# Product Environmental Profile

**Miluz Switch**

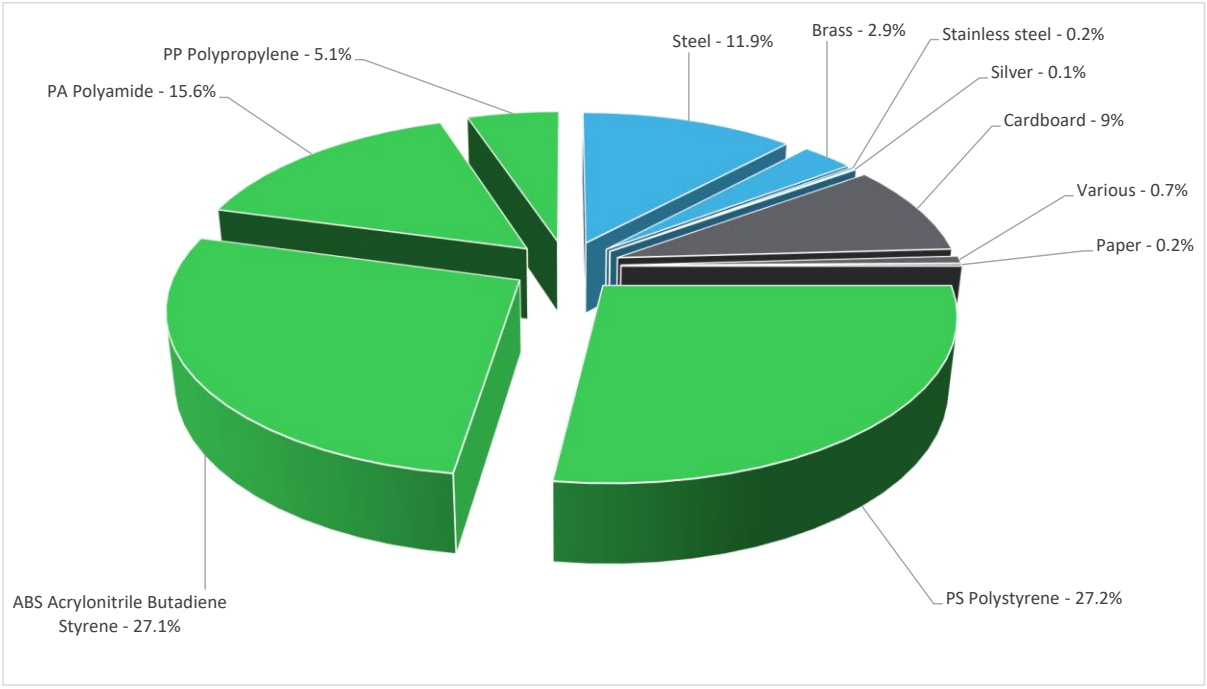
**as referent product for :**
**All Switch in Miluz Range**

## General information

| | |
|---|---|
| **Reference product** | Miluz Switch - S3B62010 |
| **Description of the product** | The main purpose of the MILUZ P1 SW 10A screw white is to provide solution for infrastructures for light management on the residential standard segment. |
| **Description of the range** | The indicators values of this Miluz Single Pole One Way Switch can be extrapolated, based on the Mass and Energy values of the products, for other Miluz Switch range of products ( whatever the earth type / finsihing / colours / accesories included or not / ...).<br>The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology. |
| **Functional unit** | Establish, support and interrupt for 20 years rated currents in normal conditions of circuit characterized by the rated current [In] 10A, for the rated operational voltage [Ue] 250V for a specified time with IP2X in accordance with the standard IEC 60529 and IK04 protection Degree of protection against external mechanical impacts in accordance with the standard IEC 62262.<br>The product is in Compliance with IEC 60669-1 standard. |

## Constituent materials

| | | |
|---|---|---|
| **Reference product mass** | 60.5 g | including the product and its packaging |




| | | |
|---|---|---|
| | Plastics | 75.0% |
| | Metals | 15.1% |
| | Others | 9.9% |

## Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website
https://www.se.com/ww/en/work/support/green-premium/

## Additional environmental information

| | | | |
|---|---|---|---|
| **End Of Life** | Recyclability potential: | **17%** | Recyclability rate has been calculated based on REEECY'LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability). |

# Environmental impacts

| | |
|---|---|
| **Reference service life time** | 20 years |
| **Product category** | Switches |
| **Installation elements** | This product does not require any special componets during installation |
| **Use scenario** | Full load is 0.35 W power loses. The product is used 30% of the time ( see PSR ) with a power use of 0.0875 W for 20 years. |
| **Technological representativeness** | The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production. |
| **Geographical representativeness** | Brazil |

| **Energy model used** | [A1 - A3] | [A5] | [B6] | [C1 - C4] |
|---|---|---|---|---|
| | Electricity Mix; Production mix; Low voltage; BR | Electricity Mix; Production mix; Low voltage; BR | Electricity Mix; Production mix; Low voltage; BR | Electricity Mix; Production mix; Low voltage; BR |

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

| **Mandatory Indicators** | | **Miluz Switch - S3B62010** | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Impact indicators** | **Unit** | **Total** | **Manufacturing [A1 - A3]** | **Distribution [A4]** | **Installation [A5]** | **Use [B1 - B7]** | **End of Life [C1 - C4]** | **Benefits [D]** |
| Contribution to climate change | kg CO2 eq | 1.34E+00 | 2.87E-01 | 1.01E-01 | 1.08E-02 | 8.84E-01 | 5.79E-02 | -4.93E-02 |
| Contribution to climate change-fossil | kg CO2 eq | 1.33E+00 | 2.81E-01 | 1.01E-01 | 1.03E-02 | 8.83E-01 | 5.79E-02 | -4.92E-02 |
| Contribution to climate change-biogenic | kg CO2 eq | 7.43E-03 | 5.57E-03 | 0* | 4.69E-04 | 1.39E-03 | 0* | -1.48E-04 |
| Contribution to climate change-land use and land use change | kg CO2 eq | 1.66E-08 | 0* | 0* | 1.66E-08 | 0* | 0* | 0.00E+00 |
| Contribution to ozone depletion | kg CFC-11 eq | 1.04E-07 | 1.05E-08 | 8.90E-08 | 7.88E-10 | 3.20E-09 | 4.31E-10 | -9.19E-09 |
| Contribution to acidification | mol H+ eq | 8.64E-03 | 1.26E-03 | 4.38E-04 | 4.38E-05 | 6.79E-03 | 1.13E-04 | -2.76E-04 |
| Contribution to eutrophication, freshwater | kg $(PO4)^{3-}$ eq | 4.11E-06 | 3.29E-06 | 1.18E-08 | 1.51E-07 | 6.56E-07 | 5.26E-09 | -2.13E-07 |
| Contribution to eutrophication marine | kg N eq | 1.08E-03 | 2.01E-04 | 2.01E-04 | 1.17E-05 | 6.43E-04 | 2.41E-05 | -2.34E-05 |
| Contribution to eutrophication, terrestrial | mol N eq | 2.18E-02 | 2.06E-03 | 2.18E-03 | 9.21E-05 | 1.72E-02 | 2.72E-04 | -3.00E-04 |
| Contribution to photochemical ozone formation - human health | kg COVNM eq | 3.36E-03 | 6.77E-04 | 7.16E-04 | 2.49E-05 | 1.85E-03 | 8.75E-05 | -1.24E-04 |
| Contribution to resource use, minerals and metals | kg Sb eq | 4.92E-05 | 4.91E-05 | 0* | 0* | 1.17E-07 | 0* | -1.47E-05 |
| Contribution to resource use, fossils | MJ | 2.36E+01 | 5.91E+00 | 1.22E+00 | 1.07E-01 | 1.44E+01 | 1.89E+00 | -1.27E+00 |
| Contribution to water use | m3 eq | 1.38E-01 | 8.35E-02 | 5.12E-03 | 8.69E-03 | 2.88E-02 | 1.22E-02 | -2.41E-02 |

Additional indicators for the French regulation are available as well

| **Inventory flows Indicators** | | **Miluz Switch - S3B62010** | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Inventory flows** | **Unit** | **Total** | **Manufact. [A1 - A3]** | **Distribution [A4]** | **Installation [A5]** | **Use [B1 - B7]** | **End of Life [C1 - C4]** | **Benefits [D]** |
| Contribution to use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 2.25E+01 | 1.18E-01 | 0* | 1.10E-02 | 2.24E+01 | 0* | -4.86E-02 |
| Contribution to use of renewable primary energy resources used as raw material | MJ | 3.43E-02 | 3.43E-02 | 0* | 0* | 0* | 0* | 6.31E-02 |
| Contribution to total use of renewable primary energy resources | MJ | 2.26E+01 | 1.53E-01 | 0* | 1.10E-02 | 2.24E+01 | 0* | 1.44E-02 |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 2.18E+01 | 4.10E+00 | 1.22E+00 | 1.07E-01 | 1.44E+01 | 1.89E+00 | -1.13E+00 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Contribution to use of non renewable primary energy resources used as raw material | MJ | 1.81E+00 | 1.81E+00 | 0* | 0* | 0* | 0* | -1.41E-01 |
| Contribution to total use of non-renewable primary energy resources | MJ | 2.36E+01 | 5.91E+00 | 1.22E+00 | 1.07E-01 | 1.44E+01 | 1.89E+00 | -1.27E+00 |
| Contribution to use of secondary material | kg | 6.65E-03 | 6.65E-03 | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to use of renewable secondary fuels | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to use of non renewable secondary fuels | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to net use of freshwater | m³ | 3.22E-03 | 1.94E-03 | 1.19E-04 | 2.02E-04 | 6.70E-04 | 2.85E-04 | -5.62E-04 |
| Contribution to hazardous waste disposed | kg | 1.09E+00 | 1.00E+00 | 0* | 1.21E-04 | 1.49E-02 | 6.71E-02 | -1.16E+00 |
| Contribution to non hazardous waste disposed | kg | 4.20E-01 | 2.35E-01 | 1.03E-04 | 3.33E-02 | 1.41E-01 | 1.01E-02 | 5.35E-02 |
| Contribution to radioactive waste disposed | kg | 1.70E-04 | 1.19E-04 | 2.01E-05 | 4.62E-06 | 2.58E-05 | 6.70E-07 | -1.24E-05 |
| Contribution to components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to materials for recycling | kg | 1.72E-02 | 0* | 0* | 8.52E-03 | 0* | 8.68E-03 | 0.00E+00 |
| Contribution to materials for energy recovery | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to exported energy | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to biogenic carbon content of the product | kg de C | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to biogenic carbon content of the associated packaging | kg de C | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |

** represents less than 0.01% of the total life cycle of the reference flow*

*Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.*

The majority of environmental indicators are most significantly impacted by the Use phase. ADPe is the hotspots in the manufacturing phase that is most affected by Silver part (76%).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request

*Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.*

| | | | |
|---|---|---|---|
| *Registration number :* | SCHN-00856-V01.01-EN | *Drafting rules* | PEP-PCR-ed4-2021 09 06 |
| *Verifier accreditation N°* | VH48 | *Supplemented by* | PSR-0005-ed2-2016 03 29 |
| *Date of issue* | 05/2023 | *Information and reference documents* | www.pep-ecopassport.org |
| | | *Validity period* | 5 years |

*Independent verification of the declaration and data, in compliance with ISO 14025 : 2010*

Internal External X

*The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)*

*PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019*

*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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Published by Schneider Electric