2.80E-01	2.80E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.46E+01	4.89E+00	1.33E-01	3.74E-03	1.95E+01	8.76E-02
Use of non renewable primary energy resources used as raw material	MJ	1.61E+00	1.61E+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	6.54E-01	5.42E-01	0*	0*	1.51E-03	1.11E-01
Non hazardous waste disposed	kg	1.06E+00	3.64E-01	3.35E-04	1.36E-02	6.79E-01	2.67E-04
Radioactive waste disposed	kg	7.50E-03	2.52E-04	0*	0*	7.25E-03	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.08E-02	3.08E-03	0*	0*	0*	7.73E-03
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2.88E-03	3.66E-04	0*	0*	0*	2.52E-03
Exported Energy	MJ	1.15E-04	0*	0*	1.15E-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 manufacturing 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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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 :2014			
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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