Reference product

> Reference product
T3.5EHZ 10/12 12V
Réf. 2009400

> Unité fonctionnelle
Ensure the closing and opening action by performing 14 000 operating cycles, and a reference service life of 15 years, with a torque of 10 Nm, on a length of 2 meters, corresponding to 16 winding turns per half-cycle, with a tube diameter of 40 mm.

This product is a motor + battery + autonomous photovoltaic panel kit intended for the motorization of outdoor roller shutters.

This PEP is representative of a product distributed and used worldwide.
Materials and substances

All useful measures have been adopted to ensure that the materials used in the composition of the product do not contain any substances banned by the legislation in force at the time of marketing.

<table>
<thead>
<tr>
<th>Plastics</th>
<th>Metals</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>g</td>
<td>%</td>
</tr>
<tr>
<td>PE</td>
<td>176,8</td>
<td>7.8 %</td>
</tr>
<tr>
<td>PU</td>
<td>64,0</td>
<td>2.8 %</td>
</tr>
<tr>
<td>Nylon</td>
<td>61,1</td>
<td>2.7 %</td>
</tr>
<tr>
<td>PVC</td>
<td>35,3</td>
<td>1.5 %</td>
</tr>
<tr>
<td>ABS</td>
<td>31,2</td>
<td>1.4 %</td>
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<tr>
<td>Other</td>
<td>73,6</td>
<td>3.2 %</td>
</tr>
</tbody>
</table>

Packaging
- Cardboard 15,5 21.8 %
- Paper 100,4 5.0 %

Total mass of reference product: 2262g
Estimated recyclable content: 62,50%

CHEMICAL SUBSTANCES
The products covered by this PEP comply with REACH regulation and RoHS directive.

Manufacturing

The devices covered in this PEP are manufactured in a production that has adopted an environmental management approach.

Energy model
- Polish Mix

Distribution

Packaging is continuously improved by reducing the amount and using a maximum of recycled materials.

The unit pack has been modeled here. It is made up of:
- 100% recycled fiber paper instructions
- Cardboard with a minimum of 50% recycled fibers
Installation

> Installation processes
The motorization system is not ready to use, it needs to be integrated into a roller blind by a professional. As specified in Product Specific Rules: "The installation devices are not considered in the study because they must be chosen on a case-by-case basis by the project manager according to the support or the configuration of the installation site."

> Energy model
The installation of the product may consume electrical energy for drilling or screwing, but the lack of a standardized installation scenario and the probably extremely low amount of energy involved means that it should not be considered.

Use

> Consumables and maintenance: 1 battery replacement during life cycle.

End of life

> Typical transport conditions
At the end of its life, this product requires specific treatment in a specialized facility for the reprocessing of electrical and electronic waste. For more information on the WEEE channels specific to your country, please contact your local representative.
Considering the complexity of the electric and electronic recycling channel and our lack of knowledge about the end of life processes implemented all around the world, we considered as indicated in PCR:
- 1000 km of local transport
- A specific treatment for the Ni-MH battery and a landfill treatment for other constitutive materials
### Environmental impacts

Evaluation of the environmental impact covers the following life cycle stages: manufacturing, distribution, installation, use and end of life.

All calculations are done with EIME software version EIME© v5.8.1

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Global</th>
<th>Unit</th>
<th>Manufacturing</th>
<th>Distribution</th>
<th>Installation</th>
<th>Usage</th>
<th>End of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global warming</td>
<td>4,64E+01</td>
<td>kg.equivalent. CO2</td>
<td>2,82E+01</td>
<td>6,78E-01</td>
<td>8,13E-01</td>
<td>1,66E+01</td>
<td>2,60E-01</td>
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<tr>
<td>Ozone depletion</td>
<td>2,24E-05</td>
<td>kg.equivalent. CFC-11</td>
<td>1,16E-05</td>
<td>1,16E-09</td>
<td>2,11E-09</td>
<td>1,08E-05</td>
<td>3,06E-08</td>
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<tr>
<td>Acidification of soil and water</td>
<td>4,15E-01</td>
<td>kg.equivalent. SO2</td>
<td>2,09E-01</td>
<td>1,92E-02</td>
<td>2,03E-04</td>
<td>1,85E-01</td>
<td>7,77E-04</td>
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<tr>
<td>Water eutrophication</td>
<td>3,91E-02</td>
<td>kg.equivalent. C2H4</td>
<td>1,47E-02</td>
<td>9,53E-04</td>
<td>1,95E-04</td>
<td>1,25E-02</td>
<td>7,69E-05</td>
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<tr>
<td>Depletion of abiotic resources - elements</td>
<td>9,05E-04</td>
<td>kg.equivalent. Sb</td>
<td>7,95E-04</td>
<td>2,45E-08</td>
<td>2,00E-09</td>
<td>1,10E-04</td>
<td>8,93E-09</td>
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<tr>
<td>Depletion of abiotic resources fossil fuels</td>
<td>4,20E+02</td>
<td>MJ</td>
<td>2,66E+02</td>
<td>8,62E+00</td>
<td>5,49E-01</td>
<td>1,43E+02</td>
<td>2,76E+00</td>
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<tr>
<td>Water pollution</td>
<td>3,86E+03</td>
<td>m³</td>
<td>2,42E+03</td>
<td>1,01E+02</td>
<td>4,21E+01</td>
<td>1,28E+03</td>
<td>2,45E+01</td>
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<tr>
<td>Air pollution</td>
<td>7,49E+03</td>
<td>m³</td>
<td>4,35E+03</td>
<td>9,29E+01</td>
<td>6,23E+00</td>
<td>3,01E+03</td>
<td>3,64E+01</td>
</tr>
</tbody>
</table>

- **Use of renewable primary energy, excluding renewable primary energy resources used as raw materials**
  - 2,76E+01 MJ 1,91E+01 1,11E-02 4,37E-03 8,45E+00 2,01E-02

- **Use of renewable primary energy resources used as raw materials**
  - 2,22E+00 MJ 1,49E+00 0,00E+00 0,00E+00 7,32E-01 0,00E+00

- **Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)**
  - 2,98E+01 MJ 2,06E+01 1,11E-02 4,37E-03 9,18E+00 2,01E-02

- **Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials**
  - 5,70E+02 MJ 3,72E+02 8,66E+00 5,99E-01 1,85E+02 3,66E+00

- **Use of non-renewable primary energy resources used as raw materials**
  - 2,09E+01 MJ 1,55E+01 0,00E+00 0,00E+00 5,36E+00 0,00E+00

- **Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)**
  - 5,91E+02 MJ 3,87E+02 8,66E+00 5,99E-01 1,91E+02 3,66E+00

- **Use of secondary materials**
  - 9,74E-01 kg 7,30E-01 0,00E+00 0,00E+00 2,44E-01 0,00E+00

- **Use of renewable secondary fuels**
  - 0,00E+00 MJ 0,00E+00 0,00E+00 0,00E+00 0,00E+00 0,00E+00

- **Use of non-renewable secondary fuels**
  - 0,00E+00 MJ 0,00E+00 0,00E+00 0,00E+00 0,00E+00 0,00E+00

- **Net use of fresh water**
  - 1,04E+01 m³ 9,85E+00 5,24E-05 5,28E-05 5,41E-01 4,71E-04

- **Hazardous waste disposed of**
  - 2,29E+02 kg 1,16E+02 0,00E+00 5,82E-04 1,12E+02 5,28E-01

- **Non-hazardous waste disposed of**
  - 7,31E+01 kg 4,07E+01 2,09E-02 6,30E-01 3,04E+01 1,29E+00

- **Radioactive waste disposed of**
  - 3,88E-02 kg 2,74E-02 1,45E-05 5,95E-06 1,14E-02 3,92E-05

- **Components for re-use**
  - 0,00E+00 kg 0,00E+00 0,00E+00 0,00E+00 0,00E+00 0,00E+00

- **Materials for recycling**
  - 0,00E+00 kg 0,00E+00 0,00E+00 0,00E+00 0,00E+00 0,00E+00

- **Materials for energy recovery**
  - 6,00E-09 kg 6,00E-09 0,00E+00 0,00E+00 0,00E+00 0,00E+00

- **Exported energy**
  - 7,77E-02 MJ by energy vector 6,57E-03 0,00E+00 6,57E-02 5,50E-03 0,00E+00

- **Total use of primary energy during the life cycle**
  - 6,21E+02 MJ 4,08E+02 8,67E+00 6,03E-01 2,00E+02 3,68E+00

PEP ecopassport n° SOMF-00062-V01.01-EN
Product Environmental Profile
Solar radio motor for rolling shutters
Simu T3.5 E Hz

Registration number: SOMF-00062-V01.01-EN
Drafting Rules: PCR-ed3-EN-2015 04 02
Supplemented by PSR-0006-ed1.1-EN-2015 10 16

N° d'habilitation du vérificateur : VH18
Programme information: www.pep-ecopassport.org

Date d'édition : 10-2020
Validity period: 5 years

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

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

Somfy contact: Justine ZAWADA, Sustainable Development Engineer, justine.zawada@somfy.com

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