

Product Environmental Profile

RS USB PD A+C charger 45W, pure white

as referent product for:

all ELKO USB chargers with power output above 45W





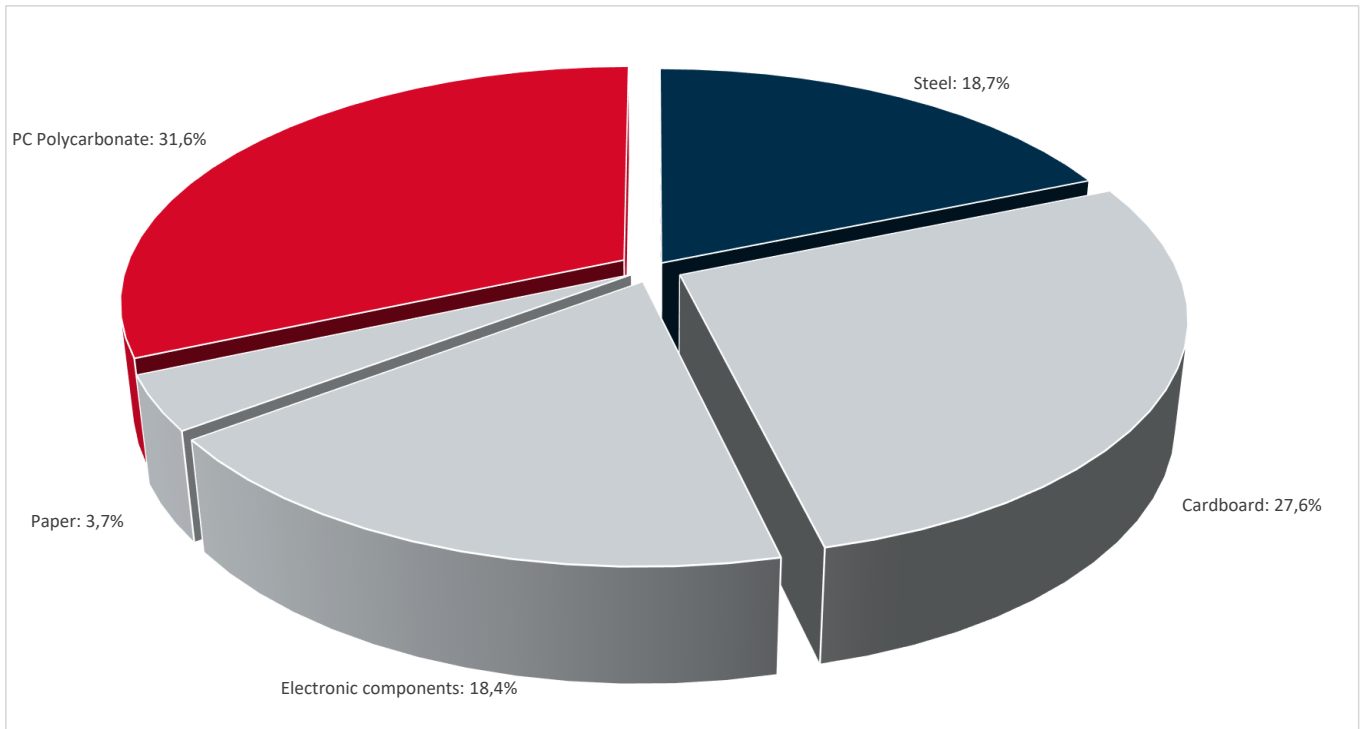
General information

| | |
|----------------------------|---|
| Reference product | RS USB PD A+C charger 45W, pure white - EKO30196+EKO07370 |
| Description of the product | RS USB PD A+C charger 45W pure white is a socket that give a solution for charging IT devices through USB ports.This USB charger is OVCIII with service lifetime target 10 years. The stand by consumption is 0.08W and total output power of the USB charge is 52.5W. |
| Description of the range | It contains ELKO USB chargers above 45W, with double USB outputs with and without claws, with metal fixing frames, and for all type aesthetics frame finishings. 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 make available during 10 years USB charging ports where output voltage and related current will be automatically adapted by PD protocol from 5V/3A to 20V/2.25A for USB C and 5V/1.5A for USB A. The rated operational voltage is 220-240V, embedding electrical overload and temperature protection. |



Constituent materials

| | | |
|------------------------|-------|--|
| Reference product mass | 174 g | including the product, its packaging and additional elements and accessories |
|------------------------|-------|--|



| | |
|----------|-------|
| Others | 49,7% |
| Plastics | 31,6% |
| Metals | 18,7% |



Substance assessment

Details of ROHS and REACH substances information are available on the ELKO website
<https://www.elko.no/om-elko/miljo/>

Additional environmental information

| | | | |
|-------------|--------------------------|-----|---|
| End Of Life | Recyclability potential: | 27% | Recyclability rate has been calculated based on REEECY TM 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 | USB socket | | | |
| Installation elements | The disposal of the packaging materials are accounted during the installation phase (including transport to disposal). | | | |
| Use scenario | The product is in active mode, for IT devices charging duration, 30 % of the time with an average 2,67W power dissipation and 70 % of the remaining time in stand by mode with 0,075W as power consumption. | | | |
| Geographical representativeness | Sweden, Norway | | | |
| 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. | | | |
| Energy model used | [A1 - A3] | [A5] | [B6] | [C1 - C4] |
| | Electricity Mix; Production mix; Low voltage; GE | Electricity Mix; Production mix; Low voltage; SE | Electricity Mix; Production mix; Low voltage; SE | Electricity Mix; Production mix; Low voltage; SE |

| Mandatory Indicators | | | RS USB PD A+C charger 45W, pure white - EKO30196+EKO07370 | | | | | |
|--|---------------------------|----------|---|--------------|--------------|-----------|-------------|-----------|
| Impact indicators | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life | Benefits |
| | | | [A1 - A3] | [A4] | [A5] | [B1 - B7] | [C1 - C4] | [D] |
| Contribution to climate change | kg CO2 eq | 8,03E+00 | 5,38E+00 | 5,02E-02 | 6,53E-02 | 2,23E+00 | 2,98E-01 | -1,38E-01 |
| Contribution to climate change-fossil | kg CO2 eq | 7,96E+00 | 5,33E+00 | 5,02E-02 | 6,48E-02 | 2,22E+00 | 2,96E-01 | -1,37E-01 |
| Contribution to climate change-biogenic | kg CO2 eq | 6,42E-02 | 4,73E-02 | 0* | 5,02E-04 | 1,35E-02 | 2,90E-03 | -7,31E-04 |
| Contribution to climate change-land use and land use change | kg CO2 eq | 1,75E-07 | 1,75E-07 | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to ozone depletion | kg CFC-11 eq | 9,84E-07 | 8,91E-07 | 4,43E-08 | 8,54E-10 | 4,34E-08 | 4,37E-09 | -1,88E-08 |
| Contribution to acidification | mol H+ eq | 6,79E-02 | 2,96E-02 | 2,18E-04 | 8,18E-05 | 3,62E-02 | 1,80E-03 | -7,95E-04 |
| Contribution to eutrophication, freshwater | kg (PO4) ³⁻ eq | 1,54E-04 | 1,46E-05 | 0* | 1,01E-06 | 1,38E-04 | 1,03E-06 | -3,25E-07 |
| Contribution to eutrophication marine | kg N eq | 8,60E-03 | 4,34E-03 | 1,00E-04 | 3,24E-05 | 3,01E-03 | 1,12E-03 | -8,80E-05 |
| Contribution to eutrophication, terrestrial | mol N eq | 1,79E-01 | 4,53E-02 | 1,09E-03 | 2,44E-04 | 1,31E-01 | 1,19E-03 | -9,72E-04 |
| Contribution to photochemical ozone formation - human health | kg COVNM eq | 2,16E-02 | 1,42E-02 | 3,56E-04 | 7,63E-05 | 6,57E-03 | 4,38E-04 | -3,27E-04 |
| Contribution to resource use, minerals and metals | kg Sb eq | 1,22E-03 | 1,22E-03 | 0* | 0* | 2,30E-06 | 0* | -3,87E-05 |
| Contribution to resource use, fossils | MJ | 6,15E+02 | 7,08E+01 | 6,09E-01 | 1,76E-01 | 5,36E+02 | 7,04E+00 | -2,96E+00 |
| Contribution to water use | m3 eq | 2,23E+01 | 3,11E+00 | 2,54E-03 | 5,40E-03 | 2,15E-01 | 1,90E+01 | -5,95E-02 |

Additional indicators for the French regulation are available as well

| Inventory flows Indicators | | | RS USB PD A+C charger 45W, pure white - EKO30196+EKO07370 | | | | | |
|---|---------|----------|---|--------------|--------------|-----------|-------------|-----------|
| Inventory flows | Unit | Total | Manufact. | Distribution | Installation | Use | End of Life | 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 | 2,29E+02 | 2,53E+00 | 0* | 0* | 2,26E+02 | 8,33E-02 | 4,44E-02 |
| Contribution to use of renewable primary energy resources used as raw material | MJ | 1,02E+00 | 1,02E+00 | 0* | 0* | 0* | 0* | -1,12E-01 |
| Contribution to total use of renewable primary energy resources | MJ | 2,30E+02 | 3,55E+00 | 0* | 0* | 2,26E+02 | 8,33E-02 | -6,72E-02 |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 6,12E+02 | 6,86E+01 | 6,09E-01 | 1,76E-01 | 5,36E+02 | 7,04E+00 | -2,96E+00 |
| Contribution to use of non renewable primary energy resources used as raw material | MJ | 2,19E+00 | 2,19E+00 | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to total use of non-renewable primary energy resources | MJ | 6,15E+02 | 7,08E+01 | 6,09E-01 | 1,76E-01 | 5,36E+02 | 7,04E+00 | -2,96E+00 |
| Contribution to use of secondary material | kg | 5,85E-06 | 5,85E-06 | 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 | 5,75E-01 | 7,24E-02 | 5,92E-05 | 1,26E-04 | 5,00E-03 | 4,97E-01 | -1,39E-03 |
| Contribution to hazardous waste disposed | kg | 5,75E+00 | 5,57E+00 | 0* | 0* | 7,23E-02 | 1,15E-01 | -3,05E+00 |
| Contribution to non hazardous waste disposed | kg | 6,76E+00 | 6,06E+00 | 0* | 8,79E-02 | 5,51E-01 | 5,74E-02 | -2,61E-01 |
| Contribution to radioactive waste disposed | kg | 5,96E-03 | 5,89E-03 | 9,97E-06 | 6,68E-06 | 5,73E-05 | 2,62E-06 | -5,32E-05 |
| Contribution to components for reuse | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* | 0,00E+00 |
| Contribution to materials for recycling | kg | 5,40E-02 | 1,74E-02 | 0* | 6,20E-03 | 0* | 3,04E-02 | 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 | 2,62E-02 | 0* | 0* | 2,62E-02 | 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 - <https://www.elko.no/kontakt-oss/>

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 upon request

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> | ELKO-00968-V01.01-EN | <i>Drafting rules</i> | PEP-PCR-ed4-2021 09 06 |
| <i>Verifier accreditation N°</i> | VH48 | <i>Supplemented by</i> | PSR-0005-ed2-2016 03 29 |
| <i>Date of issue</i> | 07/2023 | <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 14025 : 2010</i> | | | |
| Internal | External | X | |
| <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</i> | | | |
| <i>The elements of the present PEP cannot be compared with elements from another program.</i> | | | |
| <i>Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »</i> | | | |
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ELKO AS
 Pb. 6598 Etterstad
 0607 Oslo
 Norway

<https://www.elko.no/>

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