Product Environmental Profile

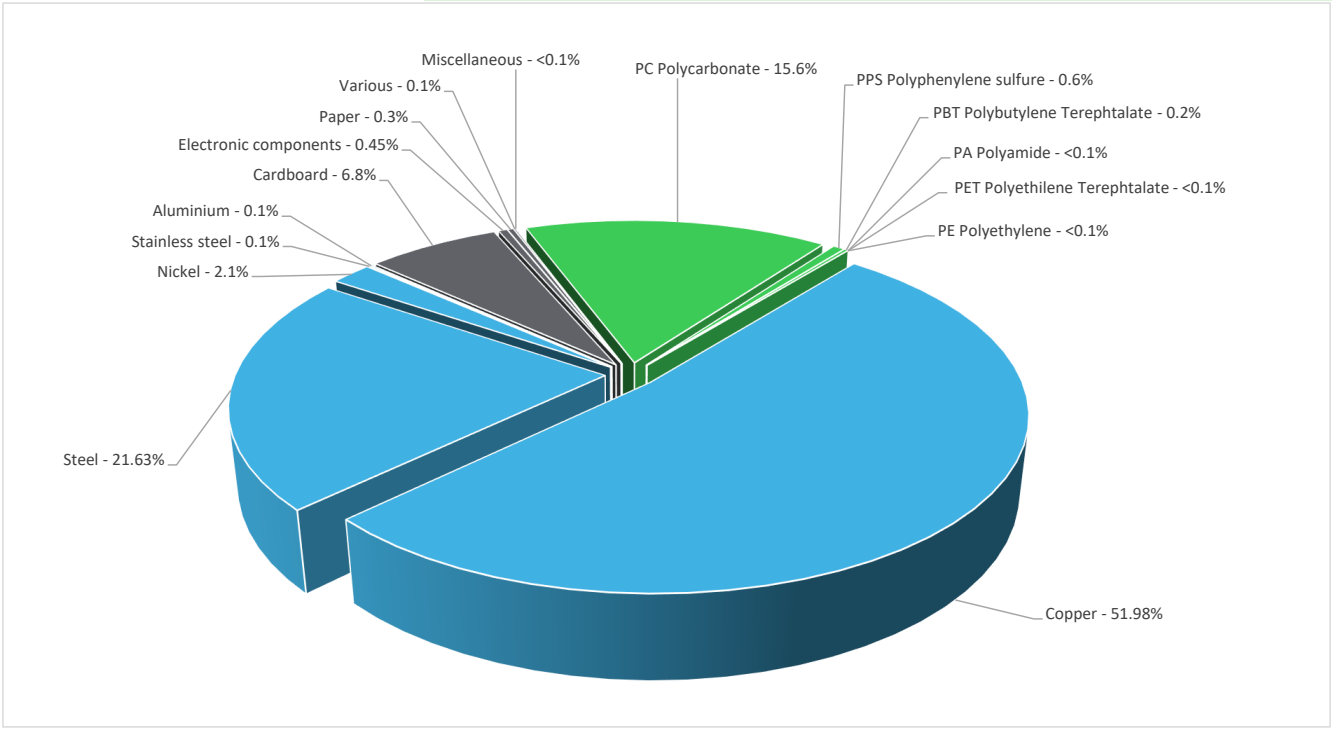
Vigi 200-440V 4P for NSX400/630

General information

Reference product	Vigi 200-440V 4P for NSX400/630 - LV432465
Description of the product	Vigi add-on module for ComPacT NSX 400/630 that provides an earth-leakage protection. It is used for 4 poles circuit breakers. The operational rated voltage is between 200 and 440 VAC 50/60 Hz. The earth-leakage sensitivity is adjustable from 30 mA to 30 A. It is installed directly on the device terminals and directly actuates the trip unit in case of earth-leakage default. This Vigi add-on module is self-powered internally by the distribution-system voltage, even is supplied by only 2 phases. The main purpose of the 4P Vigi module 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 200 - 440V and rated current 400A-630A. It is compliant with IEC 60947-2 standard.

Constituent materials

Reference product mass	3573.3 g including the product, its packaging and additional elements and accessories



Plastics	16.4%
Metals	75.9%
Others	7.7%

Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website
https://www.se.com/ww/en/work/support/green-premium/

Additional environmental information

End Of Life	Recyclability potential:	**78%**	Recyclability rate has been calculated based on REEECY'LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).

Environmental impacts

Reference service life time	20 years			
Product category	Other equipments - Passive product - continuous operation			
Installation elements	No special installation components need during installation phase, but transport of packaging to disposal, and disposal of packaging accounted for during installation.			
Use scenario	The product is in active mode 100% of the time with a power use of 2.96 W for 20 years			
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.			
Geographical representativeness	Europe			
Energy model used	**[A1 - A3]**	**[A5]**	**[B6]**	**[C1 - C4]**
	Electricity Mix; Production mix; Low voltage; IT	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

Mandatory Indicators			**Vigi 200-440V 4P for NSX400/630 - LV432465**					
Impact indicators	**Unit**	**Total**	**Manufacturing** [A1 - A3]	**Distribution** [A4]	**Installation** [A5]	**Use** [B1 - B7]	**End of Life** [C1 - C4]	**Loads and Benefits** [D]
Contribution to climate change	kg CO2 eq	4.85E+01	2.11E+01	4.67E-01	4.60E-01	1.91E+01	7.33E+00	-7.49E+00
Contribution to climate change-fossil	kg CO2 eq	4.76E+01	2.06E+01	4.67E-01	4.40E-01	1.91E+01	6.96E+00	-7.13E+00
Contribution to climate change-biogenic	kg CO2 eq	8.91E-01	4.68E-01	0*	2.04E-02	2.55E-02	3.77E-01	-3.58E-01
Contribution to climate change-land use and land use change	kg CO2 eq	6.28E-06	2.32E-09	0*	1.28E-08	0*	6.27E-06	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.24E-05	1.20E-05	0*	3.05E-08	8.18E-08	2.21E-07	-1.67E-06
Contribution to acidification	mol H+ eq	6.75E-01	5.03E-01	3.01E-03	1.83E-03	1.09E-01	5.80E-02	-3.24E-01
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	1.34E-02	1.75E-05	0*	3.38E-06	5.24E-05	1.34E-02	-1.21E-05
Contribution to eutrophication marine	kg N eq	4.72E-02	2.35E-02	1.41E-03	4.84E-04	1.24E-02	9.41E-03	-6.51E-03
Contribution to eutrophication, terrestrial	mol N eq	5.79E-01	2.64E-01	1.55E-02	3.66E-03	1.86E-01	1.10E-01	-7.56E-02
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.82E-01	1.10E-01	3.91E-03	9.76E-04	3.98E-02	2.74E-02	-4.19E-02
Contribution to resource use, minerals and metals	kg Sb eq	4.19E-03	3.81E-03	0*	0*	1.39E-06	3.76E-04	-3.37E-03
Contribution to resource use, fossils	MJ	1.07E+03	3.68E+02	6.51E+00	4.78E+00	4.87E+02	2.02E+02	-1.39E+02
Contribution to water use	m3 eq	2.17E+01	1.54E-01	0*	2.00E-01	6.77E-01	2.06E+01	-1.57E+01

Additional indicators for the French regulation are available as well

Inventory flows Indicators		Vigi 200-440V 4P for NSX400/630 - LV432465						
Inventory flows	Unit	Total	Manufact. [A1 - A3]	Distribution [A4]	Installation [A5]	Use [B1 - B7]	End of Life [C1 - C4]	Loads and Benefits [D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.14E+02	1.07E+01	0*	3.46E-01	9.36E+01	9.06E+00	-7.25E+00
Contribution to use of renewable primary energy resources used as raw material	MJ	1.44E+00	1.44E+00	0*	0*	0*	0*	-1.32E+00
Contribution to total use of renewable primary energy resources	MJ	1.15E+02	1.21E+01	0*	3.46E-01	9.36E+01	9.06E+00	-8.57E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.05E+03	3.49E+02	6.51E+00	4.78E+00	4.87E+02	2.02E+02	-1.38E+02
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.84E+01	1.84E+01	0*	0*	0*	0*	-1.09E-01
Contribution to total use of non-renewable primary energy resources	MJ	1.07E+03	3.68E+02	6.51E+00	4.78E+00	4.87E+02	2.02E+02	-1.39E+02
Contribution to use of secondary material	kg	2.01E-01	2.01E-01	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m^3	5.33E-01	3.60E-03	0*	4.65E-03	1.58E-02	5.09E-01	-3.67E-01
Contribution to hazardous waste disposed	kg	2.93E+02	2.89E+02	0*	0*	3.57E-01	3.44E+00	-2.98E+02
Contribution to non hazardous waste disposed	kg	1.87E+01	1.39E+01	1.64E-02	1.50E+00	2.75E+00	6.15E-01	-5.02E+00
Contribution to radioactive waste disposed	kg	5.89E-03	5.06E-03	1.17E-05	2.01E-04	5.76E-04	4.19E-05	-1.59E-03
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	2.82E+00	0*	0*	2.55E-01	0*	2.57E+00	0.00E+00
Contribution to materials for energy recovery	kg	3.00E-09	3.00E-09	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the product	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00

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

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

The manufacturing phase has the greatest impacts contribution on the majority of environmental indicators, except for Climate change-Land use and land use change (PEF-GWPlu), Eutrophication, freshwater (PEF-Epf), Resource use, fossils (PEF-ADPf) & Water Use (PEF-WU) this contribution is mainly due to the energy consumption throughout the product reference service lifetime

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-ed2-2016 03 29
Date of issue	11/2023	*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			
Internal	External X		
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019			
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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