# **Product Environmental Profile**

## **C-Bus Network Automation Controller**

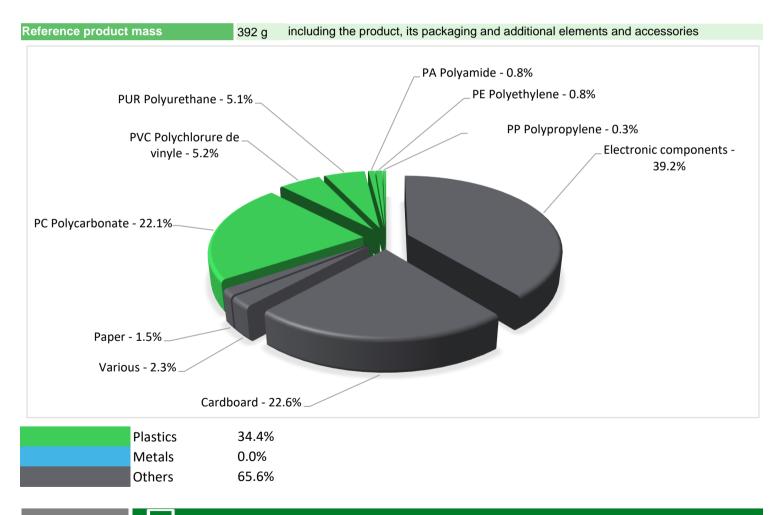




# General information

Representative product	C-Bus Network Automation Controller - 5500NAC2
Description of the product	The Network Automation Controller controls and manages C-Bus systems for buildings and integrates Building Management Systems such as Heating/Cooling and Energy Monitoring/Control. From simple control to advanced installations, C-Bus provides control and automation of lighting, blinds, shutters and room occupancy.
Functional unit	To automate the control of the lighting for homes/buildings with the C-Bus lighting system installed for 10 years, in accordance with IEC 60529. The supply voltage is 24V DC. The supply current is 0.42A maximum (10W maximum) This product does not supply C-Bus current, so that is not relevant. It consumes C-Bus current, at 32mA. The rated temperature is -5 to +45 deg C There are 2 C-Bus Connectors, both of which are RJ45 style.

# 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) or phthalates (Bis(2-ethylhexyl) phthalate DEHP, Butyl benzyl 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

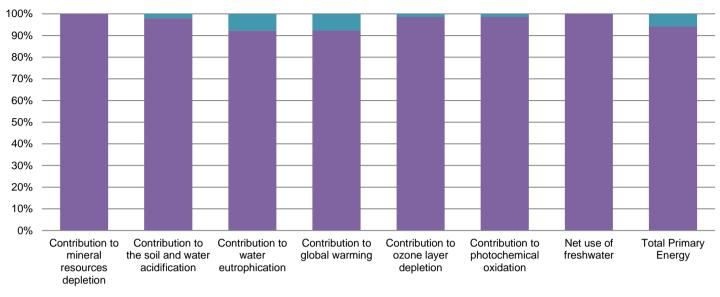
### **Additional environmental information**

1	he C-Bus Network Automation Controller 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					
Distribution	Packaging weight is 116.7 g, consisting of Plastic (19.7%), Cardboard (75.5%), Paper (4.8%)					
Installation	Ref 5500NAC2 does not require any installation operations.					
Use	The product does not require special maintenance operations.					
	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials					
	This product contains electronic card (147.5g) that should be separated from the stream of waste so as to optimize end-of-life treatment.					
End of life	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:9%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).					

# $\mathcal{O}$ 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 1% of the time with a power use of 10W and in standy by mode 99% of the time with a power use of 2W.						
Geographical representativeness	Australia						
Technological representativeness	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production.						
	Manufacturing	Installation	Use	End of life			
Energy model used	Energy model used: China	Electricity mix; AC; consumption mix, at consumer; 240V; AU	Electricity mix; AC; consumption mix, at consumer; 240V; AU	Electricity mix; AC; consumption mix, at consumer; 240V; AU			

Compulsory indicators	C-Bus Network Automation Controller - 5500NAC2						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	4.42E-03	4.42E-03	0*	0*	8.00E-07	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	1.02E+01	9.98E+00	0*	0*	2.08E-01	0*
Contribution to water eutrophication	kg PO4 <sup>3-</sup> eq	7.02E-01	6.47E-01	0*	0*	5.49E-02	7.98E-05
Contribution to global warming	kg CO <sub>2</sub> eq	2.65E+03	2.45E+03	0*	0*	2.03E+02	0*
Contribution to ozone layer depletion	kg CFC11 eq	1.64E-04	1.61E-04	0*	0*	2.43E-06	0*
Contribution to photochemical oxidation	kg $C_2H_4$ eq	1.90E+00	1.87E+00	0*	0*	2.82E-02	0*
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	8.54E+03	8.54E+03	0*	0*	0*	0*
Total Primary Energy	MJ	5.15E+04	4.85E+04	0*	0*	2.98E+03	0*
ENVPEP2104025_V1		Internal					09/20



Manufacturing Distribution Installation Use End of life

Optional indicators	C-Bus Network Automation Controller - 5500NAC2						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	3.09E+04	2.81E+04	0*	0*	2.81E+03	0*
Contribution to air pollution	m³	1.60E+05	1.41E+05	0*	0*	1.95E+04	0*
Contribution to water pollution	m³	1.31E+05	1.21E+05	0*	0*	9.31E+03	0*
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.26E-03	1.26E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	6.09E+03	6.01E+03	0*	0*	7.80E+01	0*
Total use of non-renewable primary energy resources	MJ	4.54E+04	4.25E+04	0*	0*	2.90E+03	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	6.09E+03	6.01E+03	0*	0*	7.80E+01	0*
Use of renewable primary energy resources used as raw material	MJ	2.12E+00	2.12E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.54E+04	4.25E+04	0*	0*	2.90E+03	0*
Use of non renewable primary energy resources used as raw material	MJ	6.07E+00	6.07E+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	7.05E+01	6.37E+01	0*	0*	6.12E+00	6.76E-01
Non hazardous waste disposed	kg	8.90E+03	8.87E+03	0*	0*	3.31E+01	0*
Radioactive waste disposed	kg	5.89E+00	5.89E+00	0*	0*	1.44E-03	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.48E-01	2.24E-02	0*	1.02E-01	0*	2.42E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	7.17E-02	0*	0*	0*	0*	7.17E-02
Exported Energy	MJ	2.96E-04	2.78E-05	0*	2.68E-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 v5.9.1, 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).

#### ENVPEP2104025\_V1 - Product Environmental Profile - C-Bus Network Automation Controller

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 numb	er	ENVPEP2104025_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue		09/2021	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Validity period		5 years	Information and reference documents	www.pep-ecopassport.org
Independent verifi	cation of	the declaration and data		
Internal	х	External		
The elements of th	e preser	nt PEP cannot be compared with	elements from another program.	
Document in comp environmental labe		ith ISO 14021:2016 « Environme	ntal labels and declarations - Self-declare	ed environmental claims (Type II
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