Product Environmental Profile

CONTACTOR 3P+1NO 220V COIL
General information

Representative product
CONTACTOR 3P+1NO 220V COIL - LC1D0910M7N

Description of the product
The product is a CONTACTOR 3P+1NO 220V COIL included in passive products - non-continuous operation category.
The main purpose of the product is to make and break currents up to 18A for motor loads and up to 25A for resistive loads up to 690V AC.

Functional unit
To make and break currents up to 18A for motor loads and up to 25A for resistive loads up to 690V AC for 20 years, in accordance with the GB14048.4 standards.

Constituent materials

Reference product mass
351 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 CONTACTOR 3P+1NO 220V COIL presents the following relevant environmental aspects

#### Design

- **Manufacturing**: Manufactured at a Schneider Electric production site ISO14001 certified.

#### Manufacturing

- **Weight and volume of the packaging optimized, based on the European Union's packaging directive**
- **Packaging weight is 15 g, consisting of cardboard (15g)**
- **Product distribution optimised by setting up local distribution centres**

#### Distribution

- **Ref LC1D0910M7N does not require any installation operations.**
- **The product does not require special maintenance operations.**

#### Use

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.

**Recyclability potential:** 63%

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

<table>
<thead>
<tr>
<th>Reference life time</th>
<th>20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product category</td>
<td>Passive products - non-continuous operation</td>
</tr>
<tr>
<td>Installation elements</td>
<td>No special components needed</td>
</tr>
<tr>
<td>Use scenario</td>
<td>Product dissipation is 8.054 W full load, loading rate is 30% and service uptime percentage is 30%</td>
</tr>
<tr>
<td>Geographical representativeness</td>
<td>China</td>
</tr>
<tr>
<td>Technological representativeness</td>
<td>The product is a CONTACTOR 3P+1NO 220V COIL included in passive products - non-continuous operation category. The main purpose of the product is to make and break currents up to 18A for motor loads and up to 25A for resistive loads up to 690V AC.</td>
</tr>
</tbody>
</table>

#### Energy model used

<table>
<thead>
<tr>
<th>Manufacturing</th>
<th>Installation</th>
<th>Use</th>
<th>End of life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy model used: China</td>
<td>Electricity mix; AC; consumption mix, at consumer; 220V; CN</td>
<td>Electricity mix; AC; consumption mix, at consumer; 220V; CN</td>
<td>Electricity mix; AC; consumption mix, at consumer; 220V; CN</td>
</tr>
</tbody>
</table>

### Compulsory indicators

<table>
<thead>
<tr>
<th>Impact indicators</th>
<th>Unit</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>1.06E-04</td>
<td>1.04E-04</td>
<td>0*</td>
<td>0*</td>
<td>1.89E-06</td>
</tr>
<tr>
<td>Contribution to the soil and water acidification</td>
<td>kg SO₂ eq</td>
<td>4.69E-01</td>
<td>1.87E-03</td>
<td>5.08E-04</td>
<td>0*</td>
<td>4.67E-01</td>
</tr>
<tr>
<td>Contribution to water eutrophication</td>
<td>kg PO₄³⁻ eq</td>
<td>1.25E-01</td>
<td>6.63E-04</td>
<td>1.37E-04</td>
<td>0*</td>
<td>1.24E-01</td>
</tr>
<tr>
<td>Contribution to global warming</td>
<td>kg CO₂ eq</td>
<td>4.32E+02</td>
<td>1.19E+00</td>
<td>1.96E-01</td>
<td>0*</td>
<td>4.31E+02</td>
</tr>
<tr>
<td>Contribution to ozone layer depletion</td>
<td>kg CFC11 eq</td>
<td>3.74E-06</td>
<td>1.75E-07</td>
<td>1.39E-07</td>
<td>0*</td>
<td>3.43E-06</td>
</tr>
<tr>
<td>Contribution to photochemical oxidation</td>
<td>kg CH₄ eq</td>
<td>5.54E-02</td>
<td>2.25E-04</td>
<td>1.15E-05</td>
<td>0*</td>
<td>5.51E-02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources use</th>
<th>Unit</th>
<th>Manufacturing</th>
<th>Distribution</th>
<th>Installation</th>
<th>Use</th>
<th>End of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net use of freshwater</td>
<td>m³</td>
<td>5.16E-01</td>
<td>3.56E-02</td>
<td>2.35E-04</td>
<td>0*</td>
<td>4.81E-01</td>
</tr>
<tr>
<td>Total Primary Energy</td>
<td>MJ</td>
<td>7.30E+03</td>
<td>2.93E+01</td>
<td>2.48E+00</td>
<td>0*</td>
<td>7.27E+03</td>
</tr>
</tbody>
</table>
### Optional 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>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution to fossil resources depletion</td>
<td>MJ</td>
<td>6.75E+03</td>
<td>1.75E+01</td>
<td>2.47E+00</td>
<td>0*</td>
<td>6.73E+03</td>
<td>0*</td>
</tr>
<tr>
<td>Contribution to air pollution</td>
<td>m³</td>
<td>4.51E+04</td>
<td>4.24E+02</td>
<td>6.85E+00</td>
<td>0*</td>
<td>4.47E+04</td>
<td>0*</td>
</tr>
<tr>
<td>Contribution to water pollution</td>
<td>m³</td>
<td>2.15E+04</td>
<td>4.63E+01</td>
<td>2.89E+01</td>
<td>0*</td>
<td>2.14E+04</td>
<td>4.17E+00</td>
</tr>
</tbody>
</table>

### Resources use

<table>
<thead>
<tr>
<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>kg</td>
<td>2.48E-02</td>
<td>2.48E-02</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Total use of renewable primary energy resources

<table>
<thead>
<tr>
<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>MJ</td>
<td>3.62E+02</td>
<td>5.88E-01</td>
<td>0*</td>
<td>0*</td>
<td>3.61E+02</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Total use of non-renewable primary energy resources

<table>
<thead>
<tr>
<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>MJ</td>
<td>6.94E+03</td>
<td>2.87E+01</td>
<td>2.48E+00</td>
<td>0*</td>
<td>6.91E+03</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Use of renewable primary energy excluding renewable primary energy used as raw material

<table>
<thead>
<tr>
<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>MJ</td>
<td>3.62E+02</td>
<td>2.79E-01</td>
<td>0*</td>
<td>0*</td>
<td>3.61E+02</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Use of renewable primary energy resources used as raw material

<table>
<thead>
<tr>
<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>MJ</td>
<td>3.09E-01</td>
<td>3.09E-01</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Use of non renewable primary energy excluding non renewable primary energy used as raw material

<table>
<thead>
<tr>
<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>MJ</td>
<td>6.94E+03</td>
<td>2.60E+01</td>
<td>2.48E+00</td>
<td>0*</td>
<td>6.91E+03</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Use of non renewable primary energy resources used as raw material

<table>
<thead>
<tr>
<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>MJ</td>
<td>2.69E+00</td>
<td>2.69E+00</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Use of non renewable secondary fuels

<table>
<thead>
<tr>
<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>MJ</td>
<td>0.00E+00</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Use of renewable secondary fuels

<table>
<thead>
<tr>
<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>MJ</td>
<td>0.00E+00</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
</tbody>
</table>

### Waste categories

<table>
<thead>
<tr>
<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>kg</td>
<td>2.22E+01</td>
<td>7.84E+00</td>
<td>0*</td>
<td>3.01E-02</td>
<td>1.39E+01</td>
<td>4.64E-01</td>
</tr>
<tr>
<td>kg</td>
<td>7.82E+01</td>
<td>7.49E-02</td>
<td>0*</td>
<td>0*</td>
<td>7.81E+01</td>
<td>0*</td>
</tr>
<tr>
<td>kg</td>
<td>2.68E-03</td>
<td>6.55E-05</td>
<td>3.96E-05</td>
<td>0*</td>
<td>2.57E-03</td>
<td>2.37E-06</td>
</tr>
</tbody>
</table>

### Other environmental information

<table>
<thead>
<tr>
<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>kg</td>
<td>2.41E-01</td>
<td>3.06E-02</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>2.10E-01</td>
</tr>
<tr>
<td>kg</td>
<td>0.00E+00</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
<tr>
<td>kg</td>
<td>6.56E-03</td>
<td>8.33E-04</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>5.73E-03</td>
</tr>
<tr>
<td>MJ</td>
<td>0.00E+00</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
<td>0*</td>
</tr>
</tbody>
</table>

* 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).
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 No</th>
<th>Drafting rules</th>
<th>PCR-ed3-EN-2015 04 02</th>
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<tbody>
<tr>
<td>ENVPEP111213EN_V01.01-EN</td>
<td>Supplemented by</td>
<td>PSR-0005-ed1-EN-2012 12 11</td>
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<table>
<thead>
<tr>
<th>Date of issue</th>
<th>Validity period</th>
<th>Information and reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>03-2016</td>
<td>5 years</td>
<td><a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a></td>
</tr>
</tbody>
</table>

Independent verification of the declaration and data, in compliance with ISO 14025 : 2010

Internal  X  External

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 »

Schneider Electric Industries SAS

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