Product Environmental Profile

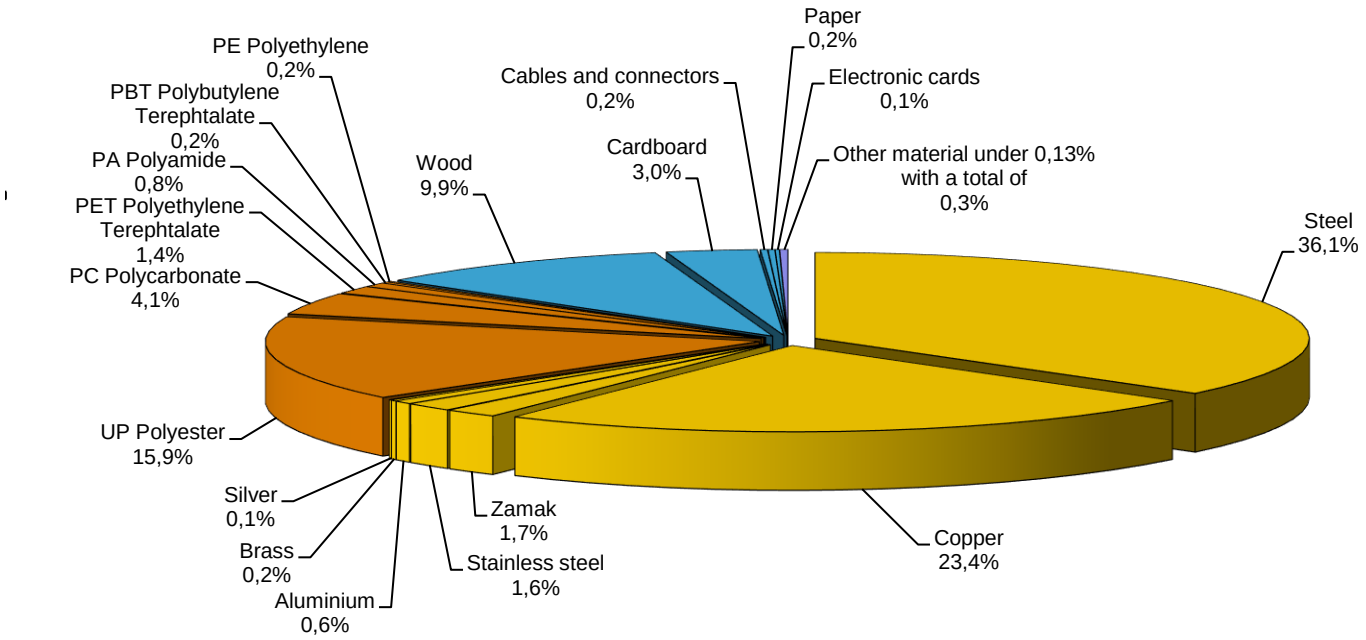
Masterpact MTZ2 25H1 three pole draw out circuit breaker with Micrologic 5.0X control unit

General information

Representative product	Masterpact MTZ2 25H1 three pole draw out circuit breaker with Micrologic 5.0X control unit
Description of the product	The Masterpact MTZ2 25H1 three pole draw out circuit breaker is designed to guarantee the protection of a low voltage electrical distribution system with assigned voltage up to 690VAC and rated current of 2500A. The breaker can be remotely operated using closing XF release and opening MX release. The Micrologic 5.0X control unit fitted with the circuit breaker enhances protection of electrical installation under fault conditions.
Functional unit	Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage up to 690VAC and 2500A rated current. This protection is ensured in accordance with the following parameters: - Number of poles: 3 - Rated service breaking capacity Ics at 440VAC = 66kA (according to IEC 60947-2) - Tripping curve: long time, short time and instantanous adjustable protections

Constituent materials

Reference product mass	100Kg	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

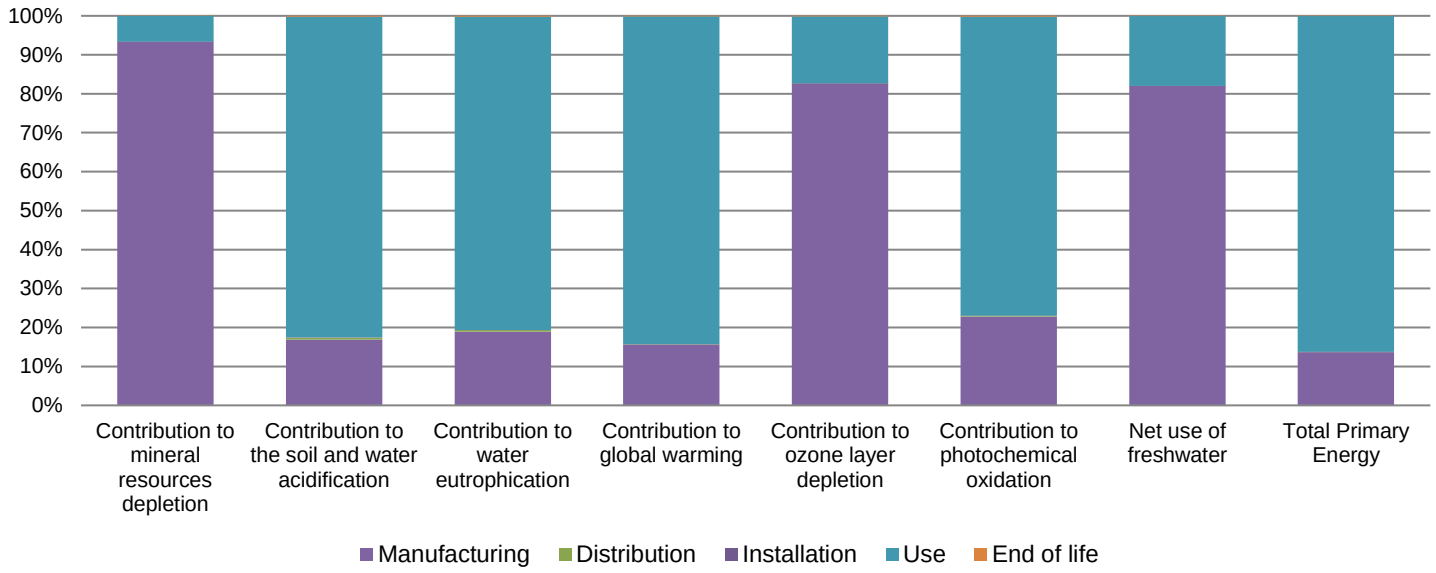
Additional environmental information

The Masterpact MTZ2 25H1 three pole draw out circuit breaker with Micrologic 5.0X control unit presents the following relevent environmental aspects	
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 13,54kg, consisting of pallet wood (10kg), cardboard (3kg), paper (225g) polyethylene film (164g) and steel (151g) Product distribution optimised by setting up local distribution centres
Installation	The Masterpact MTZ2 25 H1 3P draw out circuit breaker does not need any special installation operation
Use	The end user must refer to maintenance guide of the product in order to do the appropriate maintenance operations. The Micrologic Control Unit has to be replaced every 10 years and the display screen of Micrologic Control Unit every 5 years.
End of life	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials This product contains a battery (10g) and 7 electronic cards (29g, 27g, 48g, 10g and 3x10g) 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 http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page Recyclability potential: **66%** 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

Reference life time	20 years			
Product category	Passive products - continuous operation			
Installation elements	No special components needed			
Use scenario	Product dissipation is 150 W considering a 50% load rate, service uptime percentage is 30%.			
Geographical representativeness	China, Europe, US			
Technological representativeness	The Masterpact MTZ2 25H1 three pole draw out circuit breaker is designed to guarantee the protection of a low voltage electrical distribution system with assigned voltage up to 690VAC and rated current of 2500A. The breaker can be remotely operated using closing XF release and opening MX release. The Micrologic 5.0X control unit fitted with the circuit breaker enhances protection of electrical installation under fault conditions.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	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		Masterpact MTZ2 25H1 three pole draw out circuit breaker with Micrologic 5.0X control unit					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1,58E-01	1,48E-01	0*	0*	1,05E-02	0*
Contribution to the soil and water acidification	kg SO_2 eq	1,07E+01	1,80E+00	5,03E-02	3,98E-03	8,78E+00	2,60E-02
Contribution to water eutrophication	kg PO_4^{3-} eq	2,88E+00	5,45E-01	1,16E-02	9,38E-04	2,32E+00	6,84E-03
Contribution to global warming	kg CO_2 eq	9,62E+03	1,50E+03	1,12E+01	1,28E+00	8,09E+03	1,18E+01
Contribution to ozone layer depletion	kg CFC11 eq	4,25E-04	3,51E-04	0*	9,40E-08	7,29E-05	5,76E-07
Contribution to photochemical oxidation	kg C_2H_4 eq	1,35E+00	3,07E-01	3,58E-03	4,24E-04	1,04E+00	2,74E-03
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5,41E+01	4,44E+01	0*	0*	9,72E+00	1,13E-02
Total Primary Energy	MJ	1,54E+05	2,10E+04	1,50E+02	1,93E+01	1,32E+05	1,24E+02



Optional indicators		Masterpact MTZ2 25H1 three pole draw out circuit breaker with Micrologic 5.0X control unit					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1,49E+05	2,25E+04	1,57E+02	1,81E+01	1,26E+05	1,17E+02
Contribution to air pollution	m^3	1,43E+06	5,94E+05	4,59E+02	0*	8,39E+05	9,17E+02
Contribution to water pollution	m^3	4,92E+05	8,44E+04	1,84E+03	1,51E+02	4,04E+05	1,06E+03
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	8,24E+00	8,24E+00	0*	0*	1,84E-03	0*
Total use of renewable primary energy resources	MJ	7,20E+03	4,63E+02	0*	0*	6,74E+03	0*
Total use of non-renewable primary energy resources	MJ	1,46E+05	2,05E+04	1,50E+02	1,93E+01	1,26E+05	1,24E+02
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	6,92E+03	1,84E+02	0*	0*	6,74E+03	0*
Use of renewable primary energy resources used as raw material	MJ	2,80E+02	2,80E+02	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,46E+05	2,02E+04	1,50E+02	1,93E+01	1,26E+05	1,24E+02
Use of non renewable primary energy resources used as raw material	MJ	3,23E+02	3,12E+02	0*	0*	1,03E+01	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	6,69E+03	6,26E+03	0*	2,10E+01	2,92E+02	1,17E+02
Non hazardous waste disposed	kg	1,77E+03	3,02E+02	3,98E-01	0*	1,47E+03	3,94E-01
Radioactive waste disposed	kg	1,59E-01	1,07E-01	2,83E-04	9,66E-05	5,07E-02	6,15E-04
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7,36E+01	9,32E+00	0*	6,17E+00	0*	5,81E+01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,36E+00	1,65E-01	0*	0*	0*	1,20E+00
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°	SCHN-00111-V01.01-EN	*Drafting rules*	PCR-ed3-EN-2015 04 02
Verifier accreditation N°	VH25	*Supplemented by*	PSR-0005-ed2-EN-2016 03 29
Date of issue	10/2016	*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 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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