Product Environmental Profile

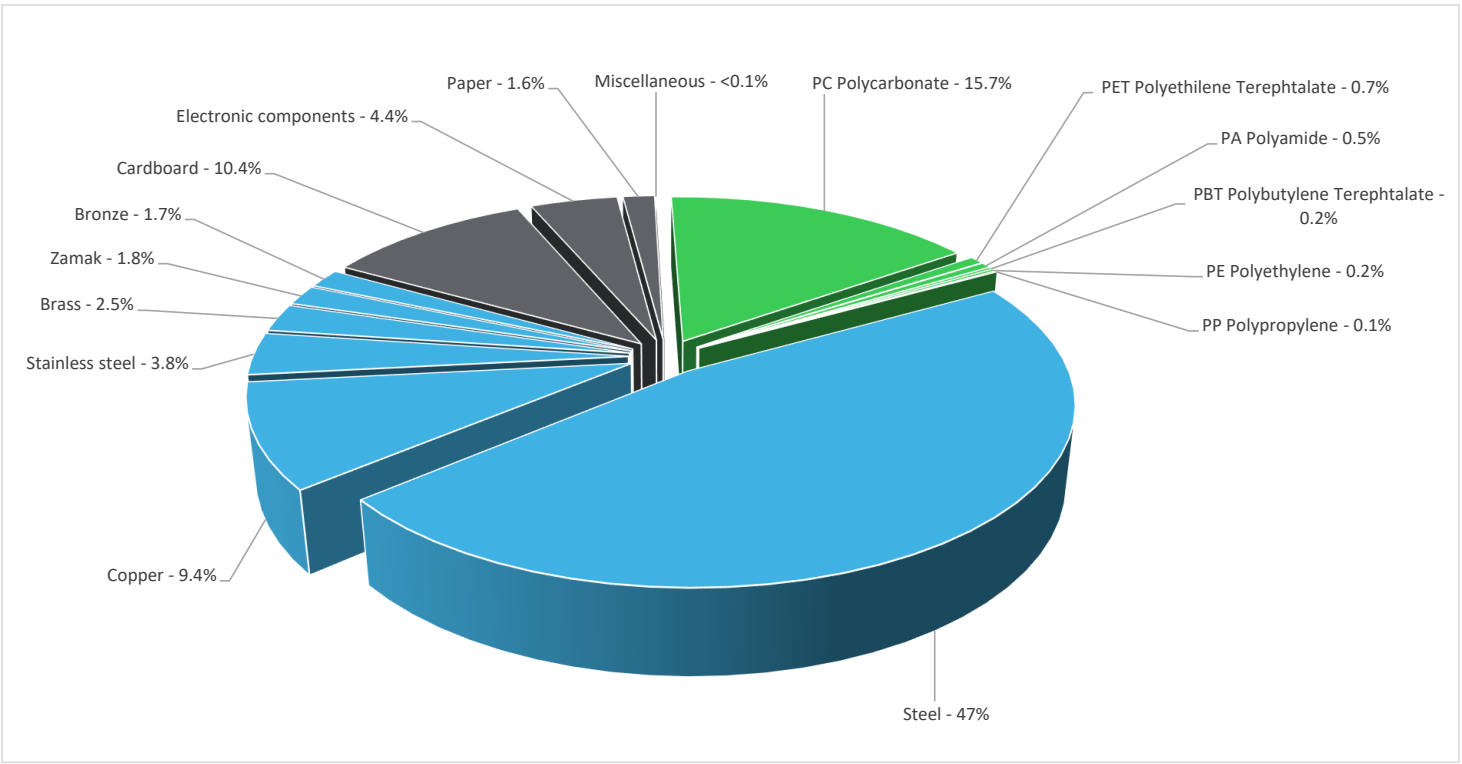
ComPacT NSX COMMUNICATING MOTOR MECHANISM (MTc250)

General information

Reference product	Com**PacT** NSX COMMUNICATING MOTOR MECHANISM (MTc250) - LV431550
Description of the product	The MT250 standard motor mechanism module for ComPacT NSX 250 and PowerPacT Multistandard J frame devices is a mechanism that allows automatic device spring-charging. When equipped with this module, circuit breakers feature very high mechanical endurance as well as easy and reliable closing/opening operations.All circuit breaker indications and information remain visible and accessible, including trip unit settings and its indications.The suitability for isolation is mantained and padlocking of the device remains possible while providing a double insulation of the front face.The motor mechanism is supplied with an SDE adapter.
Description of the range	Single product
Functional unit	To operate (ON/OFF) the MCCB remotely (Manual operation option is available for Maintenance activities), according to the reference usage scenario and during a reference service life of 10 years
Specifications are:	Control voltage: 24-30 V DC Maximum number of cycles: 20000 C/O (electrical endurance of a NSX250 frame at 50%In, 440V AC) Maximum number of cycles per minute: 2 C/O (DC Range MT250) & 4 C/O (MT100/160) Opening response time: <700ms Closing response time: <80ms Power consumption: <500W Product Dimentions: 105mm X 97mm X 106mm Product Standards: IEC/EN 60947-2 while protecting against mechanical impacts (IK07) and the penetration of solid objects and liquids (IP40)

Constituent materials

Reference product mass	1393.5 g	including the product, its packaging and additional elements and accessories



	Plastics	17.4%
	Metals	66.2%
	Others	16.4%

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:	**73%**	The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.

Environmental impacts

Reference service life time	10 years			
Product category	Other equipments - Active product			
Installation elements	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 scenario	The product is in Active mode 0.005% of the time with power use of 500W and in Off mode 99.995% of the time with power use of 0W for 10 years.			
Time representativeness	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 representativeness	Europe			
Energy model used	**[A1 - A3]**	**[A5]**	**[B6]**	**[C1 - C4]**
	Electricity Mix; Low voltage; 2018; Italy, IT	Electricity Mix; Low voltage; 2018; Italy, IT	Electricity Mix; Low voltage; 2018; Italy, IT	Electricity Mix; Low voltage; 2018; Italy, IT

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.schneider-electric.com/contact

Mandatory Indicators		ComPacT NSX COMMUNICATING MOTOR MECHANISM (MTc250) - LV431550						
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	1.50E+01	1.02E+01	2.72E-01	1.91E-01	9.12E-01	3.45E+00	-3.40E+00
Contribution to climate change-fossil	kg CO2 eq	1.48E+01	9.99E+00	2.72E-01	1.82E-01	9.12E-01	3.41E+00	-3.38E+00
Contribution to climate change-biogenic	kg CO2 eq	2.24E-01	1.68E-01	0*	8.78E-03	7.57E-04	4.65E-02	-2.00E-02
Contribution to climate change-land use and land use change	kg CO2 eq	3.19E-04	3.18E-04	0*	0*	0*	5.26E-07	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.15E-06	1.13E-06	4.16E-10	2.88E-09	1.82E-09	1.59E-08	-5.85E-07
Contribution to acidification	mol H+ eq	1.09E-01	9.10E-02	1.72E-03	5.56E-04	3.86E-03	1.21E-02	-4.04E-02
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$eq	1.10E-03	2.21E-04	0*	4.27E-06	0*	8.70E-04	-5.94E-06
Contribution to eutrophication marine	kg N eq	1.25E-02	8.59E-03	8.05E-04	2.38E-04	4.61E-04	2.36E-03	-2.13E-03
Contribution to eutrophication, terrestrial	mol N eq	1.39E-01	9.44E-02	8.83E-03	1.66E-03	7.79E-03	2.67E-02	-2.46E-02
Contribution to photochemical ozone formation - human health	kg COVNM eq	4.43E-02	3.19E-02	2.23E-03	3.83E-04	1.51E-03	8.28E-03	-9.74E-03
Contribution to resource use, minerals and metals	kg Sb eq	2.04E-03	2.01E-03	0*	0*	0*	2.77E-05	-1.10E-03
Contribution to resource use, fossils	MJ	3.92E+02	2.03E+02	3.78E+00	1.87E+00	1.36E+01	1.70E+02	-7.28E+01
Contribution to water use	m3 eq	1.47E+01	1.30E+01	0*	1.53E-02	2.40E-02	1.64E+00	-2.31E+00

Inventory flows Indicators		ComPacT NSX COMMUNICATING MOTOR MECHANISM (MTc250) - LV431550						
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 use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.15E+01	6.29E+00	5.05E-03	2.42E-01	4.25E+00	6.73E-01	-9.27E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	9.31E-01	9.31E-01	0*	0*	0*	0*	-2.95E-01
Contribution to total use of renewable primary energy resources	MJ	1.24E+01	7.22E+00	5.05E-03	2.42E-01	4.25E+00	6.73E-01	-1.22E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.83E+02	1.94E+02	3.78E+00	1.87E+00	1.36E+01	1.70E+02	-7.28E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	8.57E+00	8.57E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	3.92E+02	2.03E+02	3.78E+00	1.87E+00	1.36E+01	1.70E+02	-7.28E+01
Contribution to use of secondary material	kg	1.48E-01	1.48E-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	3.45E-01	3.06E-01	0*	3.55E-04	5.58E-04	3.81E-02	-5.37E-02
Contribution to hazardous waste disposed	kg	1.07E+02	1.07E+02	0*	0*	0*	6.40E-02	-8.88E+01
Contribution to non hazardous waste disposed	kg	7.02E+00	6.54E+00	9.52E-03	8.62E-02	7.16E-02	3.09E-01	-2.42E+00
Contribution to radioactive waste disposed	kg	3.21E-03	3.16E-03	6.78E-06	1.33E-05	7.72E-06	1.66E-05	-1.10E-03
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.08E+00	1.50E-01	0*	1.80E-03	0*	9.24E-01	0.00E+00
Contribution to materials for energy recovery	kg	1.72E-09	1.72E-09	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	2.19E-02	5.29E-03	0*	7.56E-03	0*	9.02E-03	0.00E+00

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

Contribution to biogenic carbon content of the product	kg de C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	5.08E-02

Mandatory Indicators		ComPacT NSX COMMUNICATING MOTOR MECHANISM (MTc250) - LV431550							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	9.12E-01	0*	0*	0*	0*	0*	9.12E-01	0*
Contribution to climate change-fossil	kg CO2 eq	9.12E-01	0*	0*	0*	0*	0*	9.12E-01	0*
Contribution to climate change-biogenic	kg CO2 eq	7.57E-04	0*	0*	0*	0*	0*	7.57E-04	0*
Contribution to climate change-land use and land use change	kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	1.82E-09	0*	0*	0*	0*	0*	1.82E-09	0*
Contribution to acidification	mol H+ eq	3.86E-03	0*	0*	0*	0*	0*	3.86E-03	0*
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to eutrophication marine	kg N eq	4.61E-04	0*	0*	0*	0*	0*	4.61E-04	0*
Contribution to eutrophication, terrestrial	mol N eq	7.79E-03	0*	0*	0*	0*	0*	7.79E-03	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.51E-03	0*	0*	0*	0*	0*	1.51E-03	0*
Contribution to resource use, minerals and metals	kg Sb eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to resource use, fossils	MJ	1.36E+01	0*	0*	0*	0*	0*	1.36E+01	0*
Contribution to water use	m3 eq	2.40E-02	0*	0*	0*	0*	0*	2.40E-02	0*

Inventory flows Indicators		ComPacT NSX COMMUNICATING MOTOR MECHANISM (MTc250) - LV431550							
Inventory flows	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.25E+00	0*	0*	0*	0*	0*	4.25E+00	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	4.25E+00	0*	0*	0*	0*	0*	4.25E+00	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.36E+01	0*	0*	0*	0*	0*	1.36E+01	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	1.36E+01	0*	0*	0*	0*	0*	1.36E+01	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m^3	5.58E-04	0*	0*	0*	0*	0*	5.58E-04	0*
Contribution to hazardous waste disposed	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to non hazardous waste disposed	kg	7.16E-02	0*	0*	0*	0*	0*	7.16E-02	0*
Contribution to radioactive waste disposed	kg	7.72E-06	0*	0*	0*	0*	0*	7.72E-06	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	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 v6.1, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 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 number :	SCHN-01097-V01.01-EN	*Drafting rules*	PCR-4-ed4-EN-2021 09 06
		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Verifier accreditation N°	VH45	*Information and reference documents*	www.pep-ecopassport.org
Date of issue	05-2024	*Validity period*	5 years

Independent verification of the declaration and data, in compliance with ISO 14025 : 2006

Internal External X

The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)

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 14025:2006 "Environmental labels and declarations. Type III environmental declarations"

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