

# Product Environmental Profile

## Acti9 C65L DC 2P C 6A MCB

### Acti9





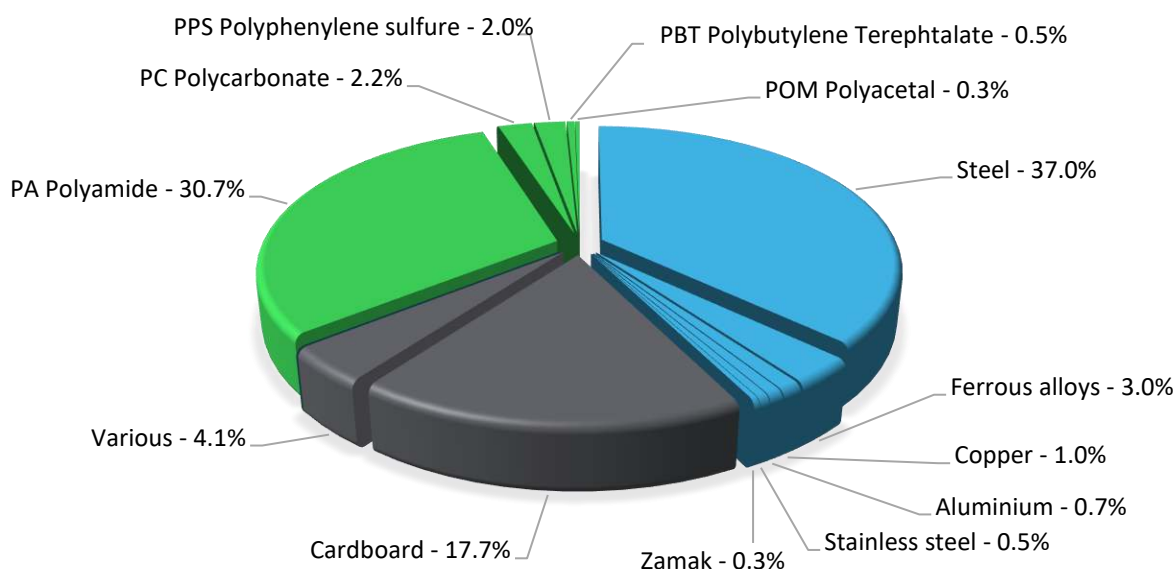
## General information

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Representative product     | Acti9 C65L DC 2P C 6A MCB - A9N22124                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description of the product | The main purpose of the Acti9 C65L DC 2P C 6A MCB is to protect against overloads and short circuit in DC installations.                                                                                                                                                                                                                                                                                                                            |
| Description of the range   | <p>This range consists of MCB Acti9 of 0.5A to 63A, 1P to 2P, and C curve. The representative product used for the analysis is C65L DC 2P C 6A (commercial reference: A9N22124). The mass range of the product is from 102 g and 572 g not including packaging.</p> <p>The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.</p> |
| Functional unit            | <p>Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 500V DC and rated current 6A. This protection is ensured in accordance with the following parameters:</p> <ul style="list-style-type: none"> <li>- Number of poles 2p</li> <li>- Rated breaking capacity 6KA</li> <li>- Tripping curve C</li> </ul>                                                                               |



## Constituent materials

|                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| Reference product mass | 270.85 g including the product, its packaging and additional elements and accessories |
|------------------------|---------------------------------------------------------------------------------------|



|          |       |
|----------|-------|
| Plastics | 35.7% |
| Metals   | 42.5% |
| Others   | 21.8% |

## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) 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), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate - BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) 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

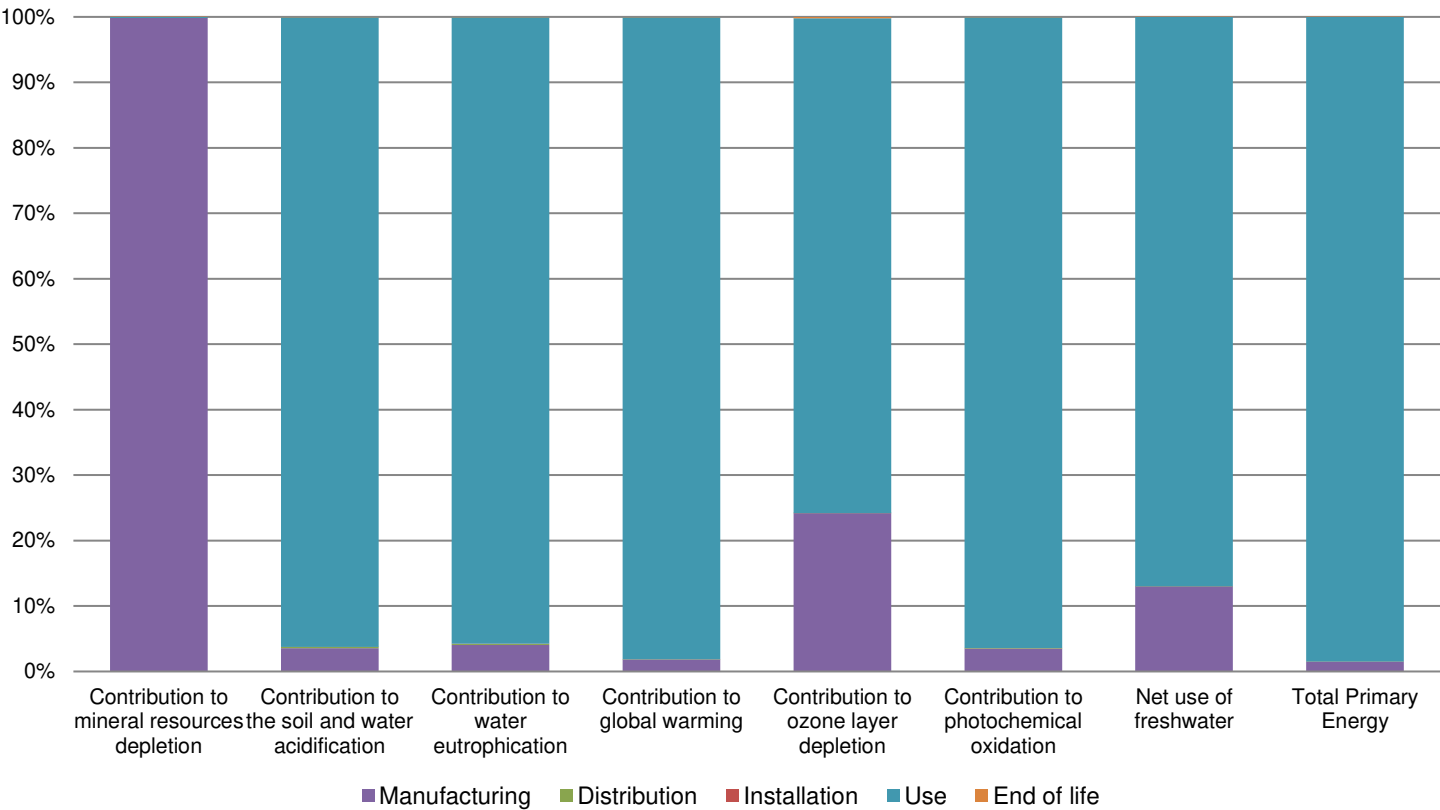
The Acti9 C65L DC 2P C 6A MCB presents the following relevant environmental aspects

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 47.9 g, consisting of Cardboard (99.8%), paper (0.2%)                                                                                                                                                                                                                                                                                                                    |
| Installation  | Ref A9N22124 doesn't 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: <b>48%</b> 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                 | Circuit-breakers                                                                                                                                                        |                                                             |                                                             |                                                             |
| Installation elements            | No special installation components need during installation phase, but transport of packaging to disposal, and disposal of packaging accounted for during installation. |                                                             |                                                             |                                                             |
| Use scenario                     | Load rate: 50% of In<br>Use time rate: 30% of RLT                                                                                                                       |                                                             |                                                             |                                                             |
| Geographical representativeness  | China                                                                                                                                                                   |                                                             |                                                             |                                                             |
| Technological representativeness | The main purpose of the Acti9 C65L DC 2P C 6A MCB is to protect against overloads and short circuit in DC installations.                                                |                                                             |                                                             |                                                             |
| Energy model used                | Manufacturing                                                                                                                                                           | Installation                                                | Use                                                         | End of life                                                 |
|                                  | Energy model used: China                                                                                                                                                | Electricity mix; AC; consumption mix, at consumer; 220V; CN | Electricity mix; AC; consumption mix, at consumer; 220V; CN | Electricity mix; AC; consumption mix, at consumer; 220V; CN |

| Compulsory indicators                            |                                     | Acti9 C65L DC 2P C 6A MCB - A9N22124 |               |              |              |          |             |
|--------------------------------------------------|-------------------------------------|--------------------------------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                | Unit                                | Total                                | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to mineral resources depletion      | kg Sb eq                            | 2.04E-04                             | 2.03E-04      | 0*           | 0*           | 3.17E-07 | 0*          |
| Contribution to the soil and water acidification | kg SO <sub>2</sub> eq               | 8.13E-02                             | 2.88E-03      | 1.60E-04     | 1.08E-05     | 7.82E-02 | 6.70E-05    |
| Contribution to water eutrophication             | kg PO <sub>4</sub> <sup>3-</sup> eq | 2.16E-02                             | 8.71E-04      | 3.68E-05     | 2.63E-06     | 2.07E-02 | 1.87E-05    |
| Contribution to global warming                   | kg CO <sub>2</sub> eq               | 7.35E+01                             | 1.31E+00      | 3.49E-02     | 0*           | 7.22E+01 | 3.54E-02    |
| Contribution to ozone layer depletion            | kg CFC11 eq                         | 7.60E-07                             | 1.84E-07      | 0*           | 0*           | 5.74E-07 | 1.53E-09    |
| Contribution to photochemical oxidation          | kg C <sub>2</sub> H <sub>4</sub> eq | 9.59E-03                             | 3.30E-04      | 1.14E-05     | 0*           | 9.24E-03 | 6.98E-06    |
| Resources use                                    | Unit                                | Total                                | Manufacturing | Distribution | Installation | Use      | End of Life |
| Net use of freshwater                            | m3                                  | 9.26E-02                             | 1.20E-02      | 0*           | 0*           | 8.06E-02 | 3.05E-05    |
| Total Primary Energy                             | MJ                                  | 1.20E+03                             | 1.75E+01      | 4.94E-01     | 0*           | 1.18E+03 | 3.25E-01    |



| Optional indicators                                                                             |      | Acti9 C65L DC 2P C 6A MCB - A9N22124 |               |              |              |          |             |
|-------------------------------------------------------------------------------------------------|------|--------------------------------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                                                               | Unit | Total                                | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to fossil resources depletion                                                      | MJ   | 1.10E+03                             | 7.94E+00      | 4.91E-01     | 0*           | 1.09E+03 | 2.61E-01    |
| Contribution to air pollution                                                                   | m³   | 7.76E+03                             | 2.74E+02      | 1.49E+00     | 0*           | 7.49E+03 | 2.35E+00    |
| Contribution to water pollution                                                                 | m³   | 4.05E+03                             | 4.47E+02      | 5.75E+00     | 0*           | 3.59E+03 | 2.84E+00    |
| Resources use                                                                                   | Unit | Total                                | Manufacturing | Distribution | Installation | Use      | End of Life |
| Use of secondary material                                                                       | kg   | 4.37E-02                             | 4.37E-02      | 0*           | 0*           | 0*       | 0*          |
| Total use of renewable primary energy resources                                                 | MJ   | 6.27E+01                             | 2.09E+00      | 0*           | 0*           | 6.06E+01 | 0*          |
| Total use of non-renewable primary energy resources                                             | MJ   | 1.14E+03                             | 1.54E+01      | 4.93E-01     | 0*           | 1.12E+03 | 3.25E-01    |
| Use of renewable primary energy excluding renewable primary energy used as raw material         | MJ   | 6.25E+01                             | 1.90E+00      | 0*           | 0*           | 6.06E+01 | 0*          |
| Use of renewable primary energy resources used as raw material                                  | MJ   | 1.92E-01                             | 1.92E-01      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ   | 1.13E+03                             | 1.30E+01      | 4.93E-01     | 0*           | 1.12E+03 | 3.25E-01    |
| Use of non renewable primary energy resources used as raw material                              | MJ   | 2.47E+00                             | 2.47E+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   | 1.39E+01                             | 1.12E+01      | 0*           | 0*           | 2.33E+00 | 3.39E-01    |
| Non hazardous waste disposed                                                                    | kg   | 1.39E+01                             | 7.98E-01      | 0*           | 0*           | 1.31E+01 | 0*          |
| Radioactive waste disposed                                                                      | kg   | 9.43E-04                             | 5.09E-04      | 8.84E-07     | 0*           | 4.31E-04 | 1.58E-06    |
| Other environmental information                                                                 | Unit | Total                                | Manufacturing | Distribution | Installation | Use      | End of Life |
| Materials for recycling                                                                         | kg   | 1.79E-01                             | 2.57E-02      | 0*           | 4.77E-02     | 0*       | 1.05E-01    |
| Components for reuse                                                                            | kg   | 0.00E+00                             | 0*            | 0*           | 0*           | 0*       | 0*          |
| Materials for energy recovery                                                                   | kg   | 4.80E-03                             | 0*            | 0*           | 0*           | 0*       | 4.80E-03    |
| Exported Energy                                                                                 | MJ   | 1.51E-04                             | 1.42E-05      | 0*           | 1.37E-04     | 0*       | 0*          |

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

Life cycle assessment performed with EIME version EIME v5.9.2, 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).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

For our products, the first proposition for significant parameter is energy consumption values.

Depending on the impact analysis, the environmental indicators (without RMD) of other products in this family may be proportional extrapolated by energy consumption values. For RMD, impact may be proportional extrapolated by mass of the product.

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                                                                                                                                         | ENVPEP120608EN_V2 | Drafting rules                      | PCR-ed3-EN-2015 04 02                                                |
| Date of issue                                                                                                                                               | 07/2022           | Supplemented by                     | PSR-0005-ed2-EN-2016 03 29                                           |
| Validity period                                                                                                                                             | 5 years           | Information and reference documents | <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a> |
| Independent verification of the declaration and data                                                                                                        |                   |                                     |                                                                      |
| Internal                                                                                                                                                    | X                 | External                            |                                                                      |
| The elements of the present PEP cannot be compared with elements from another program.                                                                      |                   |                                     |                                                                      |
| Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) » |                   |                                     |                                                                      |

Schneider Electric Industries SAS  
Country Customer Care Center  
<http://www.schneider-electric.com/contact>  
35, rue Joseph Monier  
CS 30323  
F- 92506 Rueil Malmaison Cedex  
RCS Nanterre 954 503 439  
Capital social 896 313 776 €  
[www.schneider-electric.com](http://www.schneider-electric.com)

ENVPEP120608EN\_V2

Published by Schneider Electric

© 2019 - Schneider Electric – All rights reserved

07/2022