# **Product Environmental Profile**

#### **GENERIC ACTUATOR - TIMER 10 A**







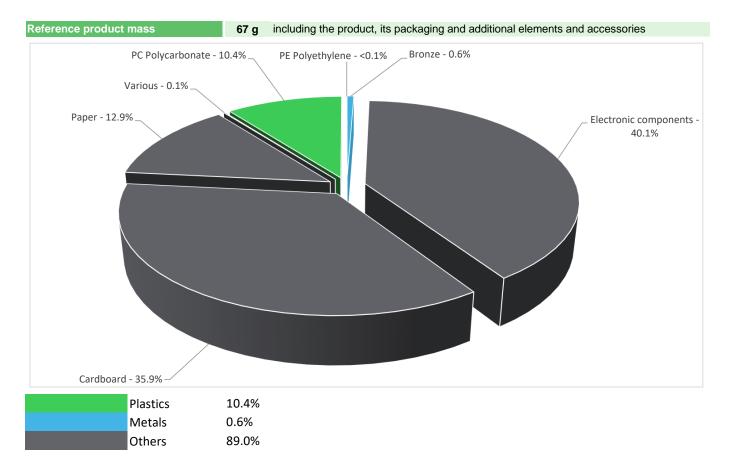




### **General information**

| Representative product     | GENERIC ACTUATOR - TIMER 10 A - S520192   |  |  |  |  |
|----------------------------|---|--|--|--|--|
| Description of the product | The generic module is a load outlet which has integrated an electronic switch and is a connected device. Generic module combines the function of communicating with a WLBL (Wireless Batteryless) control switch through BLE Protocol a and acting on the light load.   |  |  |  |  |
| Functional unit            | During 10 years of life time, the Electronic SW, by a load consuming of 10A under a voltage of 250V installed direct on a domestic network, communicates through BLE protocol with WLBL switches, capturing its signal of ON-OFF and acts on light load. Moreover, the genric module is designed to protect the user from direct contact with live parts with a protection class IP20 in accordance with the standard IEC 60529 & IK04 in accordance with the standard IEC 62262 with the following standards IEC 60669-2-1:2002+A1:2008+A2:2015, IEC 60669-1:2017, EN 60699-2-1:2004+A1:2009+A12:2010, EN60669-1:2018. |  |  |  |  |

### Constituent materials



## **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 <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>

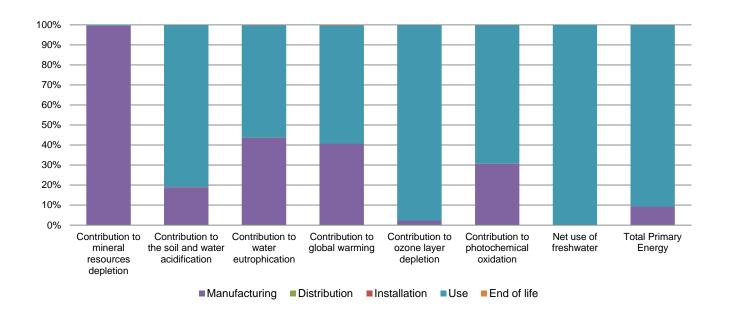


| The GENERIC ACTUATOR - TIMER 10 A presents the following relevent environmental aspects |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Manufacturing   | Manufactured at a Schneider Electric production site ISO14001 certified  |  |  |  |  |  |
|   | Weight and volume of the packaging optimized, based on the European Union's packaging directive  |  |  |  |  |  |
| Distribution  | Packaging weight is 24.2 g, consisting of Cardboard (99.8%), Plastic (0.1%) and Paper (0.1%)   |  |  |  |  |  |
|   | Product distribution optimised by setting up local distribution centres  |  |  |  |  |  |
| Installation  | The product does not require special installation procedure and it is connected to domestic electric network (please, refer to device's User Manual for further information). The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal). |  |  |  |  |  |
| Use   | The product does not require special maintenance operations.   |  |  |  |  |  |
|   | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials   |  |  |  |  |  |
|   | This product contains Electronic PCB Assembly (27g) that should be separated from the stream of waste so as to optimize end-of-life treatment.   |  |  |  |  |  |
| End of life   | The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website  |  |  |  |  |  |
|   | http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page   |  |  |  |  |  |
|   | Based on "ECO'DEEE recyclability and recoverability calculation method"  Recyclability potential: 12% (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).  |  |  |  |  |  |

# **Environmental impacts**

| Reference life time              | 10 years  |  |  |  |  |  |
|----------------------------------|---|--|--|--|--|--|
| Product category                 | Other equipments - Active product   |  |  |  |  |  |
| Installation elements            | No special components needed  |  |  |  |  |  |
| Use scenario                     | Product consumes power of 1.6W in active mode 30% of the time and 1.1W in standby mode 70% of time.   |  |  |  |  |  |
| Geographical representativeness  | France  |  |  |  |  |  |
| Technological representativeness | The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production. |  |  |  |  |  |
|                                  | Manufacturing   | Installation   | Use  | End of life  |  |  |
| Energy model used                | Manufacturing Plant Location:<br>Flex (Romania)   | Electricity grid mix; AC;<br>consumption mix, at<br>consumer; 230V; FR | Electricity grid mix; AC; consumption mix, at consumer; 230V; FR | Electricity grid mix; AC;<br>consumption mix, at<br>consumer; 230V; FR |  |  |

| Compulsory indicators                            | GENERIC ACTUATOR - TIMER 10 A - S520192 |          |               |              |              |          |             |
|--|---|----------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                | Unit                                    | Total    | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to mineral resources depletion      | kg Sb eq                                | 1.19E-03 | 1.18E-03      | 0*           | 0*           | 5.81E-06 | 0*          |
| Contribution to the soil and water acidification | $kg SO_2 eq$                            | 5.47E-02 | 1.03E-02      | 1.80E-05     | 5.47E-06     | 4.43E-02 | 2.48E-05    |
| Contribution to water eutrophication             | kg PO <sub>4</sub> 3- eq                | 7.19E-03 | 3.14E-03      | 4.13E-06     | 1.34E-06     | 4.04E-03 | 1.32E-05    |
| Contribution to global warming                   | kg CO <sub>2</sub> eq                   | 2.02E+01 | 8.21E+00      | 4.00E-03     | 0*           | 1.19E+01 | 4.29E-02    |
| Contribution to ozone layer depletion            | kg CFC11<br>eq                          | 1.74E-05 | 3.97E-07      | 0*           | 0*           | 1.70E-05 | 0*          |
| Contribution to photochemical oxidation          | kg C₂H₄ eq                              | 3.70E-03 | 1.14E-03      | 1.28E-06     | 4.09E-07     | 2.56E-03 | 1.95E-06    |
| Resources use                                    | Unit                                    | Total    | Manufacturing | Distribution | Installation | Use      | End of Life |
| Net use of freshwater                            | m3                                      | 2.82E+02 | 3.82E-02      | 0*           | 0*           | 2.82E+02 | 0*          |
| Total Primary Energy                             | MJ                                      | 1.20E+03 | 1.11E+02      | 0*           | 0*           | 1.09E+03 | 0*          |



| Optional indicators   |      | GENERIC ACTUATOR - TIMER 10 A - S520192 |               |              |              |          |             |
|---|------|---|---------------|--------------|--------------|----------|-------------|
| Impact indicators   | Unit | Total                                   | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to fossil resources depletion  | MJ   | 2.36E+02                                | 9.90E+01      | 5.62E-02     | 0*           | 1.37E+02 | 8.48E-02    |
| Contribution to air pollution   | m³   | 1.22E+03                                | 8.19E+02      | 1.64E-01     | 0*           | 3.97E+02 | 7.44E-01    |
| Contribution to water pollution   | m³   | 1.19E+03                                | 5.84E+02      | 6.58E-01     | 1.99E-01     | 6.03E+02 | 1.76E+00    |
| Resources use   | Unit | Total                                   | Manufacturing | Distribution | Installation | Use      | End of Life |
| Use of secondary material   | kg   | 2.31E-02                                | 2.31E-02      | 0*           | 0*           | 0*       | 0*          |
| Total use of renewable primary energy resources   | MJ   | 8.38E+01                                | 4.99E+00      | 0*           | 0*           | 7.88E+01 | 0*          |
| Total use of non-renewable primary energy resources   | MJ   | 1.11E+03                                | 1.06E+02      | 0*           | 0*           | 1.01E+03 | 0*          |
| Use of renewable primary energy excluding renewable primary energy used as raw material         | MJ   | 8.35E+01                                | 4.78E+00      | 0*           | 0*           | 7.88E+01 | 0*          |
| Use of renewable primary energy resources used as raw material                                  | MJ   | 2.19E-01                                | 2.19E-01      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ   | 1.11E+03                                | 1.06E+02      | 0*           | 0*           | 1.01E+03 | 0*          |
| Use of non renewable primary energy resources used as raw material                              | MJ   | 4.22E-01                                | 4.22E-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   | 1.19E+01                                | 1.18E+01      | 0*           | 0*           | 2.25E-02 | 1.08E-01    |
| Non hazardous waste disposed  | kg   | 2.66E+01                                | 2.22E+00      | 0*           | 0*           | 2.44E+01 | 0*          |
| Radioactive waste disposed  | kg   | 3.60E-01                                | 7.53E-04      | 0*           | 0*           | 3.60E-01 | 0*          |
| Other environmental information   | Unit | Total                                   | Manufacturing | Distribution | Installation | Use      | End of Life |
| Materials for recycling   | kg   | 3.24E-02                                | 3.23E-03      | 0*           | 2.41E-02     | 0*       | 5.03E-03    |
| Components for reuse  | kg   | 0.00E+00                                | 0*            | 0*           | 0*           | 0*       | 0*          |
| Materials for energy recovery   | kg   | 1.20E-02                                | 0*            | 0*           | 0*           | 0*       | 1.20E-02    |
| Exported Energy   | MJ   | 7.65E-05                                | 7.20E-06      | 0*           | 6.94E-05     | 0*       | 0*          |

<sup>\*</sup> represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version EIME v5.9.1, database version 2016-11 in compliance with ISO14044.

The Manufacturing phase is impacting on Indicator of Abiotic depletion (elements, ultimate reserves) (ADPe for EN15804). The Manufacturing phase & Use phase are impacting equally on Indicators of Eutrophication (fate not incl.) (EP for EN15804), Global warming (GWP100) (GWP for EN15804) & Photochemical oxidation (high NOx) (POCP for EN15804). And the Use phase is impacting on the rest of the Indicators of Acidification potential of soil and water (total average for Europe) (A for PEP), Ozone layer depletion ODP steady state (ODP for EN15804), Net use of freshwater (NUFW) & Total Primary Energy (TPE).

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-00688-V01.01-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             | 11/2021              | 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

nternal 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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