Product Environmental Profile

MULTI9 C60 CIRCUIT BREAKER

[Image of MULTI9 C60 Circuit Breaker]
### General Information

<table>
<thead>
<tr>
<th>Representative product</th>
<th>MULTI9 C60 CIRCUIT BREAKER - M9F11116</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of the product</td>
<td>The main function of C60 circuit breaker is to ensure protection of low voltage electrical installations.</td>
</tr>
<tr>
<td>Functional unit</td>
<td>Protect during 20 years the installation against overloads and short-circuits in circuit with assigned voltage 240V and rated current 16A. This protection is ensured in accordance with the following parameters: - Number of poles: 1 - Rated breaking capacity Icu: 10kA - Tripping curve: C</td>
</tr>
</tbody>
</table>

### Constituent Materials

| Reference product mass | 113.4 g including the product, its packaging and additional elements and accessories |

![Pie chart showing constituent materials](image)

- **Plastics**: 41.1%
- **Metals**: 54.5%
- **Others**: 4.4%

### 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.

### 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**

US

**Technological representativeness**

The main function of C60 circuit breaker is to ensure protection of low voltage electrical installations.

**Energy model used**

Energy model used: Bulgaria

**Impact indicators**

<table>
<thead>
<tr>
<th>Compulsory 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>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution to mineral resources depletion</td>
<td>kg Sb eq</td>
<td>8.52E-05</td>
<td>8.38E-05</td>
<td>0*</td>
<td>0*</td>
<td>1.45E-06</td>
<td>0*</td>
</tr>
<tr>
<td>Contribution to the soil and water acidification</td>
<td>kg SO(_4) eq</td>
<td>7.32E-02</td>
<td>3.31E-03</td>
<td>6.68E-05</td>
<td>0*</td>
<td>6.98E-02</td>
<td>3.20E-05</td>
</tr>
<tr>
<td>Contribution to water eutrophication</td>
<td>kg PO(_4) eq</td>
<td>4.85E-03</td>
<td>6.10E-04</td>
<td>1.54E-05</td>
<td>0*</td>
<td>4.22E-03</td>
<td>8.91E-06</td>
</tr>
<tr>
<td>Contribution to global warming</td>
<td>kg CO(_2) eq</td>
<td>1.75E+01</td>
<td>6.91E-01</td>
<td>1.46E-02</td>
<td>0*</td>
<td>1.67E+01</td>
<td>1.68E-02</td>
</tr>
<tr>
<td>Contribution to ozone layer depletion</td>
<td>kg CFC11 eq</td>
<td>1.18E-06</td>
<td>9.02E-08</td>
<td>0*</td>
<td>0*</td>
<td>1.09E-06</td>
<td>7.20E-10</td>
</tr>
<tr>
<td>Contribution to photochemical oxidation</td>
<td>kg C(_2)H(_4) eq</td>
<td>4.09E-03</td>
<td>2.49E-04</td>
<td>4.77E-06</td>
<td>0*</td>
<td>3.84E-03</td>
<td>3.34E-06</td>
</tr>
<tr>
<td>Resources use</td>
<td>Unit</td>
<td>Total</td>
<td>Manufacturing</td>
<td>Distribution</td>
<td>Installation</td>
<td>Use</td>
<td>End of Life</td>
</tr>
<tr>
<td>Net use of freshwater</td>
<td>m(^3)</td>
<td>6.07E+01</td>
<td>7.58E-03</td>
<td>0*</td>
<td>0*</td>
<td>6.07E+01</td>
<td>0*</td>
</tr>
<tr>
<td>Total Primary Energy</td>
<td>MJ</td>
<td>3.43E+02</td>
<td>8.78E+00</td>
<td>2.07E-01</td>
<td>0*</td>
<td>3.34E+02</td>
<td>1.55E-01</td>
</tr>
</tbody>
</table>

**MULTI9 C60 CIRCUIT BREAKER - M9F11116**

- **Additional environmental information**
  - The MULTI9 C60 CIRCUIT BREAKER presents the following relevant 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. Packaging weight is 4.4 g, consisting of cardboard (100%). Product distribution optimised by setting up local distribution centres.
    - **Installation**: Ref M9F11116 does not require any installation operations.
    - **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. No special end-of-life treatment required. According to countries’ practices this product can enter the usual end-of-life treatment process.

- **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: US
  - Technological representativeness: The main function of C60 circuit breaker is to ensure protection of low voltage electrical installations.
  - Energy model used: Energy model used: Bulgaria
  - Impact indicators: MULTI9 C60 CIRCUIT BREAKER - M9F11116
  - Compulsory indicators: MULTI9 C60 CIRCUIT BREAKER - M9F11116

- **Manufacturing**: Multi9 C60 circuit breaker - M9F11116
  - Electricity grid mix: AC; consumption mix, at consumer; < 1kV; EU-27

- **Installation**: Multi9 C60 circuit breaker - M9F11116
  - Electricity grid mix: AC; consumption mix, at consumer; < 1kV; EU-27

- **Use**: Multi9 C60 circuit breaker - M9F11116
  - Electricity grid mix: AC; consumption mix, at consumer; < 1kV; EU-27
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.

<table>
<thead>
<tr>
<th>Registration number</th>
<th>SCHN-00258-V01.01-EN</th>
<th>Drafting rules</th>
<th>PCR-ed3-EN-2015 04 02</th>
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</thead>
<tbody>
<tr>
<td>Verifier accreditation N°</td>
<td>VH08</td>
<td>Supplemented by</td>
<td>PSR-0005-ed2-EN-2016 03 29</td>
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<tr>
<td>Date of issue</td>
<td>10/2017</td>
<td>Information and reference documents</td>
<td><a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a></td>
</tr>
<tr>
<td>Internal</td>
<td>External X</td>
<td>Validity period</td>
<td>5 years</td>
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</tbody>
</table>

The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)

PEP are compliant with XP C08-100-1 :2014

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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www.schneider-electric.com Published by Schneider Electric
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