

# Product Environmental Profile

Compact NSX250F 3P3T Circuit Breaker with Thermal-Magnetic (TM250D)





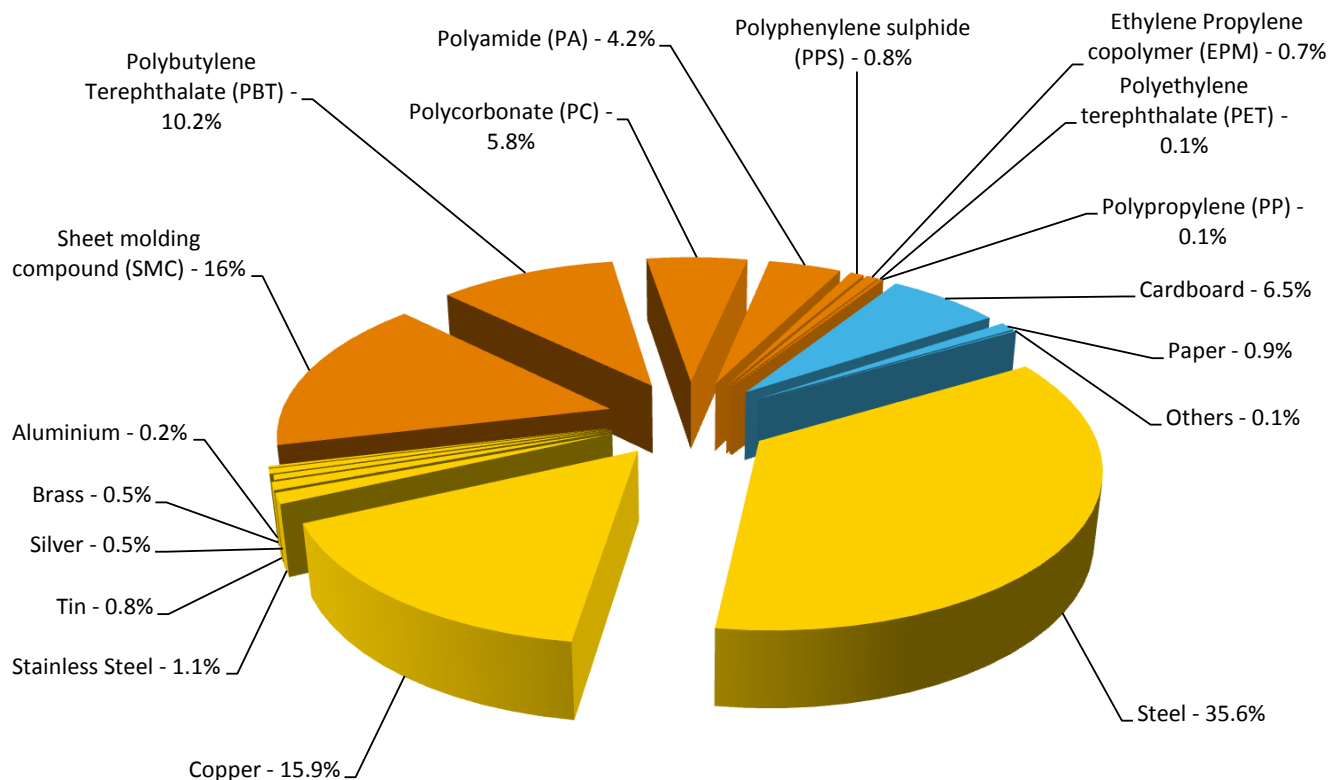
## General information

<b>Representative product</b>	Compact NSX250F 3P3T Circuit Breaker with Thermal-Magnetic (TM250D) - LV431630
<b>Description of the product</b>	The Compact NSX250F 3 pole circuit breaker equipped with Thermal-magnetic (TM-D) trip units 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.
<b>Functional unit</b>	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: <ul style="list-style-type: none"> <li>- Number of poles = 3</li> <li>- Rated service breaking capacity Ics at 380/415 V AC = 36 kA (according to IEC 60947-2)</li> <li>- Tripping curve = Long time and instantaneous protections</li> </ul>



## Constituent materials

<b>Reference product mass</b>	2100 g including the product, its packaging and additional elements and accessories
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## 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

[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)

## Additional environmental information

The Compact NSX250F 3P3T Circuit Breaker with Thermal-Magnetic (TM250D) presents the following relevant environmental aspects

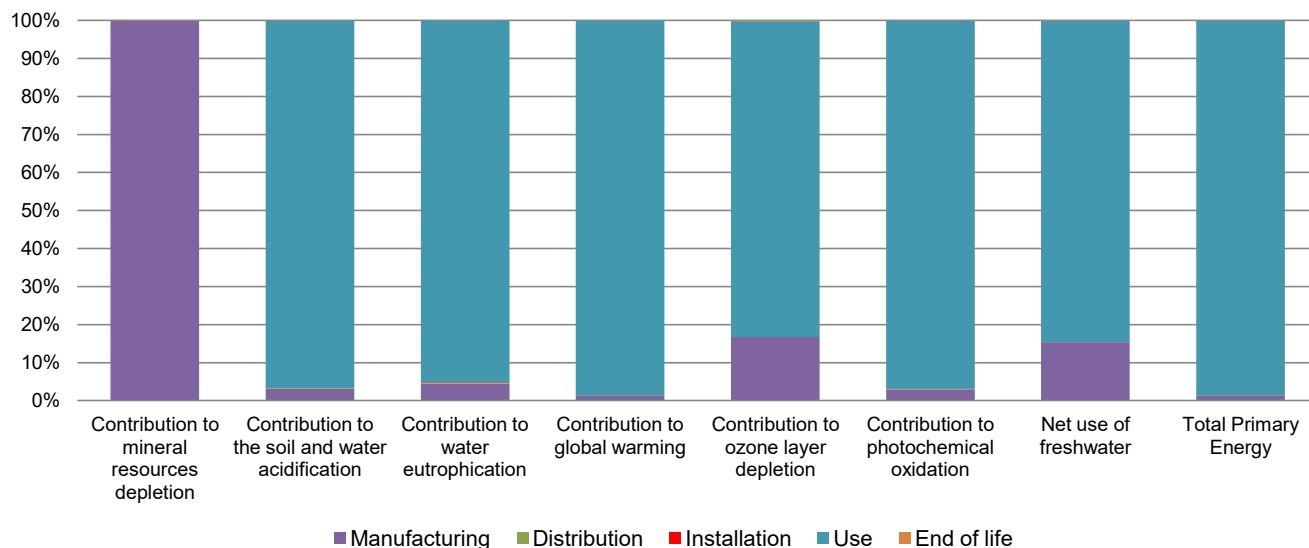
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 162.5 g, consisting of Cardboard (87.5%), Paper (12.2%) & PE film (0.3%). Product distribution optimised by setting up local distribution centres
<b>Installation</b>	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).
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials  This product contains Plastic parts (194g) with Brominated Flame Retardant, 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  <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>  Recyclability potential: <b>52%</b> 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

<b>Reference life time</b>	20 years			
<b>Product category</b>	Passive products - non-continuous operation			
<b>Installation elements</b>	No special components needed			
<b>Use scenario</b>	Product dissipation is 14.0625 W, loading rate is 50% and service uptime percentage is 30%			
<b>Geographical representativeness</b>	China			
<b>Technological representativeness</b>	The Compact NSX250F 3 pole circuit breaker equipped with Thermal-magnetic (TM-D) trip units 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.			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	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 NSX250F 3P3T Circuit Breaker with Thermal-Magnetic (TM250D) - LV431630					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2,20E-02	2,20E-02	0*	0*	3,30E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	8,44E-01	2,61E-02	2,07E-03	0*	8,15E-01	6,08E-04
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	2,26E-01	1,02E-02	4,78E-04	4,02E-04	2,15E-01	1,68E-04
Contribution to global warming	kg CO <sub>2</sub> eq	7,62E+02	9,38E+00	4,57E-01	2,21E-01	7,52E+02	3,14E-01
Contribution to ozone layer depletion	kg CFC11 eq	7,21E-06	1,21E-06	9,25E-10	0*	5,98E-06	1,37E-08
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	9,95E-02	2,90E-03	1,48E-04	5,28E-05	9,63E-02	6,34E-05

Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	9,91E-01	1,51E-01	0*	0*	8,39E-01	2,74E-04
Total Primary Energy	MJ	1,25E+04	1,57E+02	6,46E+00	0*	1,23E+04	2,96E+00




Optional indicators							
Compact NSX250F 3P3T Circuit Breaker with Thermal-Magnetic (TM250D) - LV431630							
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1,19E+04	1,30E+02	6,42E+00	0*	1,18E+04	2,70E+00
Contribution to air pollution	m³	8,19E+04	3,86E+03	1,92E+01	0*	7,80E+04	2,14E+01
Contribution to water pollution	m³	3,84E+04	9,33E+02	7,51E+01	1,18E+01	3,74E+04	2,56E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1,05E-01	1,05E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	6,37E+02	6,06E+00	0*	0*	6,31E+02	0*
Total use of non-renewable primary energy resources	MJ	1,18E+04	1,51E+02	6,45E+00	0*	1,17E+04	2,95E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	6,34E+02	3,13E+00	0*	0*	6,31E+02	0*
Use of renewable primary energy resources used as raw material	MJ	2,93E+00	2,93E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,18E+04	1,35E+02	6,45E+00	0*	1,17E+04	2,95E+00
Use of non renewable primary energy resources used as raw material	MJ	1,57E+01	1,57E+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	1,70E+02	1,43E+02	0*	0*	2,42E+01	3,00E+00
Non hazardous waste disposed	kg	1,47E+02	1,03E+01	1,62E-02	1,62E-01	1,36E+02	0*
Radioactive waste disposed	kg	8,36E-03	3,84E-03	1,16E-05	0*	4,49E-03	1,43E-05
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,22E+00	1,75E-01	0*	0*	0*	1,04E+00
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	4,69E-02	5,90E-03	0*	0*	0*	4,10E-02
Exported Energy	MJ	1,13E-02	0*	0*	1,13E-02	0*	0*

\* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version EIME v5.5, 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.

Registration N°	SCHN-00197-V01.01-EN	Drafting rules	PCR-ed3-EN-2015 04 02
Verifier accreditation N°	VH08	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Date of issue	03/2017	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		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)			
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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