# **Product Environmental Profile**

#### **ENERGY SENSOR POWERTAG NSX 3P 250A**





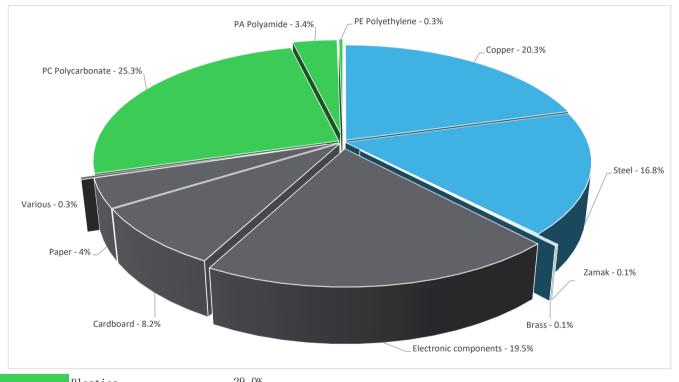


#### General information

Reference product	ENERGY SENSOR POWERTAG NSX 3P 250A - LV434020
Description of the product	PowerTag NSX energy sensor is the wireless device that is directly mounted on a circuit breaker and connected to Smartlink through a wireless communication. This PowerTag is mounted downstream of Compact NSX circuit breakers. All the measurements from this product can be viewed in real-time on the webpages of Smartlink.
Description of the range	Single product
Functional unit	Other switchgear and controlgear solutions mentioned in the scope (e.g. fuses TC32, all-or-nothing relays TC94, Measuring relays and protection equipment TC95), apply the general rules of PCR and mention in the accompanying report the functional unit, the reference product characteristics, the reference lifetime and the use scenario which are applied consistently with the relevant IEC technical standards.
Specifications are:	This product is wireless energy sensor for 3P networks upto 250A and allows to monitor the devices and collects energy, power and alarm events on the voltage loss during 10 years with 100% use rate. It complies with the standard IEC 60664-1 which Deals with insulation coordination, meeting the safety standard IEC 61010 and Electrical safety standard IEC 61557-12.

## Constituent materials

Reference product mass 462 g including the product, its packaging, additional elements and accessories



Plastics 29.0%
Metals 37.3%
Others 32.0%

### Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric website  $\frac{\text{https://www.se.com}}{\text{https://www.se.com}}$ 

## Additional environmental information

Recyclability potential:

43%

The recyclability rate was calculated from the recycling rates of each material making up the product based on REEECY'LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the EIME database and the related PSR was taken. If no data was found a conservative assumption was used (0% recyclability).

### **Tenvironmental impacts**

Reference service life time	10 years							
Product category	Other equipments - Active product							
Life cycle of the product	The manufacturing, the distribution, the installati	on, the use and the end of life	were taken into consideration in	n this study				
Electricity consumtion	The electricity consumed during manufacturing properties a negligable consumption	The electricity consumed during manufacturing processes is considered for each part of the product individually, the final assembly generates a negligable consumption						
Installation elements	The product does not require any installation op-	erations						
Use scenario	The product is in active mode with a power use	The product is in active mode with a power use of 3.7W at 100% of the time for 10 years.						
Time representativeness	The collected data are representative of the year	The collected data are representative of the year 2024						
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and représentaive of the actual type of technologies used to make the product.							
Geographical	Final assembly site	site Use phase End-of-life						
representativeness	Orebro (SE)	Europe Europe						
	[A1 - A3]	[A5]	[B6]	[C1 - C4]				
Energy model used	Electricity Mix; Low voltage; 2020; Romania, RO	No energy used	Global, European and French datasets are used.					

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.se.com/contact

Mandatory Indicators	ENERGY SENSOR POWERTAG NSX 3P 250A - LV434020							
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to climate change	kg CO2 eq	1.47E+02	6.81E+00	3.33E-02	6.02E-02	1.39E+02	8.23E-01	-2.20E-01
Contribution to climate change-fossil	kg CO2 eq	1.46E+02	6.80E+00	3.33E-02	5.75E-02	1.39E+02	8.09E-01	-2.82E-01
Contribution to climate change-biogenic	kg CO2 eq	1.92E-01	2.12E-03	0*	2.77E-03	1.73E-01	1.40E-02	6.27E-02
Contribution to climate change-land use and land use change	je kg CO2 eq	1.56E-04	1.56E-04	0*	0*	0*	8.56E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	2.13E-06	1.47E-06	2.94E-08	7.57E-10	6.21E-07	8.25E-09	-3.53E-08
Contribution to acidification	mol H+ eq	8.55E-01	5.98E-02	1.45E-04	1.72E-04	7.93E-01	1.69E-03	-1.64E-03
Contribution to eutrophication, freshwater	kg P eq	3.34E-04	2.13E-05	0*	1.35E-06	3.08E-04	2.96E-06	-1.25E-06
Contribution to eutrophication, marine	kg N eq	9.82E-02	6.11E-03	6.65E-05	7.44E-05	9.15E-02	4.20E-04	-2.21E-04
Contribution to eutrophication, terrestrial	mol N eq	1.16E+00	6.76E-02	7.20E-04	5.20E-04	1.08E+00	4.71E-03	-2.27E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.28E-01	2.38E-02	2.36E-04	1.19E-04	3.03E-01	1.22E-03	-7.28E-04
Contribution to resource use, minerals and metals	kg Sb eq	1.67E-03	1.63E-03	0*	0*	4.56E-05	0*	-7.28E-05
Contribution to resource use, fossils MJ		3.41E+03	1.38E+02	4.14E-01	5.84E-01	3.27E+03	4.53E+00	-6.04E+00
Contribution to water use	m3 eq	1.38E+01	3.18E+00	1.69E-03	4.70E-03	1.06E+01	7.02E-02	-1.13E-01

Inventory flows Indicators	ENERGY SENSOR POWERTAG NSX 3P 250A - LV434020							
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to renewable primary energy used as energy	MJ	8.34E+02	5.41E+00	0*	0*	8.29E+02	2.67E-01	1.43E-01
Contribution to renewable primary energy used as raw material	MJ	1.07E+00	1.07E+00	0*	0*	0*	0*	-8.05E-01
Contribution to total renewable primary energy	MJ	8.36E+02	6.48E+00	0*	0*	8.29E+02	2.67E-01	-6.62E-01
Contribution to non renewable primary energy used as energy	MJ	3.40E+03	1.32E+02	4.14E-01	5.84E-01	3.27E+03	4.53E+00	-6.01E+00
Contribution to non renewable primary energy used as raw material	MJ	6.47E+00	6.47E+00	0*	0*	0*	0*	-2.85E-02
Contribution to total non renewable primary energy	MJ	3.41E+03	1.38E+02	4.14E-01	5.84E-01	3.27E+03	4.53E+00	-6.04E+00
Contribution to use of secondary material	kg	0.00E+00	0*	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 fresh water	m³	3.22E-01	7.40E-02	3.93E-05	1.09E-04	2.46E-01	1.91E-03	-2.63E-03
Contribution to hazardous waste disposed	kg	3.51E+01	3.21E+01	0*	0*	2.95E+00	7.39E-02	-5.75E+00
Contribution to non hazardous waste disposed kg		2.86E+01	2.50E+00	0*	2.59E-02	2.57E+01	3.29E-01	-2.21E-01
Contribution to radioactive waste disposed kg		4.79E-03	1.07E-03	6.62E-06	3.12E-06	3.69E-03	1.54E-05	-9.97E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00

Contribution to materials for recycling	kg	1.80E-01	9.45E-03	0*	6.07E-04	0*	1.70E-01	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	4.16E-03	9.99E-05	0*	2.38E-03	0*	1.68E-03	0.00E+00

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

Contribution to biogenic carbon content of the product	kg of C	0.00E+00
Contribution to biogenic carbon content of the associated	ka of C	1.70E-02
packaging	kg or C	1.702-02

<sup>\*</sup> The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%)

Life cycle assessment performed with EIME version v6.2.4, database version 2024-01 in compliance with ISO14044, EF3.1 method is applied, for biogenic carbon storage, assessment methodology -1/1 is used

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 nu	ımber :	ENVPEP2505023_V1-EN	Drafting rules	PEP-PCR-ed4-2021 09 06		
			Supplemented by	PSR-0005-ed3-2023 06 06		
Date of issue		2025-05	Information and reference documents	www.pep-ecopassport.org		
			Validity period	5 years		
Independent ve	erification of the d	eclaration and data, in compliance with ISO 14021 : 2016				
Internal	X	External				
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)						
PEPs are com	oliant with XP CO	8-100-1:2016 and EN 50603:2010 or NE E38-500 :2022				

PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022

The components of the present PEP may not be compared with components from any other program.

Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations"

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