Product Environmental Profile

Changeover switches

ATyS d M, t M, g M, p M

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 :

créer CLUSTER RESEARCH : EXCELLENCE IN ECODESIGN & RECYCLING

THE GLOBAL COMPACT

Gimélec

Environment and sustainable development commissions

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socomec
Innovative Power Solutions

Representative product

Reference product
The representative product is the ATyS p M with sales reference 93644006.

References covered by this PEP
The ATyS d M with sales references 932340XX the ATyS t M with sales references 934440XX the ATyS g M with sales references 935440XX and the ATyS p M with sales references 936440XX.

Function
Perform the on load transfer of two three-phase supplies via remote volt-free contacts during 20 years.

Material and substances

Declaration of the constitutive materials according to IEC 62474
Total weight including packaging: ATyS d M : 4,133 kg
ATyS t M : 4,050 kg
ATyS g M : 4,050 kg
ATyS p M : 4,110 kg

For the ATyS p M

Metals, % weight		**Plastics, % weight**		**Others, % weight**	
Stainless steels	33%	Thermoplastics	30%	Ceramics and Glass	1%
Aluminium and its alloys	0,5%	Others	< 1%	Others Inorganics	1,5%
Copper and its alloys	15%			Cardboard and paper	15%
Nickel and its alloys	<1%				
Precious Metals	<1%			Others Organics	<1%
Other non-ferrous metals and alloys	< 1%				

ATyS d M	**Métaux, % masse** : 50%	**Plastiques, % masse** : 31%	**Autres, % masse** : 19%
ATyS t M	**Métaux, % masse** : 50%	**Plastiques, % masse** : 31%	**Autres, % masse** : 19%
ATyS g M	**Métaux, % masse** : 50%	**Plastiques, % masse** : 31%	**Autres, % masse** : 19%

The recycled content is estimated at 18,6 %.

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 coloring 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 do not generate any significant impacts on the environment.

Use phase

Power consumption
Use phase scenario : continous operation scenario during 20 years

- Load rate / rated current : 30% of In

- Percentage of utilization time : 100%

Mode	Power consumption of the reference product (W)	Time distribution (%)
Active	3,124W	99,999%
Switch	4600W	0,001

Power consumption of the total life of the product (for 20 years) : 555kWh
Declared consumption takes into account the maximum consumption of the electronic box.

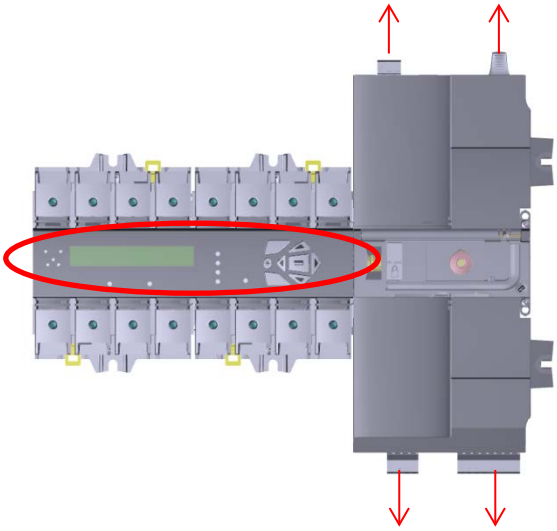
Care and maintenance
The product does not require any maintenance under normal conditions of use.

Consumables
The product does not require consumables.

End of life

End of life treatment

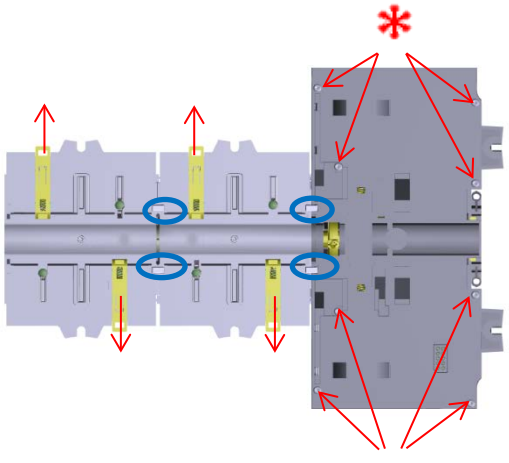
1) Put off connectors and covers. Discrew the electronic card.



2) Remove bolts in the backward *, remove the joint bars ○
Discrew the electronic card.

3) Remove the springs and the yellow rails clip. Discrew the bolts below them.

Head all of the parts towards the appropriate recycling industry according to the legislation.



Remarque :
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 49,5%.
This potential value takes into account the material recycling and energy recovery.

Environmental impacts

Calculation methodology : life cycle assessment (LCA)

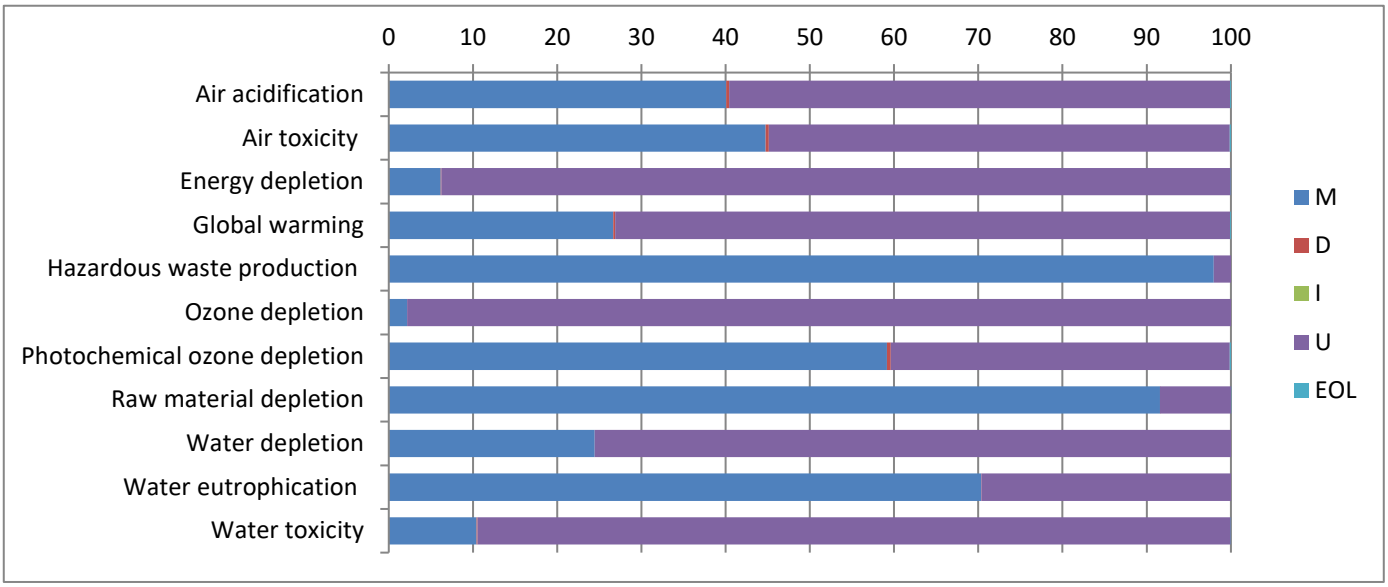
The calculation of the impacts on the environment was made using a life cycle assessment methodology in accordance with the ISO 14040 requirements and with PEP eco passport product category rules .For more details follow the link: www.pep-ecopassport.org

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 4. Energy model considered: French
End Of Life (EOL)	Road transport over 1000 kms from the final customer to the dismantling sites.

ATyS p M's environmental impact

Indicators	Units	M	D	I	U	EOL	Total	K	K_2	K_3
Air acidification	g H+ eq	1,27E+01	1,14E-01	0*	9,27E+00	3,81E-02	2,21E+01	0,81	0,88	0,88
Air toxicity	m^3	1,95E+07	1,70E+05	0*	1,17E+07	5,67E+04	3,14E+07	0,85	0,92	0,92
Energy depletion	MJ	1,01E+03	8,68E+00	0*	7,55E+03	2,89E+00	8,57E+03	0,87	0,98	0,98
Global warming	g CO^2 eq	6,32E+04	6,15E+02	0*	8,52E+04	2,05E+02	1,49E+05	0,81	0,89	0,89
Hazardous waste production	kg	1,30E+00	7,62E-07	0*	1,32E-02	2,54E-07	1,31E+00	0,81	0,85	0,85
Ozone depletion	g CFC-11 eq	7,79E-03	1,17E-06	0*	1,73E-01	3,89E-07	1,81E-01	0,88	1	1
Photochemical ozone depletion	g C2H4 eq	1,92E+01	1,37E-01	0*	6,43E+00	4,58E-02	2,58E+01	0,89	0,94	0,94
Raw material depletion	Y-1	7,01E-14	1,26E-17	0*	3,17E-15	4,19E-18	7,33E-14	0,83	0,99	0,99
Water depletion	dm^3	6,36E+02	6,39E-02	0*	9,66E+02	2,13E-02	1,60E+03	0,84	0,93	0,93
Water eutrophication	g $PO4^{3-}$ eq	9,37E+00	1,14E-03	0*	1,94E+00	3,81E-04	1,13E+01	0,95	0,98	0,98
Water toxicity	m^3	2,88E+01	2,63E-01	0*	1,21E+02	8,77E-02	1,50E+02	0,89	0,99	0,99



To get indicators of the ATyS d M, t M and g M multiply the total column by coefficient K, K_2 et K_3

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