Product Environmental Profile

PrismaSet M Copper Busbar Floor Standing Switchboards upto 4000A

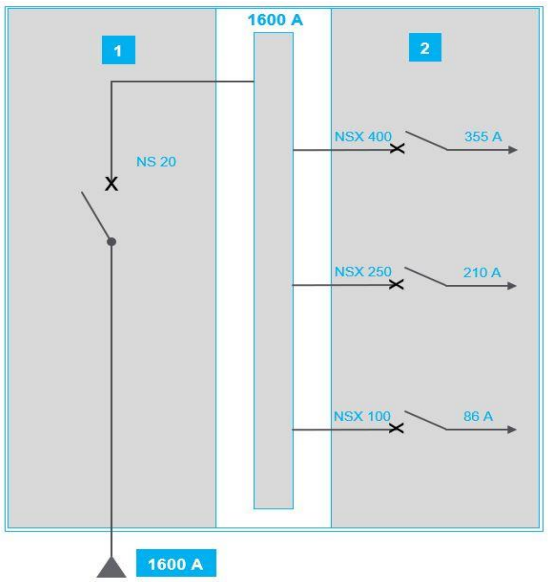
General information

Reference product	PrismaSet M Copper Busbar Floor Standing Switchboards upto 4000A - PrismaSet M Copper 1600A
Description of the product	The product used for the analysis is a PrismaSet M 1600A switchboard with components for the following functional units: • Incoming for: - 1600A fixed circuit breaker (typically Compact NS) • Outgoing for: - 400A horizontal circuit breakers (typically Compact NSX) - 250A horizontal circuit breakers (typically Compact NSX) - 100A vertical circuit breakers (typically 4 pieces Compact NSX) - Modular circuit breakers (typically 4 rows of Acti 9 devices). The main function of PrismaSet M Copper Busbar Floor standing switchboards upto 4000A is: • Installing electrical devices (mounting plates and front plates) • Distribution of current (distribution blocks, busbars, etc) • Connection of switchboards on site (connections, terminal blocks, cable tie supports,etc)
Description of the range	Single product
Functional unit	It is an assembled enclosures with busbars for a maximum current value of up to 4000A. It is to protect the people against direct contact with live parts and allow monitoring, control and protection devices in multiples enclosures by ensuring the installation of electrical devices, distribute current and connect switchboards for 20 years. Continuous current pass through the busbars for the devices to be connected. It can withstand mechanical impacts (IK10 - IEC62262) and the penetration of solid objects and liquids (up to IP54 - IEC 60529).
Specifications are:	Use of the components ensures the creation of switchboards complying with standards IEC 61439-1 and 2, as well as local versions with the following electrical characteristics: • Rated insulation level of main busbars: 1000 V • Rated peak withstand current Ipk: 220 kÂ • Rated short-time withstand current Icw: 100 kA rms / 1 second • Frequency: 50/60 Hz.

Lists of functions included in the configuration:

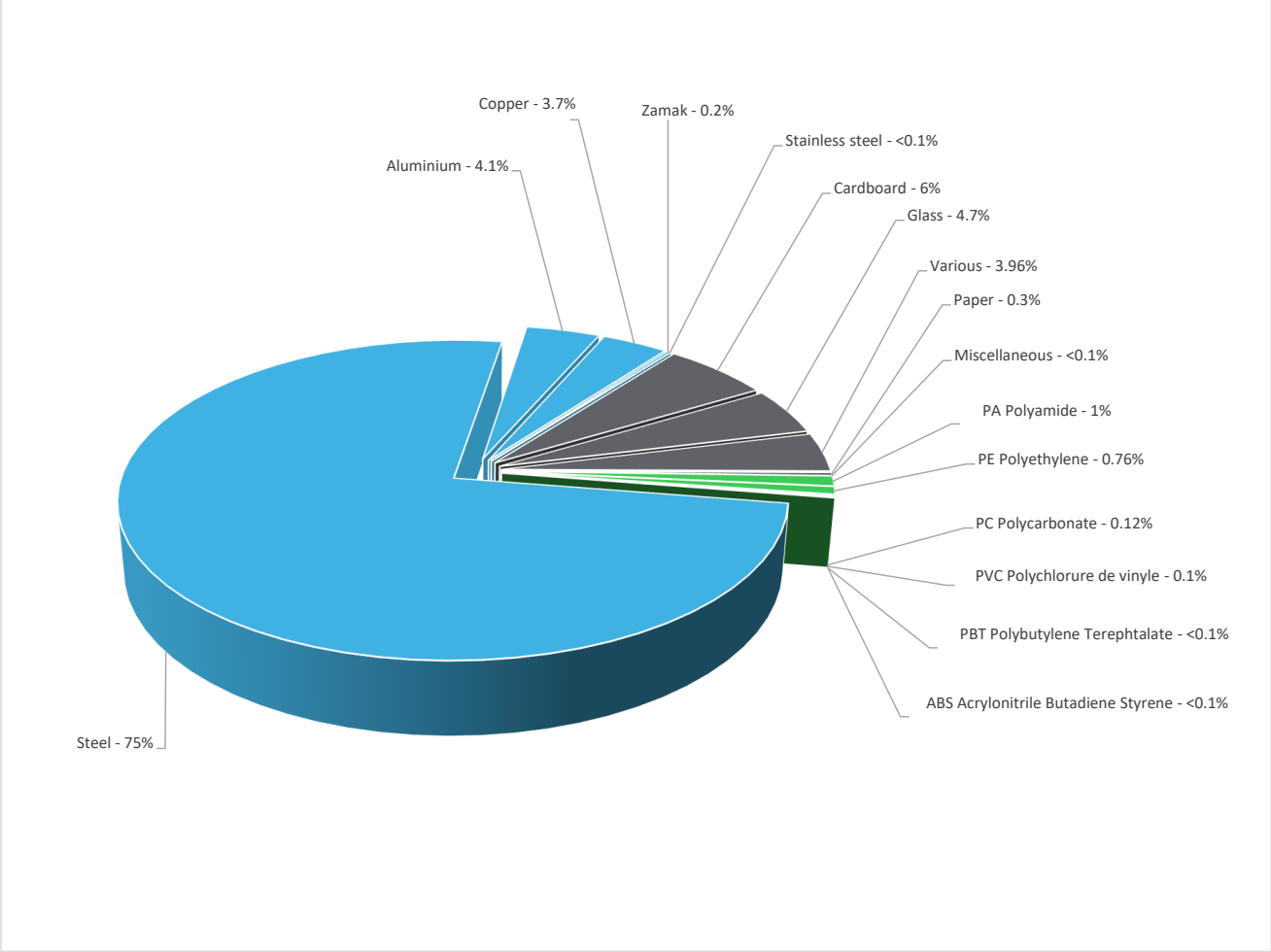
The product used for the analysis is the typical PrismaSet M Copper Busbar Floor standing switchboards 1600A product, which is comprised of the following commercial references:
LSM53433A, LSM53436A, LSM53438A, LSM53444A, LSM57471A, LSM58089A, LSM58092A, LSM58494A, LSM58498A, LSM58853A, LSX58054A, LVS04239, LVS04243, LVS04255, LVS04506, LVS04751, LVS04753, LVS04767, LVS04772, PFCD3H2W2DX1P, PFCEP5MNX63XH, PFCEXHXNS16FA, PFCFXHX62D40A, PFCM3HXIN16FV, PFCMPHXNX25XH, PFCMPHXNX25XV, PFCMPHXNX63XH, PFCSVHXW2DX2A, PFXD6H2W3DX1P, PFXD6H2W6DX1T, PFXEXXXXXXXXS, PFXFXHXW3D40A, PFXFXHXW6D40A, PFXGXHX62D40A, PFXGXHXW3D40A, PFXGXHXW6D40A, PFXMX4MXXXXXD, PFXP5H2W6DX1R, PFXP5H2W8DX1R, PFXP6H2WXD41A, PFXPXH2W3DX1R, PFXSV6MWXD4XA, PXCE44MNX25XH, PXCEX4MXXXXXT, PXXEP5MNX25TV, PXXEX1MW5XXXP, PXXEX2MW5XXXP, PXXEX3MMDXXXA, PXXEX3MW5XXXP, PXXEX4MW5XXXP, PXXEX5MMDXXXA

Note: This product was analyzed without circuit breakers.



Constituent materials

Reference product mass	411221.3025 g	including the product, its packaging and additional elements and accessories



	Plastics	2.04%
	Metals	83.00%
	Others	14.96%

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:	**89%**	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	Other equipments - Passive product - continuous operation			
Installation elements	No special components needed			
Use scenario	See PSR			
Time representativeness	The collected data are representative of the year 2023			
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	Rest of the World			
Energy model used	**[A1 - A3]**	**[A5]**	**[B6]**	**[C1 - C4]**
	Electricity Mix; Low voltage; 2018; China, CN	Electricity Mix; Low voltage; 2018; Indonesia, ID	Electricity Mix; Low voltage; 2018; Indonesia, ID	Electricity Mix; Low voltage; 2018; Indonesia, ID
		Electricity Mix; Low voltage; 2018; Egypt, EG	Electricity Mix; Low voltage; 2018; Egypt, EG	Electricity Mix; Low voltage; 2018; Egypt, EG
		Electricity Mix; Low voltage; 2018; Australia, AU	Electricity Mix; Low voltage; 2018; Australia, AU	Electricity Mix; Low voltage; 2018; Australia, AU
		Electricity Mix; Low voltage; 2018; Europe, EU-27	Electricity Mix; Low voltage; 2018; Europe, EU-27	Electricity Mix; Low voltage; 2018; Europe, EU-27

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		**PrismaSet M Copper Busbar Floor Standing Switchboards upto 4000A - PrismaSet M Copper 1600A**						
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	5.19E+03	2.20E+03	8.01E+01	8.61E+00	1.90E+03	9.99E+02	-1.43E+03
Contribution to climate change-fossil	kg CO2 eq	5.14E+03	2.18E+03	8.01E+01	8.61E+00	1.90E+03	9.74E+02	-1.42E+03
Contribution to climate change-biogenic	kg CO2 eq	5.02E+01	2.26E+01	0*	0*	3.00E+00	2.46E+01	-9.69E+00
Contribution to climate change-land use and land use change	kg CO2 eq	2.54E-04	1.70E-04	0*	0*	0*	8.36E-05	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.13E-04	1.06E-04	1.23E-07	4.47E-08	4.53E-06	2.59E-06	-2.16E-04
Contribution to acidification	mol H+ eq	2.45E+01	1.31E+01	5.07E-01	1.47E-02	7.29E+00	3.67E+00	-1.09E+01
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	1.20E-01	1.90E-02	3.00E-05	0*	9.12E-04	1.00E-01	-2.39E-03
Contribution to eutrophication marine	kg N eq	3.80E+00	1.85E+00	2.38E-01	6.63E-03	9.55E-01	7.49E-01	-8.10E-01
Contribution to eutrophication, terrestrial	mol N eq	4.29E+01	2.02E+01	2.61E+00	6.98E-02	1.17E+01	8.28E+00	-9.49E+00
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.31E+01	6.60E+00	6.58E-01	1.63E-02	3.15E+00	2.73E+00	-3.44E+00
Contribution to resource use, minerals and metals	kg Sb eq	4.40E-02	4.08E-02	0*	0*	7.05E-05	3.16E-03	-3.91E-01
Contribution to resource use, fossils	MJ	1.89E+05	9.09E+04	1.12E+03	0*	3.23E+04	6.49E+04	-3.05E+04
Contribution to water use	m3 eq	1.40E+03	9.29E+02	3.04E-01	3.03E+00	4.95E+01	4.22E+02	-6.47E+02

Inventory flows Indicators		PrismaSet M Copper Busbar Floor Standing Switchboards upto 4000A - PrismaSet M Copper 1600A						
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	3.69E+03	7.34E+02	1.49E+00	0*	2.87E+03	7.83E+01	-4.96E+02
Contribution to use of renewable primary energy resources used as raw material	MJ	1.73E+02	1.73E+02	0*	0*	0*	0*	3.11E+02
Contribution to total use of renewable primary energy resources	MJ	3.86E+03	9.08E+02	1.49E+00	0*	2.87E+03	7.83E+01	-1.84E+02
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.88E+05	9.00E+04	1.12E+03	0*	3.23E+04	6.49E+04	-3.05E+04
Contribution to use of non renewable primary energy resources used as raw material	MJ	9.21E+02	9.21E+02	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	1.89E+05	9.09E+04	1.12E+03	0*	3.23E+04	6.49E+04	-3.05E+04
Contribution to use of secondary material	kg	1.99E+01	1.99E+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	3.27E+01	2.16E+01	7.08E-03	7.05E-02	1.15E+00	9.82E+00	-1.51E+01
Contribution to hazardous waste disposed	kg	3.33E+03	3.32E+03	0*	0*	1.83E+01	0*	-3.11E+04
Contribution to non hazardous waste disposed	kg	1.18E+03	8.76E+02	2.81E+00	2.84E+01	2.25E+02	5.01E+01	-1.33E+03
Contribution to radioactive waste disposed	kg	1.45E+00	1.36E+00	2.00E-03	0*	7.99E-02	3.30E-03	-7.35E-01
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	3.91E+02	5.02E+01	0*	0*	0*	3.41E+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	3.91E+00	5.97E-01	0*	0*	0*	3.31E+00	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	7.33E+00

Mandatory Indicators		PrismaSet M Copper Busbar Floor Standing Switchboards upto 4000A - PrismaSet M Copper 1600A							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	1.90E+03	0*	0*	0*	0*	0*	1.90E+03	0*
Contribution to climate change-fossil	kg CO2 eq	1.90E+03	0*	0*	0*	0*	0*	1.90E+03	0*
Contribution to climate change-biogenic	kg CO2 eq	3.00E+00	0*	0*	0*	0*	0*	3.00E+00	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	4.53E-06	0*	0*	0*	0*	0*	4.53E-06	0*
Contribution to acidification	mol H+ eq	7.29E+00	0*	0*	0*	0*	0*	7.29E+00	0*
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	9.12E-04	0*	0*	0*	0*	0*	9.12E-04	0*
Contribution to eutrophication marine	kg N eq	9.55E-01	0*	0*	0*	0*	0*	9.55E-01	0*
Contribution to eutrophication, terrestrial	mol N eq	1.17E+01	0*	0*	0*	0*	0*	1.17E+01	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.15E+00	0*	0*	0*	0*	0*	3.15E+00	0*
Contribution to resource use, minerals and metals	kg Sb eq	7.05E-05	0*	0*	0*	0*	0*	7.05E-05	0*
Contribution to resource use, fossils	MJ	3.23E+04	0*	0*	0*	0*	0*	3.23E+04	0*
Contribution to water use	m3 eq	4.95E+01	0*	0*	0*	0*	0*	4.95E+01	0*

Inventory flows Indicators		PrismaSet M Copper Busbar Floor Standing Switchboards upto 4000A - PrismaSet M Copper 1600A							
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	2.87E+03	0*	0*	0*	0*	0*	2.87E+03	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	2.87E+03	0*	0*	0*	0*	0*	2.87E+03	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.23E+04	0*	0*	0*	0*	0*	3.23E+04	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	3.23E+04	0*	0*	0*	0*	0*	3.23E+04	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	1.15E+00	0*	0*	0*	0*	0*	1.15E+00	0*
Contribution to hazardous waste disposed	kg	1.83E+01	0*	0*	0*	0*	0*	1.83E+01	0*
Contribution to non hazardous waste disposed	kg	2.25E+02	0*	0*	0*	0*	0*	2.25E+02	0*
Contribution to radioactive waste disposed	kg	7.99E-02	0*	0*	0*	0*	0*	7.99E-02	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-00811-V02.01-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"

Schneider Electric Industries SAS

Country Customer Care Center
http://www.se.com/contact

35, rue Joseph Monier

CS 30323

F- 92500 Rueil Malmaison Cedex
RCS Nanterre 954 503 439
Capital social 928 298 512 €

www.se.com

Published by Schneider Electric

SCHN-00811-V02.01-EN

05-2024