

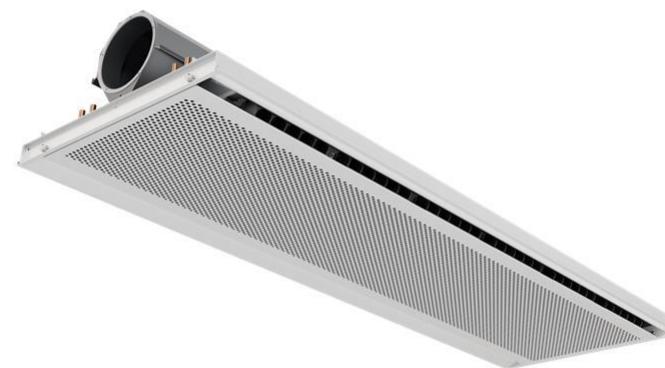


# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

**PACIFIC**

Swegon Group AB



## EPD HUB, HUB-5179

Published on 29.01.2026, last updated on 29.01.2026, valid until 29.07.2027

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



Created with One Click LCA



## GENERAL INFORMATION

### MANUFACTURER

|                 |  |
|-----------------|--|
| Manufacturer    | Swegon Group AB  |
| Address         | JA Wettergrens gata 7, 421 30, Västra Frölunda, Sweden |
| Contact details | info@swegon.se   |
| Website         | www.swegon.com   |

### EPD STANDARDS, SCOPE AND VERIFICATION

|                    |  |
|--------------------|--|
| Program operator   | EPD Hub, hub@epdhub.com  |
| Reference standard | EN 15804:2012+A2:2019/AC:2021 and ISO 14025  |
| PCR                | EPD Hub Core PCR Version 1.2, 24 Mar 2025  |
| Sector             | Construction product   |
| Category of EPD    | Design phase EPD   |
| Scope of the EPD   | Cradle to gate with options, A4-A5, and modules C1-C4, D   |
| EPD author         | Heloise Hedbom   |
| EPD verification   | Independent verification of this EPD and data, according to ISO 14025:<br><input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification |
| EPD verifier       | Imane Uald Lamkaddam as an authorized verifier for EPD Hub   |

This EPD is intended for business-to-business and/or business-to-consumer communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products

may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

### PRODUCT

|                                       |  |
|---------------------------------------|--|
| Product name                          | PACIFIC                                      |
| Additional labels                     | See Appendix 1.<br>Length 1200 mm to 3000 mm |
| Product reference                     | -  |
| Place(s) of raw material origin       | Europe & Asia                                |
| Place of production                   | Arvika, Sweden                               |
| Place(s) of installation and use      | Global                                       |
| Period for data                       | 2024   |
| Averaging in EPD                      | Multiple products                            |
| Variation in GWP-fossil for A1-A3 (%) | +12,6% / -26,6%                              |
| A1-A3 Specific data (%)               | 34,4   |

**ENVIRONMENTAL DATA SUMMARY**

|  |                 |
|--|-----------------|
| <b>Declared unit</b>                             | 1 kg of PACIFIC |
| <b>Declared unit mass</b>                        | 1 kg            |
| <b>Mass of packaging</b>                         | 0,29 kg         |
| <b>GWP-fossil, A1-A3 (kgCO<sub>2</sub>e)</b>     | 3,08            |
| <b>GWP-total, A1-A3 (kgCO<sub>2</sub>e)</b>      | 2,79            |
| <b>Secondary material, inputs (%)</b>            | 92,6            |
| <b>Secondary material, outputs (%)</b>           | 83,1            |
| <b>Total energy use, A1-A3 (kWh)</b>             | 19,9            |
| <b>Net freshwater use, A1-A3 (m<sup>3</sup>)</b> | 0,07            |

# PRODUCT AND MANUFACTURER

## ABOUT THE MANUFACTURER

People spend most of their time indoors, which is why we need a sound indoor climate for our health, well-being and happiness. Swegon's ambition is to achieve the world's best indoor environment with the least possible impact on the external environment. Our business models, services, products and systems are all designed to provide the right solution for each individual project.

Swegon Group AB is a leading supplier in the field of indoor environment, offering solutions for ventilation, heating, cooling and climate optimization, as well as connected services and expert technical support. Swegon has subsidiaries in and distributors all over the world and production plants in Europe, North America and India. The company employs more than 3 300 people.

## PRODUCT DESCRIPTION

The PACIFIC chilled beam is designed to provide exceptional flexibility for any project. Its modular design allows for seamless integration into various architectural styles, making it suitable for both new constructions and renovations. With a wide airflow range and an innovative approach to climate control, the PACIFIC chilled beam is an excellent choice for creating an optimal indoor environment. Made from recycled and renewably produced steel, it underscores a commitment to sustainability and our planet.

PACIFIC is an active chilled beam featuring two-way air distribution. Its Flow control system ensures optimal performance across a wide airflow range and enables pressure-independent control enhancing both energy efficiency and indoor environmental quality. The PACIFIC chilled beam comes standard with Anti-Draft Control (ADC), allowing for easy air distribution pattern adjustments when room layouts change.

Please visit <https://www.swegon.com/products/room-units/waterborne-room-units/chilled-beams/pacific/>

Further information can be found at: [www.swegon.com](http://www.swegon.com)

## PRODUCT RAW MATERIAL MAIN COMPOSITION

| Raw material category | Amount, mass % | Material origin |
|-----------------------|----------------|-----------------|
| Metals                | 98%            | Europe & Asia   |
| Minerals              | -              | -               |
| Fossil materials      | 2%             | Europe & Asia   |
| Bio-based materials   | -              | -               |

## BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

|  |       |
|--|-------|
| Biogenic carbon content in product, kg C   | -     |
| Biogenic carbon content in packaging, kg C | 0,093 |

## FUNCTIONAL UNIT AND SERVICE LIFE

|                        |                 |
|------------------------|-----------------|
| Declared unit          | 1 kg of PACIFIC |
| Mass per declared unit | 1 kg            |
| Functional unit        | -               |
| Reference service life | 25 years        |

## SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

# PRODUCT LIFE-CYCLE

## SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

| Product stage |           | Assembly stage |           | Use stage |     |             |        |             |               | End of life stage      |                       |                            |           | Beyond the system boundaries |          |           |          |
|---------------|-----------|----------------|-----------|-----------|-----|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------------------|----------|-----------|----------|
| A1            | A2        | A3             | A4        | A5        | B1  | B2          | B3     | B4          | B5            | B6                     | B7                    | C1                         | C2        | C3                           | C4       | D         |          |
| x             | x         | x              | x         | x         | ND  | ND          | ND     | ND          | ND            | ND                     | x                     | x                          | x         | x                            | x        | Recycling |          |
| Raw materials | Transport | Manufacturing  | Transport | Assembly  | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | Deconstruction/ demolition | Transport | Waste processing             | Disposal | Reuse     | Recovery |

Modules not declared = ND. Modules not relevant = NR

## MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A market-based approach is used in modelling the electricity mix utilized in the factory. The Arvika facility operates on electricity sourced from

hydropower and the amount used for this product is allocated by mass with 2024 as reference year. The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

PACIFIC is manufactured using a combination of materials including steel, aluminium, copper, and various polymers. Components produced in upstream modules are transported to Swegon's production facility in Arvika, Sweden. At the site, steel is shaped and processed according to design specifications. The product is then assembled with additional components to form the final PACIFIC unit. Once assembly is complete, the product is packaged on wooden pallets and secured using cardboard and plastic wrapping.

During the manufacturing process, waste materials such as steel scrap and wood residues are generated. The steel scrap is sent for recycling, while the single use wood pallets are directed to incineration.

## TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Transportation to the construction site is assessed based on the representative year. The product is sold ready to be installed and no raw material waste is generated from installation (A5). The end-of-life treatment of product packaging is declared and average global scenario per packaging material has been applied with different ratios of recycling, incineration, and disposal in landfill.

## PRODUCT USE AND MAINTENANCE (B1-B7)

Module B is not declared.

Air, soil, and water impacts during the use phase have not been studied.

## PRODUCT END OF LIFE (C1-C4, D)

At the end of the product's life, the PACIFIC is assumed to be demolished. The environmental impact of deconstruction (C1) is modelled using literature data, assuming an energy consumption of 0,1 kWh per kilogram of product removed. Subsequent waste processing (C3) and disposal (C4) are also modelled, with scenarios based on literature values that reflect typical end-of-life treatment routes, including recycling, incineration, and landfilling. It is assumed that material for recycling is collected separately.

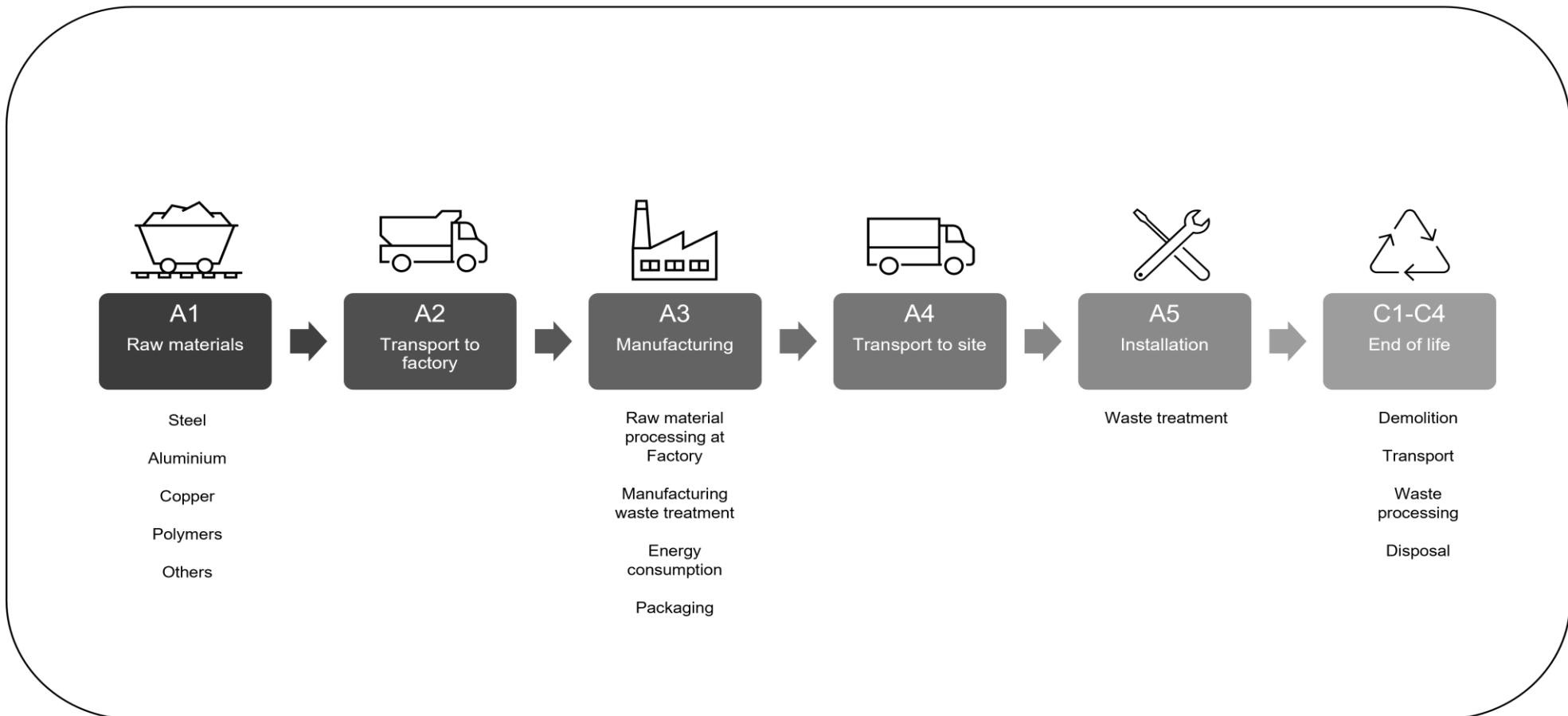
The primary materials considered are steel, aluminium, copper, and plastic components. For steel, it is assumed that 85% is recycled and 15% is sent to landfill (World Steel Association). For aluminium 90% is recycled and 10% is landfilled (European aluminium). For copper, it is estimated that 60% is recycled, while the remaining 40% is disposed of in landfill (Copper Alliance). Lastly for polymers, the end-of-life treatment varies depending on the type of plastic: approximately 0-27% are recycled, 47-73% are incinerated, and around 22-27% are landfilled (Plastics Europe).

Transportation distances associated with the end-of-life treatment (C2) of these materials are assumed to be 250 km to recycling facilities, 150 km to incineration plants, and 50 km to landfill sites. All transportation is carried out using a 16-32 metric ton freight lorry compliant with EURO 5 standards.

Due to the material and energy recovery potential of the components included in the product, the end-of-life can be converted into recycled raw materials or energy through incineration. The potential environmental

benefits and burdens associated with recycling and energy recovery processes are accounted for in Module D.

## FLOW DIAGRAM



# LIFE-CYCLE ASSESSMENT

## CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

## VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

## ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

| Data type                      | Allocation                  |
|--------------------------------|-----------------------------|
| Raw materials                  | No allocation               |
| Packaging material             | No allocation               |
| Ancillary materials            | Not applicable              |
| Manufacturing energy and waste | Allocated by mass or volume |

## PRODUCT & MANUFACTURING SITES GROUPING

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Type of grouping                     | Multiple products                 |
| Grouping method                      | Based on a representative product |
| Variation in GWP-fossil for A1-A3, % | +12,6% / - 26,6%                  |

To assess variations in environmental impact, two extreme product scenarios were modelled and analysed. The high runner PACIFIC 2994x594-160 was then selected and modelled as the representative product. The GWP-fossil for modules A1-A3, for the product sizes with the highest respective lowest impacts included in this EPD, deviates from the representative product by +12,6% and -26,6%, respectively. This EPD covers PACIFIC chilled beams in nominal lengths 1200 mm to 3000 mm without electronic components. See Appendix 1 for a list of selected included products.

## LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.11 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

## ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

### CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

| Impact category                     | Unit                   | A1        | A2       | A3        | A1-A3     | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3        | C4       | D         |
|-------------------------------------|------------------------|-----------|----------|-----------|-----------|----------|----------|----|----|----|----|----|----|----|----------|----------|-----------|----------|-----------|
| GWP – total <sup>1)</sup>           | kg CO <sub>2</sub> e   | 2,73E+00  | 1,51E-01 | -9,00E-02 | 2,79E+00  | 2,57E-01 | 3,59E-01 | ND | 6,94E-02 | 4,20E-02 | 5,15E-02  | 1,79E-03 | -1,51E+00 |
| GWP – fossil                        | kg CO <sub>2</sub> e   | 2,74E+00  | 1,51E-01 | 1,88E-01  | 3,08E+00  | 2,57E-01 | 1,85E-02 | ND | 6,88E-02 | 4,20E-02 | 5,18E-02  | 1,79E-03 | -1,44E+00 |
| GWP – biogenic                      | kg CO <sub>2</sub> e   | -3,51E-02 | 1,35E-04 | -3,01E-01 | -3,36E-01 | 5,71E-05 | 3,41E-01 | ND | 3,98E-04 | 9,16E-06 | -4,10E-04 | 1,60E-06 | -4,60E-02 |
| GWP – LULUC                         | kg CO <sub>2</sub> e   | 2,62E-02  | 1,83E-04 | 2,27E-02  | 4,92E-02  | 1,17E-04 | 9,70E-06 | ND | 1,47E-04 | 1,86E-05 | 2,72E-05  | 8,10E-07 | -2,28E-02 |
| Ozone depletion pot.                | kg CFC-11e             | 1,56E-08  | 2,45E-09 | 5,43E-09  | 2,35E-08  | 3,81E-09 | 1,70E-10 | ND | 4,88E-10 | 5,87E-10 | 2,38E-10  | 3,16E-11 | -1,21E-08 |
| Acidification potential             | mol H <sup>+</sup> e   | 1,86E-02  | 4,92E-04 | 1,04E-03  | 2,01E-02  | 6,67E-04 | 5,34E-05 | ND | 3,65E-04 | 1,40E-04 | 2,42E-04  | 8,21E-06 | -1,75E-02 |
| EP-freshwater <sup>2)</sup>         | kg Pe                  | 6,92E-01  | 2,89E-05 | 6,84E-05  | 6,92E-01  | 2,00E-05 | 2,99E-06 | ND | 3,49E-05 | 3,26E-06 | 1,26E-05  | 1,19E-07 | -6,62E-03 |
| EP-marine                           | kg Ne                  | 2,83E-03  | 1,22E-04 | 3,89E-04  | 3,34E-03  | 1,56E-04 | 9,70E-05 | ND | 7,03E-05 | 4,53E-05 | 5,56E-05  | 4,55E-06 | -3,70E-03 |
| EP-terrestrial                      | mol Ne                 | 3,00E-02  | 1,29E-03 | 3,77E-03  | 3,51E-02  | 1,69E-03 | 1,96E-04 | ND | 7,07E-04 | 4,93E-04 | 6,18E-04  | 3,41E-05 | -4,89E-02 |
| POCP ("smog") <sup>3)</sup>         | kg NMVOCe              | 9,77E-03  | 5,78E-04 | 1,29E-03  | 1,16E-02  | 8,80E-04 | 7,83E-05 | ND | 2,10E-04 | 1,95E-04 | 1,81E-04  | 1,23E-05 | -1,16E-02 |
| ADP-minerals & metals <sup>4)</sup> | kg Sbe                 | 2,42E-04  | 5,11E-07 | 8,46E-07  | 2,44E-04  | 8,53E-07 | 4,01E-08 | ND | 4,22E-07 | 1,38E-07 | 1,30E-06  | 1,99E-09 | -1,16E-04 |
| ADP-fossil resources                | MJ                     | 3,27E+01  | 2,10E+00 | 3,51E+00  | 3,83E+01  | 3,61E+00 | 1,68E-01 | ND | 9,26E-01 | 5,89E-01 | 2,66E-01  | 2,80E-02 | -1,53E+01 |
| Water use <sup>5)</sup>             | m <sup>3</sup> e depr. | 1,38E+00  | 2,43E-02 | 7,42E-01  | 2,15E+00  | 1,69E-02 | 3,51E-03 | ND | 1,84E-02 | 2,73E-03 | 5,32E-03  | 1,24E-03 | -1,06E+00 |

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential;

5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

| Impact category                  | Unit          | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|----------------------------------|---------------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| Particulate matter               | Incidence     | 1,68E-07 | 1,07E-08 | 1,58E-08 | 1,95E-07 | 1,90E-08 | 1,35E-09 | ND | 3,21E-09 | 3,33E-09 | 3,53E-09 | 1,85E-10 | -2,02E-07 |
| Ionizing radiation <sup>6)</sup> | kBq<br>I1235e | 1,77E-01 | 8,26E-03 | 1,79E-02 | 2,03E-01 | 2,94E-03 | 2,56E-04 | ND | 9,71E-03 | 4,76E-04 | 9,39E-04 | 2,09E-05 | -1,29E-01 |
| Ecotoxicity (freshwater)         | CTUe          | 6,51E+01 | 3,45E-01 | 2,72E+01 | 9,26E+01 | 5,70E-01 | 1,69E+00 | ND | 2,13E+00 | 9,31E-02 | 1,41E+00 | 1,25E+02 | -6,03E+02 |
| Human toxicity, cancer           | CTUh          | 6,08E-09 | 3,51E-11 | 3,88E-10 | 6,50E-09 | 4,31E-11 | 5,47E-12 | ND | 1,20E-11 | 7,13E-12 | 1,97E-11 | 3,13E-13 | -1,88E-09 |
| Human tox. non-cancer            | CTUh          | 3,66E-08 | 1,36E-09 | 1,81E-09 | 3,98E-08 | 2,26E-09 | 2,84E-10 | ND | 6,74E-10 | 3,68E-10 | 1,18E-09 | 3,16E-11 | -2,36E-08 |
| SQP <sup>7)</sup>                | -             | 6,79E+00 | 1,48E+00 | 3,24E+01 | 4,07E+01 | 2,17E+00 | 1,92E-01 | ND | 1,62E-01 | 3,52E-01 | 4,94E-01 | 5,53E-02 | -8,28E+00 |

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

## USE OF NATURAL RESOURCES

| Impact category                    | Unit           | A1       | A2       | A3       | A1-A3    | A4       | A5        | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3        | C4        | D         |
|------------------------------------|----------------|----------|----------|----------|----------|----------|-----------|----|----|----|----|----|----|----|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy <sup>8)</sup> | MJ             | 3,12E+01 | 1,19E-01 | 3,87E+00 | 3,52E+01 | 4,99E-02 | -4,39E+00 | ND | 1,46E-01 | 8,07E-03 | 4,07E-02  | 3,25E-04  | -9,26E+00 |
| Renew. PER as material             | MJ             | 3,74E-01 | 0,00E+00 | 3,67E+00 | 4,04E+00 | 0,00E+00 | -4,04E+00 | ND | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  | 4,00E-01  |
| Total use of renew. PER            | MJ             | 3,15E+01 | 1,19E-01 | 7,54E+00 | 3,92E+01 | 4,99E-02 | -8,43E+00 | ND | 1,46E-01 | 8,07E-03 | 4,07E-02  | 3,25E-04  | -8,86E+00 |
| Non-re. PER as energy              | MJ             | 3,15E+01 | 2,10E+00 | 2,64E+00 | 3,62E+01 | 3,61E+00 | -4,75E-01 | ND | 9,26E-01 | 5,89E-01 | -3,58E-01 | -1,87E-01 | -1,53E+01 |
| Non-re. PER as material            | MJ             | 7,04E-01 | 0,00E+00 | 8,65E-01 | 1,57E+00 | 0,00E+00 | -8,90E-01 | ND | 0,00E+00 | 0,00E+00 | -5,04E-01 | -1,76E-01 | 2,41E-01  |
| Total use of non-re. PER           | MJ             | 3,22E+01 | 2,10E+00 | 3,51E+00 | 3,78E+01 | 3,61E+00 | -1,36E+00 | ND | 9,26E-01 | 5,89E-01 | -8,62E-01 | -3,63E-01 | -1,51E+01 |
| Secondary materials                | kg             | 9,26E-01 | 1,91E-03 | 7,65E-02 | 1,00E+00 | 1,64E-03 | 9,78E-05  | ND | 1,36E-04 | 2,65E-04 | 3,23E-04  | 7,61E-06  | -5,81E-03 |
| Renew. secondary fuels             | MJ             | 1,32E-02 | 1,23E-05 | 1,15E-01 | 1,28E-01 | 2,08E-05 | 1,16E-06  | ND | 9,34E-07 | 3,37E-06 | 1,40E-05  | 1,52E-07  | -2,38E-04 |
| Non-ren. secondary fuels           | MJ             | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | ND | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  |
| Use of net fresh water             | m <sup>3</sup> | 5,73E-02 | 6,30E-04 | 1,71E-02 | 7,50E-02 | 4,91E-04 | -7,45E-04 | ND | 4,31E-04 | 7,80E-05 | 1,12E-04  | -4,96E-05 | -2,09E-02 |

8) PER = Primary energy resources.

## END OF LIFE – WASTE

| Impact category     | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 6,04E-01 | 7,19E-03 | 1,16E-02 | 6,23E-01 | 6,32E-03 | 7,52E-04 | ND | 6,56E-03 | 1,03E-03 | 2,39E-03 | 4,94E-05 | -4,67E-01 |
| Non-hazardous waste | kg   | 3,20E+00 | 1,63E-01 | 6,08E-01 | 3,97E+00 | 1,18E-01 | 5,69E-01 | ND | 1,68E-01 | 1,92E-02 | 7,45E-02 | 5,47E-02 | -2,62E+00 |
| Radioactive waste   | kg   | 5,38E-04 | 2,01E-06 | 4,57E-06 | 5,45E-04 | 7,20E-07 | 6,31E-08 | ND | 2,37E-06 | 1,17E-07 | 2,30E-07 | 5,11E-09 | -2,95E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category               | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D        |
|-------------------------------|------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|----------|
| Components for re-use         | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Materials for recycling       | kg   | 0,00E+00 | 0,00E+00 | 2,26E-01 | 2,26E-01 | 0,00E+00 | 7,64E-02 | ND | 0,00E+00 | 0,00E+00 | 8,20E-01 | 0,00E+00 | 0,00E+00 |
| Materials for energy rec      | kg   | 0,00E+00 | 0,00E+00 | 2,47E-02 | 2,47E-02 | 0,00E+00 | 8,40E-03 | ND | 0,00E+00 | 0,00E+00 | 1,06E-02 | 0,00E+00 | 0,00E+00 |
| Exported energy               | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 6,40E-02 | ND | 0,00E+00 | 0,00E+00 | 5,36E-02 | 8,50E-02 | 0,00E+00 |
| Exported energy – Electricity | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,70E-02 | ND | 0,00E+00 | 0,00E+00 | 2,27E-02 | 3,60E-02 | 0,00E+00 |
| Exported energy – Heat        | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 3,70E-02 | ND | 0,00E+00 | 0,00E+00 | 3,09E-02 | 4,90E-02 | 0,00E+00 |

## ENVIRONMENTAL IMPACTS – EN 15804+A1, CML

| Impact category      | Unit                               | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 2,74E+00 | 1,51E-01 | 2,14E-01 | 3,10E+00 | 2,56E-01 | 4,55E-02 | ND | 6,88E-02 | 4,17E-02 | 5,19E-02 | 1,75E-03 | -1,46E+00 |
| Ozone depletion Pot. | kg CFC- <sub>11</sub> e            | 1,94E-08 | 1,97E-09 | 4,64E-09 | 2,60E-08 | 3,04E-09 | 1,37E-10 | ND | 4,25E-10 | 4,69E-10 | 2,07E-10 | 2,52E-11 | -1,04E-08 |
| Acidification        | kg SO <sub>2</sub> e               | 1,63E-02 | 3,95E-04 | 7,64E-04 | 1,75E-02 | 5,38E-04 | 4,05E-05 | ND | 3,04E-04 | 1,07E-04 | 1,94E-04 | 6,07E-06 | -1,34E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3-</sup> e | 1,95E-03 | 8,14E-05 | 3,59E-03 | 5,63E-03 | 1,20E-04 | 3,15E-05 | ND | 3,73E-05 | 2,61E-05 | 2,89E-05 | 2,44E-06 | -3,15E-03 |
| POCP ("smog")        | kg C <sub>2</sub> H <sub>4</sub> e | 1,23E-03 | 3,33E-05 | 1,06E-04 | 1,37E-03 | 4,89E-05 | 9,72E-06 | ND | 1,62E-05 | 9,60E-06 | 1,16E-05 | 6,51E-07 | -9,76E-04 |
| ADP-elements         | kg Sbe                             | 1,72E-04 | 4,99E-07 | 8,29E-07 | 1,73E-04 | 8,33E-07 | 3,91E-08 | ND | 4,20E-07 | 1,35E-07 | 1,30E-06 | 1,94E-09 | -1,16E-04 |
| ADP-fossil           | MJ                                 | 2,78E+01 | 1,97E+00 | 3,20E+00 | 3,30E+01 | 3,56E+00 | 1,64E-01 | ND | 7,71E-01 | 5,81E-01 | 2,52E-01 | 2,76E-02 | -1,33E+01 |

## ENVIRONMENTAL IMPACTS

| Impact category            | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|----------------------------|------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| Radioactive waste, high    | kg   | 5,50E-05 | 5,97E-07 | 1,10E-06 | 5,67E-05 | 2,14E-07 | 1,79E-08 | ND | 6,60E-07 | 3,47E-08 | 7,35E-08 | 1,46E-09 | -6,49E-06 |
| Radioactive waste, int/low | kg   | 6,28E-05 | 1,41E-06 | 3,47E-06 | 6,77E-05 | 5,06E-07 | 4,51E-08 | ND | 1,71E-06 | 8,20E-08 | 1,57E-07 | 3,65E-09 | -2,30E-05 |

## ADDITIONAL INDICATOR – GWP-GHG

| Impact category       | Unit                 | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|-----------------------|----------------------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| GWP-GHG <sup>9)</sup> | kg CO <sub>2</sub> e | 2,77E+00 | 1,51E-01 | 2,11E-01 | 3,13E+00 | 2,57E-01 | 1,85E-02 | ND | 6,90E-02 | 4,20E-02 | 5,19E-02 | 1,79E-03 | -1,46E+00 |

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH<sub>4</sub> fossil, CH<sub>4</sub> biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO<sub>2</sub> is set to zero.

## SCENARIO DOCUMENTATION

### Manufacturing energy scenario documentation

| Scenario parameter                          | Value  |
|---|--|
| Electricity data source and quality         | Electricity production, hydro, reservoir, non-alpine region, Sweden, Ecoinvent 3.11      |
| Electricity kg CO <sub>2</sub> e / kWh      | 0,0506 kg CO <sub>2</sub> e / kWh  |
| District heating data source and quality    | Heat and power co-generation, wood chips, 6667 kW, state-of-the-art 2014. Ecoinvent 3.11 |
| District heating kg CO <sub>2</sub> e / kWh | 0,0094 kg CO <sub>2</sub> e / kWh  |

### Transport scenario documentation A4

| Scenario parameter  | Value   |
|---|---|
| Fuel and vehicle type. Eg, electric truck, diesel powered truck | Transport, freight, lorry 16-32 metric ton, EURO6 and Transport, freight, sea, container ship |
| Average transport distance, km                                  | 1250 km   |
| Capacity utilization (including empty return) %                 | 50 %  |
| Bulk density of transported products                            | -   |
| Volume capacity utilization factor                              | 1   |

### Installation scenario documentation A5

| Scenario information  | Value   |
|---|---|
| Ancillary materials for installation (specified by material)  | -   |
| Water use   | -   |
| Other resource use  | -   |
| Quantitative description of energy type (regional mix) and consumption during the installation process  | -   |
| Waste materials on the building site before waste processing, generated by the product's installation (specified by type)   | 0,212 kg of wood<br>0,065 kg of cardboard<br>0,016 kg of plastic  |
| Output materials (specified by type) as result of waste processing at the building site e.g. collection for recycling, for energy recovery, disposal (specified by route) | Wood packaging: Recycled 15% and Landfilled 85%.<br>Cardboard packaging: Recycled 66%, Incinerated 10% & Landfilled 24%.<br>Plastic packaging: Recycled 9%, Incinerated 12% and Landfilled 79%. |
| Direct emissions to ambient air, soil and water   | -   |

**End of life scenario documentation**

| Scenario information  | Value   |
|---|---|
| Collection process – kg collected separately                    | 0,82 kg   |
| Collection process – kg collected with mixed construction waste | 0,18 kg   |
| Recovery process – kg for re-use                                | -   |
| Recovery process – kg for recycling                             | 0,82 kg   |
| Recovery process – kg for energy recovery                       | 0,01 kg   |
| Disposal (total) – kg for final deposition                      | 0,16 kg   |
| Scenario assumptions e.g. transportation                        | Transportation type:<br>Transport, freight, lorry 16-32 metric ton EURO5.<br><br>Landfill: 50 km<br>Incineration: 150 km<br>Recycling: 250 km |

## THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

### Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited  
29.01.2026



## APPENDIX 1

This is an EPD for multiple PACIFIC products, based on the results of a representative product, with 1 kg of PACIFIC 2994x594-160 as the declared unit.

In the table below, the calculated GWP-fossil and GWP-GHG results for the climate impact of modules A1-A3 (cradle-to-gate) for selected products are presented. These results apply to coils ranging from 1200 mm to 3000 mm, with nominal length of design modules ranging from 1200 mm to 3000 mm, as well as various dimensions of connection sleeves.

The GWP-Fossil and GWP-GHG impacts presented per size have been calculated based on the A1-A3 results shown in this EPD, multiplied by the respective weight.

If your selected version is not listed in the table below, the weights of products not presented can be found on our webpage [www.swegon.com](http://www.swegon.com) on specific product pages.

The environmental impact of a product is calculated by multiplying the product's weight by the relevant Global Warming Potential (GWP) factors:

- **GWP-fossil:** 3,08 kg CO<sub>2</sub>e per kg of product
- **GWP-GHG:** 3,13 kg CO<sub>2</sub>e per kg of product

| Product name          | Total weight (kg) | GWP-fossil, A1-A3 (kg CO <sub>2</sub> e/item) | GWP-GHG, A1-A3 (kg CO <sub>2</sub> e/item) |
|-----------------------|-------------------|---|--|
| PACIFIC 1194x594 -125 | 15,1              | 46,5  | 47,3                                       |
| PACIFIC 1794x594-125  | 22,5              | 69,3  | 70,4                                       |
| PACIFIC 2394x594-125  | 29,6              | 91,2  | 92,6                                       |
| PACIFIC 2994x594-125  | 36,5              | 112,4   | 114,2                                      |
|                       |                   |   |  |
| PACIFIC 1194x594-160  | 15,7              | 48,4  | 49,1                                       |
| PACIFIC 1794x594-160  | 23,2              | 71,5  | 72,6                                       |
| PACIFIC 2394x594-160  | 30,6              | 94,2  | 95,8                                       |
| PACIFIC 2994x594-160  | 37,7              | 116,1   | 118,0                                      |
|                       |                   |   |  |
| PACIFIC 1194x594-200  | 16,4              | 50,5  | 51,3                                       |
| PACIFIC 1794x594-200  | 24,3              | 74,8  | 76,1                                       |
| PACIFIC 2394x594-200  | 31,9              | 98,3  | 99,8                                       |
| PACIFIC 2994x594-200  | 39,4              | 121,4   | 123,3                                      |