# Product Environmental Profile

## Acti9 iCT - Contactors - 1P/2P/3P/4P from 16A to 100A

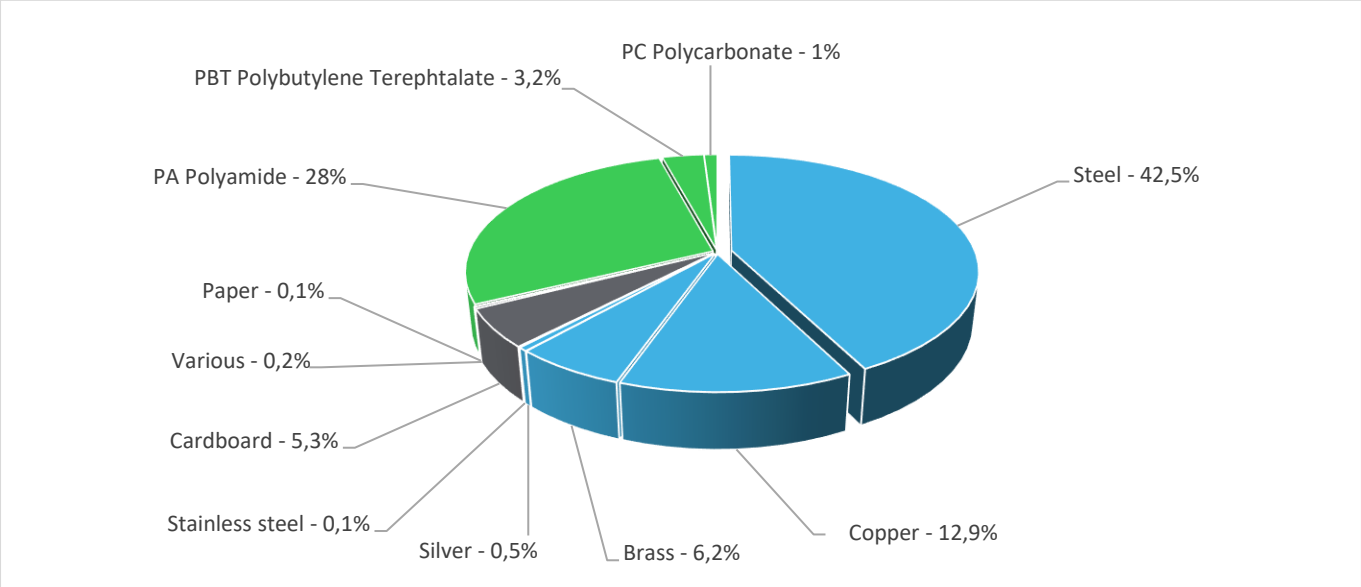


# General information

| | |
|---|---|
| **Representative product** | Acti9 iCT - Contactor - 25A - 2NO - 230-240V - A9C20732 |
| **Description of the product** | Acti9 iCT contactors are designed to remote control applications in alternating current:<br>- lighting, heating, ventilation, roller blinds, sanitary hot water,<br>- mechanical ventilation systems, etc,<br>- load-shedding of non-priority circuits.<br>Acti9 iCT contactors are available in two versions:<br>- without manual operation<br>- with manual operation. |
| **Description of the range** | This PEP covers others products than the reference product. It covers all contactors Acti9 iCT 1P/2P/3P/4P from 16A to 100A<br>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** | Switch on and off during 20 years electrical power supply of a downstream installation with an electrical and/or mechanical control. The functional unit is characterized by a type 2P, a control circuit voltage up to 230V AC, a power circuit voltage of 230V AC and a maximum allowed intensity by the power circuit of 25A (Ip). |

# Constituent materials

| | | |
|---|---|---|
| **Reference product mass** | 125 g | including the product, its packaging and additional elements and accessories |




| | | |
|---|---|---|
| | Plastics | 32,2% |
| | Metals | 62,2% |
| | Others | 5,6% |

# 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

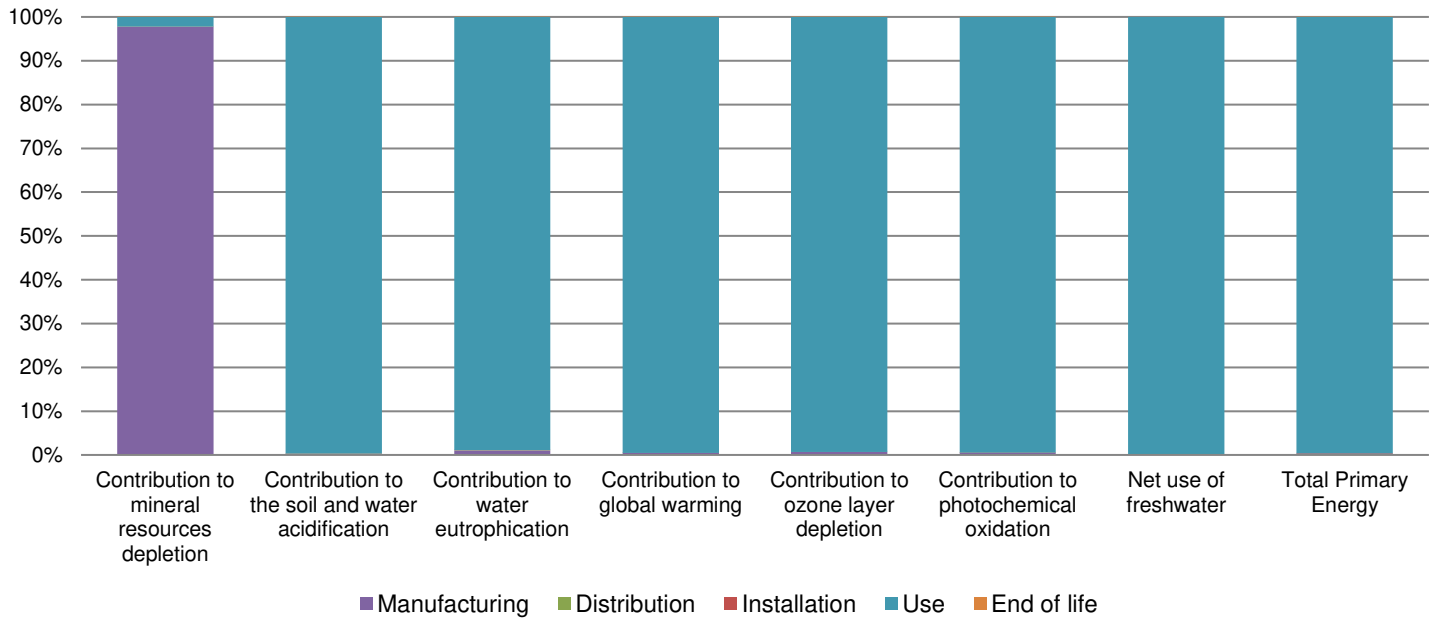
| The Acti9 iCT - Contactor - 25A - 2NO - 230-240V A9C20732 presents the following relevent environmental aspects: | |
|---|---|
| **Manufacturing** | Manufactured at a Schneider Electric production site ISO14001 certified |
| **Distribution** | Weight and volume of the packaging optimized, based on the European Union's packaging directive<br>Packaging weight is 6,5 g, consisting of Cardboard (99,3%), Paper (0,7%)<br>Packaging recycled materials is 70% of total packaging mass.<br>Product distribution optimised by setting up local distribution centres |
| **Installation** | Reference A9C20732 does not require any special installation operations. The disposal of the packaging materials are accounted 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<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: **59%** 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** | Contactor, remote control switch, combinations, starters |
| **Installation elements** | No special components needed |
| **Use scenario** | Load factor : 50% of 25A (Ip)<br>Use rate: 50% of the RLT (20 years) |
| **Geographical representativeness** | Europe |
| **Technological representativeness** | Acti9 iCT contactors are designed to remote control applications in alternating current:<br>- lighting, heating, ventilation, roller blinds, sanitary hot water,<br>- mechanical ventilation systems, etc,<br>- load-shedding of non-priority circuits.<br>Acti9 iCT contactors are available in two versions:<br>- without manual operation<br>- with manual operation. |

| Energy model used | Manufacturing | Installation | Use | End of life |
|---|---|---|---|---|
| | France - Electricity grid mix; AC; consumption mix, at consumer; 230V; FR | 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 iCT - Contactor - 25A - 2NO - 230-240V : A9C20732 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Impact indicators** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 5,74E-04 | 5,62E-04 | 0* | 0* | 1,27E-05 | 0* |
| Contribution to the soil and water acidification | kg $SO_2$ eq | 6,11E-01 | 1,70E-03 | 7,36E-05 | 0* | 6,09E-01 | 0* |
| Contribution to water eutrophication | kg $PO_4^{3-}$ eq | 3,72E-02 | 3,87E-04 | 1,70E-05 | 0* | 3,68E-02 | 9,27E-06 |
| Contribution to global warming | kg $CO_2$ eq | 1,47E+02 | 6,79E-01 | 1,61E-02 | 0* | 1,46E+02 | 1,67E-02 |
| Contribution to ozone layer depletion | kg CFC11 eq | 9,57E-06 | 6,39E-08 | 0* | 0* | 9,51E-06 | 0* |
| Contribution to photochemical oxidation | kg $C_2H_4$ eq | 3,36E-02 | 1,80E-04 | 5,25E-06 | 0* | 3,34E-02 | 3,60E-06 |
| **Resources use** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Net use of freshwater | m3 | 5,29E+02 | 1,57E-01 | 0* | 0* | 5,29E+02 | 0* |
| Total Primary Energy | MJ | 2,93E+03 | 1,20E+01 | 0* | 0* | 2,91E+03 | 0* |




| Optional indicators | | Acti9 iCT - Contactor - 25A - 2NO - 230-240V : A9C20732 | | | | | |
|---|---|---|---|---|---|---|---|
| **Impact indicators** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to fossil resources depletion | MJ | 1,66E+03 | 7,95E+00 | 2,27E-01 | 0* | 1,66E+03 | 0* |
| Contribution to air pollution | m³ | 6,52E+03 | 2,38E+02 | 6,86E-01 | 0* | 6,28E+03 | 1,21E+00 |
| Contribution to water pollution | m³ | 6,20E+03 | 1,79E+02 | 2,65E+00 | 0* | 6,02E+03 | 1,42E+00 |
| **Resources use** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 9,69E-03 | 9,69E-03 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 3,71E+02 | 2,99E-01 | 0* | 0* | 3,71E+02 | 0* |
| Total use of non-renewable primary energy resources | MJ | 2,56E+03 | 1,17E+01 | 0* | 0* | 2,54E+03 | 0* |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 3,71E+02 | 2,80E-01 | 0* | 0* | 3,71E+02 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 1,93E-02 | 1,93E-02 | 0* | 0* | 0* | 0* |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 2,55E+03 | 1,07E+01 | 0* | 0* | 2,54E+03 | 0* |
| Use of non renewable primary energy resources used as raw material | MJ | 9,95E-01 | 9,95E-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 | 8,86E+00 | 8,62E+00 | 0* | 0* | 7,61E-02 | 1,62E-01 |
| Non hazardous waste disposed | kg | 5,44E+02 | 4,15E-01 | 0* | 0* | 5,44E+02 | 0* |
| Radioactive waste disposed | kg | 3,64E-01 | 2,24E-04 | 0* | 0* | 3,63E-01 | 0* |
| **Other environmental information** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Materials for recycling | kg | 8,60E-02 | 1,20E-02 | 0* | 6,49E-03 | 0* | 6,75E-02 |
| Components for reuse | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Materials for energy recovery | kg | 1,96E-03 | 0* | 0* | 0* | 0* | 1,96E-03 |
| Exported Energy | MJ | 2,06E-05 | 1,94E-06 | 0* | 1,87E-05 | 0* | 0* |

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

*Life cycle assessment performed with EIME version 5.9.3, database version 2020-11 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, ratios to apply may be provided on request

*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-00144-V02.01-EN | *Drafting rules* | PCR-ed3-EN-2015 04 02 |
| *Verifier accreditation N°* | VH39 | *Supplemented by* | PSR-0005-ed2-EN-2016 03 29 |
| *Date of issue* | 09/2022 | *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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