# Product Environmental Profile

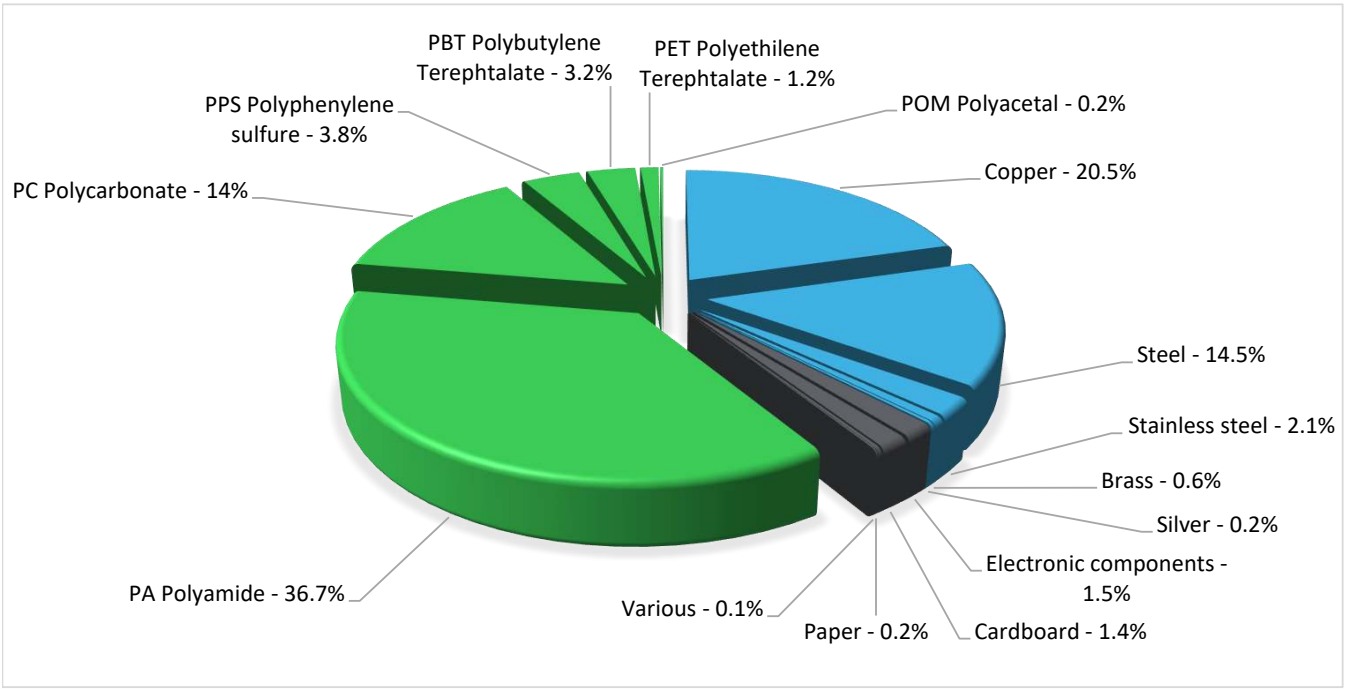
## Acti9-Residual current circuit breaker-iID

# General information

| | |
|---|---|
| **Representative product** | Acti9-Residual current circuit breaker-iID - A9R01463 |
| **Description of the product** | The main purpose of the iID product range is to ensure protection of persons against electric shocks |
| **Functional unit** | Turn off all or part of an installation by separating the installation or part of the installation of all electrical energy or earth, for safety reasons with a rated voltage 415V and rated current 63A ensuring isolation characterized by rated voltage 500V. This function is provided for 20 years. |

# Constituent materials

| | | |
|---|---|---|
| **Reference product mass** | 376 g | including the product, its packaging and additional elements and accessories |




| | | |
|---|---|---|
| | Plastics | 57.1% |
| | Metals | 37.9% |
| | Others | 3.2% |

# Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website

http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page

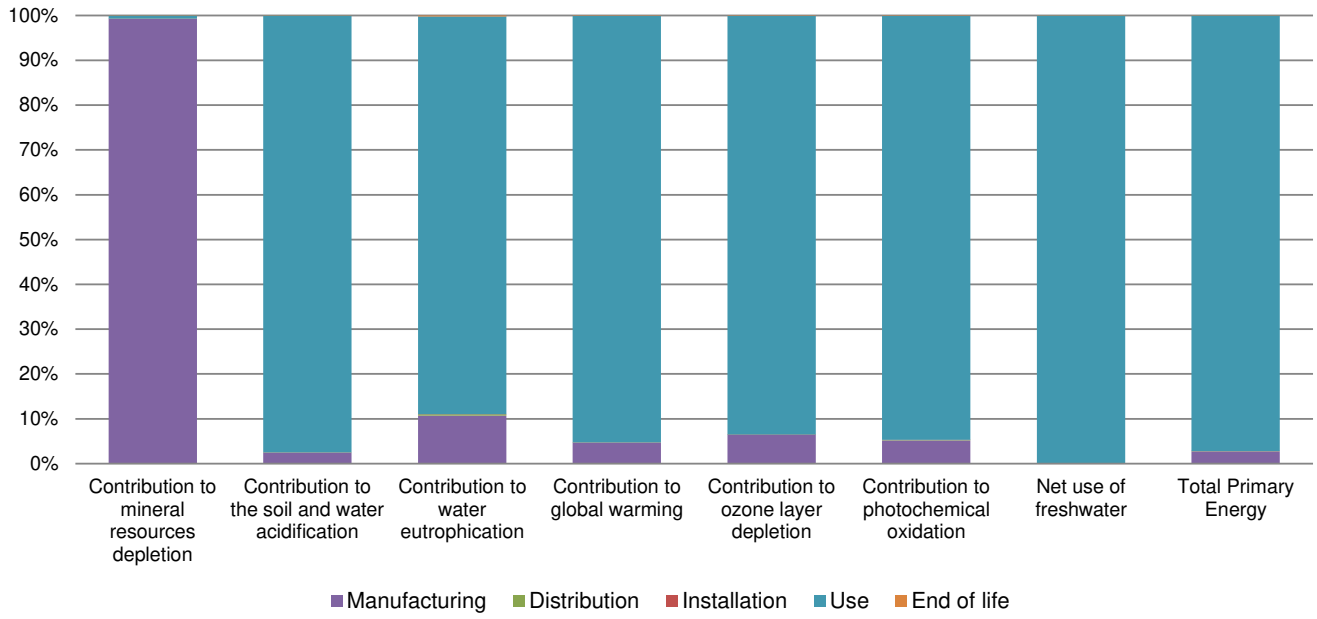
# Additional environmental information

| The Acti9-Residual current circuit breaker-iID presents the following relevent environmental aspects | |
|---|---|
| **Manufacturing** | Manufactured at a Schneider Electric production site ISO14001 certified |
| **Distribution** | Weight and volume of the packaging optimized, based on the European Union's packaging directive<br>Packaging weight is 5.6 g, consisting of cardboard (89.93%), paper (10.07%) |
| **Installation** | Ref A9R01463 does not require any installation operations. |
| **Use** | The product does not require special maintenance operations. |
| **End of life** | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials<br><br>No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process.<br><br>Recyclability potential: **34%** Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME). |

# Environmental impacts

| | | | | |
|---|---|---|---|---|
| **Reference life time** | 20 years | | | |
| **Product category** | Disconnectors - Low voltage | | | |
| **Installation elements** | No special components needed | | | |
| **Use scenario** | Load rate: 50%<br>Use time rate (closed unit): 30% of RLT | | | |
| **Geographical representativeness** | Europe | | | |
| **Technological representativeness** | The main purpose of the iID product range is to ensure protection of persons against electric shocks | | | |
| **Energy model used** | **Manufacturing** | **Installation** | **Use** | **End of life** |
| | Energy model used: Spain | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 |

| Compulsory indicators | Acti9-Residual current circuit breaker-iID - A9R01463 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Impact indicators** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 7.02E-04 | 6.97E-04 | 0* | 0* | 4.70E-06 | 0* |
| Contribution to the soil and water acidification | kg $SO_2$ eq | 2.32E-01 | 5.61E-03 | 2.22E-04 | 0* | 2.26E-01 | 1.12E-04 |
| Contribution to water eutrophication | kg $PO_4^{3-}$ eq | 1.53E-02 | 1.64E-03 | 5.10E-05 | 0* | 1.36E-02 | 3.31E-05 |
| Contribution to global warming | kg $CO_2$ eq | 5.68E+01 | 2.65E+00 | 4.85E-02 | 0* | 5.41E+01 | 6.76E-02 |
| Contribution to ozone layer depletion | kg CFC11 eq | 3.77E-06 | 2.44E-07 | 0* | 0* | 3.52E-06 | 2.61E-09 |
| Contribution to photochemical oxidation | kg $C_2H_4$ eq | 1.31E-02 | 6.82E-04 | 1.58E-05 | 0* | 1.24E-02 | 1.15E-05 |
| **Resources use** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Net use of freshwater | m3 | 1.96E+02 | 2.46E-02 | 0* | 0* | 1.96E+02 | 0* |
| Total Primary Energy | MJ | 1.11E+03 | 3.03E+01 | 6.86E-01 | 0* | 1.08E+03 | 5.37E-01 |




| Optional indicators | | Acti9-Residual current circuit breaker-iID - A9R01463 | | | | | |
|---|---|---|---|---|---|---|---|
| **Impact indicators** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to fossil resources depletion | MJ | 6.34E+02 | 1.87E+01 | 6.82E-01 | 0* | 6.14E+02 | 4.32E-01 |
| Contribution to air pollution | m³ | 3.01E+03 | 6.73E+02 | 2.06E+00 | 0* | 2.33E+03 | 3.92E+00 |
| Contribution to water pollution | m³ | 3.22E+03 | 9.73E+02 | 7.98E+00 | 0* | 2.23E+03 | 4.92E+00 |
| **Resources use** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 1.77E-02 | 1.77E-02 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 1.38E+02 | 7.97E-01 | 0* | 0* | 1.37E+02 | 0* |
| Total use of non-renewable primary energy resources | MJ | 9.73E+02 | 2.95E+01 | 6.85E-01 | 0* | 9.43E+02 | 5.36E-01 |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 1.38E+02 | 7.72E-01 | 0* | 0* | 1.37E+02 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 2.56E-02 | 2.56E-02 | 0* | 0* | 0* | 0* |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 9.68E+02 | 2.41E+01 | 6.85E-01 | 0* | 9.43E+02 | 5.36E-01 |
| Use of non renewable primary energy resources used as raw material | MJ | 5.43E+00 | 5.43E+00 | 0* | 0* | 0* | 0* |
| Use of non renewable secondary fuels | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| Use of renewable secondary fuels | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| **Waste categories** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Hazardous waste disposed | kg | 1.68E+01 | 1.62E+01 | 0* | 0* | 2.82E-02 | 6.05E-01 |
| Non hazardous waste disposed | kg | 2.03E+02 | 1.23E+00 | 0* | 0* | 2.02E+02 | 0* |
| Radioactive waste disposed | kg | 1.36E-01 | 8.82E-04 | 0* | 0* | 1.35E-01 | 0* |
| **Other environmental information** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Materials for recycling | kg | 1.66E-01 | 3.59E-02 | 0* | 5.53E-03 | 0* | 1.24E-01 |
| Components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for energy recovery | kg | 1.10E-02 | 0* | 0* | 0* | 0* | 1.10E-02 |
| Exported Energy | MJ | 1.76E-05 | 1.65E-06 | 0* | 1.59E-05 | 0* | 0* |

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

*Life cycle assessment performed with EIME version EIME v5.8.1, database version 2016-11 in compliance with ISO14044.*

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

*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-00493-V01.01-EN | *Drafting rules* | PCR-ed3-EN-2015 04 02 |
| *Verifier accreditation N°* | VH33 | *Supplemented by* | PSR-0005-ed2-EN-2016 03 29 |
| *Date of issue* | 09/2019 | *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 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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Published by Schneider Electric

ENVPEP1409014EN_V2

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09/2019