

Product Environmental Profile

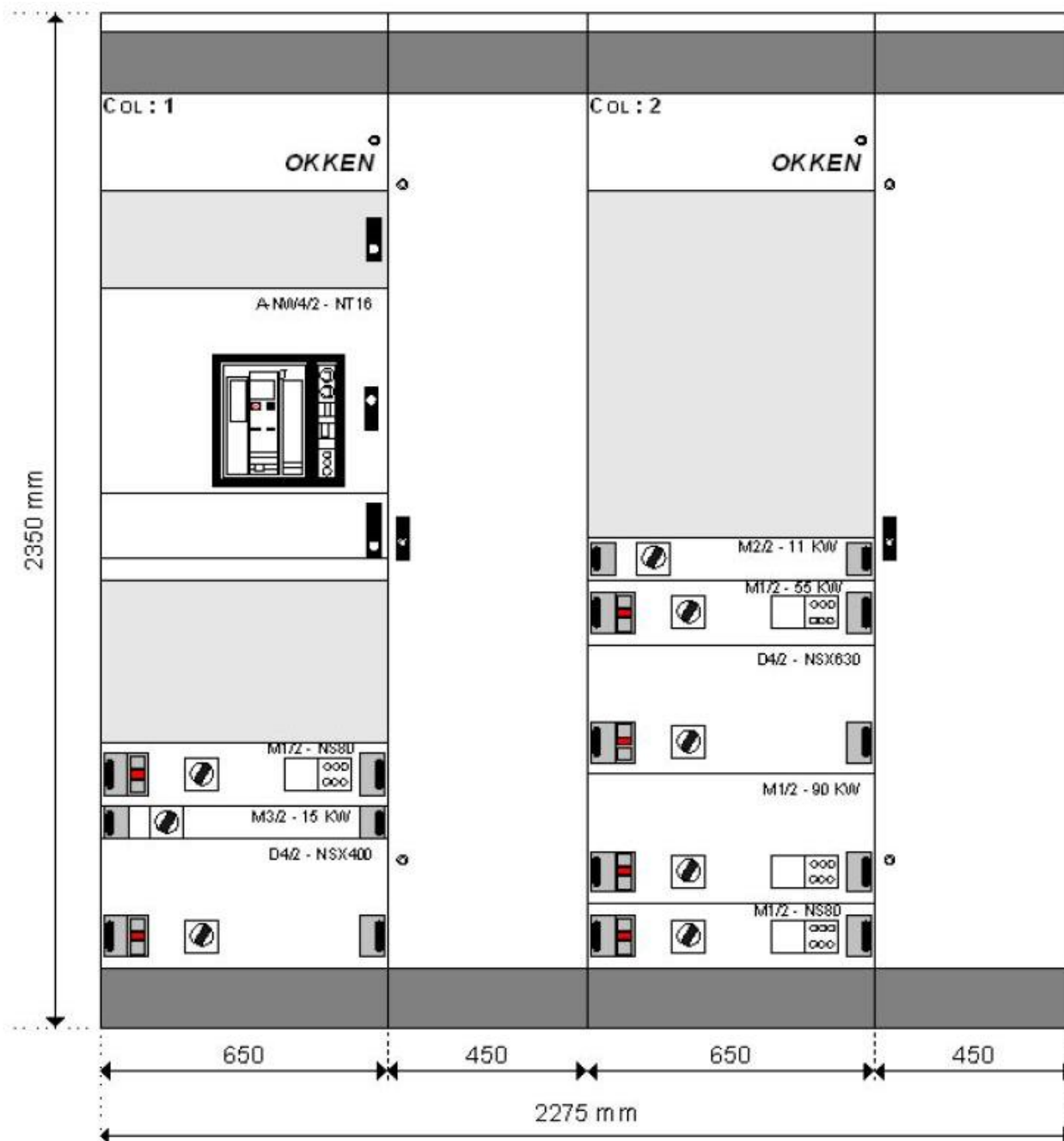
OKKEN 115/70-2 MCC Low Voltage Switchboard





General information

Representative product	OKKEN 115/70-2 MCC Low Voltage Switchboard - 87020
Description of the product	Okken is an assembled enclosures with busbars. It is designed to integrate and allow the installation of electric devices such as Circuit breakers (MCCB & MCB), Switch disconnectors, Fuse, Busbars for connection as per the customer requirement for a maximum current value of up to 3200A.
Functional unit	It is an assembled enclosures with busbars for a maximum current value of up to 3200A. It is to protect persons during 20 years against direct contact with live parts and allow monitoring, control and protection devices in a single enclosure or a cabinet having the following dimensions 2350 x 2200 x 600 mm. 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 (IP31 - IEC 60529) in accordance with IEC 61439-1 and 2 standards.

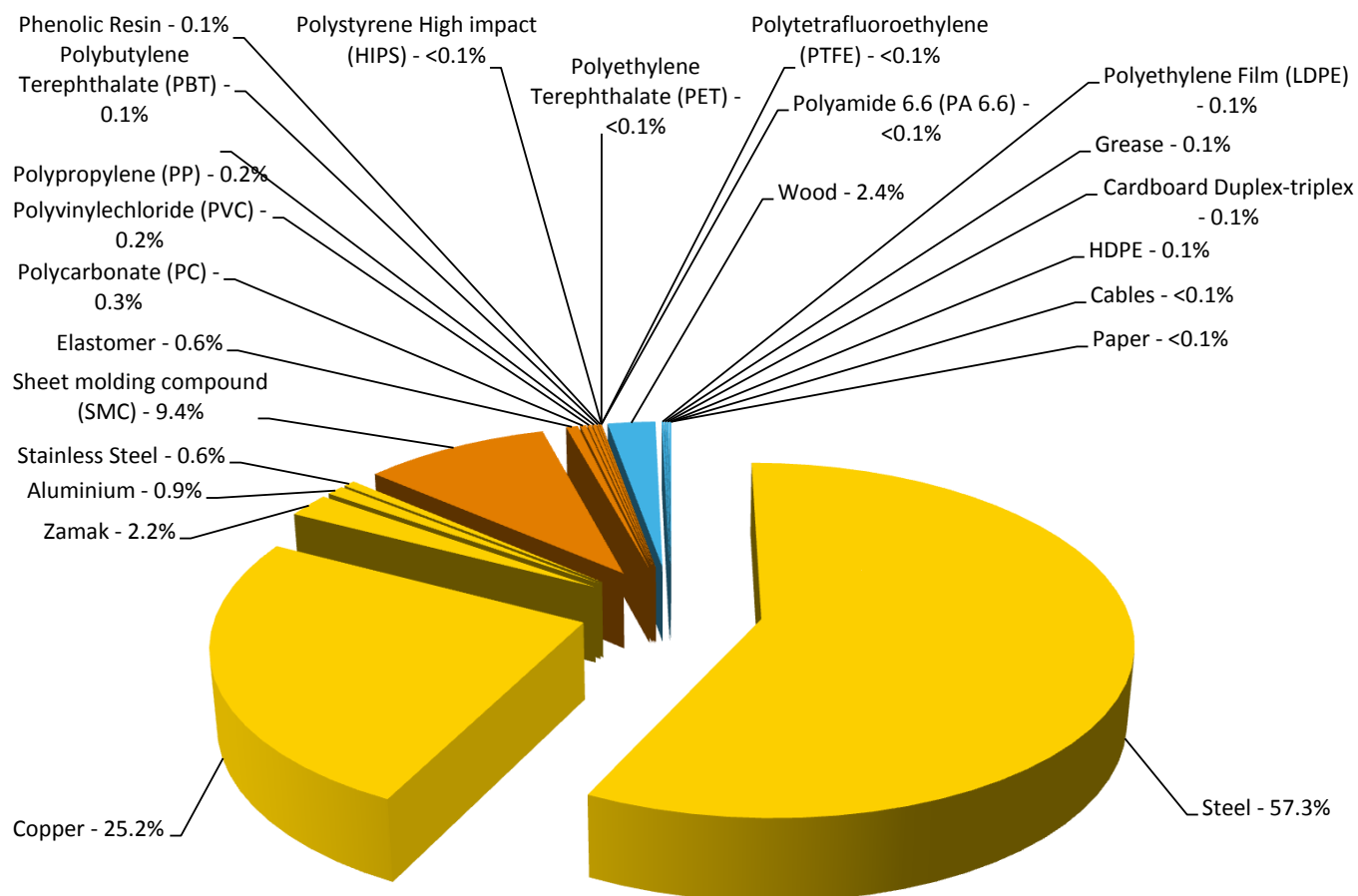


List of functions included in the configuration :

Device	Device function	Module	Quantity	Conclusion
A-NW4/2 - NT16	INCOMER 4P	19/72	1	The environmental impacts have been calculated for elements of Okken enclosure. Impacts of the circuit breakers, contactors and relays to be assembled have not been integrated in the calculation. Cables used inside the Okken enclosure have not been integrated in the calculation.
D4/2 - NSX400	FEEDER 4P	12/72	1	
D4/2 - NSX630	FEEDER 4P	12/72	1	
M1/2 - NS80	FEEDER 30kW NS80	6/72	2	
M1/2 - 55 kW	FEEDER 55kW	6/72	1	
M1/2 - 90 kW	FEEDER 90kW	12/72	1	
M2/2 - 11 kW	FEEDER 11kW	4/72	1	
M3/2 - 15 kW	FEEDER 15kW	3/72	1	

🔍 Constituent materials

Reference product mass 1270500 g 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 OKKEN 115/70-2 MCC Low Voltage Switchboard presents the following relevant environmental aspects

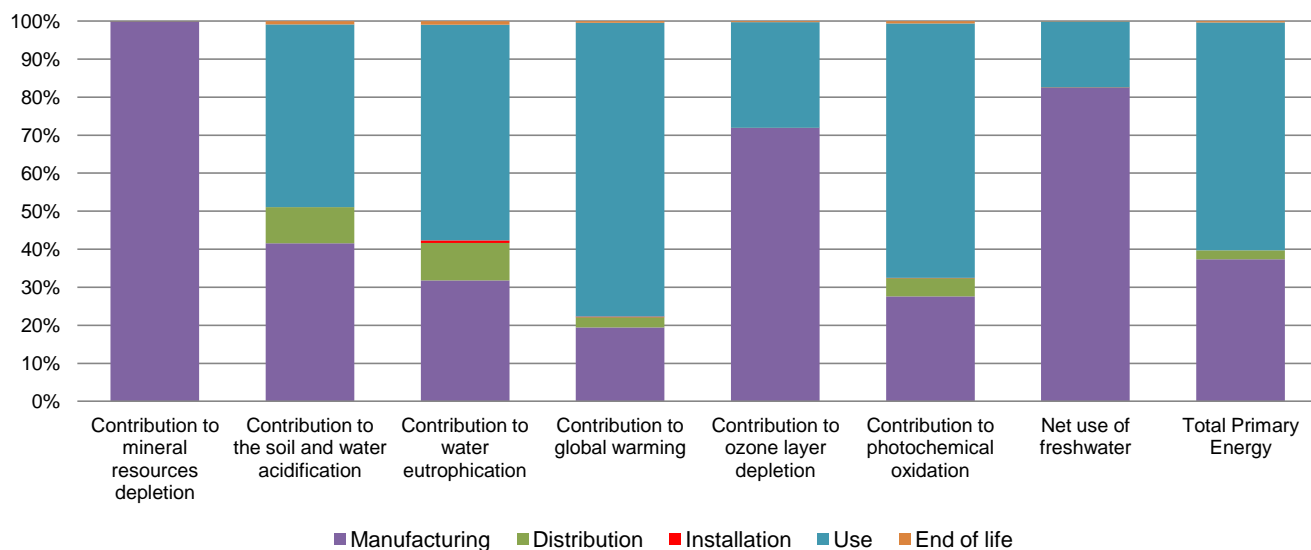
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 33380 g, consisting of Wood (89.9%), LDPE (5.3%), Cardboard (2.8%), HDPE (1.8%) & Paper (0.2%). Product distribution optimised by setting up local distribution centres
Installation	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	Simple routine maintenance (checking the torque of busbar fasteners, thermal monitor, etc) is required for the product which does not include any complicated activity.
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 Plastic parts with brominated FR (1889.3g). 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: 85% 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 - non-continuous operation			
Installation elements	No special components needed			
Use scenario	Product dissipation is 703.33 W, loading rate is 50% and service uptime percentage is 30%			
Geographical representativeness	Middle East			
Technological representativeness	Okken is an assembled enclosures with busbars. It is designed to integrate and allow the installation of electric devices such as Circuit breakers (MCCB & MCB), Switch disconnectors, Fuse, Busbars for connection as per the customer requirement for a maximum current value of up to 3200A.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: SET, Manisa, Turkey	Electricity mix; AC; consumption mix, at consumer; 230V; TR	Electricity mix; AC; consumption mix, at consumer; 230V; TR	Electricity mix; AC; consumption mix, at consumer; 230V; TR

Compulsory indicators		OKKEN 115/70-2 MCC Low Voltage Switchboard - 87020					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6,21E-01	6,21E-01	0*	0*	2,24E-04	0*
Contribution to the soil and water acidification	kg SO ₂ eq	4,23E+01	1,76E+01	4,03E+00	0*	2,03E+01	3,58E-01
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	9,45E+00	3,00E+00	9,33E-01	6,36E-02	5,36E+00	8,80E-02
Contribution to global warming	kg CO ₂ eq	3,13E+04	6,09E+03	8,52E+02	4,71E+01	2,42E+04	1,34E+02
Contribution to ozone layer depletion	kg CFC11 eq	2,97E-03	2,14E-03	1,72E-06	0*	8,25E-04	7,55E-06
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	6,08E+00	1,68E+00	2,90E-01	8,65E-03	4,06E+00	3,84E-02

Resources use		OKKEN 115/70-2 MCC Low Voltage Switchboard - 87020					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1,09E+02	8,98E+01	7,62E-02	2,08E-02	1,89E+01	1,47E-01
Total Primary Energy	MJ	4,72E+05	1,76E+05	1,14E+04	0*	2,83E+05	1,74E+03



Optional indicators		OKKEN 115/70-2 MCC Low Voltage Switchboard - 87020					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4,82E+05	7,66E+04	1,20E+04	0*	3,92E+05	1,63E+03
Contribution to air pollution	m ³	4,13E+06	2,36E+06	3,92E+04	7,97E+02	1,72E+06	1,27E+04
Contribution to water pollution	m ³	1,48E+06	4,64E+05	1,40E+05	0*	8,57E+05	1,41E+04

Resources use		OKKEN 115/70-2 MCC Low Voltage Switchboard - 87020					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	3,31E+02	3,31E+02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4,31E+04	2,19E+03	1,60E+01	0*	4,09E+04	0*
Total use of non-renewable primary energy resources	MJ	4,29E+05	1,74E+05	1,14E+04	0*	2,42E+05	1,74E+03
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4,25E+04	1,52E+03	1,60E+01	0*	4,09E+04	0*
Use of renewable primary energy resources used as raw material	MJ	6,72E+02	6,72E+02	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4,27E+05	1,72E+05	1,14E+04	0*	2,42E+05	1,74E+03
Use of non renewable primary energy resources used as raw material	MJ	2,39E+03	2,39E+03	0*	0*	0*	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	4,47E+04	4,28E+04	0*	0*	4,98E+02	1,42E+03
Non hazardous waste disposed	kg	3,36E+03	6,71E+02	3,03E+01	2,42E+01	2,63E+03	5,51E+00
Radioactive waste disposed	kg	1,20E+00	8,65E-01	2,15E-02	0*	3,10E-01	8,50E-03
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1,20E+03	1,54E+02	0*	0*	0*	1,05E+03
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	9,66E+00	9,29E-01	0*	2,36E+00	0*	6,37E+00
Exported Energy	MJ	2,66E+01	0*	0*	2,66E+01	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°	ENVPEP121219EN	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	02/2017	Supplemented by	PSR-005-ed2-EN-2016 03 29
Validity period	5 years	Information and reference documents	www.pep-ecopassport.org
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010			
Internal	X	External	
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 »			

Schneider Electric Industries SAS

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<http://www2.schneider-electric.com/sites/corporate/en/support/operations/local-operations/local-operations.page>

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Published by Schneider Electric

ENVPEP121219EN

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02/2017