

# Product Environmental Profile

## Vigicompact NSX400/630N (50kA 380/415V)





## General information

### Representative product

Vigicomact NSX400/630N (50kA 380/415V) -LV432733

### Description of the product

The Vigicomact NSX400/630 is the combination of compact NSX400/630 3 pole circuit breaker and 3 pole vigimodule.  
 The Compact NSX400/630 3P circuit breaker equipped with Micrologic 2.3 trip unit is designed to provide protection against overloads and short-circuits for industrial and commercial electrical distribution systems with assigned voltage upto 380/415V and rated current of 400A.  
 The main purpose of the 3P vigimodule is to protect installations against insulation faults. Earth-leakage protection is achieved by installing a vigi module directly on the downstream side of the circuit breaker terminals.  
 It directly actuates the toggle mechanism of the breaker through the trip unit (magnetic, thermal-magnetic or Micrologic).

### Functional unit

Protect during 20 years the installation against overloads and short-circuits and people and premises at risk of fire or explosion against insulation defects in circuit with assigned voltage 380/415V and rated current 400A. This protection is ensured in accordance with the following parameters:

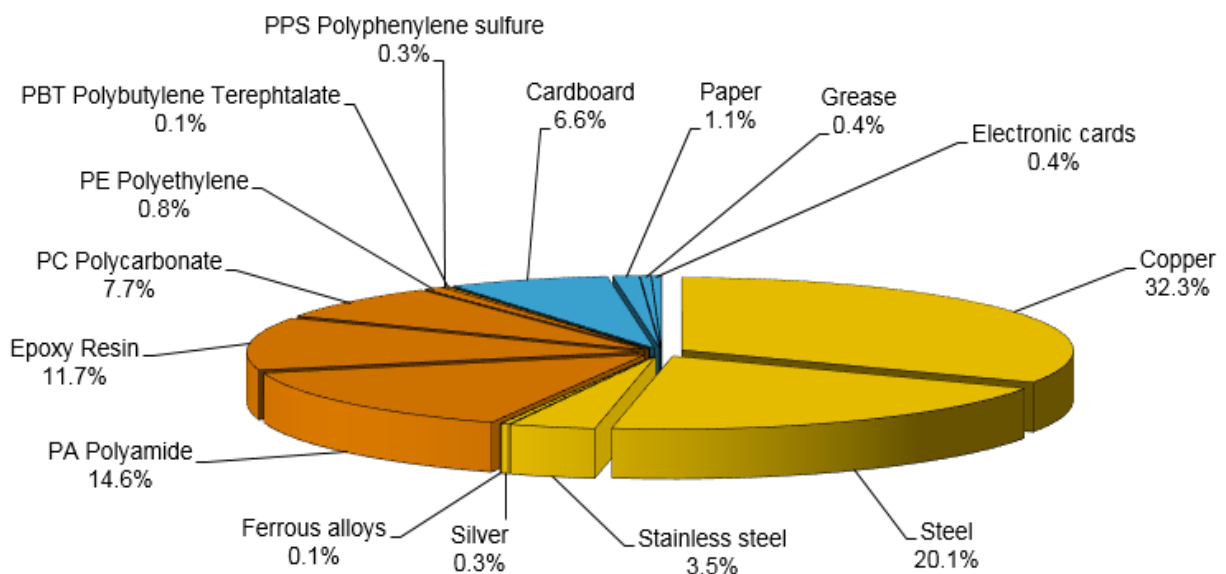
- Number of poles 3P
- Rated breaking capacity 5kA
- Sensitivity 0.3-30A



## Constituent materials

### Reference product mass

9020 g including the product, its packaging and additional elements and accessories



## 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>

## Additional environmental information

The Vigicompact NSX400/630N (50kA 380/415V) presents the following relevant environmental aspects

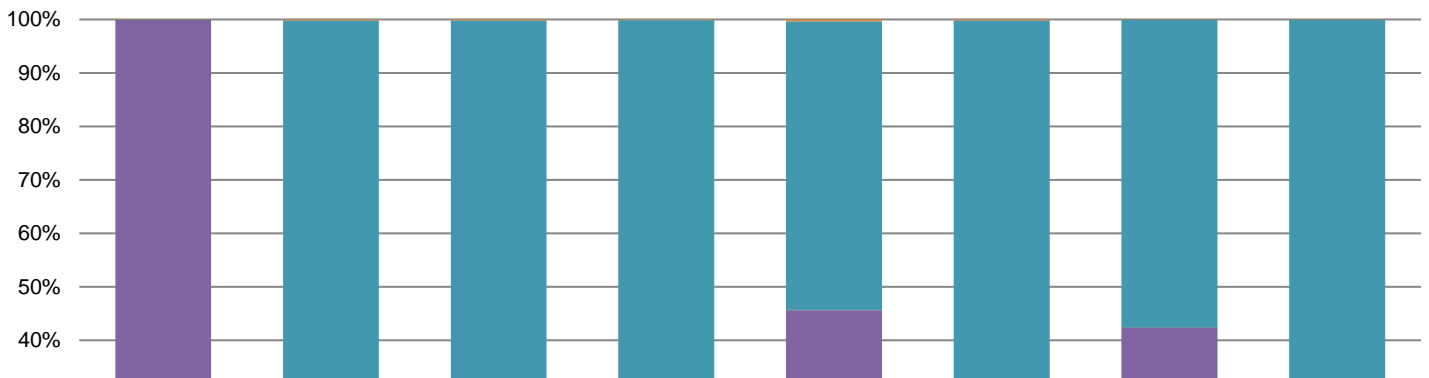
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 774.1 g, consisting of Cardboard (86.7%), paper(4%), PE film(9.2%), PET film(0.1%)
<b>Installation</b>	Ref LV432733 does not require any installation operations
<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 Electronic board (37g), brominate FR (11g) 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>64%</b> based on ECU DEEE recyclability and recoverability calculation method (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME)

## Environmental impacts

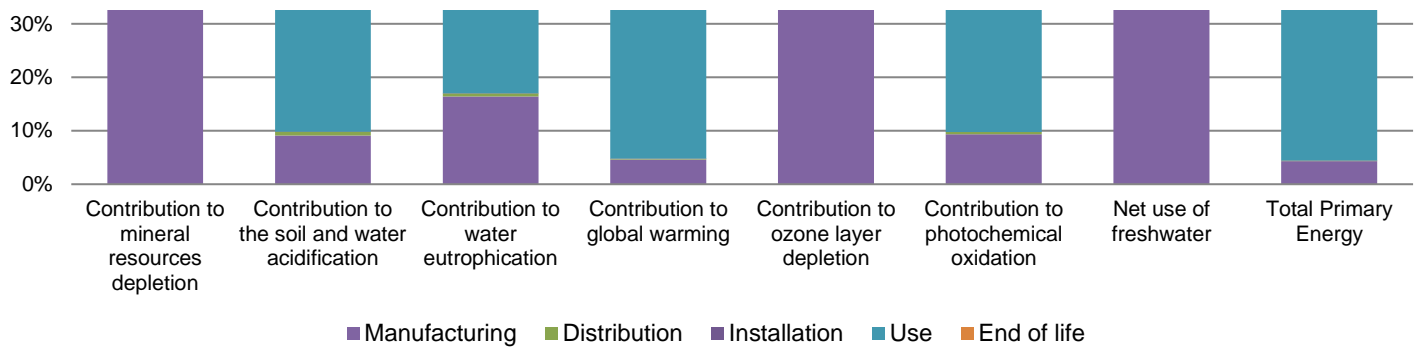
<b>Reference life time</b>	20 years
<b>Product category</b>	Passive products - non-continuous operation
<b>Installation elements</b>	No special components needed
<b>Use scenario</b>	Product dissipation is 19 W full load, loading rate is 50% and service uptime percentage is 30%
<b>Geographical representativeness</b>	China

<b>Technological representativeness</b>	<p>The Vigicompact NSX400/630 is the combination of compact NSX400/630 3 pole circuit breaker and 3 pole vigimodule.</p> <p>The Compact NSX400/630 3P circuit breaker equipped with Micrologic 2.3 trip unit is designed to provide protection against overloads and short-circuits for industrial and commercial electrical distribution systems with assigned voltage upto 380/415V and rated current of 400A.</p> <p>The main purpose of the 3P vigimodule is to protect installations against insulation faults. Earth-leakage protection is achieved by installing a vigi module directly on the downstream side of the circuit breaker terminals.</p> <p>It directly actuates the toggle mechanism of the breaker through the trip unit (magnetic, thermal-magnetic or Micrologic).</p>			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	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

Compulsory indicators		Vigicompact NSX400/630N (50kA 380/415V) - LV432733					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3.60E-02	3.60E-02	0*	0*	4.46E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	1.22E+00	1.11E-01	8.91E-03	2.22E-04	1.10E+00	2.34E-03
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	3.51E-01	5.76E-02	2.05E-03	5.23E-05	2.91E-01	6.24E-04
Contribution to global warming	kg CO <sub>2</sub> eq	1.07E+03	4.93E+01	1.96E+00	0*	1.02E+03	1.10E+00
Contribution to ozone layer depletion	kg CFC11 eq	1.50E-05	6.83E-06	3.97E-09	4.62E-09	8.08E-06	5.29E-08
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	1.44E-01	1.35E-02	6.35E-04	2.41E-05	1.30E-01	2.46E-04
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1.97E+00	8.35E-01	0*	0*	1.13E+00	1.03E-03
Total Primary Energy	MJ	1.74E+04	7.47E+02	2.77E+01	0*	1.66E+04	1.15E+01



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Optional indicators		Vigicompact NSX400/630N (50kA 380/415V) - LV432733					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.66E+04	6.69E+02	2.76E+01	0*	1.59E+04	1.05E+01
Contribution to air pollution	m³	1.27E+05	2.16E+04	8.25E+01	0*	1.05E+05	8.23E+01
Contribution to water pollution	m³	5.53E+04	4.34E+03	3.23E+02	8.46E+00	5.05E+04	9.63E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	5.07E-01	5.07E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	8.92E+02	3.90E+01	0*	0*	8.52E+02	0*
Total use of non-renewable primary energy resources	MJ	1.65E+04	7.08E+02	2.77E+01	0*	1.58E+04	1.15E+01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	8.77E+02	2.46E+01	0*	0*	8.52E+02	0*
Use of renewable primary energy resources used as raw material	MJ	1.44E+01	1.44E+01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.64E+04	6.24E+02	2.77E+01	0*	1.58E+04	1.15E+01
Use of non renewable primary energy resources used as raw material	MJ	8.38E+01	8.38E+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	6.95E+02	6.51E+02	0*	8.32E-01	3.27E+01	1.07E+01
Non hazardous waste disposed	kg	2.10E+02	2.53E+01	6.97E-02	0*	1.84E+02	3.52E-02
Radioactive waste disposed	kg	2.45E-02	1.83E-02	4.97E-05	5.31E-06	6.07E-03	5.55E-05
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	6.55E+00	8.31E-01	0*	7.20E-01	0*	5.00E+00
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*

Materials for energy recovery	kg	1.37E-01	1.53E-02	0*	0*	0*	1.21E-01
Exported Energy	MJ	0.00E+00	0*	0*	0*	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°	ENVPEP111204EN_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	02/2017	Supplemented by	PSR-0005-ed2-2016 03 29
Validity period	5 years	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010			
Internal	X	External	
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: [www.schneider-electric.com/contact](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](http://www.schneider-electric.com)

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