# **Product Environmental Profile**

#### NSX undervoltage release MN 220-240V 50/60HZ screwless







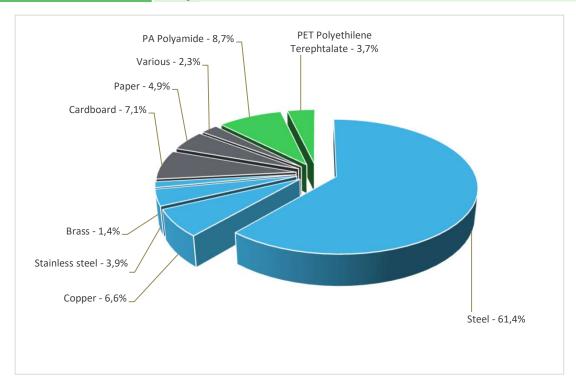
### **General information**

Representative product	NSX undervoltage release MN 220-240V 50/60HZ screwless - LV429407
Description of the product	The NSX undervoltage release opens the circuit breaker when the MN supply voltage drops under defined value. It automatically trips the breaker.
Functional unit	Undervoltage release allow user to remotely trip the circuit breaker during 10 years in accordance with IEC 60947-2

# Constituent materials

Reference product mass

114.8 g including the product, its packaging and additional elements and accessories



Plastics 12,4%
Metals 73,3%
Others 14,3%

## 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.

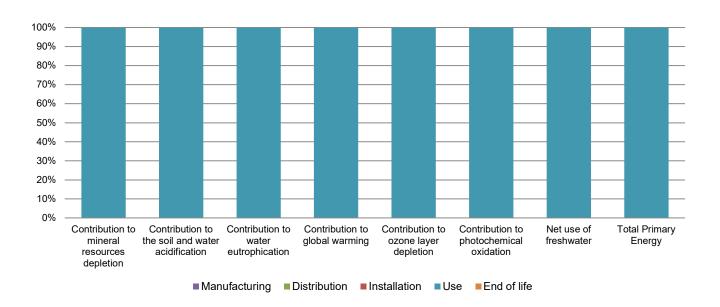
Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>

The NSX undervoltage release MN 220-240V 50/60HZ screwless 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 10.1 g, consisting of Cardboard (60%) Paper (40%) Packaging recycled materials is 100% of total packaging mass. Product distribution optimised by setting up local distribution centres						
Installation	LV429407 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 2 plastic parts with halogenated flame retardant (4,8g) 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						
	Based on "ECO'DEEE recyclability and recoverability calculation method"  Recyclability potential: 80% (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 99,99% of the time with a power of 5W and off during the remaining time.					
Geographical representativeness	China & Europe					
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.					
Energy model used	Manufacturing	Installation	Use	End of life		
	Energy model used: China	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		
	and Europe	Electricity Mix; AC; consumption at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption at consumer; < 1kV; EU-27		

Compulsory indicators	NSX undervoltage release MN 220-240V 50/60HZ screwless - LV429407						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	5,89E-06	2,27E-09	5,93E-10	0*	5,89E-06	0*
Contribution to the soil and water acidification	$kg SO_2 eq$	1,07E+00	2,57E-04	0*	0*	1,07E+00	0*
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	1,06E-01	5,94E-05	1,56E-05	0*	1,06E-01	0*
Contribution to global warming	kg CO <sub>2</sub> eq	3,71E+02	5,73E-02	0*	0*	3,71E+02	0*
Contribution to ozone layer depletion	kg CFC11 eq	2,73E-05	0*	0*	0*	2,73E-05	0*
Contribution to photochemical oxidation	kg C₂H₄ eq	7,12E-02	1,83E-05	0*	0*	7,12E-02	0*
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5,68E-01	0*	0*	0*	5,68E-01	0*
Total Primary Energy	MJ	6,47E+03	8,10E-01	0*	0*	6,47E+03	0*



Optional indicators	NSX undervoltage release MN 220-240V 50/60HZ screwless - LV429407						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	5,11E+03	8,05E-01	0*	0*	5,10E+03	0*
Contribution to air pollution	m³	3,22E+04	0*	0*	0*	3,22E+04	0*
Contribution to water pollution	m³	1,76E+04	9,42E+00	2,44E+00	0*	1,76E+04	0*
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	0,00E+00	0*	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3,74E+02	0*	0*	0*	3,74E+02	0*
Total use of non-renewable primary energy resources	MJ	6,10E+03	8,09E-01	0*	0*	6,10E+03	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3,74E+02	0*	0*	0*	3,74E+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	6,10E+03	8,09E-01	0*	0*	6,10E+03	0*
Use of non renewable primary energy resources used as raw material	MJ	0,00E+00	0*	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	8,71E+00	0*	0*	0*	8,62E+00	9,01E-02
Non hazardous waste disposed	kg	4,35E+02	0*	0*	0*	4,35E+02	0*
Radioactive waste disposed	kg	3,17E-01	0*	0*	0*	3,17E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7,74E-02	7,90E-03	0*	1,01E-02	0*	5,94E-02
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	4,55E-04	0*	0*	0*	0*	4,55E-04
Exported Energy	MJ	3,20E-05	3,01E-06	0*	2,90E-05	0*	0*

<sup>\*</sup> 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 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.

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Validity period 5 years Information and reference documents www.pep-ecopassport.org

Independent verification of the declaration and data

Internal X External

The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »

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