

Product Environmental Profile

Harmony HMISCU Series

Harmony SCU





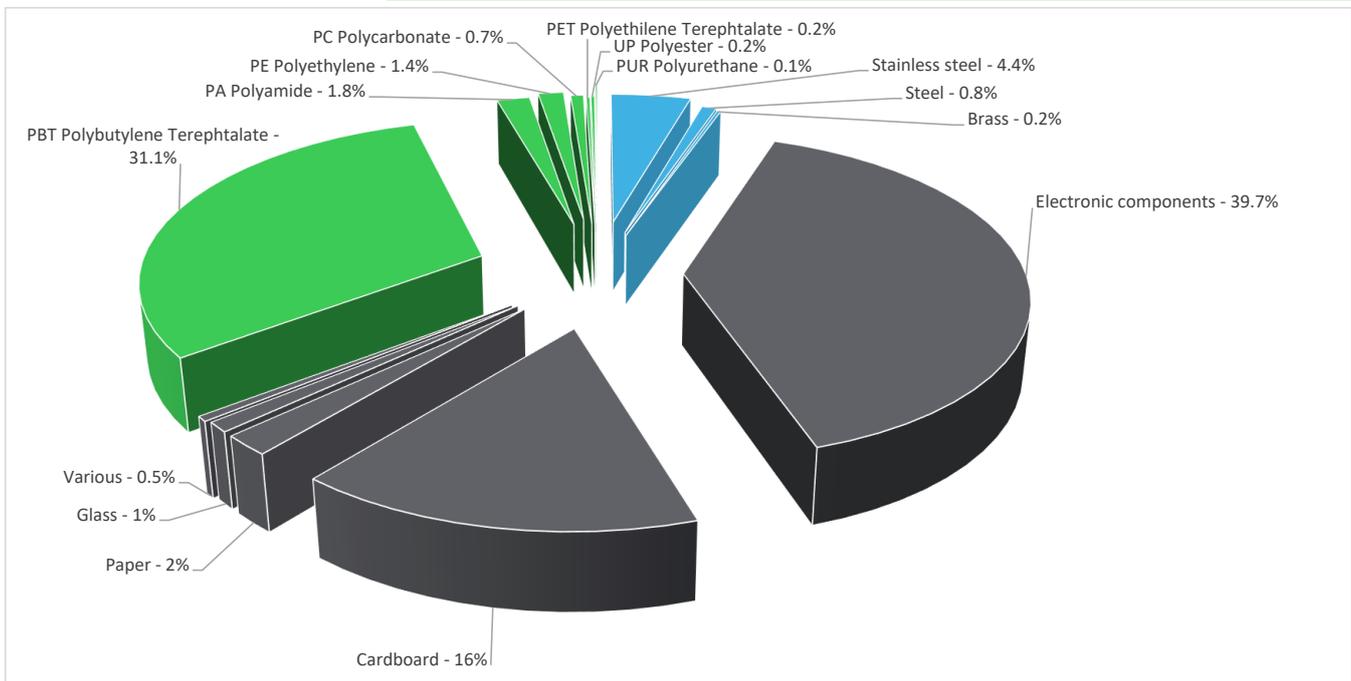
General information

| | |
|----------------------------|--|
| Reference product | Harmony HMISCU Series - HMISCU8B5 |
| Description of the product | HMISCU is the touch controller panel with the HMI and I/O embedded. |
| Description of the range | Ultra-compact HMI and controller in a single unit with innovative mounting via a 22mm hole The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology. |
| Functional unit | To provide 5.7" TFT Smart Display during 10 years and maximum use rate at 13W, based on below function: - 5.7 inch Touchscreen panel - Digital In/Out +Analog In/Out - Serial communication interface (RS-232C/485) - USB2.0 Interface (Type-A, mini-B) - Ethernet interface - CANopen master bus ,in accordance with the relevant standards: - FCC Class A - EN 61131-2 - UL 508 - IEC 61000-6-2 - CSA C22.2 No 213 Class I Division 2 - ANSI/ISA 12-12-01 |



Constituent materials

| | |
|------------------------|---|
| Reference product mass | 1024 g including the product, its packaging and additional elements and accessories |
|------------------------|---|



| | |
|----------|--------|
| Plastics | 35.50% |
| Metals | 5.40% |
| Others | 59.20% |



Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website
<https://www.se.com/ww/en/work/support/green-premium/>



Additional environmental information

| | | | |
|-------------|--------------------------|----|---|
| End Of Life | Recyclability potential: | 7% | Recyclability rate has been calculated based on REEECY'LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" 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 | | | |
| Installation elements | cable, connectors, screws | | | |
| Use scenario | The product is in active mode 100% of the time a power use of 13W, for 10 years. | | | |
| Technological representativeness | HMISCU is the touch controller panel with the HMI and I/O embedded. | | | |
| Geographical representativeness | Europe, US, Asia | | | |
| Energy model used | [A1 - A3] | [A5] | [B6] | [C1 - C4] |
| | Electricity Mix; Production mix; Low voltage; CN | Electricity Mix; Production mix; Low voltage; US | Electricity Mix; Production mix; Low voltage; US | Electricity Mix; Production mix; Low voltage; US |

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.schneider-electric.com/contact>

| Mandatory Indicators | | | Harmony HMISCU Series - HMISCU8B5 | | | | | |
|--|---------------------------|----------|-----------------------------------|--------------|--------------|-----------|-------------|--------------------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life | Loads and Benefits |
| | | | [A1 - A3] | [A4] | [A5] | [B1 - B7] | [C1 - C4] | [D] |
| Contribution to climate change | kg CO2 eq | 6.42E+02 | 1.08E+02 | 1.33E-01 | 3.52E-01 | 5.34E+02 | 4.79E-01 | -7.52E-01 |
| Contribution to climate change-fossil | kg CO2 eq | 6.42E+02 | 1.08E+02 | 1.33E-01 | 3.36E-01 | 5.33E+02 | 4.79E-01 | -7.35E-01 |
| Contribution to climate change-biogenic | kg CO2 eq | 5.27E-01 | 1.13E-01 | 0* | 1.56E-02 | 3.98E-01 | 0* | -1.72E-02 |
| Contribution to climate change-land use and land use change | kg CO2 eq | 8.33E-07 | 7.04E-07 | 0* | 1.30E-07 | 0* | 0* | 0.00E+00 |
| Contribution to ozone depletion | kg CFC-11 eq | 4.39E-05 | 4.10E-05 | 0* | 2.39E-08 | 2.80E-06 | 6.94E-09 | -1.01E-07 |
| Contribution to acidification | mol H+ eq | 3.95E+00 | 6.24E-01 | 8.53E-04 | 1.40E-03 | 3.32E+00 | 9.91E-04 | -3.64E-03 |
| Contribution to eutrophication, freshwater | kg (PO4) ³⁻ eq | 1.81E-03 | 2.13E-04 | 0* | 3.11E-06 | 1.59E-03 | 1.62E-06 | -6.57E-06 |
| Contribution to eutrophication marine | kg N eq | 4.86E-01 | 1.08E-01 | 4.01E-04 | 3.73E-04 | 3.77E-01 | 3.11E-04 | -6.96E-04 |
| Contribution to eutrophication, terrestrial | mol N eq | 5.59E+00 | 1.15E+00 | 4.39E-03 | 2.84E-03 | 4.43E+00 | 2.68E-03 | -6.33E-03 |
| Contribution to photochemical ozone formation - human health | kg COVNM eq | 1.66E+00 | 4.09E-01 | 1.11E-03 | 7.62E-04 | 1.25E+00 | 8.21E-04 | -1.98E-03 |
| Contribution to resource use, minerals and metals | kg Sb eq | 2.63E-02 | 2.63E-02 | 0* | 0* | 2.50E-05 | 0* | -4.25E-05 |
| Contribution to resource use, fossils | MJ | 1.55E+04 | 1.33E+03 | 1.85E+00 | 3.62E+00 | 1.41E+04 | 1.26E+01 | -9.61E+00 |
| Contribution to water use | m3 eq | 5.16E+01 | 2.97E+01 | 0* | 1.82E-01 | 2.16E+01 | 7.14E-02 | -4.35E-01 |

Additional indicators for the French regulation are available as well

| Inventory flows Indicators | | | Harmony HMISCU Series - HMISCU8B5 | | | | | |
|---|---------|----------|-----------------------------------|--------------|--------------|-----------|-------------|--------------------|
| Inventory flows | Unit | Total | Manufact. | Distribution | Installation | Use | End of Life | Loads and Benefits |
| | | | [A1 - A3] | [A4] | [A5] | [B1 - B7] | [C1 - C4] | [D] |
| Contribution to use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 1.51E+03 | 2.86E+01 | 0* | 2.86E-01 | 1.48E+03 | 0* | 2.00E+00 |
| Contribution to use of renewable primary energy resources used as raw material | MJ | 3.71E+00 | 3.71E+00 | 0* | 0* | 0* | 0* | -3.42E+00 |
| Contribution to total use of renewable primary energy resources | MJ | 1.52E+03 | 3.23E+01 | 0* | 2.86E-01 | 1.48E+03 | 0* | -1.42E+00 |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 1.55E+04 | 1.32E+03 | 1.85E+00 | 3.62E+00 | 1.41E+04 | 1.26E+01 | -8.51E+00 |
| Contribution to use of non renewable primary energy resources used as raw material | MJ | 1.47E+01 | 1.47E+01 | 0* | 0* | 0* | 0* | -1.10E+00 |
| Contribution to total use of non-renewable primary energy resources | MJ | 1.55E+04 | 1.33E+03 | 1.85E+00 | 3.62E+00 | 1.41E+04 | 1.26E+01 | -9.61E+00 |
| Contribution to use of secondary material | kg | 3.90E-05 | 3.90E-05 | 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 freshwater | m³ | 1.20E+00 | 6.92E-01 | 0* | 4.24E-03 | 5.03E-01 | 1.66E-03 | -1.01E-02 |
| Contribution to hazardous waste disposed | kg | 5.00E+02 | 4.87E+02 | 0* | 0* | 1.25E+01 | 9.44E-01 | -3.15E+00 |
| Contribution to non hazardous waste disposed | kg | 1.04E+02 | 2.07E+01 | 0* | 1.13E+00 | 8.25E+01 | 2.55E-02 | -5.06E+00 |
| Contribution to radioactive waste disposed | kg | 2.56E-02 | 1.48E-02 | 3.31E-06 | 1.53E-04 | 1.07E-02 | 5.63E-06 | -3.03E-04 |
| Contribution to components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to materials for recycling | kg | 2.73E-01 | 3.89E-03 | 0* | 2.14E-01 | 0* | 5.54E-02 | 0.00E+00 |
| Contribution to materials for energy recovery | kg | 1.29E-08 | 1.29E-08 | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to exported energy | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to biogenic carbon content of the product | kg de C | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to biogenic carbon content of the associated packaging | kg de C | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |

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

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.schneider-electric.com/contact>

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided

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.

| | | | |
|---|------------------|--|--|
| <i>Registration number :</i> | ENVPEP1405010_V2 | <i>Drafting rules</i> | PEP-PCR-ed4-2021 09 06 |
| <i>Verifier accreditation N°</i> | 0 | <i>Supplemented by</i> | PSR-0005-ed2-2016 03 29 |
| <i>Date of issue</i> | 2023/11/13 | <i>Information and reference documents</i> | www.pep-ecopassport.org |
| | | <i>Validity period</i> | 5 years |
| <i>Independent verification of the declaration and data, in compliance with ISO 14021 : 2016</i> | | | |
| Internal | X | External | |
| <i>The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)</i> | | | |
| <i>PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019</i> | | | |
| <i>The elements of the present PEP cannot be compared with elements from another program.</i> | | | |
| <i>Document in compliance with ISO 14021 : 2016 « Environmental labels and declarations. Type II environmental declarations »</i> | | | |

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2023/11/13