

# Product Environmental Profile

## Contactor TeSysG225 3P Std 100-250V ACDC





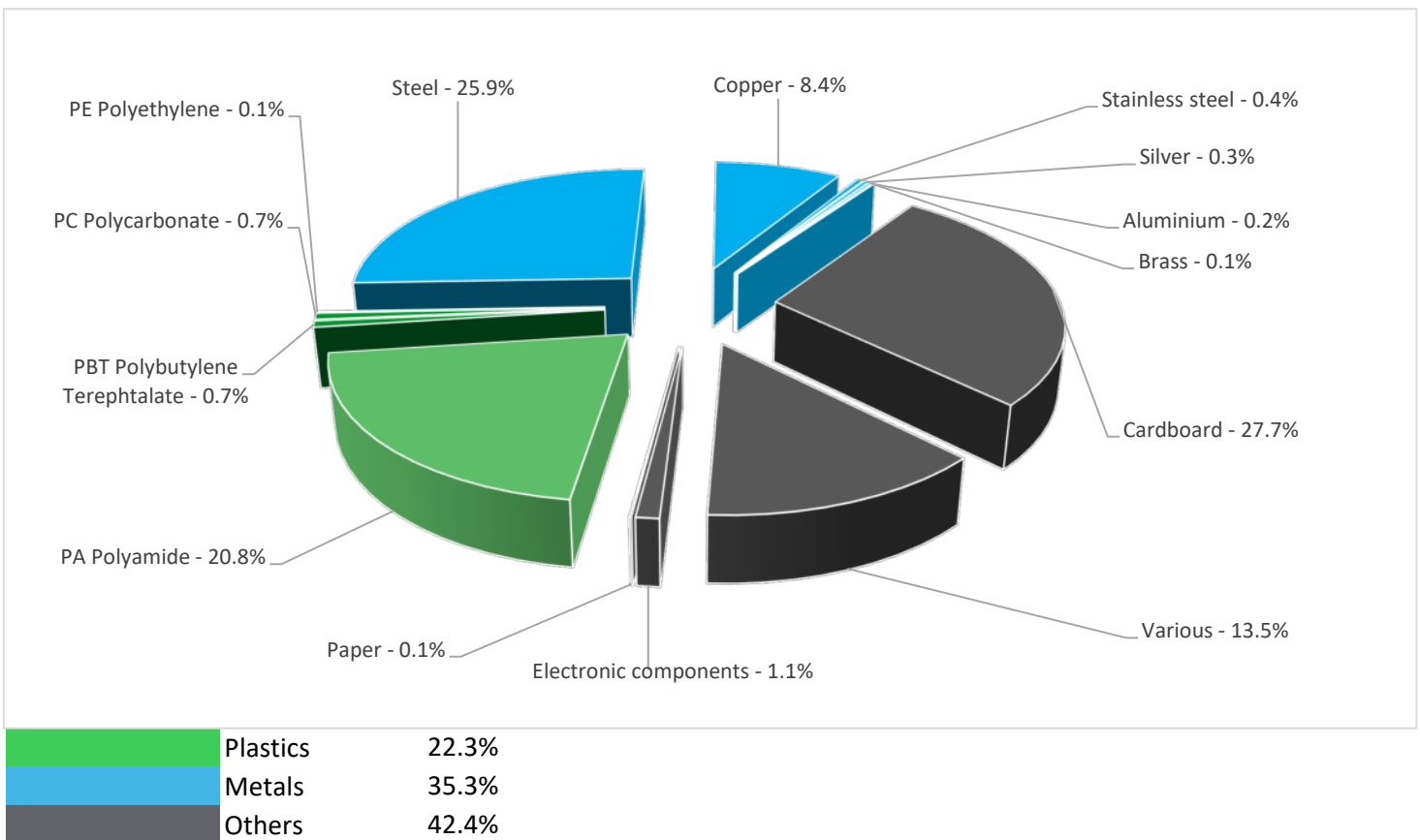
## General information

|                                   |                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Representative product</b>     | Contacteur TeSysG225 3P Std 100-250V ACDC - LC1G225KUEN                                                                                                                                                                                                                                                                      |
| <b>Description of the product</b> | This product is a 440V&225A and control voltage 100-250V(AC-DC) contactor                                                                                                                                                                                                                                                    |
| <b>Functional unit</b>            | To make and break currents up to 225A for motor loads, and up to 330A for resistive loads at voltage up to 440V , in accordance with the IEC60947-4, The function unit is accordance with the following technical data:<br>- IP20<br>- Rated shock withstand voltage: 8KV(Uimp)<br>- Maximum operation frequency: 600times/h |



## Constituent materials

|                               |                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------|
| <b>Reference product mass</b> | 4950 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 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

<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page>



## Additional environmental information

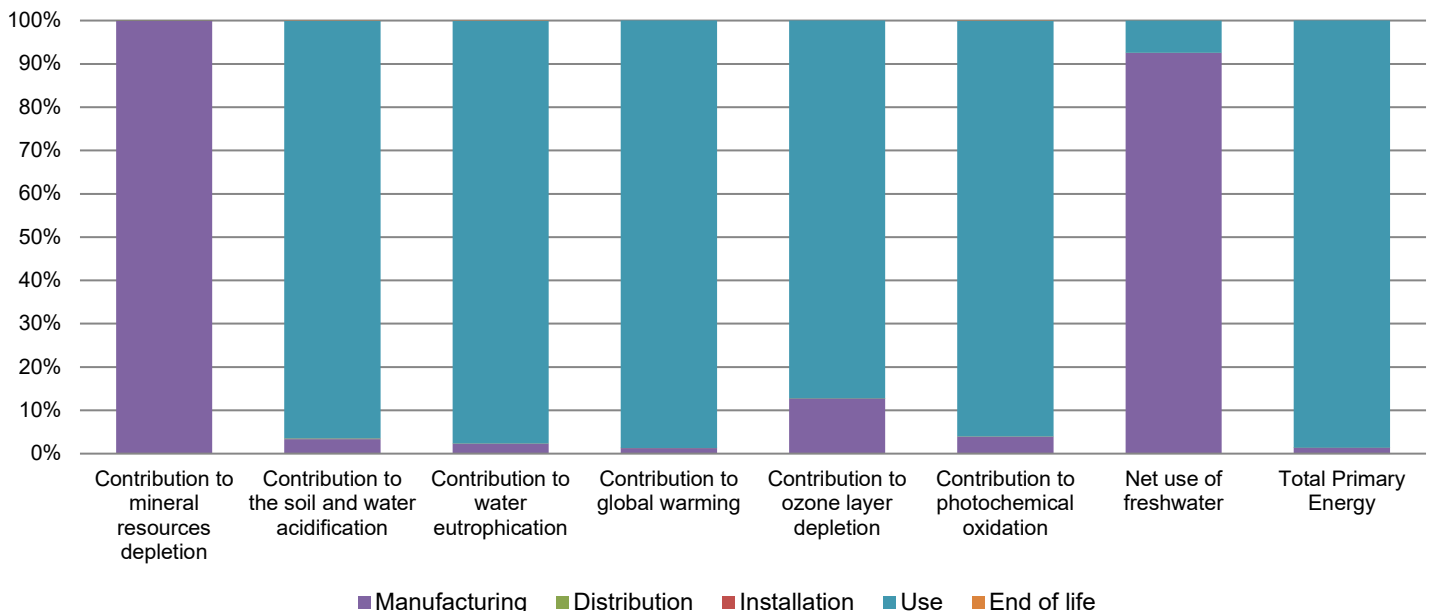
The Contactor TeSysG225 3P Std 100-250V ACDC presents the following relevant environmental aspects

|                      |                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 1347 g, consisting of cardboard (99.8%), PE film (0.2%)                                                                                 |                                                                                                                                                                                 |
| <b>Installation</b>  | Ref LC1G225KUEN does not require any installation operations, The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).                                                                       |                                                                                                                                                                                 |
| <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>This product contains electronic card (56g) that should be separated from the stream of waste so as to optimize end-of-life treatment. |                                                                                                                                                                                 |
|                      | Recyclability potential: <b>48%</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

|                                  |                                                                                                                                                                                                              |                                                             |                                                             |                                                             |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| Reference life time              | 20 years                                                                                                                                                                                                     |                                                             |                                                             |                                                             |
| Product category                 | Contactor, remote control switch, combinations, starters                                                                                                                                                     |                                                             |                                                             |                                                             |
| Installation elements            | No special components needed                                                                                                                                                                                 |                                                             |                                                             |                                                             |
| Use scenario                     | Poles dissipation at Ith 330A=17W<br>Coil consumption= 9W<br>loading rate=50%<br>duty cycle=50%<br>Energy consumption=3*poles dissipation*loading rate*duty cycle+coil<br>consumptin=3*17*0.25*0.25+9=21.75W |                                                             |                                                             |                                                             |
| Geographical representativeness  | China                                                                                                                                                                                                        |                                                             |                                                             |                                                             |
| Technological representativeness | This product is a 440V&225A and control voltage 100-250V(AC-DC) contactor                                                                                                                                    |                                                             |                                                             |                                                             |
| Energy model used                | Manufacturing                                                                                                                                                                                                | Installation                                                | Use                                                         | End of life                                                 |
|                                  | Energy model used: CHINA                                                                                                                                                                                     | Electricity mix; AC; consumption mix, at consumer; 220V; CN | Electricity mix; AC; consumption mix, at consumer; 220V; CN | Electricity mix; AC; consumption mix, at consumer; 220V; CN |

| Compulsory indicators                            |                                     | Contactor TeSysG225 3P Std 100-250V ACDC - LC1G225KUEN |               |              |              |          |             |
|--------------------------------------------------|-------------------------------------|--------------------------------------------------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                | Unit                                | Total                                                  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to mineral resources depletion      | kg Sb eq                            | 1.11E-02                                               | 1.11E-02      | 0*           | 0*           | 8.55E-06 | 0*          |
| Contribution to the soil and water acidification | kg SO <sub>2</sub> eq               | 2.19E+00                                               | 7.39E-02      | 2.92E-03     | 3.04E-04     | 2.11E+00 | 8.67E-04    |
| Contribution to water eutrophication             | kg PO <sub>4</sub> <sup>3-</sup> eq | 5.71E-01                                               | 1.27E-02      | 6.72E-04     | 7.48E-05     | 5.57E-01 | 1.99E-04    |
| Contribution to global warming                   | kg CO <sub>2</sub> eq               | 1.97E+03                                               | 2.52E+01      | 6.39E-01     | 0*           | 1.95E+03 | 0*          |
| Contribution to ozone layer depletion            | kg CFC11 eq                         | 1.78E-05                                               | 2.26E-06      | 0*           | 0*           | 1.55E-05 | 0*          |
| Contribution to photochemical oxidation          | kg C <sub>2</sub> H <sub>4</sub> eq | 2.60E-01                                               | 1.00E-02      | 2.08E-04     | 0*           | 2.49E-01 | 6.16E-05    |
| Resources use                                    | Unit                                | Total                                                  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Net use of freshwater                            | m3                                  | 2.93E+01                                               | 2.71E+01      | 0*           | 0*           | 2.17E+00 | 0*          |
| Total Primary Energy                             | MJ                                  | 3.23E+04                                               | 4.32E+02      | 9.03E+00     | 0*           | 3.19E+04 | 0*          |



| Optional indicators                                                                             |      | Contactor TeSysG225 3P Std 100-250V ACDC - LC1G225KUEN |               |              |              |          |             |
|-------------------------------------------------------------------------------------------------|------|--------------------------------------------------------|---------------|--------------|--------------|----------|-------------|
| Impact indicators                                                                               | Unit | Total                                                  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Contribution to fossil resources depletion                                                      | MJ   | 2.97E+04                                               | 2.63E+02      | 8.97E+00     | 0*           | 2.94E+04 | 0*          |
| Contribution to air pollution                                                                   | m³   | 2.08E+05                                               | 5.84E+03      | 2.72E+01     | 0*           | 2.02E+05 | 0*          |
| Contribution to water pollution                                                                 | m³   | 1.01E+05                                               | 3.72E+03      | 1.05E+02     | 1.11E+01     | 9.68E+04 | 3.18E+01    |
| Resources use                                                                                   | Unit | Total                                                  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Use of secondary material                                                                       | kg   | 7.91E-02                                               | 7.91E-02      | 0*           | 0*           | 0*       | 0*          |
| Total use of renewable primary energy resources                                                 | MJ   | 1.67E+03                                               | 3.43E+01      | 0*           | 0*           | 1.63E+03 | 0*          |
| Total use of non-renewable primary energy resources                                             | MJ   | 3.06E+04                                               | 3.97E+02      | 9.02E+00     | 0*           | 3.02E+04 | 0*          |
| Use of renewable primary energy excluding renewable primary energy used as raw material         | MJ   | 1.64E+03                                               | 7.50E+00      | 0*           | 0*           | 1.63E+03 | 0*          |
| Use of renewable primary energy resources used as raw material                                  | MJ   | 2.68E+01                                               | 2.68E+01      | 0*           | 0*           | 0*       | 0*          |
| Use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ   | 3.06E+04                                               | 3.62E+02      | 9.02E+00     | 0*           | 3.02E+04 | 0*          |
| Use of non renewable primary energy resources used as raw material                              | MJ   | 3.57E+01                                               | 3.57E+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   | 2.68E+02                                               | 2.05E+02      | 0*           | 0*           | 6.28E+01 | 0*          |
| Non hazardous waste disposed                                                                    | kg   | 4.26E+02                                               | 7.28E+01      | 0*           | 0*           | 3.53E+02 | 0*          |
| Radioactive waste disposed                                                                      | kg   | 3.50E-02                                               | 2.34E-02      | 1.62E-05     | 0*           | 1.16E-02 | 4.89E-06    |
| Other environmental information                                                                 | Unit | Total                                                  | Manufacturing | Distribution | Installation | Use      | End of Life |
| Materials for recycling                                                                         | kg   | 3.42E+00                                               | 4.15E-01      | 0*           | 1.34E+00     | 0*       | 1.67E+00    |
| Components for reuse                                                                            | kg   | 0.00E+00                                               | 0*            | 0*           | 0*           | 0*       | 0*          |
| Materials for energy recovery                                                                   | kg   | 7.29E-02                                               | 0*            | 0*           | 0*           | 0*       | 7.29E-02    |
| Exported Energy                                                                                 | MJ   | 4.25E-03                                               | 4.00E-04      | 0*           | 3.85E-03     | 0*       | 0*          |

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

Life cycle assessment performed with EIME version EIME v5.9.1, database version 2020-12 in compliance with ISO14044.

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.

|                                                                                                                             |                      |                                     |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------|----------------------------------------------------------------------|
| Registration number :                                                                                                       | SCHN-00701-V01.01-EN | Drafting rules                      | PCR-ed3-EN-2015 04 02                                                |
| Verifier accreditation N°                                                                                                   | VH18                 | Supplemented by                     | PSR-0005-ed2-EN-2016 03 29                                           |
| Date of issue                                                                                                               | 09/2021              | 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 14025 : 2010                                   |                      |                                     |                                                                      |
| Internal                                                                                                                    | 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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