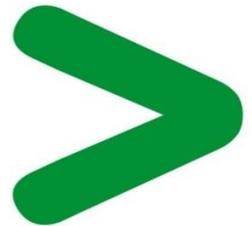


# Product Environmental Profile

## CVS100E TM100D 3P3D circuit breaker





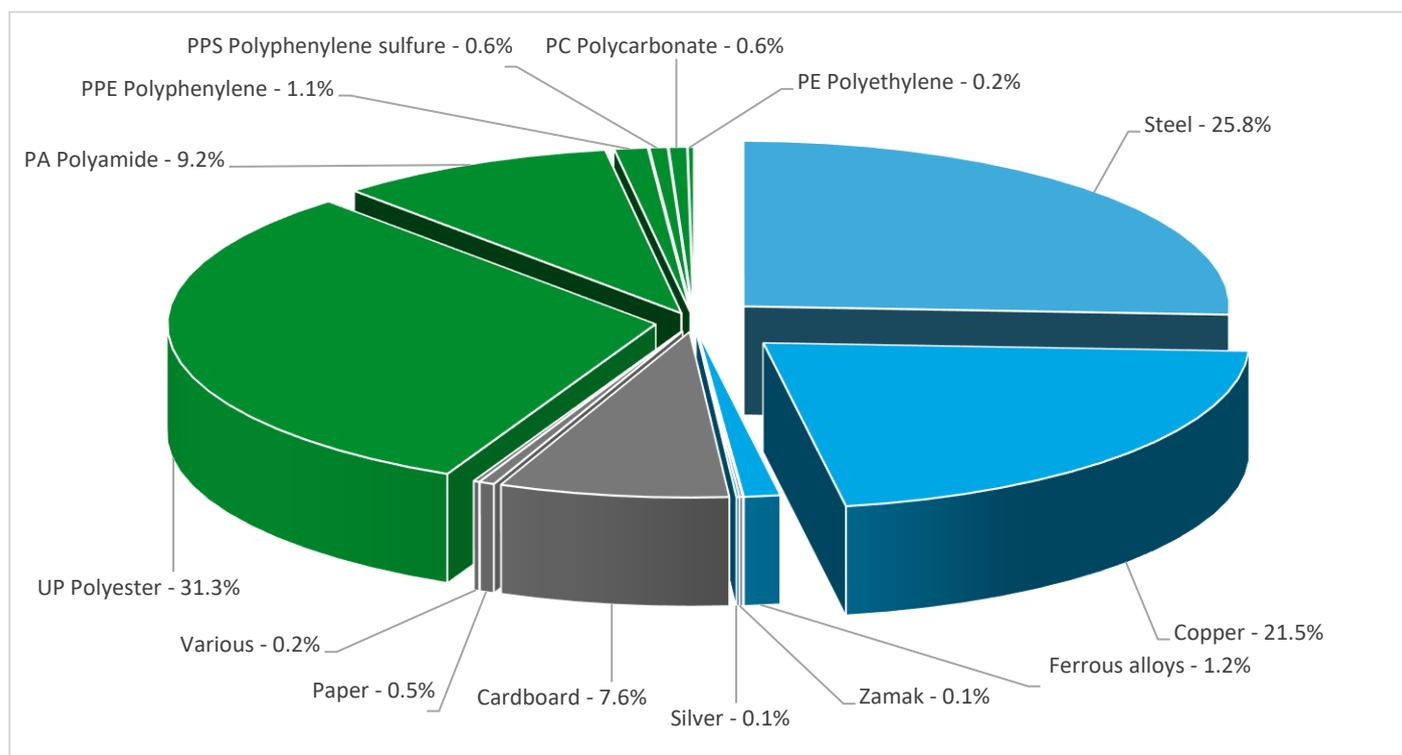
## General information

|                                   |  |
|-----------------------------------|--|
| <b>Representative product</b>     | CVS100E TM100D 3P3D circuit breaker - LV510845   |
| <b>Description of the product</b> | The Easycompact CVS100E TM100D circuit breakers is designed to guarantee the protection of electrical applications.  |
| <b>Functional unit</b>            | Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 440V and rated current 100A. This protection is ensured in accordance with the following parameters:<br>- Number of poles 3p<br>- Rated breaking capacity 25kA<br>- Tripping curve: long time, short time and instantaneous protections |



## Constituent materials

|                               |  |
|-------------------------------|--|
| <b>Reference product mass</b> | 911.3 g including the product, its packaging and additional elements and accessories |
|-------------------------------|--|



|          |       |
|----------|-------|
| Plastics | 43.0% |
| Metals   | 48.7% |
| Others   | 8.3%  |



## 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 CVS100E TM100D 3P3D circuit breaker presents the following relevant environmental aspects

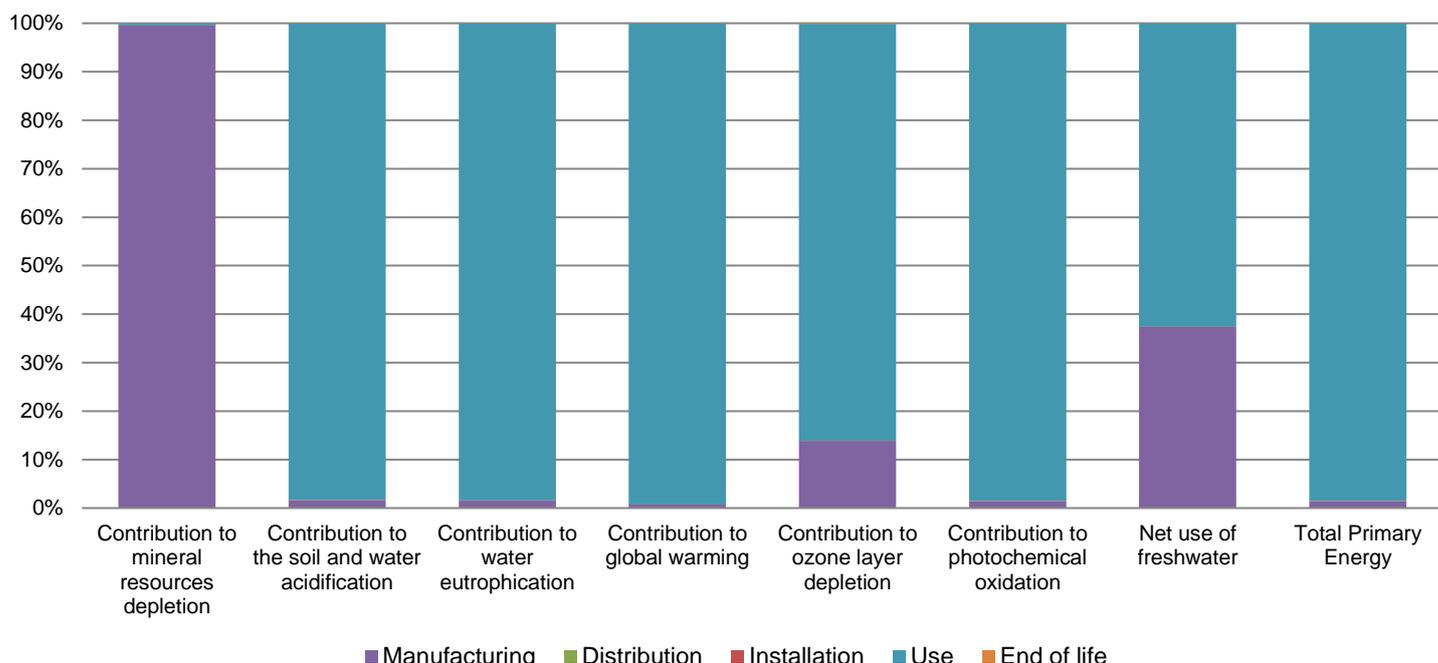
|                      |  |
|----------------------|--|
| <b>Manufacturing</b> | Manufactured at a Schneider Electric production site ISO14001 certified  |
| <b>Distribution</b>  | Weight and volume of the packaging optimized, based on the European Union's packaging directive  |
|                      | Packaging weight is 61.3 g, consisting of cardboard (88%), plastic (4%), paper (8%)<br>Product distribution optimised by setting up local distribution centres   |
| <b>Installation</b>  | LV510845 does not need any special installation  |
| <b>End of life</b>   | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials<br>No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process. |
|                      | Recyclability potential: <b>45%</b><br>Based on "ECO'DEEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).  |



## Environmental impacts

|  |   |   |   |   |
|--|---|---|---|---|
| <b>Reference life time</b>             | 20 years  |   |   |   |
| <b>Product category</b>                | Circuit-breakers  |   |   |   |
| <b>Installation elements</b>           | LV510845 does not need any special installation         |   |   |   |
| <b>Use scenario</b>                    | Load rate: 50% of 100A<br>Use time rate: 30% of 20 year |   |   |   |
| <b>Geographical representativeness</b> | China   |   |   |   |
| <b>Energy model used</b>               | <b>Manufacturing</b>                                    | <b>Installation</b>   | <b>Use</b>  | <b>End of life</b>  |
|  | 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                            |                                     | CVS100E TM100D 3P3D circuit breaker - LV510845 |               |              |              |          |             |
|--|-------------------------------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                | Unit                                | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to mineral resources depletion      | kg Sb eq                            | 5.87E-04                                       | 5.84E-04      | 0*           | 0*           | 2.41E-06 | 0*          |
| Contribution to the soil and water acidification | kg SO <sub>2</sub> eq               | 6.06E-01                                       | 1.01E-02      | 5.37E-04     | 0*           | 5.95E-01 | 2.61E-04    |
| Contribution to water eutrophication             | kg PO <sub>4</sub> <sup>3-</sup> eq | 1.60E-01                                       | 2.45E-03      | 1.24E-04     | 0*           | 1.57E-01 | 6.35E-05    |
| Contribution to global warming                   | kg CO <sub>2</sub> eq               | 5.54E+02                                       | 4.08E+00      | 1.18E-01     | 0*           | 5.49E+02 | 9.39E-02    |
| Contribution to ozone layer depletion            | kg CFC11 eq                         | 5.08E-06                                       | 7.04E-07      | 0*           | 0*           | 4.37E-06 | 6.08E-09    |
| Contribution to photochemical oxidation          | kg C <sub>2</sub> H <sub>4</sub> eq | 7.15E-02                                       | 1.06E-03      | 3.83E-05     | 0*           | 7.04E-02 | 2.77E-05    |
| Resources use                                    | Unit                                | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Net use of freshwater                            | m <sup>3</sup>                      | 9.80E-01                                       | 3.67E-01      | 0*           | 0*           | 6.13E-01 | 1.05E-04    |
| Total Primary Energy                             | MJ                                  | 9.13E+03                                       | 1.37E+02      | 1.66E+00     | 0*           | 8.99E+03 | 1.29E+00    |



| Optional indicators   |      | CVS100E TM100D 3P3D circuit breaker - LV510845 |               |              |              |          |             |
|---|------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators   | Unit | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to fossil resources depletion  | MJ   | 8.37E+03                                       | 7.15E+01      | 1.65E+00     | 0*           | 8.30E+03 | 1.04E+00    |
| Contribution to air pollution   | m³   | 5.89E+04                                       | 1.86E+03      | 0*           | 0*           | 5.70E+04 | 9.21E+00    |
| Contribution to water pollution   | m³   | 2.80E+04                                       | 6.67E+02      | 1.93E+01     | 0*           | 2.73E+04 | 1.01E+01    |
| Resources use   | Unit | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Use of secondary material   | kg   | 9.79E-02                                       | 9.79E-02      | 0*           | 0*           | 0*       | 0*          |
| Total use of renewable primary energy resources   | MJ   | 4.68E+02                                       | 6.82E+00      | 0*           | 0*           | 4.61E+02 | 0*          |
| Total use of non-renewable primary energy resources   | MJ   | 8.66E+03                                       | 1.30E+02      | 1.66E+00     | 0*           | 8.53E+03 | 1.29E+00    |
| Use of renewable primary energy excluding renewable primary energy used as raw material         | MJ   | 4.68E+02                                       | 6.54E+00      | 0*           | 0*           | 4.61E+02 | 0*          |
| Use of renewable primary energy resources used as raw material                                  | MJ   | 2.84E-01                                       | 2.84E-01      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ   | 8.65E+03                                       | 1.19E+02      | 1.66E+00     | 0*           | 8.53E+03 | 1.29E+00    |
| Use of non renewable primary energy resources used as raw material                              | MJ   | 1.14E+01                                       | 1.14E+01      | 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   | 6.86E+01                                       | 4.96E+01      | 0*           | 0*           | 1.77E+01 | 1.34E+00    |
| Non hazardous waste disposed  | kg   | 1.01E+02                                       | 1.66E+00      | 0*           | 0*           | 9.96E+01 | 0*          |
| Radioactive waste disposed  | kg   | 4.12E-03                                       | 8.25E-04      | 2.98E-06     | 0*           | 3.28E-03 | 6.28E-06    |
| Other environmental information   | Unit | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Materials for recycling   | kg   | 5.44E-01                                       | 5.90E-02      | 0*           | 5.95E-02     | 0*       | 4.25E-01    |
| Components for reuse  | kg   | 0.00E+00                                       | 0*            | 0*           | 0*           | 0*       | 0*          |
| Materials for energy recovery   | kg   | 3.50E-03                                       | 0*            | 0*           | 0*           | 0*       | 3.50E-03    |
| Exported Energy   | MJ   | 1.91E-04                                       | 2.13E-05      | 0*           | 1.69E-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 v5.9.4, database version 2022-01 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  | ENVPEP2210007_V1 | Drafting rules                      | PCR-ed3-EN-2015 04 02  |
| Date of issue  | 11/2022          | 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> |
| <i>Independent verification of the declaration and data</i>  |                  |                                     |  |
| Internal   | X                | External                            |  |
| <i>The elements of the present PEP cannot be compared with elements from another program.</i>  |                  |                                     |  |
| <i>Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i> |                  |                                     |  |

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