

Product Environmental Profile

Harmony HMI STM Operator Panel





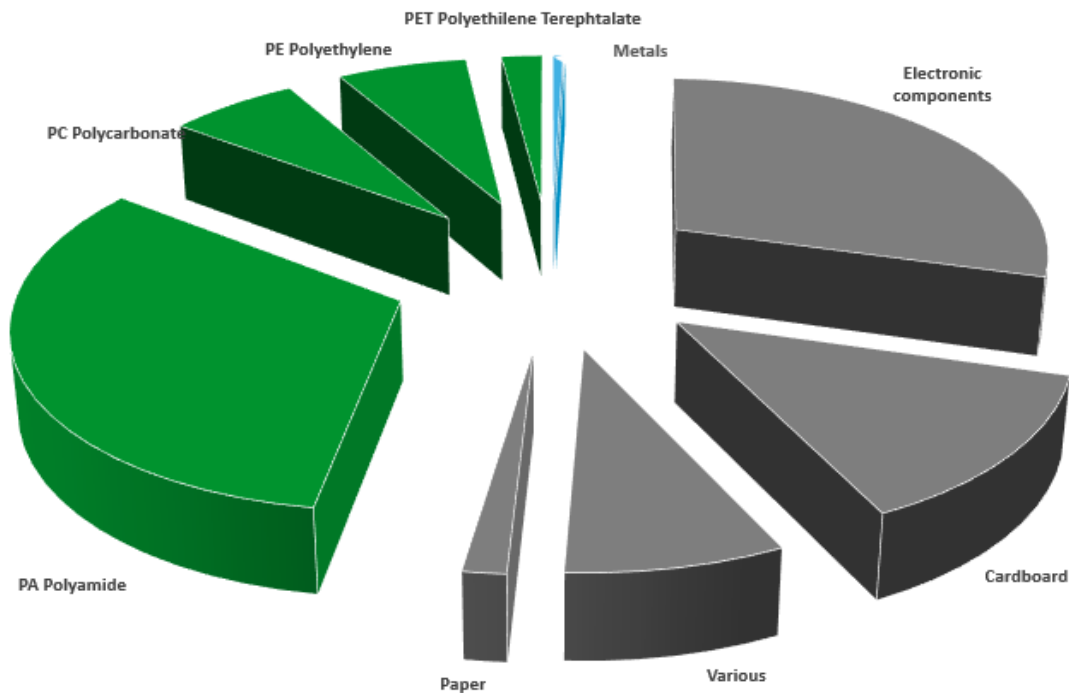
General information

Representative product	Harmony 7W modular HMI - HMISTM6400
Description of the product	Modular human machine interface
Description of the range	Harmony HMI STM Operator Panel 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 provide a modular human machine interface with ethernet communication during 10 years and a 100% use rate at 10.4W.



Constituent materials

Reference product mass 997.8 g including the product, its packaging and additional elements and accessories



Plastics	47.5%
Metals	0.2%
Others	51.9%



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 Harmony 7W modular HMI 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 247.6 g, consisting of cardboard (55%), plastics (39%), paper (6%) Product distribution optimised by setting up local distribution centres
Installation	Anti rotation tee and tightening wrench tools can be used for installation
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 card (73.5g), Plastic (309.7g) and batteries (3g) 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: 49% 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	Other equipments - Active product			
Installation elements	No special components needed			
Use scenario	The product is in active mode 100% of the time with a power use of 10.4W			
Geographical representativeness	China, Europe and US			
Technological representativeness	Modular human machine interface			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: Indonesia	Electricity mix; AC; consumption mix, at consumer; 220V; CN	Electricity mix; AC; consumption mix, at consumer; 220V; CN	Electricity mix; AC; consumption mix, at consumer; 220V; CN

Compulsory indicators		Harmony 7W modular HMI - HMISTM6400					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3.47E-03	3.46E-03	0*	0*	1.35E-05	0*
Contribution to the soil and water acidification	kg SO2 eq	7.91E-01	2.10E-01	5.88E-04	0*	5.80E-01	2.87E-04
Contribution to water eutrophication	kg PO43- eq	2.83E-01	1.29E-01	1.35E-04	0*	1.54E-01	1.06E-04
Contribution to global warming	kg CO2 eq	7.57E+02	1.99E+02	1.29E-01	0*	5.58E+02	2.75E-01
Contribution to ozone layer depletion	kg CFC11 eq	2.50E-05	1.62E-05	0*	0*	8.87E-06	1.12E-08
Contribution to photochemical oxidation	kg C2H4 eq	1.07E-01	3.03E-02	4.19E-05	0*	7.65E-02	2.72E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4.64E+00	3.27E+00	0*	0*	1.37E+00	0*
Total Primary Energy	MJ	1.49E+04	2.73E+03	1.82E+00	0*	1.22E+04	0*



Optional indicators		Harmony 7W modular HMI - HMISTM6400					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.01E+04	2.47E+03	1.81E+00	0*	7.60E+03	1.08E+00
Contribution to air pollution	m ³	7.14E+04	1.85E+04	0*	0*	5.29E+04	9.59E+00
Contribution to water pollution	m ³	4.00E+04	1.21E+04	2.12E+01	0*	2.78E+04	1.51E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	9.98E-02	9.98E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4.79E+02	4.59E+01	0*	0*	4.33E+02	0*
Total use of non-renewable primary energy resources	MJ	1.44E+04	2.68E+03	1.82E+00	0*	1.17E+04	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.78E+02	4.46E+01	0*	0*	4.33E+02	0*
Use of renewable primary energy resources used as raw material	MJ	1.25E+00	1.25E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.44E+04	2.66E+03	1.82E+00	0*	1.17E+04	0*
Use of non renewable primary energy resources used as raw material	MJ	1.86E+01	1.86E+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	2.47E+02	1.79E+02	0*	0*	6.60E+01	1.30E+00
Non hazardous waste disposed	kg	1.25E+02	3.24E+01	0*	0*	9.23E+01	0*
Radioactive waste disposed	kg	4.60E-02	6.46E-03	0*	0*	3.95E-02	7.56E-06
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	5.76E-01	6.46E-02	0*	1.35E-01	0*	3.76E-01
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	6.25E-02	0*	0*	0*	0*	6.25E-02
Exported Energy	MJ	4.30E-04	4.04E-05	0*	3.90E-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.

For Harmony HMI STM Operator Panels, the environmental indicator ADPe of other products in this family may be proportional extrapolated by product weight; for the indicator ODP, NUFW, impact may be 30% proportional extrapolated by energy consumption values and 70% proportional extrapolated by product weight; for other indicators, impact may be 30% proportional extrapolated by product weight and 70% proportional extrapolated by energy consumption values.

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>Validity period</i>	5 years	<i>Information and reference documents</i>	www.pep-ecopassport.org
<i>Independent verification of the declaration and data</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 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i>			

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