Product Environmental Profile

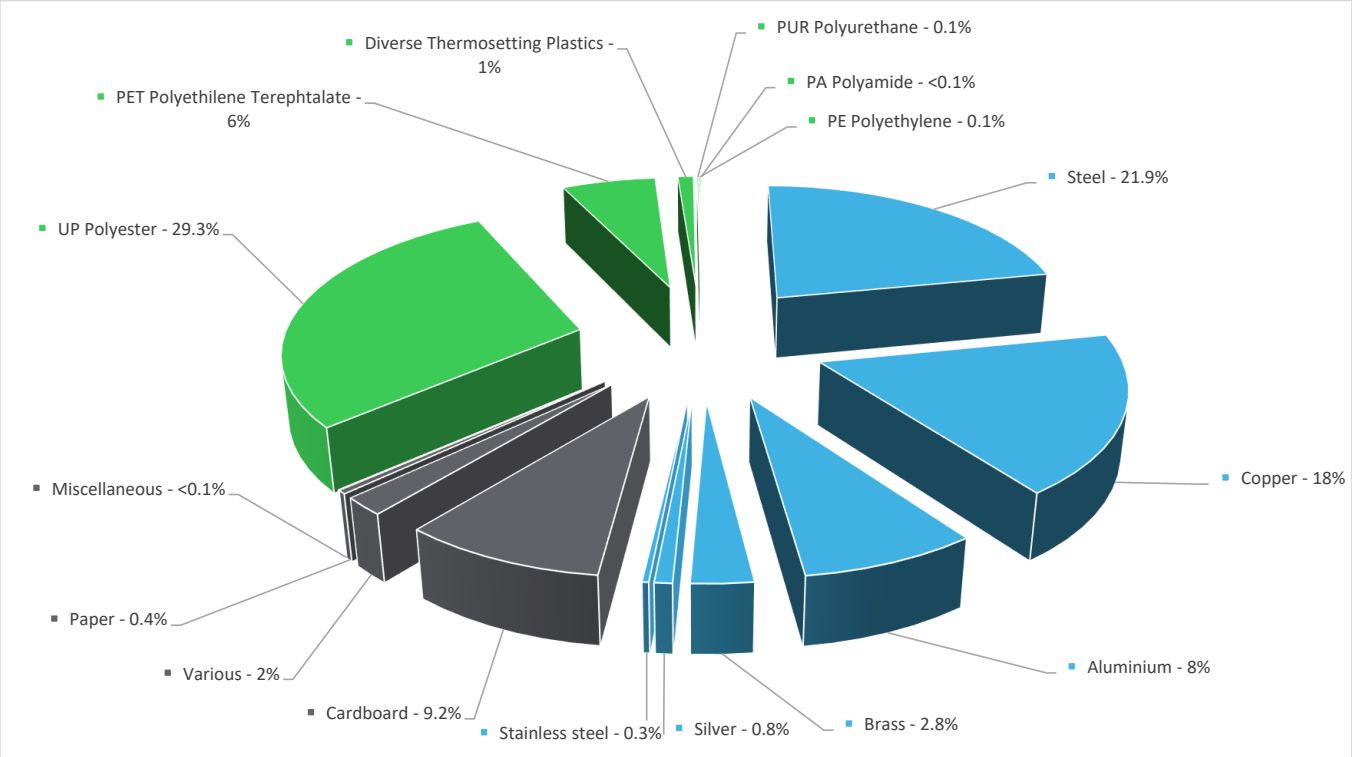
PowerPact™ Q-Frame Molded Case Circuit Breaker

General information

Reference product	PowerPact™ Q-Frame Molded Case Circuit Breaker - QBL22200
Description of the product	The PowerPact Q-frame QBL22200 two pole circuit breaker equipped with a thermal magnetic trip unit is designed to provide protection against overloads and short-circuits for electrical distribution systems with assigned voltage up to 240VAC and rated current of 200A.
Description of the range	Single product
Functional unit	Protect the installation from overloads and short circuits in a circuit with rated voltage Ue, rated current In, with Np poles, a rated breaking capacity Icn, and the tripping curve Cd if applicable, and, if applicable, the specific specifications, in the Household/Commercial application area, according to the appropriate use scenario, and during the reference service life of the product of 20 years.
Specifications are:	U = Rated voltage (V) = 240V In = Rated current in continuous operation (A) = 200A Np = Number of poles = 2 Icn = Rated breaking capacity (A) = 10kA Cd = Tripping curve = 2400A

Constituent materials

Reference product mass	1620 g	including the product, its packaging and additional elements and accessories



	Plastics	36.50%
	Metals	51.80%
	Others	11.60%

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:	**94%**	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	20 years
Product category	Circuit-breakers - Household / Commercial
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	Load rate = 15% In Use rate = 30% RLT
Time representativeness	The collected data are representative of the year 2023
Technological representativeness	The PowerPact Q-frame QBL22200 two pole circuit breaker equipped with a thermal magnetic trip unit is designed to provide protection against overloads and short-circuits for electrical distribution systems with assigned voltage up to 240VAC and rated current of 200A.
Geographical representativeness	Rest of the World

Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Low voltage; 2018; Mexico, MX	Electricity Mix; Low voltage; 2018; United States, US	Electricity Mix; Low voltage; 2018; United States, US	Electricity Mix; Low voltage; 2018; United States, US

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		PowerPact™ Q-Frame Molded Case Circuit Breaker - QBL22200						
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	3.60E+02	1.28E+01	3.50E-01	0*	3.45E+02	2.35E+00	-4.29E+00
Contribution to climate change-fossil	kg CO2 eq	3.59E+02	1.24E+01	3.50E-01	0*	3.44E+02	2.27E+00	-4.17E+00
Contribution to climate change-biogenic	kg CO2 eq	8.75E-01	4.30E-01	0*	0*	3.64E-01	8.07E-02	-1.25E-01
Contribution to climate change-land use and land use change	kg CO2 eq	4.77E-06	2.07E-07	0*	0*	0*	4.56E-06	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	6.26E-06	4.41E-06	3.09E-07	0*	1.46E-06	7.70E-08	-6.78E-07
Contribution to acidification	mol H+ eq	1.98E+00	1.39E-01	1.52E-03	0*	1.82E+00	1.42E-02	-7.23E-02
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	2.91E-03	4.01E-04	0*	0*	5.31E-04	1.98E-03	-1.27E-05
Contribution to eutrophication marine	kg N eq	2.35E-01	1.45E-02	6.99E-04	0*	2.17E-01	2.65E-03	-2.90E-03
Contribution to eutrophication, terrestrial	mol N eq	2.74E+00	1.57E-01	7.58E-03	0*	2.55E+00	3.03E-02	-3.22E-02
Contribution to photochemical ozone formation - human health	kg COVNM eq	7.86E-01	5.64E-02	2.48E-03	0*	7.19E-01	8.42E-03	-1.34E-02
Contribution to resource use, minerals and metals	kg Sb eq	1.52E-02	1.51E-02	0*	0*	1.39E-05	6.24E-05	-8.51E-04
Contribution to resource use, fossils	MJ	7.63E+03	2.19E+02	4.36E+00	0*	7.32E+03	9.17E+01	-7.12E+01
Contribution to water use	m3 eq	2.34E+01	7.92E+00	1.78E-02	0*	1.24E+01	3.05E+00	-3.47E+00

Additional indicators for the French regulation are available as well

Inventory flows Indicators		PowerPact™ Q-Frame Molded Case Circuit Breaker - QBL22200						
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	9.30E+02	1.06E+01	0*	0*	9.18E+02	1.95E+00	-1.51E+00
Contribution to use of renewable primary energy resources used as raw material	MJ	3.62E+00	3.62E+00	0*	0*	0*	0*	-1.98E+00
Contribution to total use of renewable primary energy resources	MJ	9.34E+02	1.42E+01	0*	0*	9.18E+02	1.95E+00	-3.50E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7.61E+03	2.01E+02	4.36E+00	0*	7.32E+03	9.17E+01	-7.12E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.84E+01	1.84E+01	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	7.63E+03	2.19E+02	4.36E+00	0*	7.32E+03	9.17E+01	-7.12E+01
Contribution to use of secondary material	kg	5.60E-02	5.60E-02	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	5.44E-01	1.84E-01	4.14E-04	0*	2.88E-01	7.10E-02	-8.09E-02
Contribution to hazardous waste disposed	kg	1.28E+02	1.22E+02	0*	0*	6.75E+00	0*	-7.25E+01
Contribution to non hazardous waste disposed	kg	6.47E+01	1.29E+01	0*	0*	5.09E+01	8.83E-01	-7.24E+00
Contribution to radioactive waste disposed	kg	1.56E-02	5.79E-03	6.96E-05	0*	9.60E-03	1.47E-04	-3.23E-03
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.71E+00	1.57E-01	0*	0*	0*	1.55E+00	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	3.89E-02	1.37E-03	0*	0*	0*	3.75E-02	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	1.48E-02

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.

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		Supplemented by	PSR-0005-ed3-EN-2023 06 06
Date of issue	03-2024	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years

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

Internal X External

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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