Surge Protective Device (SPD) T2

# PEP ecopassport®

## Product Environmental Profile


| | | | |
|---|---|---|---|
| Registration number: | **ABBG-00600-V01.01.EN** | Drafting rules: | **PCR-ed4-EN-2021 09 06** |
| | | Supplemented by: | **PSR-0005-ed3.1-EN-2023 12 08** |
| Verifier accreditation number: | **VH45** | Information and reference documents: | **www.pep-ecopassport.org** |
| Date of issue: | **01-2026** | Validity period: | **5 years** |

**Independent verification of the declaration and data in compliance with ISO 14025: 2006**

**Internal:** ☐ **External:** ☒

The PCR review was conducted by a panel of experts chaired by Julie Orgelet (Ddemain)

PEP are compliant with EN 50693:2019
The components of the present PEP cannot be compared with components from another program

Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"

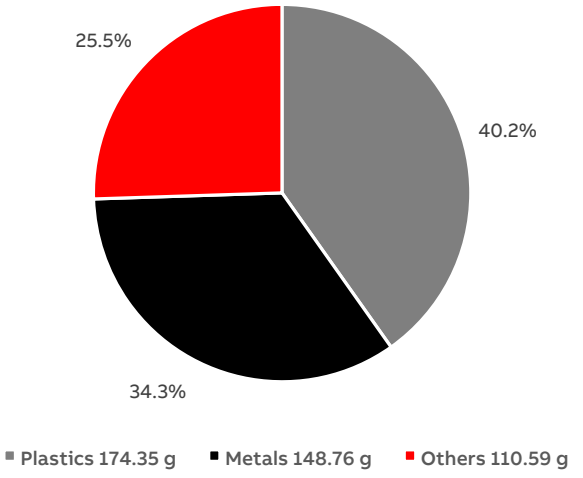
# ABB Purpose & Embedding Sustainability

ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow.
With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior.
The contect of this PEP cannot be compared with the content based on another program/database.
Scan QR code for more information

# General information

| | |
|---|---|
| Reference product | 2CTB803973R1100 - OVR T2 3N 40-275 P QS |
| Description of the product | Surge protective devices SPD type 2 , Commercial buildings as well as for industrial applications. |
| Functional unit | Protect, against direct and indirect effects of lightning or against transient overvoltages, electronic equipment connected to networks with a rated operational voltage of up to 230/400 V AC, via a surge arrester of Type T2, with 3P+N (4) poles, according to the appropriate use scenario (Load rate = 100% Ic, Use rate = 100 % RLT), and for the reference service life of the product of 20 years. |
| Other products covered | It is a "Product family declaration" which covers the Surge Protection Devices (SPDs) designed to safeguard low-voltage consumer systems from both direct and indirect lightning effects, as well as transient overvoltages. They comply with IEC 61643-11, UL1449 standards, enabling their use across all application areas. This protection is provided in accordance with the parameters defined for the product family covered by this PEP.<br>Surge protective device type according to the standard IEC 61643 11. T= T2, Number of poles Np = N, 1P, 1P+N, N+1P, 2P, 2P+N, 3P, 3P+N, N+3P and 4P, Maximum continuous operating voltage MCOV/Uc = 70, 150, 275, 320, 350, 440, 550, 660 V AC, Rated discharge current for class 2 test ( In ) =5, 20, 40, 80 kA, Impulse discharge current for class1 test (limp) = NA, Voltage protection level (Up) = 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 1.8, 2.0, 2.1 kV, Current drawn by the surge protective device and his related functions I c) = 0, 80, 100, 130, 240, 300, 390, 400 μA |
| Manufacturing address / PEP owner Information | ABB Bulgaria Ltd. - branch Rakovski<br>14 and 18, Industrial Road 1, Industrial, zone Rakovski, region Plovdiv, 4142, Stryama, Bulgaria<br>email: EPD_ELSB@abb.com<br>go.abb/contact ; www.new.abb.com, |

# Constituent Materials




| | | |
|---|---|---|
| **Total weight of reference product and packaging** | **433.70** | **g** |

| **Plastics as % of weight** | | **Metals as % of weight** | | **Others as % of weight** | |
|---|---|---|---|---|---|
| Name and CAS number | Weight% | Name and CAS number | Weight% | Name and CAS number | Weight% |
| **PA Glass Reinforced** | 22.8 | **Copper** | 20.3 | **Carton** | 13.2 |
| **PC Glass Reinforced** | 16.6 | **Steel** | 12.3 | **Ceramic** | 10.7 |
| **Miscellaneous Plastics** | 0.8 | **Miscellaneous Metals** | 1.7 | **Miscellaneous Other material** | 1.6 |

The weight includes the packaging material

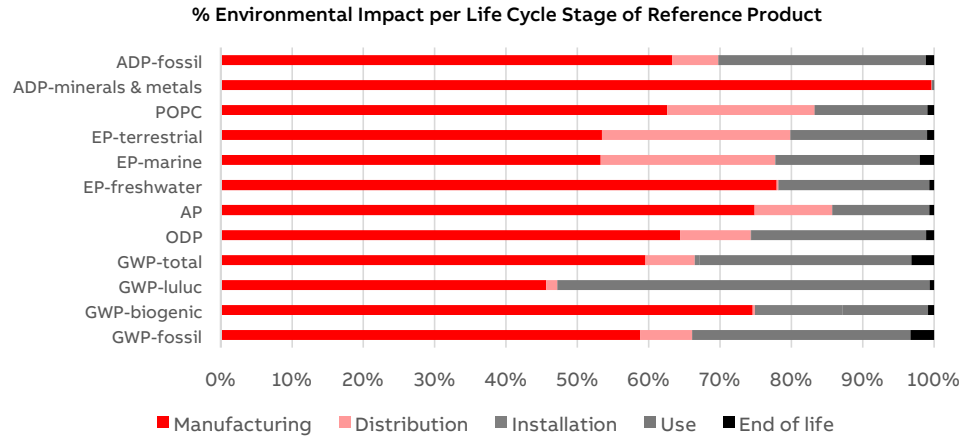
# Additional Information

| | |
|---|---|
| **Manufacturing** | Manufacturing location is certified with ISO 14001, ISO 9001, ISO 45001, ISO 50001 and a site Certifide with Environmental Claim Validation to Zero Waste to Landfill Classifications, First Edition, July 20, 2018 (UL 2799A) |
| **Distribution** | Includes the transportation of product including packaging from the manufacturer's last logistic platform to the End User. Is modelled by considering the average distances from manufacturing site to distance at delivery end user. |
| **Installation** | No energy required during installation. End of life of product packaging considered in installation phase. |
| **Use** | This product does not required any maintenance and consumables or spares during its life time. Total consumption of energy during its life is 5.0808 kWh calculated as per PSR |
| **End of life** | PCR Default scenario considered. A value of 1000 km transport by lorry is used for transportation from the installation site to the final end of life treatment as per PCR. |

# Environmental Impacts

| | |
|---|---|
| **Reference lifetime** | 20 years |
| **Product category** | Surge Protective D evices PSR-0005-ed3.1-EN-2023 12 08, 3.13. Specific rules for the 'Surge arresters' family |
| **Installation elements** | Installation carried out manually. Packaging material generated as waste |
| **Use scenario** | Load rate = 100% , Use rate = 100 % RLT, Total Energy consumption is 5.0808 kWh |
| **Geographical & Time representativeness** | Geographical – Global<br>Time representativeness – 2024 |
| **Technological representativeness** | Technology is specific to ABB SPDs which is common for all ABB manufacturing factories at global level |
| **Software and database used** | SimaPro 10.2.0.2 & Ecoinvent 3.11 & Method EN 15804 + A2 V1.03, biogenic carbon storage -1/+1 |
| **Energy model used** | |
| **Manufacturing** | Raw material - Global- Electricity Medium Voltage, Production & Assembly - Bulgaria - Electricity Medium Voltage |
| **Installation** | Electricity Low Voltage, Medium & High Voltage, Global |
| **Use** | Electricity Low Voltage, Global |
| **End of life** | Electricity Low Voltage, Medium & High Voltage, Global |

# Common base of mandatory indicators




## Environmental impact indicators

| Indicator | | Unit | Total | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|---|---|---|
| GWP | Total | kg CO2 eq. | 1.13E+01 | 6.70E+00 | 7.79E-01 | 6.77E-02 | 3.35E+00 | 3.57E-01 |
| | Fossil | kg CO2 eq. | 1.07E+01 | 6.29E+00 | 7.77E-01 | 2.34E-03 | 3.27E+00 | 3.52E-01 |
| | Biogenic | kg CO2 eq. | 5.35E-01 | 3.99E-01 | 1.68E-03 | 6.54E-02 | 6.43E-02 | 4.55E-03 |
| | Luluc | kg CO2 eq. | 2.01E-02 | 9.17E-03 | 3.15E-04 | 9.42E-07 | 1.05E-02 | 1.26E-04 |
| ODP | | kg CFC-11 eq. | 1.16E-07 | 7.50E-08 | 1.15E-08 | 3.08E-11 | 2.86E-08 | 1.27E-09 |
| AP | | H+ eq. | 1.55E-01 | 1.16E-01 | 1.68E-02 | 1.41E-05 | 2.10E-02 | 1.02E-03 |
| EP | Freshwater | kg P eq. | 1.12E-02 | 8.73E-03 | 2.89E-05 | 3.51E-07 | 2.37E-03 | 7.20E-05 |
| | Marine | kg N eq. | 1.77E-02 | 9.45E-03 | 4.34E-03 | 7.70E-06 | 3.59E-03 | 3.57E-04 |
| | Terrestrial | mol N eq. | 1.82E-01 | 9.75E-02 | 4.81E-02 | 5.70E-05 | 3.49E-02 | 1.80E-03 |
| POCP | | kg NMVOC eq. | 6.45E-02 | 4.04E-02 | 1.33E-02 | 1.68E-05 | 1.02E-02 | 6.02E-04 |
| ADP | Minerals & metals | kg SB eq. | 1.37E-03 | 1.36E-03 | 8.09E-07 | 8.10E-09 | 3.45E-06 | 7.65E-07 |
| | Fossil | MJ | 1.54E+02 | 9.74E+01 | 9.93E+00 | 2.16E-02 | 4.47E+01 | 1.79E+00 |
| WDP | | m³ eq. depr. | 3.80E+00 | 3.34E+00 | 2.38E-02 | 1.10E-03 | 4.35E-01 | 6.64E-03 |

## Resource use indicators

| Indicator | Unit | Total | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|---|---|
| PERE | MJ | 1.84E+01 | 1.16E+01 | 7.13E-02 | 9.03E-04 | 6.52E+00 | 1.80E-01 |
| PERM | MJ | 8.53E-01 | 8.53E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PERT | MJ | 1.93E+01 | 1.25E+01 | 7.13E-02 | 9.03E-04 | 6.52E+00 | 1.80E-01 |
| PENRE | MJ | 1.49E+02 | 9.21E+01 | 9.93E+00 | 2.16E-02 | 4.47E+01 | 1.79E+00 |
| PENRM | MJ | 5.26E+00 | 5.26E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PENRT | MJ | 1.54E+02 | 9.74E+01 | 9.93E+00 | 2.16E-02 | 4.47E+01 | 1.79E+00 |

# Common base of mandatory indicators

### Use of secondary materials, water, and energy resources

| Indicator | Unit | Total | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|---|---|
| SM | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| RSF | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| NRSF | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| FW | $m^3$ | 1.13E-01 | 8.86E-02 | 7.52E-04 | 4.15E-05 | 2.31E-02 | 4.28E-04 |

### Waste category indicators

| Indicator | Unit | Total | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|---|---|
| HWD | kg | 2.16E-03 | 1.99E-03 | 5.68E-05 | 1.87E-07 | 1.04E-04 | 1.13E-05 |
| N-HWD | kg | 1.02E+00 | 5.39E-01 | 1.34E-01 | 3.35E-03 | 9.39E-02 | 2.46E-01 |
| RWD | kg | 3.77E-04 | 2.77E-04 | 1.10E-06 | 1.65E-08 | 9.71E-05 | 2.53E-06 |

### Output flow indicators

| Indicator | Unit | Total | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|---|---|
| CfRu | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| MfR | kg | 1.33E-01 | 1.61E-02 | 0.00E+00 | 1.64E-02 | 0.00E+00 | 1.00E-01 |
| MfER | kg | 1.32E-01 | 5.46E-03 | 0.00E+00 | 3.91E-02 | 0.00E+00 | 8.71E-02 |
| EE | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

### Other indicators

| Indicator | | Unit | Total |
|---|---|---|---|
| Biogenic Carbon | Product | kg of C | 0.00E+00 |
| | Packaging | kg of C | 2.86E-02 |

### Optional indicators

| Indicator | Unit | Total | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|---|---|
| Tot PE | MJ | 1.73E+02 | 1.10E+02 | 1.00E+01 | 2.26E-02 | 5.12E+01 | 1.97E+00 |
| Efp | Dise inc | 5.41E-07 | 4.04E-07 | 2.67E-08 | 1.69E-10 | 9.49E-08 | 1.58E-08 |
| IrHH | kBq U-235 eq | 1.53E+00 | 1.12E+00 | 4.53E-03 | 6.50E-05 | 3.93E-01 | 9.07E-03 |
| ETX FW | CTUe | 1.15E+02 | 1.07E+02 | 7.38E-01 | 1.47E-01 | 5.92E+00 | 1.38E+00 |
| HTX CE | CTUh | 1.29E-08 | 1.20E-08 | 1.36E-10 | 3.57E-12 | 3.92E-10 | 3.43E-10 |
| HTX N-CE | CTUh | 1.14E-06 | 1.08E-06 | 3.89E-09 | 1.49E-10 | 2.44E-08 | 2.57E-08 |
| IrLS | Pt | 1.47E+01 | 1.18E+01 | 7.32E-01 | 3.67E-03 | 1.85E+00 | 2.82E-01 |

## Extrapolation Factors

For other products than the Reference product covered by this PEP, the environmental impacts for each phase of the lifecycle are obtained by multiplying the values of the Reference product by the following coefficients:

* if the coefficient is 1, the impacts of the phase of the life cycle are assimilated to the Reference product, meaning that the impacts are unchanged in comparison to the Reference product

| Product name | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|
| 2CTB802341R0000 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R0400 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R2000 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R2100 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R2400 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R2500 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R2900 | 0.346 | 0.346 | 0.524 | 1.552 | 0.319 |
| 2CTB802341R3300 | 0.346 | 0.346 | 0.524 | 1.552 | 0.319 |
| 2CTB802341R3700 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802341R8000 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802342R0000 | 0.623 | 0.623 | 0.524 | 0.586 | 0.638 |
| 2CTB802342R0400 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802342R2100 | 0.623 | 0.623 | 0.524 | 0.586 | 0.638 |
| 2CTB802342R2500 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802342R2900 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802342R3300 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802342R3700 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802342R2000 | 0.623 | 0.623 | 0.524 | 0.586 | 0.638 |
| 2CTB800030S0000 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB802342R8000 | 0.623 | 0.623 | 0.524 | 0.586 | 0.638 |
| 2CTB802343R0000 | 0.623 | 0.623 | 0.524 | 0.586 | 0.638 |
| 2CTB802343R0400 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802343R2100 | 0.623 | 0.623 | 0.524 | 0.586 | 0.638 |
| 2CTB802343R2500 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802344R0000 | 0.922 | 0.922 | 0.699 | 0.966 | 0.956 |
| 2CTB802344R0400 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802344R2100 | 0.922 | 0.922 | 0.699 | 0.966 | 0.956 |
| 2CTB802344R2500 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802344R2900 | 0.922 | 0.922 | 0.699 | 1.655 | 0.956 |
| 2CTB802344R3300 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802344R3700 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802345R0000 | 0.922 | 0.922 | 0.699 | 0.966 | 0.956 |
| 2CTB802345R0400 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802345R2100 | 0.922 | 0.922 | 0.699 | 0.966 | 0.956 |
| 2CTB802345R2500 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802345R2900 | 0.922 | 0.922 | 0.699 | 1.655 | 0.956 |
| 2CTB802345R3300 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802346R0000 | 1.245 | 1.245 | 1.048 | 0.966 | 1.275 |

## Extrapolation Factors

| Product name | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|
| 2CTB802346R0000 | 1.245 | 1.245 | 1.048 | 0.966 | 1.275 |
| 2CTB802346R0400 | 1.245 | 1.245 | 1.048 | 1.931 | 1.275 |
| 2CTB802346R2100 | 1.245 | 1.245 | 1.048 | 0.966 | 1.275 |
| 2CTB802343R2400 | 0.623 | 0.623 | 0.524 | 0.966 | 0.638 |
| 2CTB802345R2400 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802345R3400 | 0.922 | 0.922 | 0.699 | 1.552 | 0.956 |
| 2CTB802346R2500 | 1.245 | 1.245 | 1.048 | 1.931 | 1.275 |
| 2CTB802346R2900 | 1.245 | 1.245 | 1.048 | 5.379 | 1.275 |
| 2CTB802346R3300 | 1.245 | 1.245 | 1.048 | 2.414 | 1.275 |
| 2CTB802346R3700 | 1.245 | 1.245 | 1.048 | 2.414 | 1.275 |
| 2CTB802348R2500 | 0.127 | 0.127 | 0.262 | 0.276 | 0.106 |
| 2CTB802348R2700 | 0.150 | 0.150 | 0.262 | 0.276 | 0.133 |
| 2CTB802348R3500 | 0.127 | 0.127 | 0.262 | 0.276 | 0.106 |
| 2CTB802348R3700 | 0.150 | 0.150 | 0.262 | 0.276 | 0.133 |
| 2CTB802348R3900 | 0.150 | 0.150 | 0.262 | 0.966 | 0.133 |
| 2CTB802348R4100 | 0.184 | 0.184 | 0.262 | 0.966 | 0.173 |
| 2CTB802348R4300 | 0.196 | 0.196 | 0.262 | 0.276 | 0.186 |
| 2CTB802348R6500 | 0.127 | 0.127 | 0.262 | 0.276 | 0.106 |
| 2CTB802346R2400 | 1.245 | 1.245 | 1.048 | 1.931 | 1.275 |
| 2CTB802346R3400 | 1.245 | 1.245 | 1.048 | 2.414 | 1.275 |
| 2CTB803871R0500 | 0.334 | 0.334 | 0.437 | 1.552 | 0.319 |
| 2CTB803871R1200 | 0.334 | 0.334 | 0.437 | 1.552 | 0.319 |
| 2CTB803871R1700 | 0.334 | 0.334 | 0.437 | 0.276 | 0.319 |
| 2CTB803871R2300 | 0.334 | 0.334 | 0.437 | 0.276 | 0.319 |
| 2CTB803872R1100 | 0.576 | 0.576 | 0.175 | 0.586 | 0.638 |
| 2CTB803872R1300 | 0.576 | 0.576 | 0.175 | 0.586 | 0.638 |
| 2CTB803872R5100 | 0.553 | 0.553 | 0.175 | 0.966 | 0.638 |
| 2CTB803872R5200 | 0.553 | 0.553 | 0.175 | 0.966 | 0.638 |
| 2CTB803873R1100 | 1.153 | 1.153 | 0.349 | 1.000 | 1.275 |
| 2CTB803873R1300 | 1.153 | 1.153 | 0.349 | 1.000 | 1.275 |
| 2CTB803873R1500 | 1.153 | 1.153 | 0.349 | 5.379 | 1.275 |
| 2CTB803873R1600 | 1.153 | 1.153 | 0.349 | 5.379 | 1.275 |
| 2CTB803873R2400 | 0.865 | 0.865 | 0.262 | 0.966 | 0.956 |
| 2CTB803873R2500 | 0.865 | 0.865 | 0.262 | 0.966 | 0.956 |
| 2CTB803873R2700 | 0.865 | 0.865 | 0.262 | 1.655 | 0.956 |
| 2CTB803873R2800 | 0.865 | 0.865 | 0.262 | 1.655 | 0.956 |
| 2CTB803873R5100 | 1.153 | 1.153 | 0.349 | 0.586 | 1.275 |
| 2CTB803873R5200 | 1.153 | 1.153 | 0.349 | 0.586 | 1.275 |
| 2CTB803873R5300 | 1.153 | 1.153 | 0.349 | 1.000 | 1.275 |
| 2CTB803873R5600 | 1.153 | 1.153 | 0.349 | 1.000 | 1.275 |
| 2CTB803876R0000 | 0.300 | 0.300 | 0.175 | 0.276 | 0.319 |
| 2CTB803876R0400 | 0.196 | 0.196 | 0.175 | 0.966 | 0.199 |

## Extrapolation Factors

| Product name | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|
| 2CTB803876R1000 | 0.196 | 0.196 | 0.175 | 0.966 | 0.199 |
| 2CTB803881R1700 | 0.334 | 0.334 | 0.437 | 0.276 | 0.319 |
| 2CTB803881R2300 | 0.277 | 0.277 | 0.437 | 0.276 | 0.319 |
| 2CTB803882R1100 | 0.576 | 0.576 | 0.175 | 0.966 | 0.638 |
| 2CTB803882R1300 | 0.576 | 0.576 | 0.175 | 0.966 | 0.638 |
| 2CTB803883R1100 | 1.153 | 1.153 | 0.349 | 1.655 | 1.275 |
| 2CTB803883R1300 | 1.153 | 1.153 | 0.349 | 1.655 | 1.275 |
| 2CTB803883R2400 | 0.865 | 0.865 | 0.262 | 0.966 | 0.956 |
| 2CTB803883R2500 | 0.865 | 0.865 | 0.262 | 0.966 | 0.956 |
| 2CTB803886R0000 | 0.300 | 0.300 | 0.175 | 0.276 | 0.319 |
| 2CTB803886R0100 | 0.323 | 0.323 | 0.349 | 1.552 | 0.319 |
| 2CTB803886R1000 | 0.323 | 0.323 | 0.349 | 0.276 | 0.319 |
| 2CTB803972R0500 | 0.576 | 0.576 | 0.175 | 0.586 | 0.638 |
| 2CTB803972R1100 | 0.576 | 0.576 | 0.175 | 0.586 | 0.638 |
| 2CTB803973R0500 | 1.153 | 1.153 | 0.349 | 1.000 | 1.275 |
| 2CTB803973R1100 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2CTB803973R1400 | 1.153 | 1.153 | 0.349 | 5.379 | 1.275 |
| 2CTB803973R1500 | 1.153 | 1.153 | 0.349 | 5.379 | 1.275 |
| 2CTB803982R0500 | 0.576 | 0.576 | 0.175 | 0.966 | 0.638 |
| 2CTB803982R1100 | 0.576 | 0.576 | 0.175 | 0.966 | 0.638 |
| 2CTB803983R0500 | 1.153 | 1.153 | 0.349 | 1.655 | 1.275 |
| 2CTB803972R1400 | 0.576 | 0.576 | 0.175 | 0.966 | 0.638 |
| 2CTB803983R1100 | 1.153 | 1.153 | 0.349 | 1.655 | 1.275 |
| 2CTB803983R1900 | 0.334 | 0.334 | 0.437 | 0.276 | 0.319 |
| 2CTB804200R0100 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB804200R1100 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB804201R0100 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB804201R1100 | 0.346 | 0.346 | 0.524 | 0.276 | 0.319 |
| 2CTB815708R0000 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815704R1200 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815704R0000 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815704R4100 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815704R2900 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815708R0400 | 0.738 | 0.738 | 0.349 | 0.966 | 0.797 |
| 2CTB815708R0200 | 0.738 | 0.738 | 0.349 | 0.966 | 0.797 |
| 2CTB815704R1400 | 0.738 | 0.738 | 0.349 | 0.966 | 0.797 |
| 2CTB815704R0400 | 0.738 | 0.738 | 0.349 | 0.966 | 0.797 |
| 2CTB815704R0200 | 0.738 | 0.738 | 0.349 | 0.966 | 0.797 |
| 2CTB815708R0600 | 1.095 | 1.095 | 0.437 | 0.966 | 1.195 |
| 2CTB815704R1800 | 1.095 | 1.095 | 0.437 | 0.966 | 1.195 |
| 2CTB815704R0600 | 1.095 | 1.095 | 0.437 | 0.966 | 1.195 |
| 2CTB815704R2300 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |

## Extrapolation Factors

| Product name | Manufacturing | Distribution | Installation | Use | End of life |
|---|---|---|---|---|---|
| 2CTB815704R2200 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815704R2000 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815704R1100 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815704R1000 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815704R0800 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815704R3700 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815704R2600 | 0.196 | 0.196 | 0.175 | 0.966 | 0.199 |
| 2CTB815704R5500 | 0.196 | 0.196 | 0.175 | 0.966 | 0.199 |
| 2CTB815708R5400 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815708R2500 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815708R1200 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815708R4100 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815708R2900 | 0.380 | 0.380 | 0.262 | 0.966 | 0.398 |
| 2CTB815708R1400 | 0.738 | 0.738 | 0.349 | 0.966 | 0.797 |
| 2CTB815708R1800 | 1.095 | 1.095 | 0.437 | 1.690 | 1.195 |
| 2CTB815708R4700 | 1.095 | 1.095 | 0.437 | 2.414 | 1.195 |
| 2CTB815708R3500 | 1.095 | 1.095 | 0.437 | 2.414 | 1.195 |
| 2CTB815708R2300 | 1.453 | 1.453 | 0.524 | 1.690 | 1.594 |
| 2CTB815708R2200 | 1.453 | 1.453 | 0.524 | 1.690 | 1.594 |
| 2CTB815708R2000 | 1.453 | 1.453 | 0.524 | 1.690 | 1.594 |
| 2CTB815708R1100 | 1.453 | 1.453 | 0.524 | 1.690 | 1.594 |
| 2CTB815708R1000 | 1.453 | 1.453 | 0.524 | 1.690 | 1.594 |
| 2CTB815708R0800 | 1.453 | 1.453 | 0.524 | 1.690 | 1.594 |
| 2CTB815708R4900 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815708R3700 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815708R5200 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815708R4000 | 1.453 | 1.453 | 0.524 | 0.966 | 1.594 |
| 2CTB815708R5700 | 0.127 | 0.127 | 0.262 | 0.966 | 0.106 |
| 2CTB815708R2800 | 0.127 | 0.127 | 0.262 | 0.276 | 0.106 |
| 2CTB815708R2600 | 0.196 | 0.196 | 0.175 | 0.966 | 0.199 |
| 2CTB815708R5500 | 0.196 | 0.196 | 0.175 | 0.966 | 0.199 |

# Glossary

| Environmental impact Indicators | |
|---|---|
| GWP-total | Global Warming Potential total (Climate change) |
| GWP-fossil | Global Warming Potential fossil |
| GWP-biogenic | Global Warming Potential biogenic |
| GWP-luluc | Global Warming Potential land use and land use change |
| ODP | Depletion potential of the stratospheric ozone layer |
| AP | Acidification potential |
| EP-freshwater | Eutrophication potential - freshwater compartment |
| EP-marine | Eutrophication potential - fraction of nutrients reachin marine end compartment |
| EP-terrestrial | Eutrophication potential - Accumulated Exceedance |
| POCP | Tropospheric ozone creation potential |
| ADP-m&m | Abiotic Depletion for non-fossil resources potential |
| ADP-fossil | Abiotic Depletion for fossil resources potential |
| WDP | Water deprivation potential |

| Resource indicators | |
|---|---|
| PENRE | Use of non-renewable primary energy excluding renewable primary energy resources used as raw material |
| PENRM | Use of non-renewable primary energy resources used as raw material |
| PENRT | Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials |
| PERE | Use of renewable primary energy excluding non-renewable primary energy resources used as raw material. |
| PERM | Use of renewable primary energy resources used as raw material |
| PERT | Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) |

| Secondary materials, water and energy resources | |
|---|---|
| SM | Use of secondary materials |
| RSF | Use of renewable secondary fuels |
| NRSF | Use of non-renewable secondary fuels |
| FW | Net use of fresh water |

| Waste category indicators | |
|---|---|
| HWD | Hazardous waste disposed |
| N-HWD | Non-hazardous waste disposed |
| RWD | Radioactive waste disposed |

| Output flow indicators | |
|---|---|
| CfRu | Components for re-use |
| MfR | Materials for recycling |
| MfER | Materials for energy recovery |
| EE | Exported Energy |

| Optional indicators | |
|---|---|
| Tot PE | Total use of primary energy during the life cycle |
| Efp | Emissions of Fine particles |
| IrHH | Ionizing radiation, human health |
| ETX FW | Ecotoxicity, freshwater |
| HTX CE | Human toxicity, carcinogenic effects |
| HTX N-CE | Human toxicity, non-carcinogenic effects |
| IrLS | Impact related to Land use / soil quality |

## References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