# Switch disconnector Sirco M



## Socomec is member of :







## Environment and sustainable development commissions

## The commitments of Socomec to respect the environment

As part of its environmental policy, Socomec is committed to:

- Develop innovating solutions primarily focused on energy efficiency to help its customer in the design of less energyconsuming, better managed and eco friendly installations.
- Diversify its product offer in the renewable energy and energy efficiency sectors,
- Minimize the environmental impact of its industrial activities through the progressive ISO 14001 certification of its production sites,
- Minimize at the preliminary design stage the environmental impacts of its products taking into account their whole life cycle,
- Provide his customers with reliable data on the environmental performance of the products.



## **PRODUCT ENVIRONMENTAL PROFILE**



## Representative product

### **Reference product**

The representative product is the Sirco M 3x16A with sales reference 22053000.

#### **References covered by this PEP**

Sirco M 3x20A to 3x125A with sales references 22003001, 22003002, 22003003, 22003004, 22003006, 22003008, 22003010, and 22002011.

#### Function

Make and break under load condition and provide safety isolation of low voltage applications during 20 years.

## Material and substances

#### Declaration of the constitutive materials according to IEC 62474

Total weight including packaging: Sirco M 3x16A : 0,230 kg Sirco M 3x63A : 0,320 kg Sirco M 3x100A : 0,600 kg

#### For the Sirco M 3x16A

Metals, % weight		Plastics,	% weight	Others, % weight		
Stainless steels	20%	Thermoplastics	45,5%	Ceramics and Glass	2%	
Aluminium and its alloys	< 1%	Others	<1%	Others Inorganics	< 1%	
Copper and its alloys	3,5%			Cardboard and	28%	
Nickel and its alloys	< 1%			paper	2070	
Precious Metals	0,5%	]		Others Organics	< 1%	
Other non-ferrous metals and alloys	< 1%			·		

Sirco M 3x16A	Metals, % weight: 24%	Plastics, % weight: 45,5%	Others, % weight: 30,5%
Sirco M 3x63A	Metals, % weight: 38%	Plastics, % weight: 40%	Others, % weight: 22%
Sirco M 3x100A	Metals, % weight: 46%	Plastics, % weight: 37%	Others, % weight: 17%

The recycled content is estimated at 15 %.

## **PRODUCT ENVIRONMENTAL PROFILE**



#### Substances management

Socomec is leading a program to limit the use of hazardous substances in the design of new products and to monitor the presence of substances of concern in its supplies to anticipate future use restrictions.



ROHS directives 2002/95/EC and 2011/65/EC compliance: although the majority of Socomec products are outside the scope of the ROHS directives, a ROHS compliance process has been in progress on a voluntary basis since 2006. Product references covered by this PEP meet the requirements of the ROHS Directive on the restriction of substances such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ethers (PBDEs).

REACH 1907/2006 regulation: to the best of our knowledge at the publication date of this document, none of the substance of the candidate list to authorization (SVHC) have been found in the references covered by this PEP.



## Manufacturing

The products covered by this PEP are manufactured on a site where impacts on the environment are reduced by optimizing its energy consumption and by practicing a rigorous waste management.

Moreover, Socomec is committed to the progressive ISO 14001 certification of its manufacturing sites.

## Distribution

As part of its distribution policy aiming to respect the environment, Socomec is in favor of groupage transports and ISO14001 certified logistic partners.



The packaging complies with Directive 94/62/EC.

The sizing of the packaging has been optimized to ensure the best possible protection of the product at the lowest possible volume in order to reduce the impact of the transport stage on the environment.

## Installation

The installation stage consists in connecting the product to the existing electrical installation. The installation does not generate any significant impacts on the environment.



## Use phase

### **Power consumption**

Use phase scenario: non-continuous operation scenario during 20 years

- Load rate / rated current: 30% of In
- Percentage of utilization time: 30%

Mode	Dissipated power of the reference product (W)	Time distribution (%)			
Active	0,04	30			
Stop	0	70			

Product power consumption during its total lifespan (20 years) : 2,13 kWh Declared consumption takes into account the maximum consumption of the electronic box.

#### Care and maintenance

The product does not require any maintenance under normal conditions of use.

#### Consumables

The product does not require consumables.

## End of life

### End of life treatment

Sirco M do not contain any substances, mixtures or hazardous components within the meaning of annex VII of the directive WEEE 2012/19/EU which would require a dismantling for selective treatment of materials and components.

Sirco M can go directly into sorting and crushing sectors for valorization in accordance with local legislation.

Remark:

This product does not contain any battery.

#### Recovery potential of the product according to IEC TR 62635

The total potential value of this product is 28%. This potential value takes into account the material recycling and energy recovery.

## Environmental impacts

### Calculation methodology: life cycle assessment (LCA)



The calculation of the impacts on the environment was made using a life cycle assessment methodology in accordance with the ISO 14040 requirements and with PEP eco passport product category rules .For more details follow the link: <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>

The whole life cycle has been taken into account:

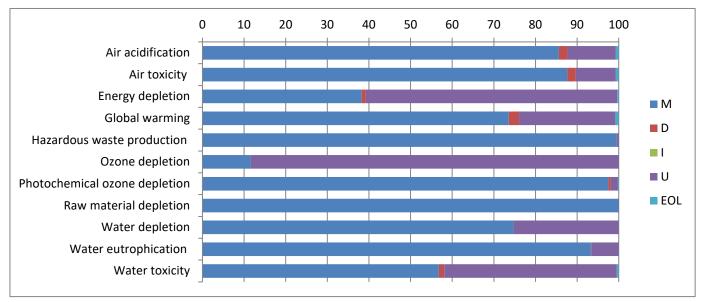
Manufacturing (M)	From the raw material extraction to the last Socomec logistic platform, including packaging.
Distribution (D)	From the last Socomec logistic platform to the final customer following an average French distribution scenario.
Installation (I)	Neglected (*)
Use phase (U)	Power consumption required to operate the product during 20 years according to consumption scenario described on page 4. Energy model considered: French
End Of Life (EOL)	Road transport over 1000 kms from the final customer to the dismantling sites.

## **PRODUCT ENVIRONMENTAL PROFILE**



Indicators	Units	М	D	I	U	EOL	Total	к	K²
Air acidification	g H+ eq	2,62E-01	6,40E-03	0*	3,55E-02	2,13E-03	3,06E-01	2,21	5,98
Air toxicity	m³	4,09E+05	9,52E+03	0*	4,49E+04	3,17E+03	4,66E+05	2,14	6,33
Energy depletion	MJ	1,83E+01	4,86E-01	0*	2,89E+01	1,62E-01	4,79E+01	6,51	18,2
Global warming	g CO² eq	1,04E+03	3,44E+01	0*	3,26E+02	1,15E+01	1,41E+03	3,17	8,23
Hazardous waste production	kg	9,88E-03	4,27E-08	0*	5,05E-05	1,42E-08	9,93E-03	1,54	6,03
Ozone depletion	g CFC-11 eq	8,69E-05	6,53E-08	0*	6,63E-04	2,18E-08	7,50E-04	8,93	25,6
Photochemical ozone depletion	g C2H4 eq	1,36E+00	7,68E-03	0*	2,47E-02	2,56E-03	1,39E+00	1,39	2,84
Raw material depletion	Y-1	7,66E-14	7,04E-19	0*	1,21E-17	2,35E-19	7,66E-14	0,27	3,17
Water depletion	dm³	1,10E+01	3,58E-03	0*	3,70E+00	1,19E-03	1,47E+01	3,29	9,25
Water eutrophication	g PO4³- eq	1,05E-01	6,40E-05	0*	7,45E-03	2,13E-05	1,13E-01	1,43	3,48
Water toxicity	m³	6,36E-01	1,47E-02	0*	4,64E-01	4,91E-03	1,12E+00	4,64	13,48

#### Sirco M 3x16A's environmental impact



To get indicators of the Sirco M 3x63 and 3x100A multiply the total column by coefficient K and K<sup>2</sup>.

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