MINKELS

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Your usual Sales office
www.minkels.com

Product Environmental Profile

Varicon-M assembled cabinet - perforated doors

PEP ecoPASSPORT®

MINKELS'S ENVIRONMENTAL COMMITMENTS

• Incorporate environmental management into our industrial sites
Of all Legrand sites worldwide, over 85% are ISO 14001-certified (sites belonging to the Group for more than five years).

• Offer our customers environmentally friendly solutions
Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.

• Involve the environment in product design and provide informations in compliance with ISO 14025
Reduce the environmental impact of products over their whole life cycle.
Provide our customers with all relevant information (composition, consumption, end of life, etc.).

REFERENCE PRODUCT

Function	Protecting people for 20 years against direct contact with active electrical components and ensure the incorporation of monitoring equipment, control and protection devices with a cabinet unit characterized by its dimensions 2000 mm height x 800 mm width x 1000 mm depth, while protecting against mechanical shock (in compliance with IEC 60950-1) and the penetration of solid or liquid body (IP 20).
Reference Product	
	Cat.No VME208010SB
	Varicon-M assembled cabinet 2000 mm Height x 1000 mm Depth x 800 mm Width - perforated doors.

PRODUCTS CONCERNED

The environmental data is representative of the following products:

Catalogue Numbers
The full Varicon-M assembled cabinets range (equiped with metallic perforated doors), as presented in all relevant catalogues (1300 to 2400 mm Height x 800 to 1200 mm Depth x 600 to 800 mm Width) - details available on request from customer service team.

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CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EU.

Total weight of Reference Product	**117727 g** (with unit packaging)

Plastics as % of weight		**Metals as % of weight**		**Other as % of weight**	
PA	**0.8 %**	Steel	**62.2 %**	Polyester-epoxy resin powder paint	**1.4 %**
SBS	**0.2 %**	Al	**24.5 %**		
PVC	**< 0.1 %**	Zamak	**1.0 %**		
		Copper alloys	**< 0.1 %**		
				Packaging as % of weight	
				Wood	**9.4 %**
				PE	**0.5 %**
				Steel	**< 0.1 %**
				Paper	**< 0.1 %**
Total plastics	**1.0 %**	**Total metals**	**87.7 %**	**Total other and packaging**	**11.3 %**

Estimated recycled material content: 31 % by mass.

MANUFACTURE

The Reference Product comes from sites that, in their majority, have received ISO14001 certification.

DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 280 by road from our warehouse to the local point of distribution into the market in Europe.

Packaging is compliant with european directive 2004/12/EU concerning packaging and packaging waste. At their end of life, its recyclability rate is 90 % (in % of packaging weight).

INSTALLATION

For the installation of the product, only standard tools are needed.

USE

Under normal conditions of use, this product requires no servicing, no maintenance or additional products.

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END OF LIFE

The product end-of-life factors are taken into account during the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse.

• Recyclability rate:
Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 97 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for the end of life of this product.

Separated into:

- plastic materials (excluding packaging) : 1 %
- metal materials (excluding packaging) : 87 %
- other materials (excluding packaging) : 0 %
- packaging (all types of materials) : 9 %

ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end-of-life. It is representative of products marketed and used in Europe.
For each phase, the following modelling elements were taken in account:

Manufacture	Materials and components of the product, all transport for the manufacturing,the packaging and the waste generated by the manufacturing.
Distribution	Transport between the last Group distribution centre and an average delivery point in the sales area.
Installation	The end of life of the packaging.
Use	• Product category: envelope. • Use scenario: no energy consumption during the 20 years working life. This modelling duration does not constitute a minimum durabilty requirement. • Energy model: Electricity Mix ; Europe 27 - 2002.
End of life	The default end of life scenario maximizing the impacts.
Software and database used	EIME V5 and its database «CODDE-2015-04».

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SELECTION OF ENVIRONMENTAL IMPACTS

	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Global warming	**5.42E+02**	**kg~CO_2 eq.**	5.18E+02	**96 %**	1.64E+01	**3 %**	6.21E-01	**< 1 %**	0.00E+00	**0 %**	6.97E+00	**1 %**
Ozone depletion	**5.07E-05**	**kg~CFC-11 eq.**	5.06E-05	**100 %**	3.33E-08	**< 1 %**	2.96E-09	**< 1 %**	0.00E+00	**0 %**	5.13E-08	**< 1 %**
Acidification of soils and water	**2.22E+00**	**kgSO2 eq.**	2.12E+00	**95 %**	7.37E-02	**3 %**	2.74E-03	**< 1 %**	0.00E+00	**0 %**	2.94E-02	**1 %**
Water eutrophication	**2.24E-01**	**kg~PO_4^{3-}eq.**	1.58E-01	**70 %**	1.69E-02	**8 %**	8.81E-04	**< 1 %**	0.00E+00	**0 %**	4.84E-02	**22 %**
Photochemical ozone formation	**1.83E-01**	**kg~C_2H_4 eq.**	1.78E-01	**97 %**	5.24E-03	**3 %**	1.97E-04	**< 1 %**	0.00E+00	**0 %**	5.13E-08	**< 1 %**
Depletion of abiotic resources - elements	**1.08E-03**	**kgSb eq.**	1.08E-03	**100 %**	6.57E-07	**< 1 %**	2.66E-08	**< 1 %**	0.00E+00	**0 %**	3.01E-07	**< 1 %**
Total use of primary energy	**1.94E+04**	**MJ**	1.90E+04	**98 %**	2.32E+02	**1 %**	8.88E+00	**< 1 %**	0.00E+00	**0 %**	9.44E+01	**< 1 %**
Net use of fresh water	**4.22E+00**	**m^3**	4.22E+00	**100 %**	1.47E-03	**< 1 %**	1.13E-04	**< 1 %**	0.00E+00	**0 %**	2.00E-03	**< 1 %**
Depletion of abiotic resources - fossil fuels	**6.41E+03**	**MJ**	6.08E+03	**95 %**	2.31E+02	**4 %**	8.74E+00	**< 1 %**	0.00E+00	**0 %**	9.20E+01	**1 %**
Water pollution	**2.58E+04**	**m^3**	2.21E+04	**85 %**	2.70E+03	**10 %**	9.84E+01	**< 1 %**	0.00E+00	**0 %**	9.86E+02	**4 %**
Air pollution	**8.07E+04**	**m^3**	7.96E+04	**99 %**	6.73E+02	**< 1 %**	3.11E+01	**< 1 %**	0.00E+00	**0 %**	4.16E+02	**< 1 %**

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website.

For products covered by the PEP other than the Reference product, the environmental impacts of all indicators are proportional to the total surface of the cabinet = 2 x (height x depth) + 2 (height x width) + 2 (width x depth).

Registration N°: LGRP-00041-V01.01-EN	Drafting rules: «PEP-PCR-ed3-EN-2015 04 02» Supplemented by «PSR-0005-ed1-2012 12 11»
Verifier accreditation N°: VH02	Information and reference documents : **www.pep-ecopassport.org**
Date of issue: 01/2016	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2010 Internal ☒ External ☐	
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	
Documents in compliance with ISO 14025 : 2010: «Environmental labels and declarations. Type III environmental declarations»	
Environmental data in alignment with EN 15804 : 2012 + A1 : 2013	