# **Product Environmental Profile**

Compact NSX250F 3P3T Circuit Breaker with Micrologic 2.2 Trip Unit











#### **General information**

Representative product

Compact NSX250F 3P3T Circuit Breaker with Micrologic 2.2 Trip Unit - LV431770

**Description of the product** 

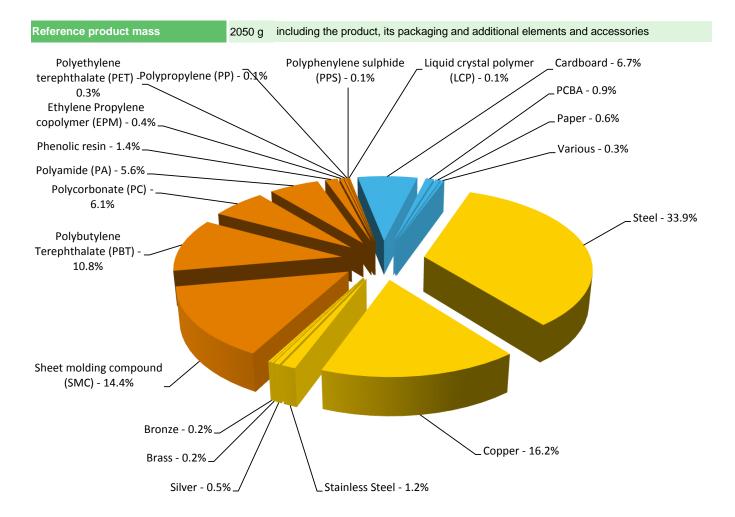
The Compact NSX250F 3 pole circuit breaker equipped with Micrologic 2.2 trip unit is designed to provide protection against overloads and short-circuits for industrial and commercial electrical distribution systems with assigned voltage upto 690VAC and rated current of 250A.

Functional unit

This product is to protect the installation during 20 years against overloads and short-circuits in circuit with assigned voltage 690VAC and rated current 250A. This protection is ensured in accordance with the following parameters:

- Number of poles = 3
- Rated service breaking capacity Ics at 380/415 V AC = 36 kA (according to IEC 60947-2)
- Tripping curve = Long time and instantanous protections

#### 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 <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>

### (19) Additional environmental information

The Compact N	SX250F 3P3T Circuit Breaker with Micrologic 2.2 Trip Unit presents the following relevent environmental aspects						
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified						
	Weight and volume of the packaging optimized, based on the European Union's packaging directive						
Distribution	Packaging weight is 156.1 g, consisting of Cardboard (91%), Paper (8.5%) & PE film (0.5%).						
	Product distribution optimised by setting up local distribution centres						
Installation	The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).						
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 Plastic part (194g) with Brominated Flame Retardant (11.6g) & Printed Circuit Board Assembly (16g), 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:  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

Reference life time	20 years						
Product category	Passive products - non-continuous operation						
Installation elements	No special components needed						
Use scenario	Product dissipation is 13.125 W, loading rate is 50% and service uptime percentage is 30%						
Geographical representativeness	China						
Technological representativeness	The Compact NSX250F 3 pole circuit breaker equipped with Micrologic 2.2 trip unit is designed to provide protection against overloads and short-circuits for industrial and commercial electrical distribution systems with assigned voltage upto 690VAC and rated current of 250A.						
	Manufacturing	Installation	Use	End of life			
Energy model used	Energy model used: SBMLV, 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			

Compulsory indicators		Compact NS	SX250F 3P3T Circ	uit Breaker wit	h Micrologic	2.2 Trip Unit	- LV43177
mpact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of L
Contribution to mineral resources depletion	kg Sb eq	2,32E-02	2,32E-02	0*	0*	3,08E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	7,91E-01	2,76E-02	2,03E-03	0*	7,61E-01	5,96E-0
Contribution to water eutrophication	kg PO <sub>4</sub> ³- eq	2,13E-01	1,09E-02	4,66E-04	3,97E-04	2,01E-01	1,70E-0
Contribution to global warming	kg CO <sub>2</sub> eq	7,13E+02	1,07E+01	4,46E-01	2,16E-01	7,02E+02	3,31E-0
Contribution to ozone layer depletion	kg CFC11 eq	7,15E-06	1,55E-06	9,03E-10	0*	5,58E-06	1,40E-0
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	9,35E-02	3,33E-03	1,44E-04	5,14E-05	8,99E-02	6,18E-0
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Li
Net use of freshwater	m3	9,44E-01	1,60E-01	0*	0*	7,83E-01	2,77E-0
otal Primary Energy	MJ	1,17E+04	1,72E+02	6,31E+00	0*	1,15E+04	2,89E+0
4000/							
90%							
80%							
70% —							
50%							
40%							
30%							
20%							
10% —							
mineral the soil and water w		ribution to ( al warming		Contribution to hotochemical oxidation	Net use of freshwater		

	Compact NS	X250F 3P3T Circ	uit Breaker wit	h Micrologic	2.2 Trip Unit	- LV431770
Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
MJ	1,11E+04	1,42E+02	6,26E+00	0*	1,10E+04	2,64E+00
m³	7,67E+04	3,83E+03	1,87E+01	0*	7,28E+04	2,09E+01
m³	3,62E+04	1,22E+03	7,33E+01	1,17E+01	3,49E+04	2,56E+01
Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
kg	9,68E-02	9,68E-02	0*	0*	0*	0*
MJ	5,95E+02	6,17E+00	0*	0*	5,89E+02	0*
MJ	1,11E+04	1,66E+02	6,30E+00	0*	1,09E+04	2,89E+00
MJ	5,92E+02	3,24E+00	0*	0*	5,89E+02	0*
MJ	2,93E+00	2,93E+00	0*	0*	0*	0*
MJ	1,11E+04	1,49E+02	6,30E+00	0*	1,09E+04	2,89E+00
MJ	1,66E+01	1,66E+01	0*	0*	0*	0*
MJ	0,00E+00	0*	0*	0*	0*	0*
MJ	0,00E+00	0*	0*	0*	0*	0*
	MJ m³ m³ Unit kg MJ MJ MJ MJ MJ MJ MJ	Unit         Total           MJ         1,11E+04           m³         7,67E+04           m³         3,62E+04           Unit         Total           kg         9,68E-02           MJ         5,95E+02           MJ         1,11E+04           MJ         2,93E+00           MJ         1,11E+04           MJ         1,66E+01           MJ         0,00E+00	Unit         Total         Manufacturing           MJ         1,11E+04         1,42E+02           m³         7,67E+04         3,83E+03           m³         3,62E+04         1,22E+03           Unit         Total         Manufacturing           kg         9,68E-02         9,68E-02           MJ         5,95E+02         6,17E+00           MJ         1,11E+04         1,66E+02           MJ         2,93E+00         2,93E+00           MJ         1,11E+04         1,49E+02           MJ         1,66E+01         1,66E+01           MJ         0,00E+00         0*	Unit         Total         Manufacturing         Distribution           MJ         1,11E+04         1,42E+02         6,26E+00           m³         7,67E+04         3,83E+03         1,87E+01           m³         3,62E+04         1,22E+03         7,33E+01           Unit         Total         Manufacturing         Distribution           kg         9,68E-02         9,68E-02         0*           MJ         5,95E+02         6,17E+00         0*           MJ         1,11E+04         1,66E+02         6,30E+00           MJ         2,93E+00         2,93E+00         0*           MJ         1,11E+04         1,49E+02         6,30E+00           MJ         1,66E+01         1,66E+01         0*           MJ         0,00E+00         0*         0*	Unit         Total         Manufacturing         Distribution         Installation           MJ         1,11E+04         1,42E+02         6,26E+00         0*           m³         7,67E+04         3,83E+03         1,87E+01         0*           m³         3,62E+04         1,22E+03         7,33E+01         1,17E+01           Unit         Total         Manufacturing         Distribution         Installation           kg         9,68E-02         9,68E-02         0*         0*           MJ         5,95E+02         6,17E+00         0*         0*           MJ         1,11E+04         1,66E+02         6,30E+00         0*           MJ         2,93E+02         3,24E+00         0*         0*           MJ         1,11E+04         1,49E+02         6,30E+00         0*           MJ         1,66E+01         1,66E+01         0*         0*           MJ         1,66E+01         1,66E+01         0*         0*           MJ         0,00E+00         0*         0*         0*	MJ         1,11E+04         1,42E+02         6,26E+00         0*         1,10E+04           m³         7,67E+04         3,83E+03         1,87E+01         0*         7,28E+04           m³         3,62E+04         1,22E+03         7,33E+01         1,17E+01         3,49E+04           Unit         Total         Manufacturing         Distribution         Installation         Use           kg         9,68E-02         9,68E-02         0*         0*         0*           MJ         5,95E+02         6,17E+00         0*         0*         5,89E+02           MJ         1,11E+04         1,66E+02         6,30E+00         0*         1,09E+04           MJ         2,93E+00         2,93E+00         0*         0*         0*           MJ         1,11E+04         1,49E+02         6,30E+00         0*         1,09E+04           MJ         1,66E+01         0*         0*         0*         0*           MJ         1,66E+01         0*         0*         0*         0*           MJ         0,00E+00         0*         0*         0*         0*

■Manufacturing ■Distribution ■Installation ■Use ■End of life

Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	1,68E+02	1,43E+02	0*	0*	2,26E+01	2,90E+00
Non hazardous waste disposed	kg	1,38E+02	1,02E+01	1,58E-02	1,54E-01	1,27E+02	0*
Radioactive waste disposed	kg	9,84E-03	5,62E-03	1,13E-05	0*	4,19E-03	1,41E-05
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,20E+00	1,72E-01	0*	0*	0*	1,03E+00
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	5,41E-02	5,85E-03	0*	0*	0*	4,83E-02
Exported Energy	MJ	7,60E-03	0*	0*	7,60E-03	0*	0*

<sup>\*</sup> represents less than 0.01% of the total life cycle of the reference flow

External X

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).

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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Verifier accreditation N°	VH08	Supplemented by	PSR-0005-ed2-EN-2016 03 29			
Date of issue	03/2017	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						

The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)

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 »



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