

# Product Environmental Profile

## HARMONY+ BUZZER ILLUMINATED-YELLOW-230/240VAC

Integrate LED illumination with both continuous and flashing light, protection degree of IP66, IP67, IP69 and IP69K, and approx. 90 db of noise output.





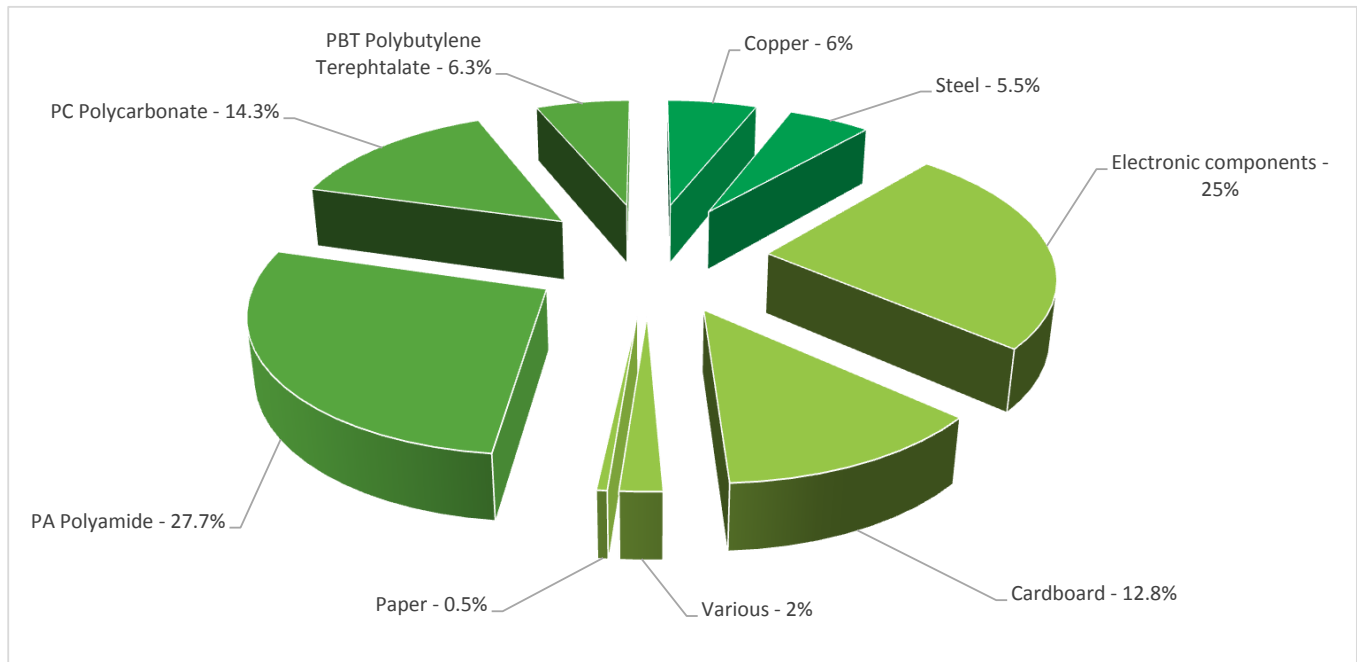
## General information

|                                   |   |
|-----------------------------------|---|
| <b>Representative product</b>     | HARMONY+ BUZZER ILLUMINATED-YELLOW-230/240VAC -XB5KS2M8   |
| <b>Description of the product</b> | The function of Harmony+ Buzzer range is to provide audio and visual(Optional) signaling when receiving rated voltage input.  |
| <b>Description of the range</b>   | Integrate LED illumination with both continuous and flashing light, protection degree of IP66, IP67, IP69 and IP69K, and approx. 90 db of noise output.<br><br>The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology. |
| <b>Functional unit</b>            | Provide the audio and visual(Optional) signaling for 10 years at 5% use rate.   |



## Constituent materials

|                               |  |
|-------------------------------|--|
| <b>Reference product mass</b> | 27.62 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 HARMONY+ BUZZER ILLUMINATED-YELLOW-230/240VAC presents the following relevant environmental aspects

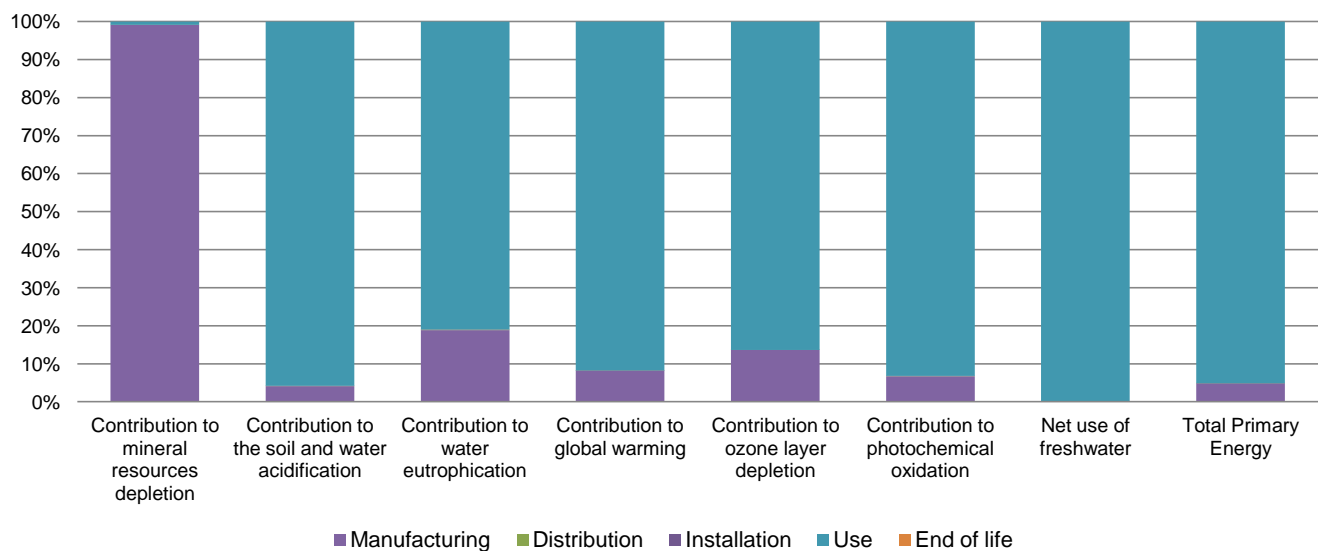
|                      |   |
|----------------------|---|
| <b>Design</b>        | Good performance on climate change and efficiency by the reduction of power consumption and occupied space  |
| <b>Manufacturing</b> | Manufactured at a Schneider Electric production site ISO14001 certified   |
| <b>Distribution</b>  | Weight and volume of the packaging optimized, based on the European Union's packaging directive<br>Packaging weight is 3.6 g, consisting of cardboard (96%), Paper (4%)<br>Packaging recycled materials is 100% of total packaging mass.<br>Product distribution optimised by setting up local distribution centres   |
| <b>Installation</b>  | XB5KS2M8 does not require any installation operations   |
| <b>Use</b>           | The product does not require special maintenance operations.  |
| <b>End of life</b>   | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials<br><br>No special end-of-life treatment required. According to countries' practices this product can enter the usual end-of-life treatment process.<br><br>Recyclability potential: <b>12%</b> 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

|   |   |  |  |  |
|---|---|--|--|--|
| <b>Reference life time</b>              | 10 years  |  |  |  |
| <b>Product category</b>                 | Active products   |  |  |  |
| <b>Installation elements</b>            | No special components needed  |  |  |  |
| <b>Use scenario</b>                     | The product is in active mode 5% of the time with power use of 5 W and in stand-by mode 95% of the time with no power, for 10 years |  |  |  |
| <b>Geographical representativeness</b>  | Europe  |  |  |  |
| <b>Technological representativeness</b> | The function of Harmony+ Buzzer range is to provide audio and visual(Optional) signaling when receiving rated voltage input.        |  |  |  |
| <b>Energy model used</b>                | <b>Manufacturing</b>  | <b>Installation</b>  | <b>Use</b>   | <b>End of life</b>   |
|   | Energy model used: Indonesia  | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 |

| Compulsory indicators                            |                                     | HARMONY+ BUZZER ILLUMINATED-YELLOW-230/240VAC - XB5KS2M8 |               |              |              |          |             |
|--|-------------------------------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                | Unit                                | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to mineral resources depletion      | kg Sb eq                            | 1,05E-04   | 1,04E-04      | 0*           | 0*           | 9,32E-07 | 0*          |
| Contribution to the soil and water acidification | kg SO <sub>2</sub> eq               | 4,67E-02   | 1,93E-03      | 1,63E-05     | 0*           | 4,48E-02 | 7,39E-06    |
| Contribution to water eutrophication             | kg PO <sub>4</sub> <sup>3-</sup> eq | 3,34E-03   | 6,30E-04      | 3,75E-06     | 0*           | 2,70E-03 | 2,16E-06    |
| Contribution to global warming                   | kg CO <sub>2</sub> eq               | 1,17E+01   | 9,65E-01      | 3,56E-03     | 0*           | 1,07E+01 | 4,36E-03    |
| Contribution to ozone layer depletion            | kg CFC11 eq                         | 8,09E-07   | 1,10E-07      | 0*           | 0*           | 6,99E-07 | 1,81E-10    |
| Contribution to photochemical oxidation          | kg C <sub>2</sub> H <sub>4</sub> eq | 2,64E-03   | 1,78E-04      | 1,16E-06     | 0*           | 2,46E-03 | 7,55E-07    |
| Resources use                                    | Unit                                | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Net use of freshwater                            | m <sup>3</sup>                      | 3,89E+01   | 4,98E-03      | 0*           | 0*           | 3,89E+01 | 0*          |
| Total Primary Energy                             | MJ                                  | 2,25E+02   | 1,10E+01      | 5,04E-02     | 0*           | 2,14E+02 | 3,53E-02    |



| Optional indicators   |                | HARMONY+ BUZZER ILLUMINATED-YELLOW-230/240VAC - XB5KS2M8 |               |              |              |          |             |
|---|----------------|--|---------------|--------------|--------------|----------|-------------|
| Impact indicators   | Unit           | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to fossil resources depletion  | MJ             | 1,33E+02   | 1,08E+01      | 5,01E-02     | 0*           | 1,22E+02 | 3,23E-02    |
| Contribution to air pollution   | m <sup>3</sup> | 5,49E+02   | 8,71E+01      | 1,52E-01     | 0*           | 4,62E+02 | 2,58E-01    |
| Contribution to water pollution   | m <sup>3</sup> | 5,48E+02   | 1,05E+02      | 5,86E-01     | 0*           | 4,43E+02 | 3,22E-01    |
| Resources use   | Unit           | Total  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Use of secondary material   | kg             | 1,19E-03   | 1,19E-03      | 0*           | 0*           | 0*       | 0*          |
| Total use of renewable primary energy resources   | MJ             | 2,77E+01   | 4,37E-01      | 0*           | 0*           | 2,73E+01 | 0*          |
| Total use of non-renewable primary energy resources   | MJ             | 1,98E+02   | 1,06E+01      | 5,03E-02     | 0*           | 1,87E+02 | 3,53E-02    |
| Use of renewable primary energy excluding renewable primary energy used as raw material         | MJ             | 2,76E+01   | 3,62E-01      | 0*           | 0*           | 2,73E+01 | 0*          |
| Use of renewable primary energy resources used as raw material                                  | MJ             | 7,46E-02   | 7,46E-02      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ             | 1,97E+02   | 1,01E+01      | 5,03E-02     | 0*           | 1,87E+02 | 3,53E-02    |
| Use of non renewable primary energy resources used as raw material                              | MJ             | 4,72E-01   | 4,72E-01      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable secondary fuels  | MJ             | 0,00E+00   | 0*            | 0*           | 0*           | 0*       | 0*          |

| Waste categories                 | Unit | Total    | Manufacturing | Distribution | Installation | Use      | End of Life |
|----------------------------------|------|----------|---------------|--------------|--------------|----------|-------------|
| Use of renewable secondary fuels | MJ   | 0,00E+00 | 0*            | 0*           | 0*           | 0*       | 0*          |
| Hazardous waste disposed         | kg   | 4,50E-01 | 3,96E-01      | 0*           | 3,69E-03     | 5,59E-03 | 4,47E-02    |
| Non hazardous waste disposed     | kg   | 4,03E+01 | 2,78E-01      | 0*           | 0*           | 4,00E+01 | 0*          |
| Radioactive waste disposed       | kg   | 2,69E-02 | 1,41E-04      | 0*           | 0*           | 2,67E-02 | 0*          |
| Other environmental information  | Unit | Total    | Manufacturing | Distribution | Installation | Use      | End of Life |
| Materials for recycling          | kg   | 7,49E-03 | 9,30E-04      | 0*           | 3,59E-03     | 0*       | 2,97E-03    |
| Components for reuse             | kg   | 0,00E+00 | 0*            | 0*           | 0*           | 0*       | 0*          |
| Materials for energy recovery    | kg   | 7,91E-04 | 1,00E-04      | 0*           | 0*           | 0*       | 6,90E-04    |
| Exported Energy                  | MJ   | 0,00E+00 | 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 EIME v5.6.0.1, database version CODDE-2016-11.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

Depending on the impact analysis, the environmental indicators(except RMD) of other products in this family may be proportional extrapolated by the energy consumption, the RMD indicator may be proportional extrapolated by product mass.

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 N°   | ENVPEP1710008_V1 | Drafting rules                      | PCR-ed3-EN-2015 04 02  |
| Date of issue   | 10/2017          | Supplemented by                     | PSR-0005-ed2-EN-2016 03 29   |
| Validity period   | 5 years          | Information and reference documents | <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a> |
| 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 » |                  |                                     |  |

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