



Switch Disconnecter **Sirco AC 3x250A** (3x250A - 3x2000A)



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 energy-consuming, 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.

Socomec is member of :



Environment and Sustainable
Development commissions

■ Representative Product

Reference product

The product representative of the product family this study is based on is the Sirco AC 3x250A with commercial reference 26AC3025.

References covered by this PEP

The commercial references also covered by this study are : from 26AC3025 (3x250A) to 26AC3200 (3x2000A).

Function

Make and break under load condition and provide safety isolation of low voltage applications up to 690VAC – AC23 during 20 years.

■ Materials and substances

Material declaration according to IEC 62474

Total weight of the reference product including packaging: 1,7kg

Metals, % weight		Plastics, % weight		Others, % weight	
Stainless steels	< 1.0%	Thermoplastics	1.5%	Ceramics and Glass	< 1.0%
Other ferrous alloys, non-stainless steels	8.0%	Others	49.4%	Others non organic	< 1.0%
Zinc and its alloys	3.0%			Packaging Cardboard and paper	8.5%
Copper and its alloys	27.0%				
Other non-ferrous metals and alloys	< 1.0%				

The mass of the products covered by this PEP ranges from 1.7 kg to 45 kg.
The recycled content is estimated at 17%.

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.

Packaging design solutions favors mono-material recyclable cardboard without colouring or bleaching. The wedging of the packaged product is made of recycled cardboard, no polystyrene is used.

■ Installation

The installation stage consists in connecting the product to the existing electrical installation. The installation stage do 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 I_n
- Percentage of utilization time : 30%

Mode	Consumption of the reference product (W)	Time distribution (%)
Active	1.6	30
Stop	0	70

The energy consumed in the life of the product is 82,3 kWh.

Care and Maintenance

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

■ End of life

End of life treatment

SIRCO references covered by this PEP do not contain hazardous components as defined in the Waste Directive 2008/98/EC.

Recovery potential of the product according to IEC TR 62635

The recovery potential of the product is 39%. 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

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 3. Energy model considered: French
End Of Life (EOL)	Road transport from the final customer to the dismantling, material and energy recovery sites. Recovery processes.

The study was carried out with the version 5.2 of the software EIME with version database Codde_2013_02. The software is distributed by CODDE which is a subsidiary of BUREAU VERITAS.

Indicators

Indicators	Units	Total	M	D	I	U	EOL	Extrapolation				
								K0	K1	K2	K3	K4
Air acidification	g H+ eq	4,13E+00	2,72E+00	2,37E-02	0,00E+00	1,37E+00	1,25E-02	2,15	5,37	11,68	16,05	34,49
Air toxicity	m ³	7,28E+06	5,49E+06	3,52E+04	0,00E+00	1,74E+06	2,08E+04	2,40	6,07	11,82	18,35	47,30
Energy depletion	MJ	1,37E+03	2,49E+02	1,79E+00	0,00E+00	1,12E+03	1,41E+00	1,88	5,82	17,96	20,62	26,91
Global warming	g CO ₂ eq,	1,85E+04	5,66E+03	1,27E+02	0,00E+00	1,26E+04	7,57E+01	1,79	5,20	15,49	18,14	24,95
Hazardous waste production	kg	4,29E-01	4,26E-01	1,58E-07	0,00E+00	1,95E-03	8,25E-04	2,09	4,41	6,40	11,17	34,21
Ozone depletion	g CFC-11 eq,	2,66E-02	1,01E-03	2,41E-07	0,00E+00	2,56E-02	1,06E-05	1,87	6,25	20,42	23,48	30,04
Photochemical ozone creation	g C ₂ H ₄ eq,	4,70E+00	3,69E+00	2,84E-02	0,00E+00	9,53E-01	3,12E-02	1,92	4,01	7,71	9,22	16,36
Raw material depletion	Y-1	4,95E-14	4,90E-14	2,60E-18	0,00E+00	4,70E-16	1,59E-18	2,10	4,58	6,85	13,48	33,04
Water depletion	dm ³	2,53E+02	1,10E+02	1,32E-02	0,00E+00	1,43E+02	1,68E-01	2,04	5,74	15,03	19,23	34,67
Water eutrophication	g PO ₄ eq,	1,14E+00	8,55E-01	2,37E-04	0,00E+00	2,88E-01	3,26E-04	1,76	3,89	8,34	10,65	20,37
Water toxicity	m ³	2,04E+01	2,36E+00	5,44E-02	0,00E+00	1,80E+01	2,03E-02	1,88	6,07	19,20	22,36	30,06

The table above shows the 11 environmental impacts of the reference product.

To calculate the indicators of references 26AC3040, 26AC3080, 26AC3160, 26AC3200 and 26AC3400, multiply the result by the total column respectively by the coefficients K0, K1, K2, K3 or K4.

For products other than the reference product that are not covered by the extrapolation coefficients, environmental impacts are generally proportional to the mass of the product.

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