

# Product Environmental Profile

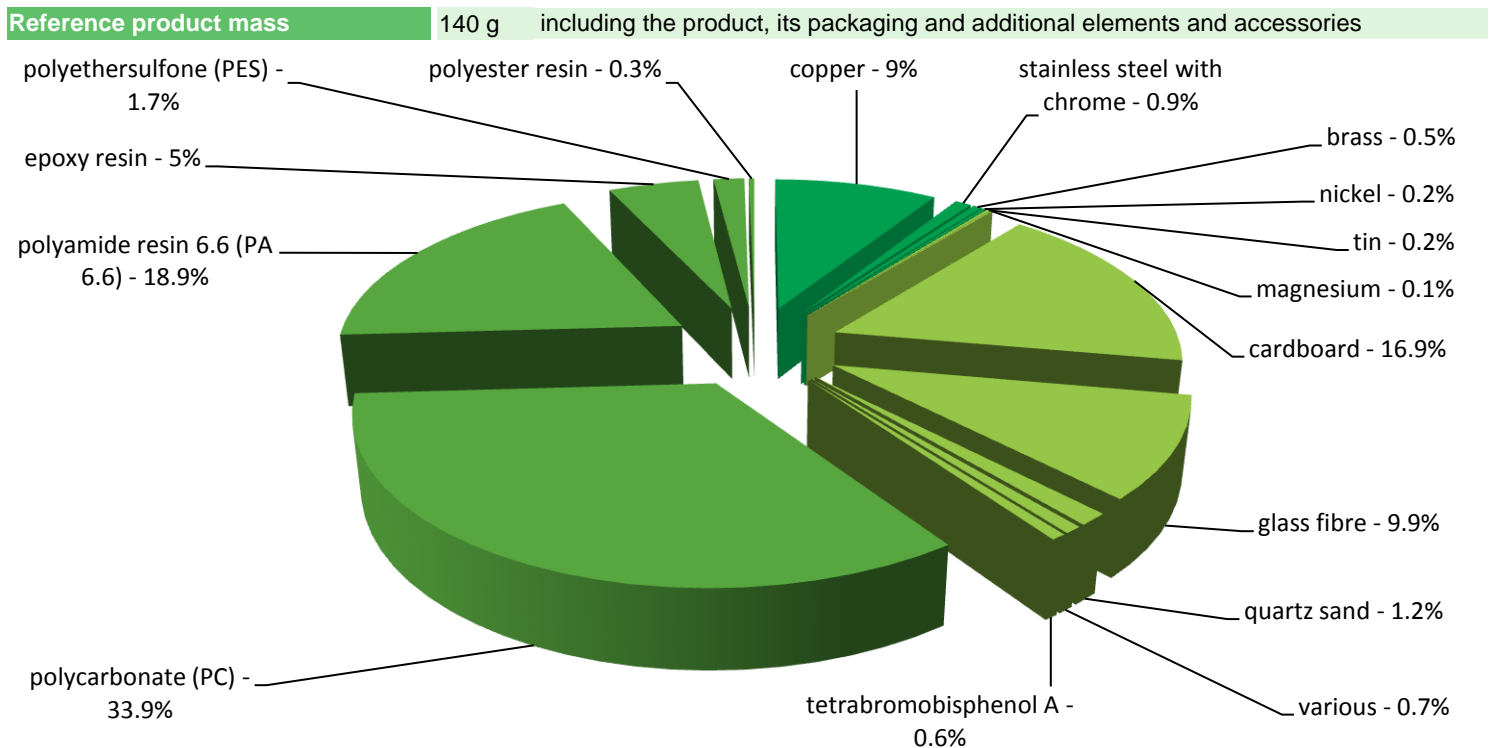
## Modicon STB IP20 distributed inputs/outputs and power modules



## General information

<b>Representative product</b>	Modicon STB IP20 distributed inputs/outputs -STBAC11400K
<b>Description of the product</b>	Modicon STB IP20 distributed inputs/outputs to monitor and control industrial automation process
<b>Description of the range</b>	Modicon STB IP20 distributed inputs/outputs and power modules  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>	To monitor and control industrial automation process during 10 years 100% of the time

## 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>



## Additional environmental information

The Modicon STB IP20 distributed inputs/outputs presents the following relevant environmental aspects

<b>Design</b>	Products are designed to be "Green Premium"
<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 Product distribution optimised by setting up local distribution centres
<b>Installation</b>	Does not require any special installation operations
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	<p>End of life optimized to decrease the amount of waste and allow recovery of the product components and materials</p> <p>This product contains Electronic cards, 25.4g Plastic housing assembly, 39.0g Plastic base assembly, 20.7g that should be separated from the stream of waste so as to optimize end-of-life treatment.</p> <p>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></p> <p>Recyclability potential: <b>61%</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).</p>



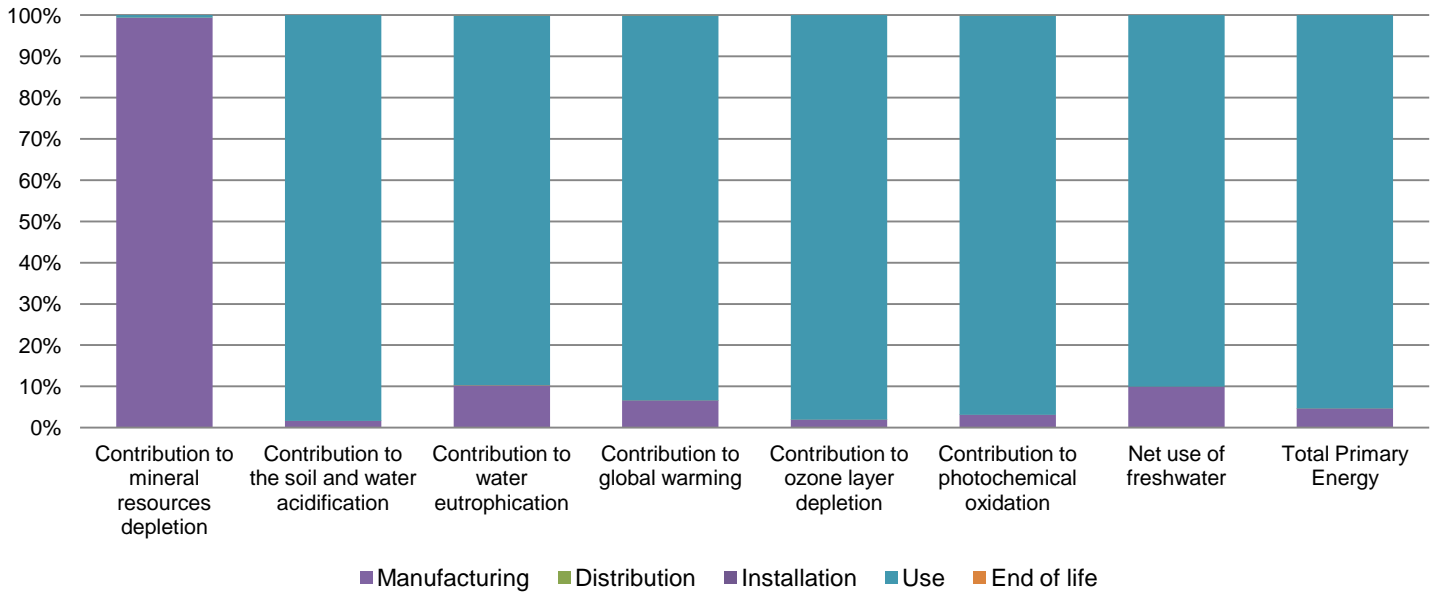
## Environmental impacts

<b>Reference life time</b>	10 years			
<b>Product category</b>	Active products			
<b>Installation elements</b>	No special components needed			
<b>Use scenario</b>	Consumed power is 2 W 100 % of the time in Active mode, 0 W 0 % of the time in Standby mode, 0 W 0 % of the time in Sleep mode and 0 W 0 % of the time in Off mode.			
<b>Geographical representativeness</b>	Europe			
<b>Technological representativeness</b>	Modicon STB IP20 distributed inputs/outputs to monitor and control industrial automation process			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Energy model used: Indonesia	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		Modicon STB IP20 distributed inputs/outputs - STBAC11400K					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	8.36E-04	8.31E-04	0*	0*	4.71E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	7.95E-01	1.29E-02	8.25E-05	0*	7.82E-01	0*
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	3.27E-02	3.36E-03	1.90E-05	0*	2.93E-02	1.63E-05
Contribution to global warming	kg CO <sub>2</sub> eq	1.11E+02	7.30E+00	1.81E-02	0*	1.03E+02	4.17E-02
Contribution to ozone layer depletion	kg CFC11 eq	2.56E-05	5.04E-07	0*	0*	2.51E-05	0*
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	3.82E-02	1.18E-03	5.89E-06	0*	3.70E-02	4.15E-06

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Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	3.00E-01	2.99E-02	0*	0*	2.70E-01	0*
Total Primary Energy	MJ	2.20E+03	1.02E+02	2.55E-01	0*	2.10E+03	2.29E-01



Optional indicators	Modicon STB IP20 distributed inputs/outputs - STBAC1400K						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.16E+03	9.05E+01	2.54E-01	0*	1.07E+03	1.90E-01
Contribution to air pollution	m <sup>3</sup>	4.90E+03	4.63E+02	7.68E-01	0*	4.44E+03	1.45E+00
Contribution to water pollution	m <sup>3</sup>	5.44E+03	1.09E+03	2.97E+00	0*	4.34E+03	2.34E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.37E-03	1.37E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1.52E+02	1.68E+00	0*	0*	1.50E+02	0*
Total use of non-renewable primary energy resources	MJ	2.05E+03	1.00E+02	2.55E-01	0*	1.95E+03	2.29E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.51E+02	1.20E+00	0*	0*	1.50E+02	0*
Use of renewable primary energy resources used as raw material	MJ	4.82E-01	4.82E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.04E+03	9.74E+01	2.55E-01	0*	1.95E+03	2.29E-01
Use of non renewable primary energy resources used as raw material	MJ	2.91E+00	2.91E+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	3.97E+00	3.73E+00	0*	4.75E-02	0*	1.87E-01
Non hazardous waste disposed	kg	3.88E+02	1.54E+00	0*	0*	3.87E+02	0*
Radioactive waste disposed	kg	3.16E-01	4.42E-04	0*	0*	3.15E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7.99E-02	9.82E-03	0*	0*	0*	7.01E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1.09E-02	4.01E-04	0*	1.19E-03	0*	9.36E-03
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.

The mineral resources depletion of the product of the family maybe proportional extrapolated by mass of product. And the other environmental indicators of the range may be proportional extrapolated by power consumption 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.*

<i>Registration N°</i>	ENVPEP1511012	<i>Drafting rules</i>	PEP-PCR-ed3-EN-2015 04 02
<i>Date of issue</i>	11-2015		
<i>Validity period</i>	5 years	<i>Information and reference documents</i>	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
<i>Independent verification of the declaration and data, in compliance with ISO 14025 : 2010</i>			
Internal	X	External	
<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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