

# Product Environmental Profile

## Harmony RE17 Timer Relay

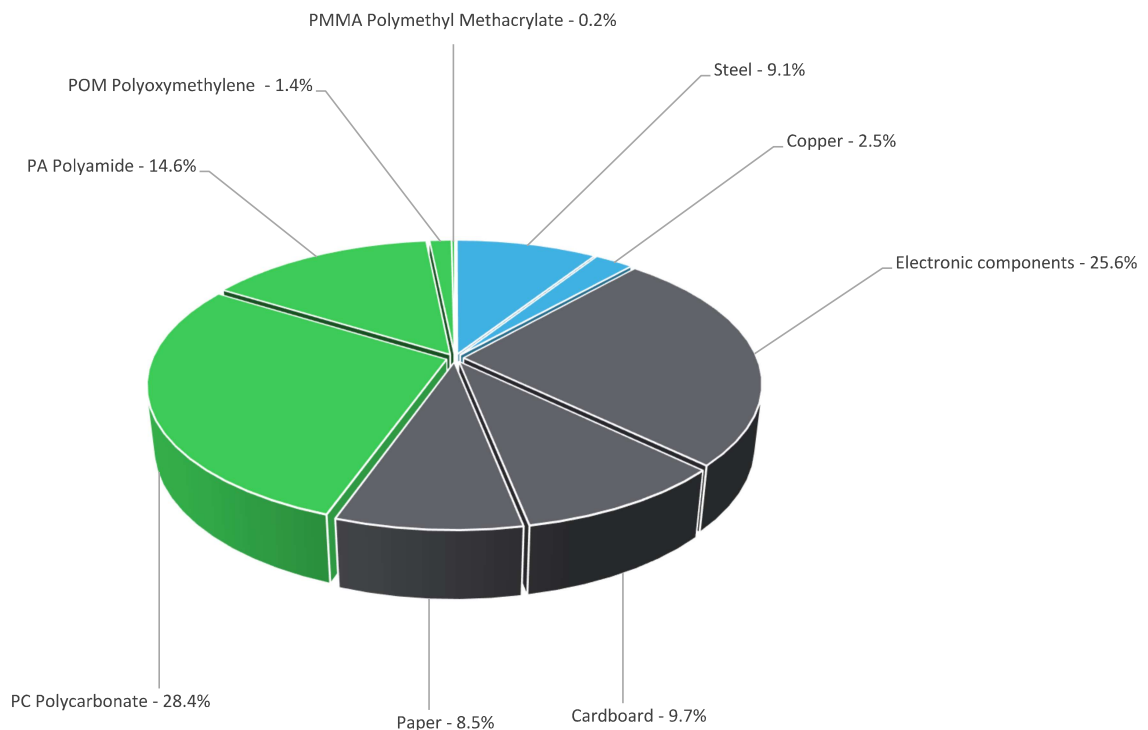


## General information

|                            |   |
|----------------------------|---|
| Reference product          | Harmony RE17 Timer Relay - RE17RAMU   |
| Description of the product | The product is a control relay with a time delay built in and the main purpose of the product is to time events in industrial automation system by closing or opening contacts before, during or after a set timing period.   |
| Description of the range   | Single product  |
| Functional unit            | Harmony RE17 timing relay can be set between 0,1 seconds and 100 hours which has an output rating of 8A with 7.5mm wide and can be supplied with 24 V DC, 24 to 240 V AC. It also has 1 change over contact SPDT (single pole double throw). It has one of market slimmest form-factors which allowing for a flexible and easy installation on DIN rail using the same space as any modular 1-pole DIN device. It also offers a sealable cover, simple and precise settings with rotary trimmers and product is adhering to international standards.  |
| Specifications are:        | <p>IP Degree Of Protection :</p> <p>IP20 (terminal block) conforming to IEC 60529<br/>                     IP40 (housing) conforming to IEC 60529<br/>                     IP50 (front panel) conforming to IEC 60529</p> <p>Vibration Resistance :</p> <p>20 m/s<sup>2</sup> (f= 10...150 Hz) conforming to IEC 60068-2-6</p> <p>Shock Resistance :</p> <p>15 gn for 11 ms conforming to IEC 60068-2-27</p> <p>Relative Humidity :</p> <p>93 % without condensation conforming to IEC 60068-2-30</p> <p>Standards : 2006/95/EC, 2004/108/EC, IEC 61812-1, IEC 61000-6-3, IEC 61000-6-1, IEC 61000-6-4, IEC 61000-6-2</p> |

## Constituent materials

Reference product mass 83 g including the product, its packaging, additional elements and accessories



|          |       |
|----------|-------|
| Plastics | 44.6% |
| Metals   | 11.6% |
| Others   | 43.8% |

## Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric website

<https://www.se.com>

## Additional environmental information

|             |                          |     |   |
|-------------|--------------------------|-----|---|
| End Of Life | Recyclability potential: | 14% | The recyclability rate was calculated from the recycling rates of each material making up the product based on REEECY*LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the EIME database and the related PSR was taken. If no data was found a conservative assumption was used (0% recyclability). |
|-------------|--------------------------|-----|---|

## Environmental impacts

|                                  |   |                |   |
|----------------------------------|---|----------------|---|
| Reference service life time      | 10 years  |                |   |
| Product category                 | Other equipments - Active product   |                |   |
| Life cycle of the product        | The manufacturing, the distribution, the installation, the use and the end of life were taken into consideration in this study  |                |   |
| Electricity consumption          | The electricity consumed during manufacturing processes is considered for each part of the product individually, the final assembly generates a negligible consumption  |                |   |
| Installation elements            | The product does not require any installation operations  |                |   |
| Use scenario                     | The product is in active mode 20% of the time with a power use of 1.5W and in off mode 80% of the time with a power use of 0W for 10* years   |                |   |
| Time representativeness          | The collected data are representative of the year 2025  |                |   |
| Technological representativeness | The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are similar and representative of the actual type of technologies used to make the product. |                |   |
| Geographical representativeness  | Final assembly site   | Use phase      |   |
|                                  | Batam, Indonesia  | Global         |   |
| Energy model used                | [A1 - A3]   | [A5]           | [B6]  |
|                                  | Electricity Mix; High voltage; 2020; Indonesia, ID  | No energy used | Electricity Mix; Low voltage; 2020; Global, GLO |
|                                  |   |                | [C1 - C4]                                       |
|                                  |   |                | Global, European and French datasets are used.  |

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.se.com/contact>

| Mandatory Indicators   |              | Harmony RE17 Timer Relay - RE17RAMU |                           |                     |                     |                 |                         |                          |
|--|--------------|-------------------------------------|---------------------------|---------------------|---------------------|-----------------|-------------------------|--------------------------|
| Impact indicators  | Unit         | Total (without Module D)            | [A1 - A3] - Manufacturing | [A4] - Distribution | [A5] - Installation | [B1 - B7] - Use | [C1 - C4] - End of life | [D] - Benefits and loads |
| Contribution to climate change                               | kg CO2 eq    | 1.45E+01                            | 1.52E+00                  | 5.86E-02            | 0*                  | 1.27E+01        | 1.75E-01                | -3.23E-02                |
| Contribution to climate change-fossil                        | kg CO2 eq    | 1.44E+01                            | 1.54E+00                  | 5.86E-02            | 0*                  | 1.26E+01        | 1.75E-01                | -3.18E-02                |
| Contribution to climate change-biogenic                      | kg CO2 eq    | 1.15E-01                            | 0*                        | 0*                  | 0*                  | 1.35E-01        | 5.19E-05                | -4.50E-04                |
| Contribution to climate change-land use and land use change  | kg CO2 eq    | 2.80E-05                            | 2.80E-05                  | 0*                  | 0*                  | 0*              | 4.71E-09                | 0.00E+00                 |
| Contribution to ozone depletion                              | kg CFC-11 eq | 3.85E-07                            | 2.79E-07                  | 5.17E-08            | 0*                  | 5.35E-08        | 6.09E-10                | -5.40E-09                |
| Contribution to acidification                                | mol H+ eq    | 7.46E-02                            | 8.80E-03                  | 2.51E-04            | 7.71E-06            | 6.54E-02        | 1.83E-04                | -4.87E-04                |
| Contribution to eutrophication, freshwater                   | kg P eq      | 3.38E-05                            | 1.36E-05                  | 6.86E-09            | 0*                  | 1.97E-05        | 5.12E-07                | -4.81E-08                |
| Contribution to eutrophication, marine                       | kg N eq      | 9.19E-03                            | 1.19E-03                  | 1.15E-04            | 3.65E-06            | 7.82E-03        | 6.33E-05                | -2.09E-05                |
| Contribution to eutrophication, terrestrial                  | mol N eq     | 1.16E-01                            | 1.31E-02                  | 1.24E-03            | 3.71E-05            | 1.01E-01        | 6.92E-04                | -2.44E-04                |
| Contribution to photochemical ozone formation - human health | kg COVNM eq  | 3.03E-02                            | 4.09E-03                  | 4.10E-04            | 8.91E-06            | 2.56E-02        | 1.72E-04                | -1.02E-04                |
| Contribution to resource use, minerals and metals            | kg Sb eq     | 4.08E-04                            | 4.05E-04                  | 0*                  | 0*                  | 2.70E-06        | 0*                      | -1.21E-05                |
| Contribution to resource use, fossils                        | MJ           | 2.91E+02                            | 2.16E+01                  | 7.29E-01            | 0*                  | 2.69E+02        | 4.13E-01                | -7.27E-01                |
| Contribution to water use                                    | m3 eq        | 1.45E+00                            | 6.58E-01                  | 2.97E-03            | 1.36E-03            | 7.77E-01        | 1.10E-02                | -2.78E-02                |

ENVPEP121117EN\_V2 - Product Environmental Profile - Harmony RE17 Timer Relay

| Inventory flows Indicators  |         | Harmony RE17 Timer Relay - RE17RAMU |                           |                     |                     |                 |                         |                          |
|---|---------|-------------------------------------|---------------------------|---------------------|---------------------|-----------------|-------------------------|--------------------------|
| Inventory flows   | Unit    | Total (without Module D)            | [A1 - A3] - Manufacturing | [A4] - Distribution | [A5] - Installation | [B1 - B7] - Use | [C1 - C4] - End of life | [D] - Benefits and loads |
| Contribution to renewable primary energy used as energy   | MJ      | 4.52E+01                            | 1.59E+00                  | 0*                  | 0*                  | 4.36E+01        | 1.29E-02                | -1.35E-02                |
| Contribution to renewable primary energy used as raw material   | MJ      | 1.49E-01                            | 1.49E-01                  | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to total renewable primary energy  | MJ      | 4.54E+01                            | 1.74E+00                  | 0*                  | 0*                  | 4.36E+01        | 1.29E-02                | -1.35E-02                |
| Contribution to non renewable primary energy used as energy   | MJ      | 2.90E+02                            | 2.00E+01                  | 7.29E-01            | 0*                  | 2.69E+02        | 4.13E-01                | -7.27E-01                |
| Contribution to non renewable primary energy used as raw material   | MJ      | 1.58E+00                            | 1.58E+00                  | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to total non renewable primary energy  | MJ      | 2.91E+02                            | 2.16E+01                  | 7.29E-01            | 0*                  | 2.69E+02        | 4.13E-01                | -7.27E-01                |
| Contribution to use of secondary material   | kg      | 7.62E-03                            | 7.62E-03                  | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to use of renewable secondary fuels  | MJ      | 0.00E+00                            | 0*                        | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to use of non renewable secondary fuels  | MJ      | 0.00E+00                            | 0*                        | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to net use of fresh water  | m³      | 3.37E-02                            | 1.52E-02                  | 6.92E-05            | 3.16E-05            | 1.81E-02        | 2.72E-04                | -6.46E-04                |
| Contribution to hazardous waste disposed  | kg      | 3.32E+00                            | 3.01E+00                  | 0*                  | 0*                  | 2.96E-01        | 2.10E-02                | -9.50E-01                |
| Contribution to non hazardous waste disposed  | kg      | 2.68E+00                            | 5.98E-01                  | 0*                  | 1.48E-02            | 2.01E+00        | 5.00E-02                | -2.34E-02                |
| Contribution to radioactive waste disposed  | kg      | 7.26E-04                            | 3.12E-04                  | 1.17E-05            | 0*                  | 4.01E-04        | 2.12E-06                | -1.07E-05                |
| Contribution to components for reuse  | kg      | 0.00E+00                            | 0*                        | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to materials for recycling   | kg      | 2.11E-02                            | 1.18E-02                  | 0*                  | 0*                  | 0*              | 9.30E-03                | 0.00E+00                 |
| Contribution to materials for energy recovery   | kg      | 0.00E+00                            | 0*                        | 0*                  | 0*                  | 0*              | 0*                      | 0.00E+00                 |
| Contribution to exported energy   | MJ      | 9.93E-05                            | 7.31E-06                  | 0*                  | 0*                  | 0*              | 9.20E-05                | 0.00E+00                 |
| * represents less than 0.01% of the total life cycle of the reference flow  |         |                                     |                           |                     |                     |                 |                         |                          |
| Contribution to biogenic carbon content of the product  | kg of C | 0.00E+00                            |                           |                     |                     |                 |                         |                          |
| Contribution to biogenic carbon content of the associated packaging   | kg of C | 4.82E-03                            |                           |                     |                     |                 |                         |                          |
| * The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%) |         |                                     |                           |                     |                     |                 |                         |                          |

| Mandatory Indicators   |              | Harmony RE17 Timer Relay - RE17RAMU |      |      |      |      |      |          |      |
|--|--------------|-------------------------------------|------|------|------|------|------|----------|------|
| Impact Indicators  | Unit         | [B1 - B7] - Use                     | [B1] | [B2] | [B3] | [B4] | [B5] | [B6]     | [B7] |
| Contribution to climate change                               | kg CO2 eq    | 1.27E+01                            | 0*   | 0*   | 0*   | 0*   | 0*   | 1.27E+01 | 0*   |
| Contribution to climate change-fossil                        | kg CO2 eq    | 1.26E+01                            | 0*   | 0*   | 0*   | 0*   | 0*   | 1.26E+01 | 0*   |
| Contribution to climate change-biogenic                      | kg CO2 eq    | 1.35E-01                            | 0*   | 0*   | 0*   | 0*   | 0*   | 1.35E-01 | 0*   |
| Contribution to climate change-land use and land use change  | kg CO2 eq    | 0*                                  | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to ozone depletion                              | kg CFC-11 eq | 5.35E-08                            | 0*   | 0*   | 0*   | 0*   | 0*   | 5.35E-08 | 0*   |
| Contribution to acidification                                | mol H+ eq    | 6.54E-02                            | 0*   | 0*   | 0*   | 0*   | 0*   | 6.54E-02 | 0*   |
| Contribution to eutrophication, freshwater                   | kg P eq      | 1.97E-05                            | 0*   | 0*   | 0*   | 0*   | 0*   | 1.97E-05 | 0*   |
| Contribution to eutrophication marine                        | kg N eq      | 7.82E-03                            | 0*   | 0*   | 0*   | 0*   | 0*   | 7.82E-03 | 0*   |
| Contribution to eutrophication, terrestrial                  | mol N eq     | 1.01E-01                            | 0*   | 0*   | 0*   | 0*   | 0*   | 1.01E-01 | 0*   |
| Contribution to photochemical ozone formation - human health | kg COVNM eq  | 2.56E-02                            | 0*   | 0*   | 0*   | 0*   | 0*   | 2.56E-02 | 0*   |
| Contribution to resource use, minerals and metals            | kg Sb eq     | 2.70E-06                            | 0*   | 0*   | 0*   | 0*   | 0*   | 2.70E-06 | 0*   |
| Contribution to resource use, fossils                        | MJ           | 2.69E+02                            | 0*   | 0*   | 0*   | 0*   | 0*   | 2.69E+02 | 0*   |
| Contribution to water use                                    | m3 eq        | 7.77E-01                            | 0*   | 0*   | 0*   | 0*   | 0*   | 7.77E-01 | 0*   |

| Inventory flows Indicators  | Harmony RE17 Timer Relay - RE17RAMU |                 |      |      |      |      |      |          |      |
|---|-------------------------------------|-----------------|------|------|------|------|------|----------|------|
|   | Unit                                | [B1 - B7] - Use | [B1] | [B2] | [B3] | [B4] | [B5] | [B6]     | [B7] |
| Contribution to use of renewable primary energy excluding renewable primary energy used as raw material         | MJ                                  | 4.36E+01        | 0*   | 0*   | 0*   | 0*   | 0*   | 4.36E+01 | 0*   |
| Contribution to use of renewable primary energy resources used as raw material                                  | MJ                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to total use of renewable primary energy resources   | MJ                                  | 4.36E+01        | 0*   | 0*   | 0*   | 0*   | 0*   | 4.36E+01 | 0*   |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ                                  | 2.69E+02        | 0*   | 0*   | 0*   | 0*   | 0*   | 2.69E+02 | 0*   |
| Contribution to use of non renewable primary energy resources used as raw material                              | MJ                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to total use of non-renewable primary energy resources   | MJ                                  | 2.69E+02        | 0*   | 0*   | 0*   | 0*   | 0*   | 2.69E+02 | 0*   |
| Contribution to use of secondary material   | kg                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to use of renewable secondary fuels  | MJ                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to use of non renewable secondary fuels  | MJ                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to net use of freshwater   | m³                                  | 1.81E-02        | 0*   | 0*   | 0*   | 0*   | 0*   | 1.81E-02 | 0*   |
| Contribution to hazardous waste disposed  | kg                                  | 2.96E-01        | 0*   | 0*   | 0*   | 0*   | 0*   | 2.96E-01 | 0*   |
| Contribution to non hazardous waste disposed  | kg                                  | 2.01E+00        | 0*   | 0*   | 0*   | 0*   | 0*   | 2.01E+00 | 0*   |
| Contribution to radioactive waste disposed  | kg                                  | 4.01E-04        | 0*   | 0*   | 0*   | 0*   | 0*   | 4.01E-04 | 0*   |
| Contribution to components for reuse  | kg                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to materials for recycling   | kg                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to materials for energy recovery   | kg                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |
| Contribution to exported energy   | MJ                                  | 0*              | 0*   | 0*   | 0*   | 0*   | 0*   | 0*       | 0*   |

\* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version v6.2.5-6, database version 2024-01 in compliance with ISO14044, EF3.1 method is applied, for biogenic carbon storage, assessment methodology -1/1 is used

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 :   | ENVPEP121117EN_V2 | Drafting rules                      | PEP-PCR-ed4-2021 09 06   |
| Date of issue   | 10-2025           | Supplemented by                     | PSR-0005-ed3.1-EN-2023 12 08   |
|   |                   | Information and reference documents | <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a> |
|   |                   | 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)                             |                   |                                     |  |
| PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022                                   |                   |                                     |  |
| The components of the present PEP may not be compared with components from any other program.                     |                   |                                     |  |
| Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations" |                   |                                     |  |

Schneider Electric Industries SAS  
 Country Customer Care Center  
<http://www.se.com/contact>  
 Head Office  
 35, rue Joseph Monier  
 CS 30323  
 F- 92500 Rueil Malmaison Cedex  
 RCS Nanterre 954 503 439  
 Capital social 928 298 512 €