

Product Environmental Profile



SIRCO M

Universal load break switches from 16 to 125 A



Socomec is member of :

ecosystem



Member of WEEE Europe

Gimélec



Environment and sustainable

The commitments of Socomec to respect the environment

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

- Incorporate the principles of the circular economy into the design of new products and services
- Promote longer product lifetimes
- Promote the use of environmentally responsible materials
- Design and develop solutions to further improve the energy efficiency of our products and services
- Inform our customers in a transparent manner about the environmental impact of our products throughout their life cycle.

To this end, Socomec is committed to constantly monitoring, anticipating and complying with environmental regulations as well as customer expectations relating to its products, and to ensuring that all those involved adhere to and take responsibility for its commitments.

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socomec
Innovative Power Solutions

● Manufacturing

The products covered by this PEP are manufactured on the production site of Zhejiang, China 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 ISO 14001 certified logistic partners.

No reconditionning is planned for the product. This phase is consequently neglected.

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 phase consists in connecting the product to the existing electrical installation.

The installation does not generate any significant impacts on the environment, except impacts from packaging waste.

● Use phase

Use phase was modelised according to the following scenario:

Geography: European energy mix

Load rate: 50% of 63A (In)

Use time rate: 30% of the time over 20 years (RLT)

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

Recyclability potential of the product according to IEC TR 62635

The recyclability potential of the product is 47,92%.

This covers material and energy recovery potentials.

● 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:

www.pep-ecopassport.org

This study was carried out with the following version of the software EIME and of the database:

EIME version: 6.1.2

Database version: CODDE-2023-02

For biogenic carbon storage the following methodology was used : 0/0

The whole life cycle has been taken into account:

Step	Geographical representativeness	Scenario
Manufacturing (M) (A1-A3)	Production of components and packaging : Asia Assembly : Asia	From the raw material extraction to the last Socomec logistic platform, including packaging Waste generated during manufacturing phase are taken into account.
Distribution (D) (A4)	Distribution scenario : Europe	From the last Socomec logistic platform to the final customer.
Installation (I) (A5)	Transport and treatment of packaging wastes : Local	Local road transport of 1000 km of generated wastes to the treatment site, end of life treatment.
Use phase (U) (B1-B7)	Energy mix : Europe	Power consumption required during 20 years and maintenance according to consumption scenario above mentionned.
End of life (EOL) (C1-C4)	Transport and treatment : Local	Road transport of 1000 km from the final customer to the treatment sites. End of life treatment.

Environmental impacts of the SIRCO M2 3x63A, per FU

The following impacts have been calculated to best represent geographically, temporally and technologically each step of the life cycle.

Indicators	Unit	Total impact	M (A1-A3)	D (A4)	I (A5)	U (B1-B7)	EOL (C1-C4)
Acidification	mol H+ eq.	1,60E-01	1,81E-02	3,35E-03	2,08E-04	1,38E-01	3,31E-04
Climate change - Total	kg CO2 eq.	2,65E+01	1,96E+00	9,68E-02	7,57E-02	2,42E+01	1,31E-01
Climate change - Biogenic	kg CO2 eq.	7,10E-02	3,55E-02	0*	3,15E-03	3,23E-02	0*
Climate change - Fossil	kg CO2 eq.	2,64E+01	1,93E+00	9,68E-02	7,25E-02	2,42E+01	1,31E-01
Climate change - Land use and land use transformation	kg CO2 eq.	1,93E-06	1,93E-06	0*	0*	0*	0*
Ecotoxicity, freshwater	CTUe	3,29E+02	6,68E+01	5,90E-02	8,04E-01	2,61E+02	8,72E-02
Particulate matter	disease occurrence	1,19E-06	1,02E-07	1,76E-08	1,28E-09	1,07E-06	1,35E-10
Eutrophication, freshwater	kg P eq.	7,69E-05	7,35E-06	3,31E-08	9,34E-07	6,63E-05	2,25E-06
Eutrophication, marine	kg N eq.	1,94E-02	2,56E-03	7,90E-04	1,00E-04	1,57E-02	2,24E-04
Eutrophication, terrestrial	mol N eq.	2,75E-01	2,71E-02	8,65E-03	6,55E-04	2,36E-01	2,45E-03
Human toxicity, cancer	CTUh	7,00E-07	6,90E-07	0*	7,51E-09	2,82E-09	0*
Human toxicity, non-cancer	CTUh	2,00E-07	8,75E-08	2,91E-10	2,96E-10	1,12E-07	0*
Ionising radiation, human health	kBq U235 eq.	4,35E+01	7,49E+00	0*	1,01E-02	3,60E+01	0*
Land use	No dimension	5,22E-01	3,94E-02	0*	1,82E-04	4,82E-01	0*
Ozone depletion	kg CFC-11 éq.	2,15E-07	1,08E-07	1,25E-10	8,81E-10	1,04E-07	2,22E-09
Photochemical ozone formation, human health	kg NMVOC eq.	6,43E-02	1,10E-02	2,23E-03	1,54E-04	5,04E-02	5,33E-04
Abiotic resource depletion - fossil fuels or resource depletion - fossils	MJ	6,67E+02	4,82E+01	1,22E+00	6,85E-01	6,17E+02	0*
Abiotic resource depletion - elements or resource depletion - metals and minerals	kg Sb eq.	4,07E-04	4,08E-04	0*	0*	1,75E-06	0*
Water use	m³ eq.	1,56E+00	6,63E-01	3,17E-04	5,12E-03	8,57E-01	3,10E-02
Net use of freshwater	m³	3,63E-02	1,55E-02	7,38E-06	1,19E-04	2,00E-02	7,22E-04
Total Primary Energy	MJ	7,87E+02	4,99E+01	1,22E+00	7,72E-01	7,36E+02	0*
Total use of non-renewable primary energy resources	MJ	6,67E+02	4,82E+01	1,22E+00	6,85E-01	6,17E+02	0*
Total use of renewable primary energy resources	MJ	1,20E+02	1,73E+00	0*	8,62E-02	1,19E+02	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6,62E+02	4,32E+01	1,22E+00	6,85E-01	6,17E+02	0*
Use of non renewable primary energy resources used as raw material	MJ	4,99E+00	4,99E+00	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,19E+02	1,43E-01	0*	8,62E-02	1,19E+02	0*
Use of renewable primary energy resources used as raw material	MJ	1,59E+00	1,59E+00	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of secondary material	kg	0,00E+00	0*	0*	0*	0*	0*
Hazardous waste disposed	kg	4,51E+00	4,11E+00	0*	1,66E-03	4,53E-01	0*
Non hazardous waste disposed	kg	4,17E+00	6,68E-01	2,94E-03	2,88E-02	3,49E+00	0*
Radioactive waste disposed	kg	1,14E-03	3,68E-04	2,04E-06	3,42E-06	7,29E-04	3,82E-05
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*

Exported Energy	MJ	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	6,00E-03	0*	0*	6,00E-03	0*	0*
Materials for recycling	kg	0,00E+00	0*	0*	0*	0*	0*

Biogenic carbon content in the reference product:

Biogenic carbon content of the product	kg of C	0,00E+00	0*	N/A	N/A	N/A	N/A
Biogenic carbon content of the associated packaging	kg of C	1,75E-02	1,75E-02	N/A	N/A	N/A	N/A

NB : 0* means that this impact either represents less than 0.01% of the total life cycle of the reference flow, or has no impact (in the case where the total impact is zero).

For the use stage (U), the product does not require maintenance therefore the impacts values are representatives of the B6 phase from the use stage :
"Energy requirements during the use stage"

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Verifier accreditation number : VH12		Information and reference documents : www.pep-ecopassport.org	
Date of issue: 15/03/2024		Validity period : 5 years	
Independant verification of the declaration and data in compliance with ISO 14025 : 2006			
Internal : ☒		External : ☐	
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)			
PEPs are compliant with XP C08-100-1 : 2016 or EN 50693:2019			
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"			

This document is intended to be only informative and non-contractual and does not create any right or obligation or commitment for Socomec towards its associates, customers or any other person or entity. All the values indicated in this document may change depending on many factors (use conditions, applications, installations, environment...). The life time mentioned in this document is only indicative and is not intended to be the minimal, maximal or average life time of the product.

Other references covered and extrapolation factors

For the products covered by the PEP other than the reference product, the environmental impacts of each phase of the lifecycle may be calculated with extrapolation factors following the proportionality rules that you can find below.

Extrapolation factors are determined as follows and can be provided upon request:

- For the Manufacturing and Distribution phases they are proportional to the mass of the product with its packaging;
- For the Installation phase they are proportional to the mass of the packaging;
- For the Use phase they are proportional to the power losses of the product;
- For the End of Life phase they are proportional to the mass of the product without its packaging.

Model	Reference
SIRCO M2 3x63A	22003006
SIRCO M1 3x16A	22003000
SIRCO M1 3x20A	22003001
SIRCO M1 3x25A	22003002
SIRCO M1 3x32A	22003003
SIRCO M1 3x40A	22003004
SIRCO M1 CD 3x63A	22003005
SIRCO M2 3x80A	22003008
SIRCO M2 CD 3x100A	22003009
SIRCO M3 3x100A	22003010
SIRCO M3 3x125A	22003011
SIRCO M1 3x16A TOGGLE	22053000
SIRCO M1 3x20A TOGGLE	22053001
SIRCO M1 3x25A TOGGLE	22053002
SIRCO M1 3x32A TOGGLE	22053003
SIRCO M1 3x40A TOGGLE	22053004
SIRCO M1 CD 3x63A TOGGLE	22053005
SIRCO M2 3x63A TOGGLE	22053006
SIRCO M2 3x80A TOGGLE	22053008
SIRCO M2 CD 3x100A TOGGLE	22053009