Product Environmental Profile

ACTI9 IK60N







General information

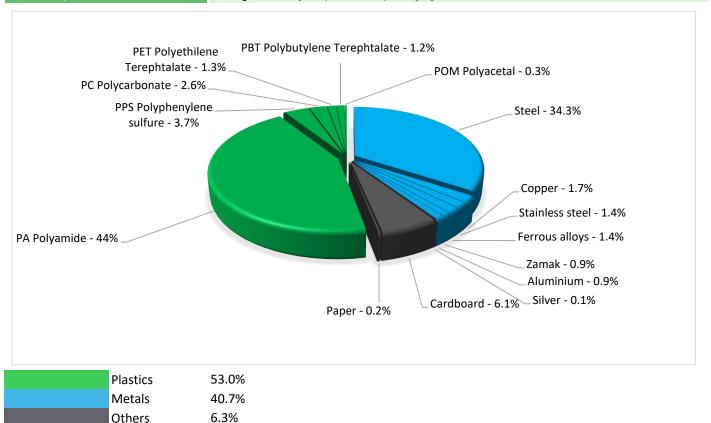
| Representative product | ACTI9 IK60N - A9K24216 | | | | |
|----------------------------|---|--|--|--|--|
| Description of the product | The main purpose of the IK60N 2P 16A C MCB is to provide overload protection and short circuit protection in low voltage power system. | | | | |
| Functional unit | Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 230 V AC 50/60 Hz and rated current 16 A. This protection is ensured in accordance with the following parameters based on standard EN/IEC 60898-1: - Number of poles 2P - Rated breaking capacity 6000 A - Tripping curve C | | | | |



Constituent materials

Reference product mass

208.5 g including the product, its packaging and additional elements and accessories



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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

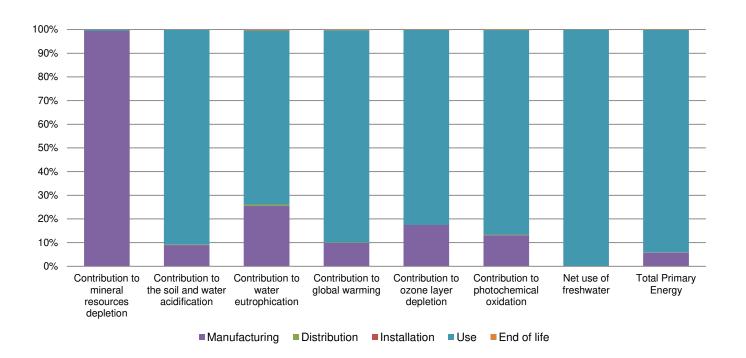
Additional environmental information

| The ACTI9 IK60N 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 | | | | | |
| Distribution | Packaging weight is 13.4 g, consisting of cardboard (97%), PE film (3%) | | | | | |
| Installation | Ref A9K24216 does not require any installation operations. | | | | | |
| Use | The product does not require special maintenance operations. | | | | | |
| | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials | | | | | |
| End of life | No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process. | | | | | |
| | Based on "ECO'DEEE recyclability and recoverability calculation method" Recyclability potential: 40% (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 components needed | | | | | | |
| Use scenario | Load rate: 50% of In Use time rate: 30% of RLT | | | | | | |
| Geographical representativeness | Turkey | | | | | | |
| Technological representativeness | The main purpose of the IK60N 2P 16A C MCB is to provide overload protection and short circuit protection in low voltage power system. | | | | | | |
| | Manufacturing | Installation | Use | End of life | | | |
| Energy model used | Energy model used: Thailand | 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 IK60N - A9K24216 | | | | | | | |
|--|-----------------------|----------|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 1.91E-04 | 1.90E-04 | 0* | 0* | 1.10E-06 | 0* |
| Contribution to the soil and water acidification | kg SO ₂ eq | 5.80E-02 | 5.22E-03 | 1.23E-04 | 0* | 5.26E-02 | 6.08E-05 |
| Contribution to water eutrophication | kg PO₄³⁻ eq | 4.33E-03 | 1.10E-03 | 2.83E-05 | 7.34E-07 | 3.18E-03 | 1.77E-05 |
| Contribution to global warming | kg CO ₂ eq | 1.41E+01 | 1.39E+00 | 2.69E-02 | 0* | 1.26E+01 | 3.57E-02 |
| Contribution to ozone layer depletion | kg CFC11 eq | 9.98E-07 | 1.74E-07 | 0* | 0* | 8.22E-07 | 1.40E-09 |
| Contribution to photochemical oxidation | kg C₂H₄ eq | 3.35E-03 | 4.41E-04 | 8.77E-06 | 0* | 2.89E-03 | 6.27E-06 |
| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Net use of freshwater | m3 | 4.58E+01 | 1.02E-02 | 0* | 0* | 4.58E+01 | 0* |
| Total Primary Energy | MJ | 2.68E+02 | 1.55E+01 | 3.80E-01 | 0* | 2.52E+02 | 2.92E-01 |



| Optional indicators | | ACTI9 IK60N | I - A9K24216 | | | | |
|---|------|-------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to fossil resources depletion | MJ | 1.53E+02 | 9.05E+00 | 3.78E-01 | 0* | 1.43E+02 | 2.35E-01 |
| Contribution to air pollution | m³ | 7.97E+02 | 2.51E+02 | 1.14E+00 | 0* | 5.43E+02 | 2.13E+00 |
| Contribution to water pollution | m³ | 1.02E+03 | 4.88E+02 | 4.42E+00 | 1.10E-01 | 5.21E+02 | 2.65E+00 |
| Resources use | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 1.63E-03 | 1.63E-03 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 3.25E+01 | 4.04E-01 | 0* | 0* | 3.20E+01 | 0* |
| Total use of non-renewable primary energy resources | MJ | 2.36E+02 | 1.51E+01 | 3.80E-01 | 0* | 2.20E+02 | 2.92E-01 |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 3.21E+01 | 7.95E-02 | 0* | 0* | 3.20E+01 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 3.25E-01 | 3.25E-01 | 0* | 0* | 0* | 0* |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 2.33E+02 | 1.23E+01 | 3.80E-01 | 0* | 2.20E+02 | 2.92E-01 |
| Use of non renewable primary energy resources used as raw material | MJ | 2.78E+00 | 2.78E+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 | 8.88E+00 | 8.55E+00 | 0* | 0* | 6.58E-03 | 3.18E-01 |
| Non hazardous waste disposed | kg | 4.83E+01 | 1.22E+00 | 0* | 0* | 4.70E+01 | 0* |
| Radioactive waste disposed | kg | 3.20E-02 | 5.39E-04 | 0* | 0* | 3.14E-02 | 0* |
| Other environmental information | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Materials for recycling | kg | 1.14E-01 | 2.10E-02 | 0* | 1.33E-02 | 0* | 7.95E-02 |
| Components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for energy recovery | kg | 5.62E-03 | 0* | 0* | 0* | 0* | 5.62E-03 |
| Exported Energy | MJ | 4.24E-05 | 3.98E-06 | 0* | 3.84E-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).

ENVPEP1412032_V2-EN - Product Environmental Profile - ACTI9 IK60N

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 | ENVPEP1412032_V2-EN | Drafting rules | PCR-ed3-EN-2015 04 02 |
|---------------------|---------------------|-------------------------------------|----------------------------|
| Date of issue | 05/2020 | Supplemented by | PSR-0005-ed2-EN-2016 03 29 |
| Validity period | 5 years | Information and reference documents | www.pep-ecopassport.org |

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) »

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