Product Environmental Profile

TeSys Deca Motor circuit breaker

TeSys Deca
### General information

**Reference product**
TeSys Deca Motor circuit breaker - GV2ME08

**Description of the product**
The main purpose of the product is to protect three-phase motors, the cables, the people, against short circuits and overloads.

**Description of the range**
The range product includes: rated current: 0.16A-32A, TeSys Deca Motor circuit breaker button control, the representative product used for analysis is 3P 4A.

The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology.

**Functional unit**
Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 690V AC and rated current 4A. This protection is ensured in accordance with the following parameters:
- Number of poles 3p
- Rated breaking capacity 3KA

### Constituent materials

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

The pie chart shows the percentage distribution of constituent materials:
- **Plastics**
  - PA Polyamide: 35.8%
  - PA Polyamide: 35.8%
- **Metals**
  - Steel: 38.7%
  - Ferrous alloys: 4.6%
  - Copper: 4.1%
  - Stainless steel: 0.5%
  - Brass: <0.1%
- **Cardboard**: 6.1%
- **Paper**: 0.4%
- **Various**: <0.1%
- **PPS Polyphenylene sulfure**: 1.1%
- **PC Polycarbonate**: 0.1%

### Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website:
### Environmental impacts

**End Of Life**

- **Recyclability potential:** 63%
  - Recyclability rate has been calculated based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).

**Reference service life time**

- 20 years

**Product category**

- Circuit-breakers

**Installation elements**

- Ref GV2ME08 does not require any installation operations.

**Use scenario**

- Load rate: 50% of In
- Use time rate: 30% of RLT

**Technological representativeness**

- The main purpose of the product is to protect three-phase motors, the cables, the people, against short circuits and overloads.

**Geographical representativeness**

- Europe

**Energy model used**

- Electricity Mix; Production mix; Low voltage; FR

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**Mandatory Indicators**

<table>
<thead>
<tr>
<th>Impact indicators</th>
<th>Unit</th>
<th>Total</th>
<th>Manufacturing</th>
<th>Distribution</th>
<th>Installation</th>
<th>Use</th>
<th>End of Life</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution to climate change</td>
<td>kg CO2 eq</td>
<td>4.26E+01</td>
<td>1.46E+00</td>
<td>7.97E-02</td>
<td>3.00E-02</td>
<td>4.04E+01</td>
<td>6.36E-01</td>
<td>-7.58E+00</td>
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<tr>
<td>Contribution to climate change-fossil</td>
<td>kg CO2 eq</td>
<td>4.25E+01</td>
<td>1.45E+00</td>
<td>7.97E-02</td>
<td>3.00E-02</td>
<td>4.03E+01</td>
<td>6.36E-01</td>
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<tr>
<td>Contribution to climate change-biogenic</td>
<td>kg CO2 eq</td>
<td>8.00E-02</td>
<td>0*</td>
<td>0*</td>
<td>1.33E-03</td>
<td>5.36E-02</td>
<td>2.28E-03</td>
<td>-2.62E-02</td>
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<tr>
<td>Contribution to climate change-land use and land use change</td>
<td>kg CO2 eq</td>
<td>3.72E-08</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>3.72E-08</td>
<td>0.00E+00</td>
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<tr>
<td>Contribution to ozone depletion</td>
<td>kg CFC-11 eq</td>
<td>4.40E-07</td>
<td>1.90E-07</td>
<td>7.03E-08</td>
<td>1.99E-09</td>
<td>1.73E-07</td>
<td>4.80E-09</td>
<td>-1.15E-06</td>
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<td>Contribution to acidification</td>
<td>mol H+ eq</td>
<td>2.41E-01</td>
<td>8.21E-03</td>
<td>3.46E-04</td>
<td>1.19E-04</td>
<td>2.30E-01</td>
<td>1.65E-03</td>
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<td>Contribution to eutrophication, freshwater</td>
<td>kg (PO4)eq</td>
<td>2.13E-04</td>
<td>2.30E-05</td>
<td>0*</td>
<td>2.17E-07</td>
<td>1.11E-04</td>
<td>7.93E-05</td>
<td>-1.25E-05</td>
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<td>Contribution to eutrophication marine</td>
<td>kg N eq</td>
<td>2.78E-02</td>
<td>1.07E-03</td>
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<td>3.16E-05</td>
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<td>3.24E-04</td>
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<td>Contribution to eutrophication, terrestrial</td>
<td>mol N eq</td>
<td>4.11E-01</td>
<td>1.14E-02</td>
<td>1.72E-03</td>
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<td>Contribution to photochemical ozone formation - human health</td>
<td>kg COVNM eq</td>
<td>9.00E-02</td>
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<td>Contribution to resource use, minerals and metals</td>
<td>kg Sb eq</td>
<td>9.62E-03</td>
<td>9.62E-03</td>
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<td>0*</td>
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<td>MJ</td>
<td>1.08E+03</td>
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<td>Contribution to water use</td>
<td>m3 eq</td>
<td>2.01E+00</td>
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Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact
According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request.

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.
Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact
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.

<table>
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<tr>
<th>Registration number:</th>
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<th>Drafting rules</th>
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<td>Supplemented by</td>
<td>PSR-0005-ed2-2016 03 29</td>
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<td>Information and reference</td>
<td><a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a></td>
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Validity period: 5 years

Independent verification of the declaration and data, in compliance with ISO 14021 : 2016

Internal: X, External: 

The PCR review was conducted by a panel of experts chaired by Julie ORGELET (Ddemain)

PEP are compliant with XP C08-100-1.2016 or EN 50693:2019

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. Type II environmental declarations »

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Published by Schneider Electric
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