

Product Environmental Profile



MODULYS XS MC

Uninterruptible Power Supply from 2,5 to 20 kVA / kW



Socomec is member of :



Member of WEEE Europe



Environment and sustainable development commissions



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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SOCOMECA S.A.S

Head office : 1, rue de Westhouse – F – B.P.60010 – 67235 Benfeld Cedex
Tél : 03 88 57 41 41 – Fax : 03 88 57 78 78 – www.socomec.com
Contact : http://www.socomec.com/contact-us_en.html

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Innovative Power Solutions

PRODUCT ENVIRONMENTAL PROFILE

• Product information :

| Reference product | |
|--------------------------------|--|
| Model | MODULYS XS MC9 |
| Sales reference | MOD3-SY-MC9 |
| Description | Uninterruptible Power Supply from 2,5 to 20 kVA / kW |
| General data | |
| UPS Configuration | Single |
| UPS topology | Double conversion |
| UPS Performance classification | VFI-SS-11 |
| Number of phases available | Three phase |
| Power [W] | 20000 |
| Apparent power [VA] | 20000 |
| Acoustic noise [dB] | <52,5dBA |
| Efficiency | |
| Weighted UPS efficiency [%] | 91,45% |
| Weight & dimensions | |
| Dimensions W*D*H [mm] | 550x635x1460 |
| Mass without packaging [kg] | 120,03 |
| Mass of the packaging [kg] | 17,97 |

The UPS is not equipped with an energy storage system.

Functional unit :

To ensure the supply of power to remain within specified characteristics to equipment with load of 100 watts for a RSL of 1 years.

Declared unit :

To ensure the supply of power to remain within specified characteristics to equipment with load of 20000 watts for a RSL of 15 years.

Mathematic relation between DU (declared unit) and FU (functional unit) mentionned in PSR-0010-ed2.0-EN 2023 12 08

References covered by this PEP with extrapolation rules:

- MODULYS XS MC9 with sales references: MOD3-SY-MC9; MOD3-SY-MC9E
- MODULYS XS MC6 with sales references: MOD3-SY-MC6; MOD3-SY-MC6E

Characteristics of the covered references:

| Model | Power [W] | Weighted UPS efficiency [%] | Product mass [kg] | Packaging mass [kg] |
|----------------|-----------|-----------------------------|-------------------|---------------------|
| MODULYS XS MC9 | 20000 | 91,45% | 120 | 18 |
| MODULYS XS MC6 | 20000 | 91,45% | 90 | 18 |

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• Materials and substances

Declaration of the constitutive materials

Total mass of the MODULYS XS MC9 (including packaging): 138 kg among which packaging: 17,97 kg

For the reference product:

| Plastics as % of weight | | Metals as % of weight | | Other as % of weight | |
|---------------------------------|-------|--------------------------|--------------------------------|-----------------------|-------------------------------|
| PVC | 3,88% | Steel | 66,93% | Wood | 7,87% |
| PET | 1,09% | Aluminium and its alloys | 7,20% | Cardboard | 4,14% |
| Polyamide | 0,81% | Copper and its alloys | 4,71% | Electronic components | 0,95% |
| PC | 0,51% | Other ferrous alloys | 0,13% | Miscellaneous | 0,15% |
| Polyester | 0,23% | Tin and its alloys | <0,1% | Other inorganics | <0,1% |
| PE | 0,14% | Precious metals | <0,1% | Paper | <0,1% |
| Phenolic resin | <0,1% | Nickel and its alloys | <0,1% | | |
| | | Zinc and its alloys | <0,1% | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Other plastics | 1,11% | | | | |
| Total Plastics: 10,73 kg | | 7,78% | Total Metals: 109,09 kg | 79,05% | Total Others: 18,17 kg |
| | | | | | 13,17% |

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.



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).



REACH 1907/2006 regulation: 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 the production site of Isola Vincentina, Italy whose environmental management system has been ISO 14001 certified. Impacts on the environment are reduced by optimizing its energy consumption and by practicing a rigorous waste management.

• 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.

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• 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

Consumption scenario

Use phase scenario: European energy mix

| | | | | |
|------------------------------|-----|-----|-----|------|
| Load (%) | 25% | 50% | 75% | 100% |
| Proportion of time spent (%) | 25% | 50% | 25% | 0% |

Total energy consumption during 15 years

| | |
|----------------------------------|------------|
| Total average energy consumption | 106763 kWh |
| Average UPS efficiency | 91,45% |

Care and maintenance

It is recommended to carry out periodic specialized maintenance in order to keep the equipment at the maximum level of efficiency and to avoid the installation being out of service with possible damage/risks.

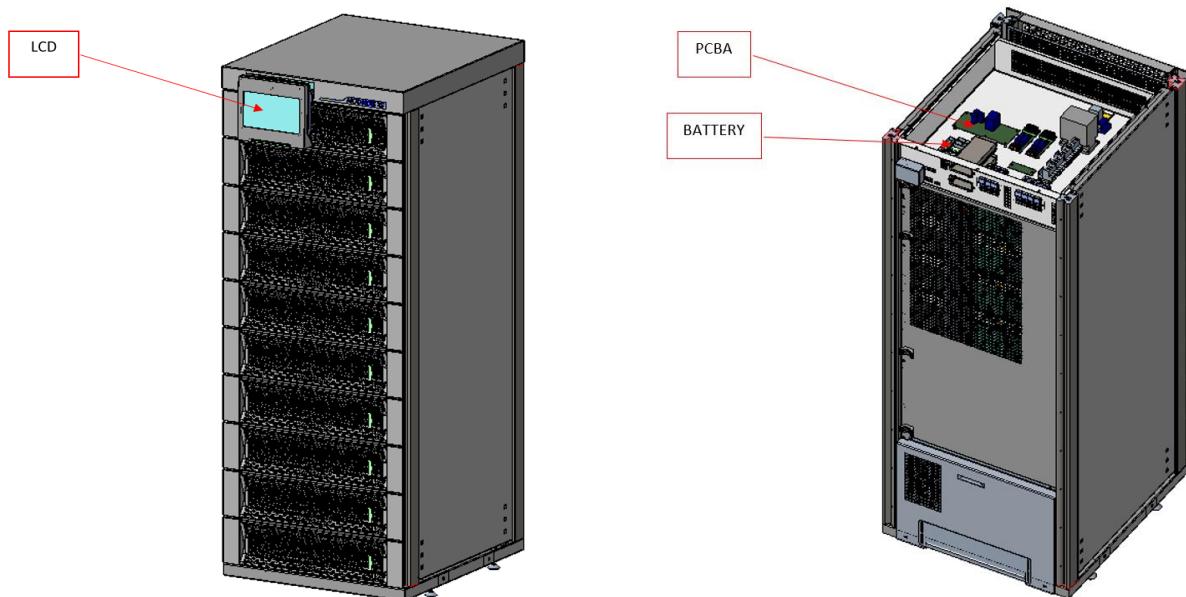
Typical consumables which are subjects to maintenance during the reference life time of 15 years:

| | |
|-----------------------|------|
| Consumables | Fans |
| Number of replacement | 1 |

• End of life

End of life treatment

The following parts require specific care and selective treatment in accordance with Annex VII of the WEEE Directive 2012/19/EU: Waste of electrical and electronic equipment. Maintenance and disassembly should always be conducted by qualified personnel.



| Type | Component |
|---|--------------|
| Potential security hazard for operators | LCD Screen |
| | Coin battery |
| Necessity of a selective treatment | LCD Screen |
| | PCBA |
| | Coin battery |

PRODUCT ENVIRONMENTAL PROFILE

Recyclability potential of the product according to IEC TR 62635

The recyclability potential of the product is 77,21%.

This covers material and energy recovery potentials.

• Additional information



This environmental declaration lists the information required in Annex A and B of IEC 62040-4 (Edition 1.0 2013-04) and EN 62040-4:2013 (2014-03).

• 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: EIME v6.3.0.1

Database version: CODDE-2025-04

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 electronic components : Europe Production of other components and packaging : Europe Assembly : Italy | 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. No product reconditionning. |
| 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 Production of maintenance components: analog to manufacturing phase | Power consumption required during 15 years according to consumption scenario above mentioned. |
| 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. |

PRODUCT ENVIRONMENTAL PROFILE

Environmental impacts of the MODULYS XS MC9 per functional unit (power of 100W and a lifespan of 1 year)

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) |
|---|--------------------|--------------|-----------|----------|----------|-----------|-------------|
| Climate change | kg CO2 eq. | 1,48E+01 | 3,31E-01 | 1,02E-02 | 1,17E-02 | 1,44E+01 | 1,21E-02 |
| Climate change-Biogenic | kg CO2 eq. | 3,23E-01 | 0* | 0* | 8,20E-03 | 3,18E-01 | 0* |
| Climate change-Fossil | kg CO2 eq. | 1,45E+01 | 3,35E-01 | 1,02E-02 | 3,53E-03 | 1,41E+01 | 1,21E-02 |
| Climate change-Land use and land use change | kg CO2 eq. | 4,86E-07 | 4,67E-07 | 1,54E-08 | 5,88E-10 | 2,49E-09 | 6,42E-10 |
| Ozone depletion | kg CFC-11 eq. | 8,76E-08 | 2,16E-08 | 1,24E-10 | 7,75E-11 | 6,56E-08 | 1,85E-10 |
| Acidification | mol H+ eq. | 7,81E-02 | 2,54E-03 | 1,63E-05 | 1,35E-05 | 7,56E-02 | 0* |
| Eutrophication, freshwater | kg P eq. | 3,58E-05 | 1,15E-06 | 3,82E-08 | 3,15E-08 | 3,46E-05 | 1,83E-08 |
| Eutrophication, marine | kg N eq. | 9,19E-03 | 3,45E-04 | 2,99E-06 | 4,34E-06 | 8,84E-03 | 1,07E-06 |
| Eutrophication, terrestrial | mol N eq. | 1,45E-01 | 3,83E-03 | 3,28E-05 | 4,15E-05 | 1,42E-01 | 0* |
| Photochemical ozone formation - human health | kg NMVOC eq. | 2,92E-02 | 1,17E-03 | 1,05E-05 | 9,20E-06 | 2,80E-02 | 5,65E-06 |
| Resource use, minerals and metals | kg SB eq. | 2,41E-05 | 1,54E-05 | 3,64E-09 | 0* | 8,72E-06 | 0* |
| Resource use, fossils | MJ | 3,62E+02 | 1,58E+01 | 1,82E-01 | 4,83E-02 | 3,46E+02 | 0* |
| Water use | m3 eq. | 1,25E+00 | 1,43E-01 | 3,67E-04 | 2,68E-04 | 1,10E+00 | 4,38E-04 |
| Particulate matter | Disease occurrence | 6,13E-07 | 1,55E-08 | 1,39E-10 | 8,73E-11 | 5,97E-07 | 0* |
| Ionising radiation, human health | kBq U235 eq. | 1,89E+01 | 1,13E-01 | 0* | 0* | 1,88E+01 | 0* |
| Ecotoxicity, freshwater | CTUe | 3,23E+01 | 1,02E+01 | 2,97E-01 | 6,65E-02 | 2,17E+01 | 2,12E-02 |
| Human toxicity, cancer | CTUh | 4,51E-08 | 3,64E-09 | 0* | 2,26E-10 | 4,12E-08 | 0* |
| Human toxicity, non-cancer | CTUh | 5,39E-08 | 1,03E-08 | 3,81E-11 | 1,57E-11 | 4,36E-08 | 1,79E-11 |
| Land use | No dimension | 3,88E-01 | 6,50E-03 | 4,36E-05 | 0* | 3,81E-01 | 0* |
| Renewable primary energy used as energy | MJ | 8,11E+01 | 2,31E-01 | 0* | 2,13E-02 | 8,08E+01 | 0* |
| Renewable primary energy used as raw material | MJ | 1,46E-01 | 1,46E-01 | 0* | 0* | 0* | 0* |
| Total renewable primary energy | MJ | 8,12E+01 | 3,77E-01 | 0* | 2,13E-02 | 8,08E+01 | 0* |
| Non renewable primary energy used as energy | MJ | 3,61E+02 | 1,57E+01 | 1,82E-01 | 4,83E-02 | 3,46E+02 | 0* |
| Non renewable primary energy used as raw material | MJ | 1,49E-01 | 1,36E-01 | 0* | 0* | 1,28E-02 | 0* |
| Total non renewable primary energy | MJ | 3,62E+02 | 1,58E+01 | 1,82E-01 | 4,83E-02 | 3,46E+02 | 0* |
| Total primary energy | MJ | 4,43E+02 | 1,62E+01 | 1,82E-01 | 6,96E-02 | 4,26E+02 | 0* |
| Use of secondary material | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Use of renewable secondary fuels | MJ | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Use of non renewable secondary fuels | MJ | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Net use of fresh water | m3 | 2,91E-02 | 3,32E-03 | 8,55E-06 | 1,58E-05 | 2,57E-02 | 0* |
| Hazardous waste disposed | kg | 1,23E+00 | 5,14E-01 | 0* | 1,21E-03 | 7,18E-01 | 0* |
| Non hazardous waste disposed | kg | 2,35E+00 | 1,41E-01 | 9,45E-04 | 7,76E-04 | 2,21E+00 | 0* |
| Radioactive waste disposed | kg | 6,46E-04 | 1,07E-04 | 7,49E-07 | 2,26E-07 | 5,38E-04 | 7,42E-08 |
| Components for reuse | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for recycling | kg | 2,91E-03 | 1,57E-05 | 0* | 2,90E-03 | 0* | 0* |
| Materials for energy recovery | kg | 3,09E-03 | 0* | 0* | 3,09E-03 | 0* | 0* |
| Exported Energy | MJ | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Biogenic carbon content - Product | kg of C | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Biogenic carbon content - Packaging | kg of C | 2,23E-03 | 2,23E-03 | 0* | 0* | 0* | 0* |

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).

PRODUCT ENVIRONMENTAL PROFILE

The aforementioned impacts are declared for the functional unit of the reference product.

The environmental impacts of the reference product per declared unit can be calculated by multiplying the values of the environmental indicators by the factor available in the following table.

| | |
|------------------|----------------------|
| Life cycle phase | All life cycle phase |
| Factor | 3000 |

| | |
|--|--|
| Registration number : SOCO-00036-V02.01-EN | Drafting Rules : "PEP-PCR-ed4-EN 2021 09 06" Supplemented by : "PSR-0010-ed2.0-EN 2023 12 08" |
| Verifier accreditation number : VH12 | Information and reference documents : www.pep-ecopassport.org |
| Date of issue: 09-2025 | Validity period : 5 years |
| Independant verification of the declaration and data, in compliance with ISO 14025 : 2006 | |
| Internal : <input checked="" type="checkbox"/> External : <input type="checkbox"/> |  |
| The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDomain) 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" | |

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Other covered references

For the products covered by the PEP other than the reference product, the environmental impacts of each phase of the lifecycle are calculated by multiplying the declared unit impacts values with the following extrapolation factors:

| Model | M (A1-A3) | D (A4) | I (A5) | U (B1-B7) | EOL (C1-C4) |
|----------------|-----------|--------|--------|-----------|-------------|
| MODULYS XS MC9 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |
| MODULYS XS MC6 | 0,78 | 0,78 | 1,00 | 1,00 | 0,75 |