



## ATyS pM 4p 160A



### 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 ecofriendly 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 :



## ■ Product information

### Reference product

The representative product is the ATyS pM 160A with sales reference 93844016

### Functional unit

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

### Product category

Passive product according to PSR-0005-ed.2-FR-2016 03 29 - §3.13

## ■ Material and substances

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

Total mass of the reference product (including packaging): 4,30 kg (packaging: 0,834 kg and electronic components: 0,506 kg)

The packaging is composed of cardboard and paper

### For the ATyS pM 160A

| Metals, 50,4% weight                       |       | Plastics, 22,1% weight    |       | Others, 27,5% weight       |       |
|--|-------|---------------------------|-------|----------------------------|-------|
| Other Ferrous alloys, non-stainless steels | 22,5% | Others Thermoplastics     | 18,8% | Others Organic Materials   | 23,5% |
| Other non-ferrous metals and alloys        | 12,6% | Other Plastics and Rubber | 3,3%  | Others Inorganic Materials | 2,6%  |
| Copper and its alloys                      | 11,8% |                           |       | Ceramics and Glass         | 1,4%  |
| Precious Metals                            | 2,4%  |                           |       |                            |       |
| Zinc and its alloys                        | 0,5%  |                           |       |                            |       |
| Stainless steel                            | 0,4%  |                           |       |                            |       |
| Aluminium and its alloys                   | <0,1% |                           |       |                            |       |
| Nickel and its alloys                      | <0,1% |                           |       |                            |       |

The estimated content of recycled materials is 14,8%, based on a Life Cycle Analysis model with EIME software.

### 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.



Directive 2011/65/EU : 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), polybrominated diphenyl ethers (PBDEs) and phthalates (DIBP, DEHP, BBP, DBP).



To the best of our knowledge, based on the supplier declarations, at the publication date of this document, the product do not contain any other SVHC in a concentration above 0,1% per weight.

## ■ 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.  
No reconditioning is needed for this product.

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

## ■ Use phase

### Consumption scenario

Use phase scenario: European energy mix

| Mode   | Power consumption of the reference product (W) | Load rate (%) | Time distribution (%) |
|--------|--|---------------|-----------------------|
| Active | 5,43   | 30            | 100                   |

Product power consumption during its total lifespan (20 years): 475,8 kWh

### 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

The ATyS pM contains components that need to be dismantled and oriented towards specific sectors according to the Waste Directive 2008/98/EC : electronic boards.

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

The total potential value of this product is 45,5%.  
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](http://www.pep-ecopassport.org)  
 This study was carried out with the version 5.9.3 of the software EIME with version database CODDE\_2022\_01. The software is distributed by CODDE which is a subsidiary of Bureau Veritas.

This product follows the rules defined in the PSR-0005-ed.2-FR-2016 03 29.

The whole life cycle has been taken into account:


| Step                     | Geographical representativeness   | Scenario  |
|--------------------------|---|---|
| <b>Manufacturing (M)</b> | Production of electronic components : Asia<br>Production of other components and packaging : Europe<br>Assembly : Tunisia | From the raw material extraction to the last Socomec logistic platform, including packaging<br>Waste generated during manufacturing phase are taken into account. |
| <b>Distribution (D)</b>  | Distribution scenario : Europe  | From the last Socomec logistic platform to the final customer. No product reconditioning.   |
| <b>Installation (I)</b>  | Transport and treatment of packaging wastes : Local   | Local road transport of 1000 km of generated wastes to the treatment site, and landfilling  |
| <b>Use phase (U)</b>     | Energy mix : Europe   | Power consumption required during 20 years and maintenance according to consumption scenario described on page 3.   |
| <b>End Of Life (EOL)</b> | Transport and treatment : Local   | Road transport of 1000 km from the final customer to the treatment sites.<br>End of life treatment.   |

## Environmental impacts of the ATyS pM 160A

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

| Indicators  | Unit                                    | Total impact | M        | D        | I        | U        | EOL      |
|---|---|--------------|----------|----------|----------|----------|----------|
| Contribution to global warming                                    | kg CO <sub>2</sub> eq.                  | 7,60E+02     | 5,64E+01 | 2,18E+00 | 1,83E-01 | 4,66E+02 | 2,35E+02 |
| Contribution to ozone layer depletion                             | kg CFC-11 eq.                           | 4,90E-05     | 8,71E-06 | 0*       | 0*       | 3,04E-05 | 9,89E-06 |
| Contribution to the soil and water acidification                  | kg SO <sub>2</sub> eq.                  | 2,90E+00     | 1,64E-01 | 9,79E-03 | 7,54E-04 | 1,94E+00 | 7,80E-01 |
| Contribution to water eutrophication                              | kg (PO <sub>4</sub> ) <sup>3-</sup> eq. | 1,71E+00     | 2,62E-02 | 2,25E-03 | 5,20E-04 | 1,17E-01 | 1,57E+00 |
| Contribution to photochemical ozone formation                     | kg C <sub>2</sub> H <sub>4</sub> eq.    | 1,88E-01     | 1,45E-02 | 6,96E-04 | 5,62E-05 | 1,07E-01 | 6,61E-02 |
| Contribution to the depletion of abiotic resources - elements     | kg Sb eq.                               | 1,01E-02     | 1,00E-02 | 0*       | 0*       | 4,05E-05 | 1,92E-05 |
| Contribution to the depletion of abiotic resources - fossil fuels | MJ                                      | 7,41E+03     | 5,18E+02 | 3,06E+01 | 2,14E+00 | 5,29E+03 | 1,57E+03 |
| Contribution to water pollution                                   | m <sup>3</sup>                          | 4,38E+04     | 6,21E+03 | 3,58E+02 | 2,50E+01 | 1,92E+04 | 1,80E+04 |
| Contribution to air pollution                                     | m <sup>3</sup>                          | 7,01E+04     | 9,29E+03 | 8,93E+01 | 1,53E+01 | 2,01E+04 | 4,07E+04 |
| Use of renewable primary energy (excl. raw materials)             | MJ                                      | 1,30E+03     | 7,24E+00 | 0*       | 0*       | 1,18E+03 | 1,07E+02 |
| Use of renewable primary energy used as raw materials             | MJ                                      | 1,67E+01     | 1,67E+01 | 0*       | 0*       | 0*       | 0*       |
| Total use of renewable primary energy resources                   | MJ                                      | 1,31E+03     | 2,40E+01 | 0*       | 0*       | 1,18E+03 | 1,07E+02 |
| Use of non-renewable primary energy (excl. raw materials)         | MJ                                      | 1,09E+04     | 8,33E+02 | 3,08E+01 | 2,24E+00 | 8,13E+03 | 1,92E+03 |
| Use of non-renewable primary energy used as raw materials         | MJ                                      | 2,94E+01     | 2,94E+01 | 0*       | 0*       | 0*       | 0*       |
| Total use of non-renewable primary energy resources               | MJ                                      | 1,09E+04     | 8,63E+02 | 3,08E+01 | 2,24E+00 | 8,13E+03 | 1,92E+03 |
| Use of secondary materials  | kg                                      | 6,70E-01     | 6,70E-01 | 0*       | 0*       | 0*       | 0*       |
| Use of renewable secondary fuels                                  | MJ                                      | 0*           | 0*       | 0*       | 0*       | 0*       | 0*       |
| Use of non-renewable secondary fuels                              | MJ                                      | 0*           | 0*       | 0*       | 0*       | 0*       | 0*       |
| Net use of fresh water  | m <sup>3</sup>                          | 1,69E+03     | 3,42E+00 | 0*       | 0*       | 1,69E+03 | 3,38E-01 |
| Hazardous waste disposed of                                       | kg                                      | 5,67E+01     | 5,47E+01 | 0*       | 0*       | 2,43E-01 | 1,77E+00 |
| Non-hazardous waste disposed of                                   | kg                                      | 5,50E+03     | 3,76E+01 | 0*       | 9,35E-01 | 1,74E+03 | 3,72E+03 |
| Radioactive waste disposed of                                     | kg                                      | 1,32E+00     | 3,92E-02 | 0*       | 0*       | 1,16E+00 | 1,24E-01 |
| Components for reuse  | kg                                      | 0*           | 0*       | 0*       | 0*       | 0*       | 0*       |
| Materials for recycling   | kg                                      | 0*           | 0*       | 0*       | 0*       | 0*       | 0*       |
| Materials for energy recovery                                     | kg                                      | 0*           | 0*       | 0*       | 0*       | 0*       | 0*       |
| Exported energy   | MJ by energy vector                     | 0*           | 0*       | 0*       | 0*       | 0*       | 0*       |
| Total use of primary energy during the life cycle                 | MJ                                      | 1,23E+04     | 8,87E+02 | 3,08E+01 | 2,26E+00 | 9,31E+03 | 2,02E+03 |

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).

|   |  |   |  |
|---|--|---|--|
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| Verifier accreditation number : <b>VH46</b>   |  | Information and reference documents : <b>www.pep-ecopassport.org</b>                                    |  |
| Date of issue : <b>06/2022</b>  |  | Validity period : <b>5 years</b>  |  |
| <b>Independant verification of the declaration and data, in compliance with ISO 14025 : 2010</b>                            |  |   |  |
| <b>Internal</b> : <input checked="" type="checkbox"/>   |  | <b>External</b> : <input type="checkbox"/>  |  |
| The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)                                     |  |                      |  |
| PEP are compliant with XP C08-100-1 : 2016  |  |   |  |
| The elements of the present PEP cannot be compared with elements from another program                                       |  |   |  |
| Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations » |  |   |  |

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