

Product Environmental Profile

EASYPACT CVS 400-630 - CVS400F TM400D 3P3D

This range consists of all products of Easypact CVS 400-630A family: 400-630F, 400-630H and 400-630N range





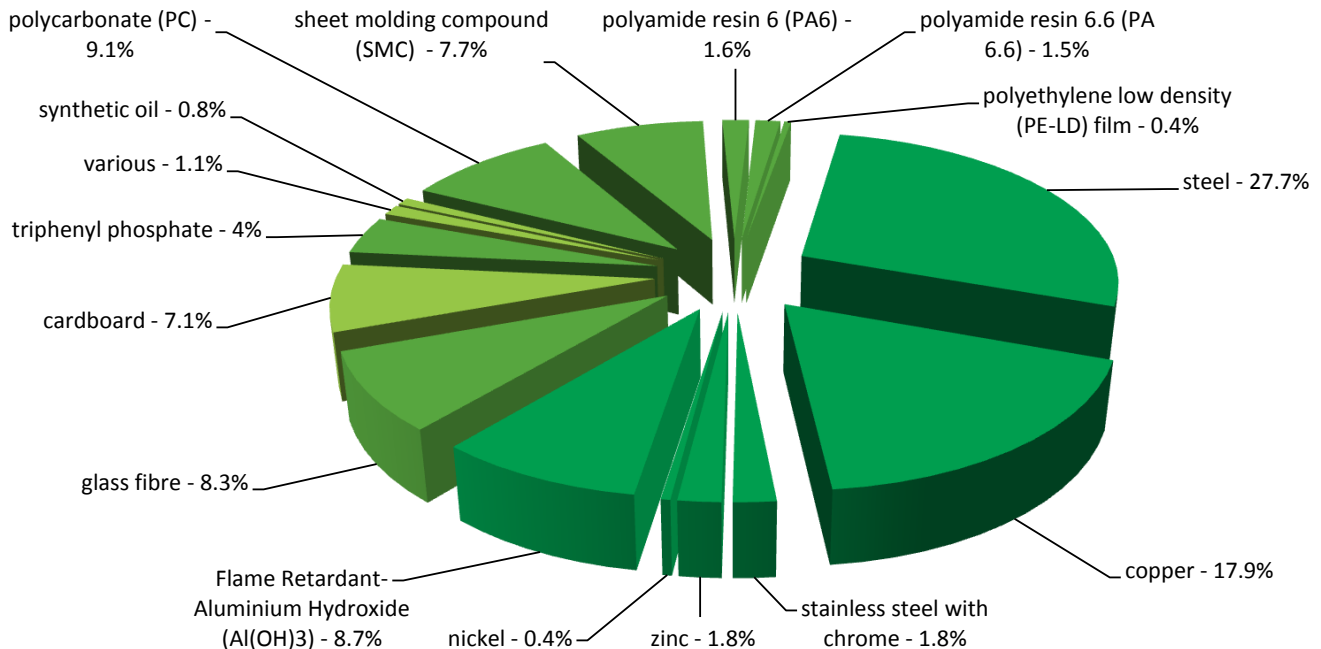
General information

| | |
|-----------------------------------|---|
| Representative product | EASYPACT CVS 400-630 - CVS400F TM400D 3P3D -LV540306 |
| Description of the product | The Easypact CVS400 to 630 range of circuit breakers with Thermal-Magnetic trip unit technology is designed to guarantee the protection of all low-voltage electrical applications between 400 A and 630 A. |
| Description of the range | This range consists of all products of Easypact CVS 400-630A family: 400-630F, 400-630H and 400-630N range 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. |
| Functional unit | The main function of the Easypact CVS product range is to trip and protect the wires and equipments in the circuit when over current is over -- 400A (Overload protection), -- or 2000A(4In)/4000A(10In) (Short circuit current protection) in accordance with the Standard: IEC60947.2 for period of 20 years |



Constituent materials

Reference product mass 4820 g including the product, its packaging and additional elements and accessories



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

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this 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 EASYPACT CVS 400-630 - CVS400F TM400D 3P3D presents the following relevant environmental aspects

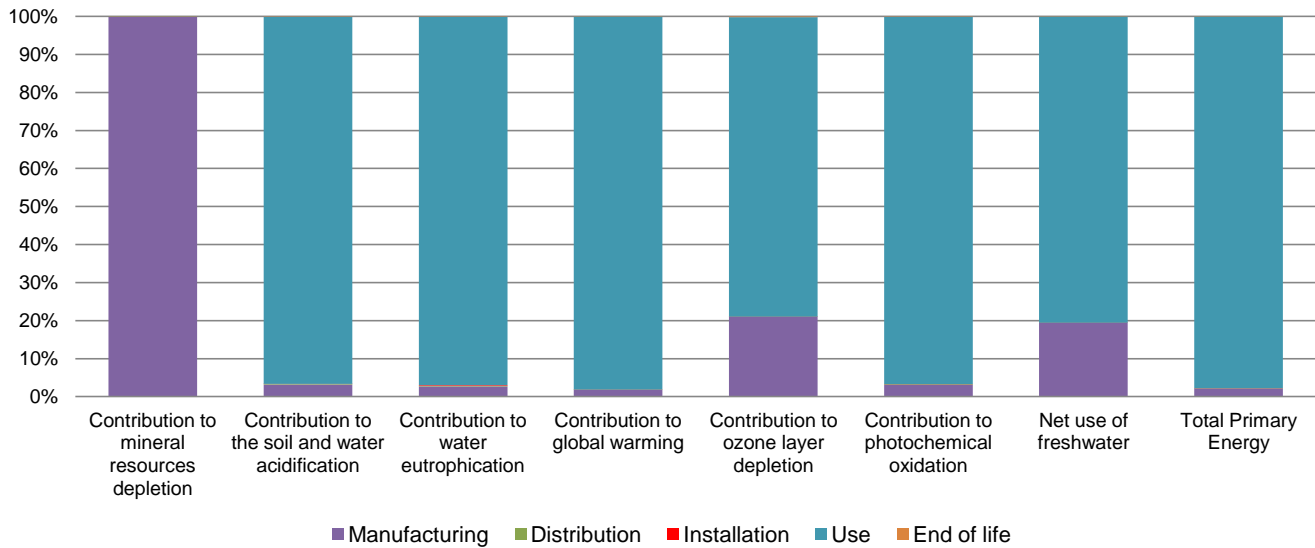
| | |
|----------------------|--|
| Design | Not in scope |
| Manufacturing | Manufactured at a Schneider Electric production site ISO14001 certified |
| Distribution | Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 379.2 g, consisting of Cardboard (93.1%), PET film (0.4%), Paper (6.5%) Product distribution optimised by setting up local distribution centres |
| Installation | The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal) |
| 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 This product contains Dismantling parts (2230.7g), Plastic parts with brominated FR (8.2g) that should be separated from the stream of waste so as to optimize end-of-life treatment. The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page Recyclability potential: 61% 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 | Passive products - continuous operation | | | |
| Installation elements | No special components needed | | | |
| Use scenario | Product dissipation is 8.1 W, loading rate is 30% and service uptime percentage is 100% | | | |
| Geographical representativeness | China | | | |
| Technological representativeness | The Easypact CVS400 to 630 range of circuit breakers with Thermal-Magnetic trip unit technology is designed to guarantee the protection of all low-voltage electrical applications between 400 A and 630 A. | | | |
| Energy model used | Manufacturing | Installation | Use | End of life |
| | Energy model used: SBMLV, 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 | | EASYPACT CVS 400-630 - CVS400F TM400D 3P3D - LV540306 | | | | | |
|--|-------------------------------------|---|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 1.30E-02 | 1.30E-02 | 0* | 0* | 6.34E-06 | 0* |
| Contribution to the soil and water acidification | kg SO ₂ eq | 1.62E+00 | 5.17E-02 | 2.84E-03 | 0* | 1.56E+00 | 1.38E-03 |
| Contribution to water eutrophication | kg PO ₄ ³⁻ eq | 4.30E-01 | 1.15E-02 | 6.54E-04 | 9.81E-04 | 4.17E-01 | 3.74E-04 |
| Contribution to global warming | kg CO ₂ eq | 1.47E+03 | 2.58E+01 | 6.22E-01 | 5.27E-01 | 1.44E+03 | 6.71E-01 |
| Contribution to ozone layer depletion | kg CFC11 eq | 1.46E-05 | 3.06E-06 | 0* | 0* | 1.15E-05 | 3.07E-08 |
| Contribution to photochemical oxidation | kg C ₂ H ₄ eq | 1.91E-01 | 6.00E-03 | 2.03E-04 | 1.27E-04 | 1.85E-01 | 1.46E-04 |

| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
|-----------------------|------|----------|---------------|--------------|--------------|----------|-------------|
| Net use of freshwater | m3 | 2.00E+00 | 3.88E-01 | 0* | 0* | 1.61E+00 | 6.13E-04 |
| Total Primary Energy | MJ | 2.49E+04 | 5.32E+02 | 8.79E+00 | 0* | 2.44E+04 | 7.52E+00 |



| Optional indicators | EASYPACT CVS 400-630 - CVS400F TM400D 3P3D - LV540306 | | | | | | |
|---|---|----------|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to fossil resources depletion | MJ | 2.29E+04 | 3.58E+02 | 8.74E+00 | 0* | 2.26E+04 | 6.19E+00 |
| Contribution to air pollution | m³ | 1.59E+05 | 9.43E+03 | 2.65E+01 | 0* | 1.50E+05 | 4.88E+01 |
| Contribution to water pollution | m³ | 7.61E+04 | 4.11E+03 | 1.02E+02 | 2.92E+01 | 7.18E+04 | 5.73E+01 |
| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 6.00E-01 | 6.00E-01 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 1.22E+03 | 9.44E+00 | 0* | 0* | 1.21E+03 | 0* |
| Total use of non-renewable primary energy resources | MJ | 2.37E+04 | 5.23E+02 | 8.78E+00 | 0* | 2.32E+04 | 7.52E+00 |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 1.22E+03 | 9.44E+00 | 0* | 0* | 1.21E+03 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 2.37E+04 | 4.79E+02 | 8.78E+00 | 0* | 2.32E+04 | 7.52E+00 |
| Use of non renewable primary energy resources used as raw material | MJ | 4.36E+01 | 4.36E+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 | 3.00E+02 | 2.47E+02 | 0* | 0* | 4.65E+01 | 6.45E+00 |
| Non hazardous waste disposed | kg | 2.71E+02 | 8.51E+00 | 0* | 3.83E-01 | 2.62E+02 | 0* |
| Radioactive waste disposed | kg | 1.19E-02 | 3.18E-03 | 1.57E-05 | 2.01E-06 | 8.62E-03 | 3.26E-05 |
| Other environmental information | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Materials for recycling | kg | 3.25E+00 | 4.13E-01 | 0* | 0* | 0* | 2.84E+00 |
| Components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for energy recovery | kg | 8.92E-02 | 1.13E-02 | 0* | 0* | 0* | 7.78E-02 |
| Exported Energy | MJ | 1.50E-02 | 0* | 0* | 1.50E-02 | 0* | 0* |

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

Life cycle assessment performed with EIME version EIME v5.5, database version 2015-04.

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.

“Depending on the impact analysis, for the products in this family the impact of the Abiotic depletion (elements, ultimate reserves) (ADPe for EN15804) may be proportionally extrapolated based on the ratio of the product’s and reference product’s mass. For all remaining impact categories (Acidification potential of soil and water (total average for Europe) (A for PEP), Eutrophication (fate not incl.) (EP for EN15804), Global warming (GWP100) (GWP for EN15804), Ozone layer depletion ODP steady state (ODP for EN15804), Photochemical oxidation (high NOx) (POCP for EN15804), Net use of freshwater (NUFW) and Total Primary Energy (TPE)) the impacts may be proportionally extrapolated based on the ratio of the product’s and reference product’s electricity use”.

Grouping of range done as per the function (Circuit breaking and tripping).

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 N° | SCHN-00014-V01.01-EN | Drafting rules | PCR-ed3-EN-2015 04 02 |
| Verifier accreditation N° | VH25 | Supplemented by | PSR-0005-ed1-2012 12 11 |
| Date of issue | 06/2016 | 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). | | | |
| 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 » | | | |
| Environmental data in alignment with EN 15804 : 2012 + A1 : 2013 | | | |



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