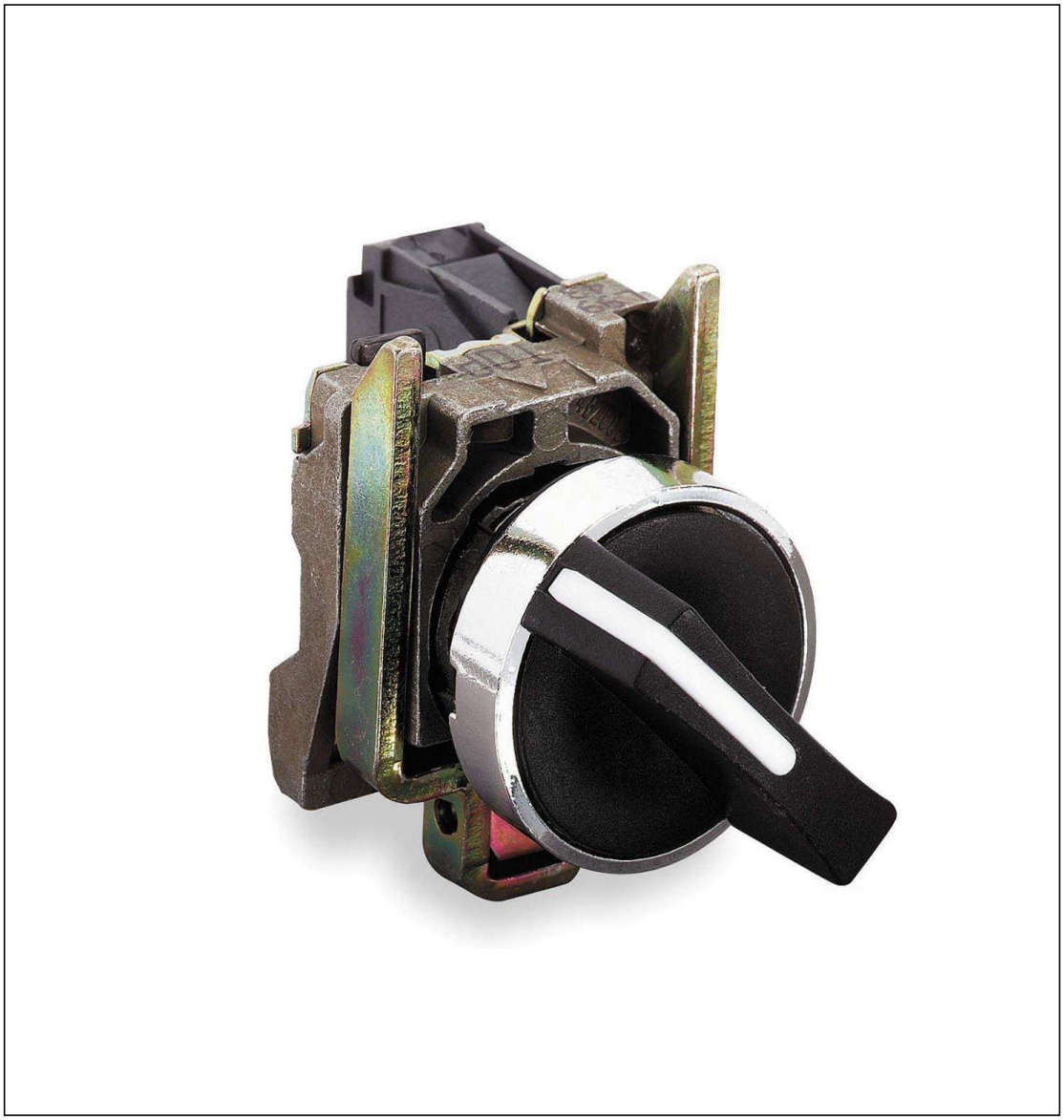
Product Environmental Profile

Harmony XB4 Metal Selector Switch

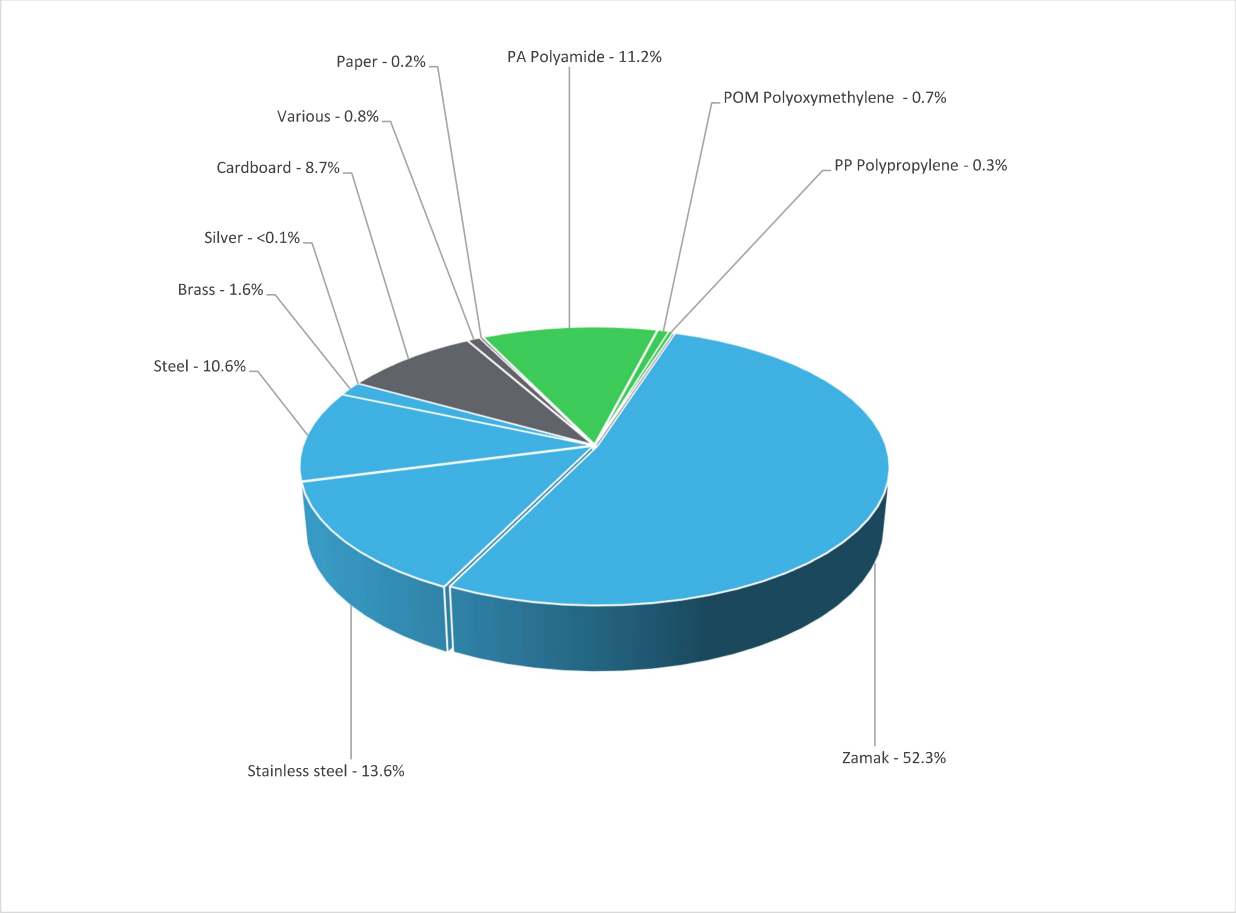


General information

Reference product	Harmony XB4 Metal Selector Switch - XB4BD21
Description of the product	Selector switch can be rotated right, left or in the center in order to open or close the electrical contacts.
Functional unit	Selector switch can control on or off of different currents circuit by rotating the handle. This harmony XB4 modular black selector switch has 2 positions which operates with a stay-put mechanism and it made up of metal bezel. It provides a versatile interface for controlling your machines. Product has life span of 10 years and adhering to international standards IEC 60947-5-1 and UL508.

Constituent materials

Reference product mass	99.565 g including the product, its packaging and additional elements and accessories



	Metals	78.1%
	Plastics	12.2%
	Others	9.7%

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:	84%	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	10 years			
Product category	Other equipments - Active product			
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 72% of the time with a power use of 0.002 W and in off mode 28% of the time with a power use of 0 W for 10 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.			
Geographical representativeness	Global			
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Production mix; Low voltage; FR	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27
		Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC
		Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US
		Electricity Mix; Production mix; Low voltage; BR	Electricity Mix; Production mix; Low voltage; BR	Electricity Mix; Production mix; Low voltage; BR
		Electricity Mix; Production mix; Low voltage; RU	Electricity Mix; Production mix; Low voltage; RU	Electricity Mix; Production mix; Low voltage; RU

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		Harmony XB4 Metal Selector Switch - XB4BD21						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Loads and Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change	kg CO2 eq	1.01E+00	6.64E-01	1.30E-02	1.61E-02	6.19E-02	2.53E-01	-3.66E-01
Contribution to climate change-fossil	kg CO2 eq	1.00E+00	6.60E-01	1.30E-02	1.54E-02	6.19E-02	2.53E-01	-3.64E-01
Contribution to climate change-biogenic	kg CO2 eq	4.00E-03	3.22E-03	0*	7.16E-04	6.17E-05	0*	-1.45E-03
Contribution to climate change-land use and land use change	kg CO2 eq	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.41E-07	1.39E-07	1.99E-11	1.07E-09	2.80E-10	6.94E-10	-9.29E-08
Contribution to acidification	mol H+ eq	7.38E-03	6.10E-03	8.37E-05	6.39E-05	3.77E-04	7.52E-04	-2.02E-03
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$eq	6.84E-06	6.57E-06	4.88E-09	1.16E-07	1.06E-07	3.75E-08	-1.12E-06
Contribution to eutrophication marine	kg N eq	1.18E-03	9.44E-04	3.93E-05	1.69E-05	4.22E-05	1.36E-04	-2.16E-04
Contribution to eutrophication, terrestrial	mol N eq	1.28E-02	1.02E-02	4.31E-04	1.28E-04	5.79E-04	1.50E-03	-2.38E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.88E-03	3.06E-03	1.09E-04	3.41E-05	1.37E-04	5.41E-04	-8.68E-04
Contribution to resource use, minerals and metals	kg Sb eq	1.07E-04	1.07E-04	0*	0*	0*	0*	-6.52E-05
Contribution to resource use, fossils	MJ	2.87E+01	1.10E+01	1.81E-01	1.68E-01	1.34E+00	1.60E+01	-5.75E+00
Contribution to water use	m3 eq	4.12E-01	3.17E-01	4.94E-05	6.88E-03	2.30E-03	8.62E-02	-1.61E-01

Additional indicators for the French regulation are available as well

Inventory flows Indicators		Harmony XB4 Metal Selector Switch - XB4BD21						
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	2.40E-01	0*	2.42E-04	1.20E-02	2.49E-01	3.28E-04	5.51E-02
Contribution to use of renewable primary energy resources used as raw material	MJ	1.75E-01	1.75E-01	0*	0*	0*	0*	-1.59E-01
Contribution to total use of renewable primary energy resources	MJ	4.15E-01	1.54E-01	2.42E-04	1.20E-02	2.49E-01	3.28E-04	-1.04E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.83E+01	1.06E+01	1.81E-01	1.68E-01	1.34E+00	1.60E+01	-5.75E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	3.83E-01	3.83E-01	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	2.87E+01	1.10E+01	1.81E-01	1.68E-01	1.34E+00	1.60E+01	-5.75E+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 freshwater	m³	9.60E-03	7.38E-03	1.15E-06	1.60E-04	5.36E-05	2.01E-03	-3.75E-03
Contribution to hazardous waste disposed	kg	2.22E+00	2.12E+00	0*	0*	1.32E-03	9.30E-02	-4.91E+00
Contribution to non hazardous waste disposed	kg	4.55E-01	3.80E-01	4.56E-04	5.24E-02	9.37E-03	1.28E-02	-3.93E-01
Contribution to radioactive waste disposed	kg	9.85E-05	8.86E-05	3.25E-07	7.03E-06	1.50E-06	1.02E-06	-8.70E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	8.50E-02	0*	0*	8.85E-03	0*	7.62E-02	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	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

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 :	ENVPEP2308005_V1	*Drafting rules*	PEP-PCR-ed4-2021 09 06
		Supplemented by	PSR-0005-ed2-2016 03 29
Date of issue	10/2023	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years

Independent verification of the declaration 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)

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 14021 : 2016 « Environmental labels and declarations. Type II environmental declarations »

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