Product Environmental Profile

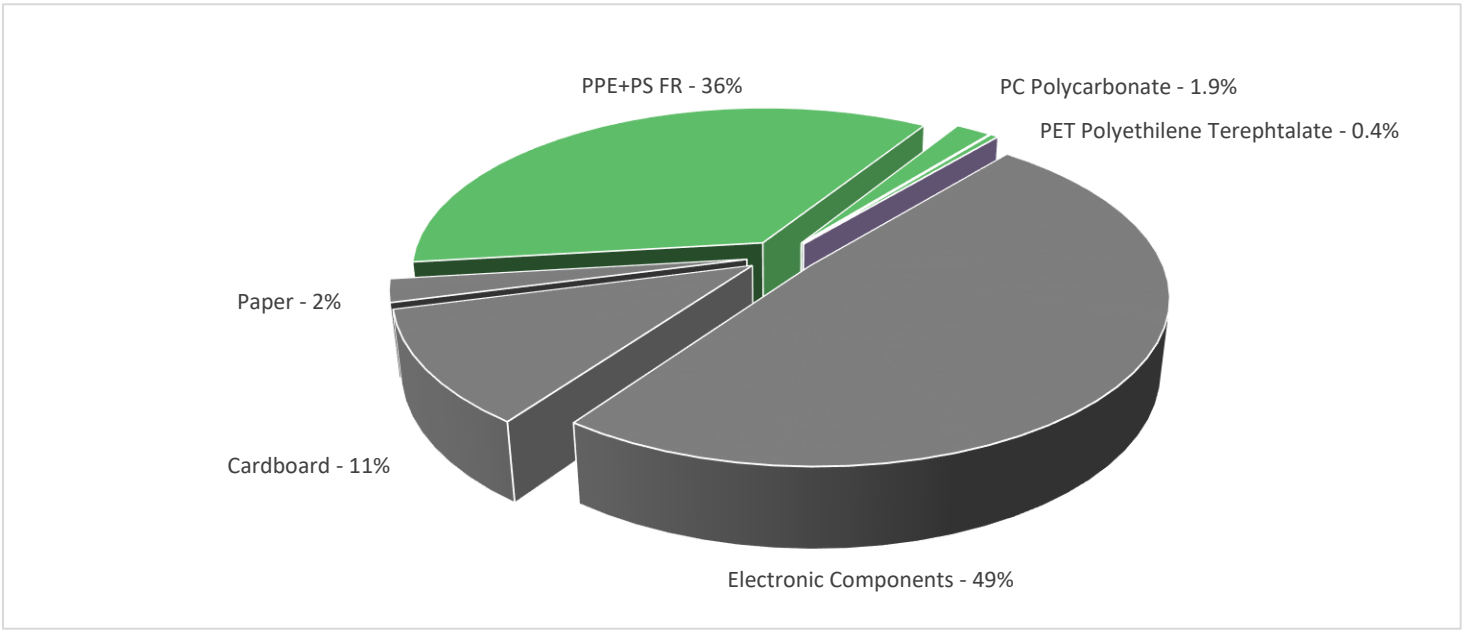
SmartX IP Controller RP-C-12C-F-24V

General information

Representative product	SmartX IP Controller RP-C-12C-F-24V - SXWRCF12C10001
Description of the product	SmartX IP Controller – RP-C is a room-purpose, fully programmable, IP based field controller that suits a wide range of HVAC applications. The RP-C can either be used as a standalone BACnet/IP field controller or as part of an EcoStruxure BMS with a SmartX AS-P or AS-B server or an Enterprise Server as the parent server. The RP-C features a wireless chip that allows the mobile commissioning application to connect directly to the controller.
Functional unit	SmartX IP Controller – RP-C is a room-purpose, fully programmable, IP based field controller with 12 I/O (a mix of Universal I/O's, Relay outputs and Solid State Relay outputs) for different needs during 10 years.

Constituent materials

Reference product mass	432 g	including the product, its packaging and additional elements and accessories



	Plastics	38.0%
	Metals	0.0%
	Others	62.0%

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 amendment European Directive 2015/863/EU of 31 March 2015) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium, flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) or phthalates (Bis(2-ethylhexyl) phthalate - DEHP, Butyl benzyl phthalate - BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) as mentioned in the Directive

As the products of the range are designed in accordance with the RoHS Directive, 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

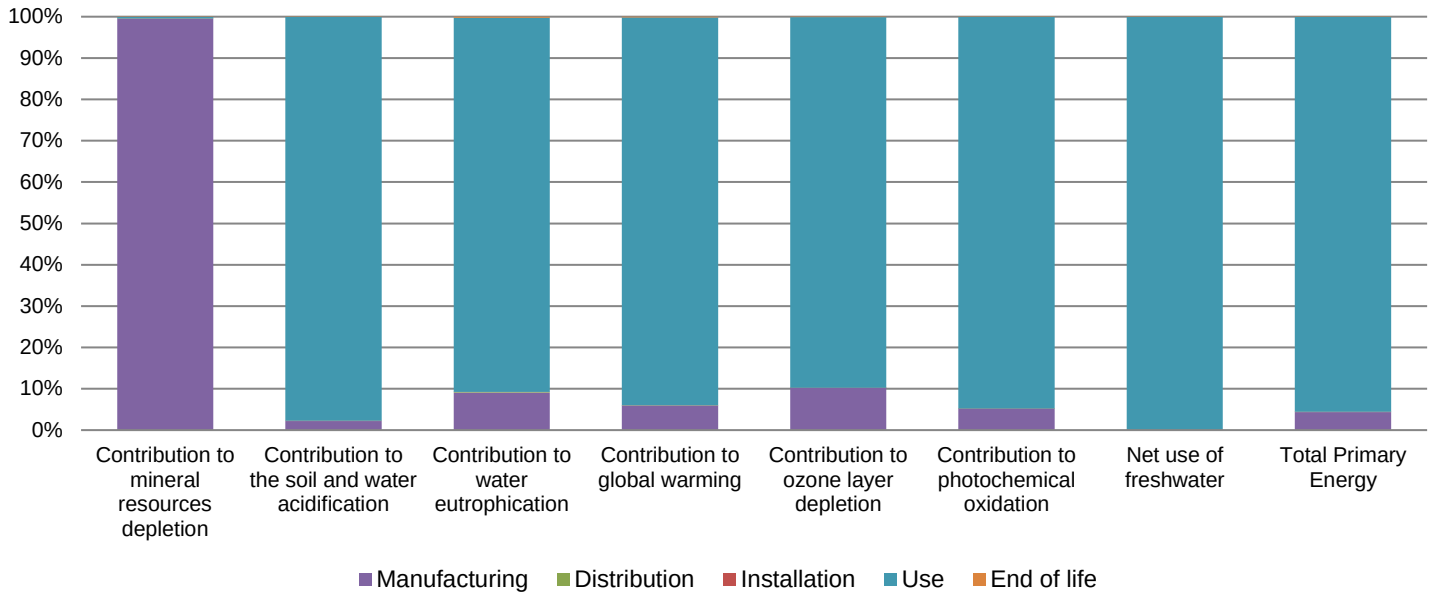
The SmartX IP Controller RP-C-12C-F-24V presents the following relevent environmental aspects	
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 56.5 g, consisting of cardboard (84%), paper (16%) Packaging recycled materials is 60% of total packaging mass. Product distribution optimised by setting up local distribution centres
Installation	Ref SXWRCF12C10001 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 electronic card (208g) 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: **10%** 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
Installation elements	Disposal of packaging is accounted for in the installation phase.
Use scenario	The product is in active mode 100% of the time with a power use of 3.85W, for 10 years
Geographical representativeness	Europe
Technological representativeness	SmartX IP Controller – RP-C is a room-purpose, fully programmable, IP based field controller that suits a wide range of HVAC applications. The RP-C can either be used as a standalone BACnet/IP field controller or as part of an EcoStruxure BMS with a SmartX AS-P or AS-B server or an Enterprise Server as the parent server. The RP-C features a wireless chip that allows the mobile commissioning application to connect directly to the controller.

Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: Romania	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	SmartX IP Controller RP-C-12C-F-24V - SXWRCF12C10001						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3.53E-03	3.52E-03	0*	0*	1.44E-05	0*
Contribution to the soil and water acidification	kg SO_2 eq	7.05E-01	1.57E-02	2.54E-04	0*	6.89E-01	2.05E-04
Contribution to water eutrophication	kg PO_4^{3-} eq	4.60E-02	4.19E-03	5.86E-05	0*	4.16E-02	1.08E-04
Contribution to global warming	kg CO_2 eq	1.76E+02	1.05E+01	5.57E-02	0*	1.65E+02	3.50E-01
Contribution to ozone layer depletion	kg CFC11 eq	1.20E-05	1.23E-06	0*	0*	1.08E-05	1.19E-08
Contribution to photochemical oxidation	kg C_2H_4 eq	4.00E-02	2.07E-03	1.82E-05	0*	3.79E-02	1.63E-05
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5.99E+02	1.62E-01	0*	0*	5.99E+02	0*
Total Primary Energy	MJ	3.45E+03	1.52E+02	7.88E-01	0*	3.30E+03	8.53E-01



Optional indicators	SmartX IP Controller RP-C-12C-F-24V - SXWRCF12C10001						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.98E+03	1.04E+02	7.83E-01	0*	1.88E+03	7.01E-01
Contribution to air pollution	m³	8.28E+03	1.16E+03	2.37E+00	0*	7.11E+03	6.21E+00
Contribution to water pollution	m³	7.82E+03	9.74E+02	9.17E+00	0*	6.82E+03	1.44E+01
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	5.32E-02	5.32E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4.24E+02	4.64E+00	0*	0*	4.20E+02	0*
Total use of non-renewable primary energy resources	MJ	3.03E+03	1.47E+02	7.87E-01	0*	2.88E+03	8.52E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.24E+02	4.64E+00	0*	0*	4.20E+02	0*
Use of renewable primary energy resources used as raw material	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.02E+03	1.39E+02	7.87E-01	0*	2.88E+03	8.52E-01
Use of non renewable primary energy resources used as raw material	MJ	8.60E+00	8.60E+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	8.05E+00	7.05E+00	0*	0*	8.61E-02	9.16E-01
Non hazardous waste disposed	kg	6.19E+02	2.59E+00	0*	0*	6.16E+02	0*
Radioactive waste disposed	kg	4.13E-01	1.62E-03	0*	0*	4.11E-01	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.13E-01	2.16E-02	0*	5.62E-02	0*	3.56E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	9.73E-02	0*	0*	0*	0*	9.73E-02
Exported Energy	MJ	1.78E-04	1.66E-05	0*	1.62E-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).

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 :	SCHN-00445-V01.01-EN	*Drafting rules*	PCR-ed3-EN-2015 04 02
Verifier accreditation N°	VH33		
Date of issue	05/2019	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years

Independent verification of the declaration and data, in compliance with ISO 14025 : 2010

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 »

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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