ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

GOLD/SILVER RX

Swegon Group AB

EPD HUB, HUB-6058

Published on 17.04.2026, last updated on 17.04.2026, valid until 17.04.2031

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	J A 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	Third party verified EPD
Parent EPD number	
Scope of the EPD	Cradle to gate with options, A4-B7, and modules C1-C4, D
EPD author	Louise Persson
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Yazan Badour 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	GOLD/SILVER RX
Additional labels	-
Product reference	-
Place(s) of raw material origin	Europe & Asia
Place of production	Kvänum, Sweden
Place(s) of installation and use	Global
Period for data	Calendar year 2025
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	-
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	34

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 finished AHU GOLD RX 012
Declared unit mass	509 kg
Mass of packaging	39 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	1770
GWP-total, A1-A3 ($kgCO_2e$)	1750
Secondary material, inputs (%)	93,3
Secondary material, outputs (%)	78,2
Total energy use, A1-A3 (kWh)	11000
Net freshwater use, A1-A3 (m^3)	94,3

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 market-leading supplier in the field of indoor environment, offering solutions for ventilation, heating, cooling, and climate optimisation, as well as connected services and expert technical support. Swegon has subsidiaries and distributors all over the world as well as production plants in Europe, North America and India. The company employs more than 3 800 people.

PRODUCT DESCRIPTION

An air handling unit (AHU) helps maintain a high-quality indoor environment by controlling the supply of fresh and well/tempered air. Swegon's GOLD and SILVER RX units are designed for comfort ventilation. To ensure superior performance, Swegon designs its own components, such as the rotary heat exchanger, fan impeller, and control equipment.

Units with rotary heat exchangers allow to achieve the ultimate indoor temperature and annual energy efficiency; heat exchangers with turbulent air flow are uniquely effective. This combined with the short installation length typically makes them the first choice for most applications. The turbulent flow in the rotor and the Carry-Over Control feature make them ideally compatible with VAV and DCV system applications. Swegon's GOLD and SILVER RX units are designed to minimize the risk of air and odor transmission between the air flows.

The reference unit weight of a GOLD RX in size 012 is 509 kg, however, the weight can differ between different configurations. In terms of material content, our AHUs consist primarily of steel, to a large extent recycled and renewably produced, aluminium, different types of polymer materials, insulation material, and electronic components. For this individual product 73% of the steel comes from recycled materials. Our AHUs are expected to be used for 20 years before they reach the end of life.

Further information can be found at:
www.swegon.com

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	90	EU, Asia
Minerals	3	EU, Asia
Fossil materials	7	EU, Asia
Bio-based materials	0	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	6,5
Biogenic carbon content in packaging, kg C	15,4

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 finished AHU GOLD RX 012
Mass per declared unit	509 kg
Functional unit	Bidirectional ventilation unit with heat recovery designed to replace up to 3420 m3/hr of utilized air with filtered and tempered outdoor air in a building, with a temperature efficiency up to 85%. The most important performance parameters are the temperature efficiency and the specific fan power, which are calculated for each specific unit and presented in the technical submittal.
Reference service life	20

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	x	ND	x	ND	x	x	x	x	x		
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	Recycling

Not declared = ND.

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 Kvänum facility operates on electricity sourced 100% from hydropower, and biomass-based heat is supplied by district heating. 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.

The production of AHUs is a highly coordinated process. It begins with the transformation of flat sheet metal through precise punching and bending, which forms the core casing of the AHU. Different sheets, varying in thickness, are shaped using specific press machines, moving through multiple buffers before reaching the assembly stage, where they become the structural foundation of the AHU.

In parallel, a rotor is carefully folded and rolled in a specialized machine, becoming the central component of the AHU. Fan impellers are produced by processing fan blades and sides through press machines. The components are then assembled into complete fans through laser cutting and welding, combining parts produced via punching and bending with externally purchased electronics.

Transportation activities in the A2 stage include the transportation of raw materials and packaging to the production site.

Production waste from the manufacturing process primarily consists of metals, mineral wool, wood and other combustible materials. Almost everything, including mineral wool, is sent for recycling, except some combustibles which are incinerated with heat recovery.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts from the delivery of final products to the construction site (A4) include direct exhaust emissions from fuel, environmental impacts of fuel production and related infrastructure emissions.

The final product is distributed to different customers globally. A distribution scenario based on yearly average sales volumes has been applied by Swegon. This scenario considers transport by road and boat, modelled with a 16-32 tonnes truck and a container ship, respectively. 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)

This EPD follows additional requirements for products which are permanently installed into the building and using energy in module B6 of the use stage.

Electricity consumption during the use phase is calculated based on defined scenarios by the product manufacturer according to the most common scenarios, assuming a reference service life time (RSL) of 20 years. The electricity mix used is a weighted average of sales of GOLD/SILVER RX.

Please note that the environmental impact during the use phase varies depending on several parameters, such as geographic location and usage patterns. The use stage results are only applicable to the described scenario and should not be compared with results from other products' EPDs, in a context where other scenarios would be relevant. Therefore, the environmental impact from the use phase should be examined separately for individual projects.

Furthermore, some filter components need to be replaced annually which is considered in module B4.

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

PRODUCT END OF LIFE (C1-C4, D)

At the end of the product's life, the air handling unit is assumed to be demolished. The environmental impact of deconstruction (C1) is modelled using literature data, assuming an energy consumption of 0.01 kWg 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. End-of-life scenarios representing current practices and technologies in Europe were chosen, since this is Swegon's main market.

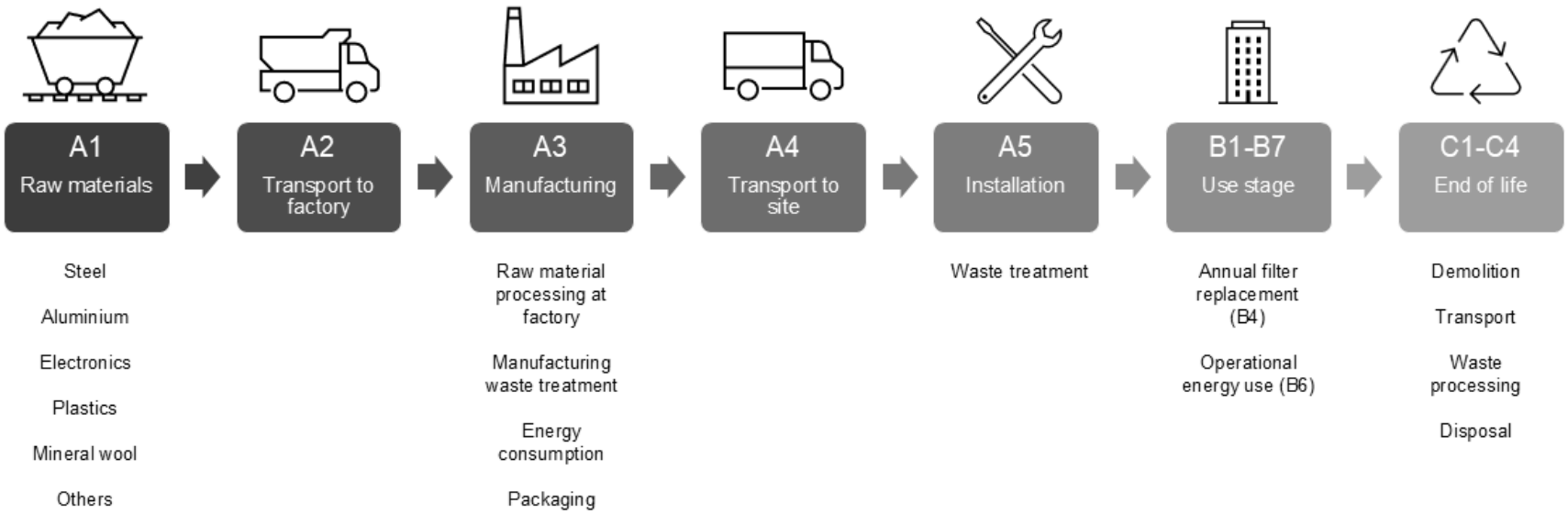
The primary materials considered are steel, aluminium, plastic, copper, electronics and mineral wool. For steel, it is assumed that 85% is recycled and 15% is sent to landfill (World Steel Association). For aluminium 95% is recycled and 5% is landfilled (European Aluminium Association). For copper, it is estimated that 90% is recycled, while the remaining 10% is disposed of in landfill (EuRIC). For polymers, the end-of-life treatment varies depending on the type of plastic, but approximately 24% is recycled, 49% is incinerated, and 27% is landfilled (Plastics Europe). For mineral wool, 100% is landfilled as a conservative scenario. For electronics, 20% is assumed to be recycled and 80% ends up in landfill (United Nations Institute for Training and Research).

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 tonnes 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.

MANUFACTURING PROCESS

Swegon



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	Not applicable
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	

This EPD is product and factory specific.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.4. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 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[1)]	kg CO_2e	1,65E+03	7,06E+01	2,69E+01	1,75E+03	3,57E+01	5,86E+01	ND	ND	ND	5,88E+02	ND	1,57E+04	ND	1,73E+00	1,99E+01	5,42E+01	4,58E+00	-7,19E+02
GWP – fossil	kg CO_2e	1,66E+03	7,01E+01	4,13E+01	1,77E+03	3,56E+01	2,32E+00	ND	ND	ND	6,13E+02	ND	1,50E+04	ND	1,67E+00	1,98E+01	5,24E+01	4,58E+00	-7,01E+02
GWP – biogenic	kg CO_2e	-2,39E+01	1,72E-01	-2,69E+01	-5,06E+01	2,13E-02	5,63E+01	ND	ND	ND	-2,53E+01	ND	4,50E+02	ND	5,37E-02	1,27E-02	1,77E+00	1,61E-03	-9,23E+00
GWP – LULUC	kg CO_2e	1,02E+01	3,30E-01	1,25E+01	2,31E+01	1,25E-02	1,22E-03	ND	ND	ND	2,98E-01	ND	2,95E+02	ND	4,94E-03	6,58E-03	4,52E-03	5,49E-04	-8,13E+00
Ozone depletion pot.	kg CFC-$_{11}$e	5,77E-05	1,51E-06	9,43E-07	6,02E-05	7,54E-07	2,58E-08	ND	ND	ND	4,91E-06	ND	3,24E-04	ND	3,11E-08	4,32E-07	3,31E-07	2,33E-08	-1,82E-05
Acidification potential	mol H^+e	1,05E+01	4,08E-01	2,19E-01	1,12E+01	1,93E-01	6,04E-03	ND	ND	ND	9,45E-01	ND	9,78E+01	ND	9,64E-03	6,37E-02	2,08E-01	6,23E-03	-4,86E+00
EP-freshwater[2)]	kg Pe	1,17E+00	4,74E-03	1,30E-02	1,19E+00	2,32E-03	3,81E-04	ND	ND	ND	6,15E-03	ND	1,11E+01	ND	1,61E-03	1,35E-03	1,68E-03	1,37E-03	-6,24E-01
EP-marine	kg Ne	1,71E+00	1,22E-01	6,32E-02	1,90E+00	5,72E-02	1,28E-02	ND	ND	ND	2,38E-01	ND	1,57E+01	ND	1,54E-03	2,14E-02	9,37E-02	1,39E-01	-7,68E-01
EP-terrestrial	mol Ne	1,85E+01	1,31E+00	7,02E-01	2,05E+01	6,27E-01	2,35E-02	ND	ND	ND	3,89E+00	ND	1,54E+02	ND	1,36E-02	2,33E-01	1,01E+00	2,60E-02	-7,94E+00
POCP ("smog")[3)]	kg NMVOCe	5,90E+00	4,59E-01	2,39E-01	6,60E+00	2,25E-01	9,15E-03	ND	ND	ND	8,78E-01	ND	4,61E+01	ND	4,35E-03	9,66E-02	3,01E-01	1,01E-02	-2,82E+00
ADP-minerals & metals[4)]	kg Sbe	1,96E-01	2,23E-04	4,41E-04	1,97E-01	1,15E-04	3,65E-06	ND	ND	ND	1,14E-04	ND	4,58E-01	ND	2,27E-05	6,83E-05	1,08E-04	1,47E-06	-8,91E-02
ADP-fossil resources	MJ	2,26E+04	9,81E+02	1,84E+03	2,55E+04	5,00E+02	2,05E+01	ND	ND	ND	5,23E+03	ND	5,90E+05	ND	3,86E+01	2,81E+02	2,94E+02	2,06E+01	-9,84E+03
Water use[5)]	m^3e depr.	1,12E+03	5,04E+00	4,41E+02	1,57E+03	2,53E+00	4,64E-01	ND	ND	ND	5,28E+01	ND	4,03E+04	ND	1,08E+00	1,47E+00	2,24E+00	9,07E-01	-7,52E+02

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	9,27E-05	5,43E-06	3,43E-06	1,02E-04	2,70E-06	1,38E-07	ND	ND	ND	4,49E-05	ND	5,67E-04	ND	3,43E-08	1,59E-06	5,88E-06	1,41E-07	-5,01E-05
Ionizing radiation[6]	kBq U235e	1,60E+02	1,01E+00	9,74E+01	2,58E+02	5,69E-01	3,37E-02	ND	ND	ND	1,70E-01	ND	2,73E+04	ND	1,08E+00	3,36E-01	2,19E-01	1,54E-02	-1,05E+02
Ecotoxicity (freshwater)	CTUe	8,20E+04	5,25E+02	1,72E+03	8,43E+04	3,92E+02	2,81E+01	ND	ND	ND	2,11E+02	ND	6,81E+05	ND	5,35E+01	2,37E+02	9,73E+02	2,18E+04	-4,80E+04
Human toxicity, cancer	CTUh	4,88E-06	1,26E-08	7,87E-08	4,97E-06	6,21E-09	3,60E-10	ND	ND	ND	1,04E-08	ND	7,90E-06	ND	5,00E-10	3,39E-09	1,04E-08	5,45E-10	-7,74E-07
Human tox. non-cancer	CTUh	4,30E-05	5,96E-07	6,88E-07	4,42E-05	2,99E-07	1,69E-08	ND	ND	ND	5,11E-07	ND	4,42E-04	ND	2,72E-08	1,76E-07	3,06E-07	6,30E-08	-1,60E-05
SQP[7]	-	6,45E+03	6,09E+02	5,56E+03	1,26E+04	2,76E+02	2,69E+01	ND	ND	ND	8,89E+01	ND	1,37E+05	ND	7,55E+00	1,66E+02	6,73E+01	4,38E+01	-2,35E+03

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[8]	MJ	1,28E+04	1,55E+01	2,03E+03	1,49E+04	7,81E+00	-5,88E+02	ND	ND	ND	9,47E+02	ND	3,04E+05	ND	1,04E+01	4,58E+00	-6,27E+00	2,43E-01	-2,49E+03
Renew. PER as material	MJ	3,31E+02	0,00E+00	2,55E+02	5,86E+02	0,00E+00	-5,60E+02	ND	ND	ND	0,00E+00	ND	0,00E+00	ND	0,00E+00	0,00E+00	-2,23E+01	-3,83E+00	6,88E+01
Total use of renew. PER	MJ	1,31E+04	1,55E+01	2,28E+03	1,54E+04	7,81E+00	-1,15E+03	ND	ND	ND	9,47E+02	ND	3,04E+05	ND	1,04E+01	4,58E+00	-2,86E+01	-3,59E+00	-2,42E+03
Non-re. PER as energy	MJ	2,20E+04	9,83E+02	1,60E+03	2,46E+04	5,00E+02	-7,22E+01	ND	ND	ND	-2,03E+03	ND	5,90E+05	ND	3,86E+01	2,81E+02	-1,15E+02	-1,22E+03	-9,84E+03
Non-re. PER as material	MJ	5,57E+02	0,00E+00	1,56E+01	5,72E+02	0,00E+00	-1,37E+02	ND	ND	ND	0,00E+00	ND	0,00E+00	ND	0,00E+00	0,00E+00	-3,19E+02	-1,07E+02	1,60E+02
Total use of non-re. PER	MJ	2,26E+04	9,83E+02	1,62E+03	2,52E+04	5,00E+02	-2,09E+02	ND	ND	ND	-2,03E+03	ND	5,90E+05	ND	3,86E+01	2,81E+02	-4,34E+02	-1,33E+03	-9,68E+03
Secondary materials	kg	4,75E+02	4,44E-01	2,43E+00	4,78E+02	2,24E-01	9,61E-03	ND	ND	ND	7,78E+01	ND	1,05E+02	ND	6,21E-03	1,26E-01	2,23E-01	5,85E-03	1,37E+02
Renew. secondary fuels	MJ	8,84E+00	5,34E-03	1,90E+01	2,78E+01	2,75E-03	1,40E-04	ND	ND	ND	9,77E-04	ND	7,03E-01	ND	5,35E-05	1,65E-03	1,69E-03	1,19E-04	-1,53E-01
Non-ren. secondary fuels	MJ	1,46E-22	0,00E+00	0,00E+00	1,46E-22	0,00E+00	0,00E+00	ND	ND	ND	2,44E-21	ND	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^3	8,40E+01	1,33E-01	1,02E+01	9,43E+01	5,84E-02	-1,21E-01	ND	ND	ND	1,90E+00	ND	9,38E+02	ND	2,52E-02	3,40E-02	4,34E-02	-8,15E-02	-1,62E+01

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	2,19E+02	2,11E+00	3,81E+00	2,25E+02	7,12E-01	4,94E-02	ND	ND	ND	2,68E+00	ND	1,04E+03	ND	9,36E-02	4,03E-01	1,55E+00	3,04E-02	-1,44E+02
Non-hazardous waste	kg	3,78E+03	3,75E+01	1,42E+02	3,96E+03	1,49E+01	8,91E+01	ND	ND	ND	1,12E+02	ND	5,57E+04	ND	7,89E+00	8,64E+00	2,24E+01	8,10E+01	-2,42E+03
Radioactive waste	kg	2,67E-01	2,49E-04	2,09E-02	2,88E-01	1,40E-04	8,34E-06	ND	ND	ND	1,60E-01	ND	6,42E+00	ND	2,77E-04	8,27E-05	5,41E-05	3,77E-06	-2,75E-02

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	ND	ND	0,00E+00	ND	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	0,00E+00	0,00E+00	0,00E+00	5,76E+00	ND	ND	ND	0,00E+00	ND	0,00E+00	ND	0,00E+00	0,00E+00	3,90E+02	0,00E+00	0,00E+00
Materials for energy rec	kg	3,90E-02	0,00E+00	0,00E+00	3,90E-02	0,00E+00	0,00E+00	ND	ND	ND	7,41E-01	ND	0,00E+00	ND	0,00E+00	0,00E+00	7,83E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,20E+00	ND	ND	ND	0,00E+00	ND	0,00E+00	ND	0,00E+00	0,00E+00	1,08E+02	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	ND	ND	ND	0,00E+00	ND	0,00E+00	ND	0,00E+00	0,00E+00	4,56E+01	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,43E+00	ND	ND	ND	0,00E+00	ND	0,00E+00	ND	0,00E+00	0,00E+00	6,27E+01	0,00E+00	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_2e	1,67E+03	7,01E+01	5,55E+01	1,80E+03	3,54E+01	4,12E+00	ND	ND	ND	5,78E+02	ND	1,53E+04	ND	1,68E+00	1,97E+01	5,31E+01	4,39E+00	-7,11E+02
Ozone depletion Pot.	kg CFC_{-11}e	6,14E-05	1,21E-06	8,50E-07	6,34E-05	6,02E-07	2,08E-08	ND	ND	ND	4,58E-06	ND	2,80E-04	ND	2,65E-08	3,45E-07	2,65E-07	1,86E-08	-1,85E-05
Acidification	kg SO_2e	1,00E+01	3,18E-01	1,66E-01	1,05E+01	1,50E-01	4,54E-03	ND	ND	ND	5,65E-01	ND	8,22E+01	ND	8,22E-03	4,84E-02	1,48E-01	4,59E-03	-4,07E+00
Eutrophication	kg PO_4^3e	3,00E+00	7,65E-02	6,03E-01	3,68E+00	2,85E-02	2,01E-03	ND	ND	ND	1,30E-01	ND	1,11E+01	ND	1,12E-03	1,27E-02	3,49E-02	5,36E-03	-9,72E-01
POCP (“smog”)	kg C_2H_4e	7,39E-01	2,28E-02	1,99E-02	7,82E-01	1,09E-02	8,07E-04	ND	ND	ND	1,14E-01	ND	4,55E+00	ND	4,43E-04	4,53E-03	1,14E-02	9,97E-04	-4,05E-01
ADP-elements	kg Sbe	1,72E-01	2,19E-04	4,31E-04	1,72E-01	1,13E-04	3,55E-06	ND	ND	ND	9,84E-05	ND	4,57E-01	ND	2,26E-05	6,68E-05	1,08E-04	1,43E-06	-8,90E-02

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-fossil	MJ	1,88E+04	9,64E+02	5,45E+02	2,03E+04	4,90E+02	2,00E+01	ND	ND	ND	4,47E+03	ND	1,66E+05	ND	1,95E+01	2,76E+02	2,91E+02	2,04E+01	-8,07E+03

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	1,15E-02	6,44E-05	3,72E-03	1,53E-02	3,47E-05	2,21E-06	ND	ND	ND	1,09E-05	ND	1,25E+00	ND	6,22E-05	2,04E-05	1,58E-05	1,08E-06	-8,02E-03
Radioactive waste, int/low	kg	2,97E-02	1,84E-04	1,72E-02	4,71E-02	1,05E-04	6,13E-06	ND	ND	ND	3,11E-05	ND	5,17E+00	ND	2,15E-04	6,24E-05	3,83E-05	2,69E-06	-1,95E-02

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[9)]	kg CO_2e	1,67E+03	7,05E+01	5,38E+01	1,80E+03	3,56E+01	2,33E+00	ND	ND	ND	6,13E+02	ND	1,53E+04	ND	1,68E+00	1,98E+01	5,24E+01	4,58E+00	-7,09E+02

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 – CH4 fossil, CH4 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 CO2 is set to zero

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity production, hydro, reservoir, non-alpine region, Sweden, Ecoinvent; Electricity voltage transformation from high to medium voltage, Sweden, Ecoinvent
Electricity kg CO2e / kWh	0.0506; 0.0314
District heating data source and quality	Heat and power co-generation, wood chips, 6667 kW, state-of-the-art 2014, Sweden, Ecoinvent; Heat production, light fuel oil, at industrial furnace 1MW, Albania, Ecoinvent
District heating kg CO2e / MJ	0.0026; 0.1000

Transport scenario documentation A4

Scenario parameter	Value
Fuel and vehicle type. Eg, electric truck, diesel powered truck	Transport, freight, lorry, 16-32 metric tonnes, diesel, EURO 5 and Transport, freight, sea, container ship
Average transport distance, km	313 km and 533 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) / kg or other units as appropriate	-
Water use / m^3	-
Other resource use / kg	-
Quantitative description of energy type (regional mix) and consumption during the installation process / kWh or MJ	-
Waste materials on the building site before waste processing, generated by the product's installation (specified by type) / kg	Plastic packaging: 2,35 kg Wood pallet: 37 kg
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) / kg	Plastic packaging: Recycled 9%, Incinerated 12% & Landfilled 79%. Wood pallet: Recycled 15% and Landfilled 85%.
Direct emissions to ambient air, soil and water / kg	0

Use stages scenario documentation - B4 Replacement

Scenario information	Value
Replacement cycle / Number per RSL or year	1/year

Use stages scenario documentation – B6 Operational energy use

Further details are provided in Appendix 2.

End of life scenario documentation

Scenario information	Value
Collection process – kg collected separately	390,12 kg
Collection process – kg collected with mixed waste	119 kg
Recovery process – kg for re-use	0 kg
Recovery process – kg for recycling	390,12 kg
Recovery process – kg for energy recovery	7,83 kg
Disposal (total) – kg for final deposition	111,17 kg
Scenario assumptions e.g. transportation	Truck, 16-32 tonnes, diesel, EURO5 Landfill: 50 km Recycling: 250 km Incineration: 150 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

Yazan Badour as an authorized verifier for EPD Hub Limited 17.04.2026

VERIFIED ISO 14025

APPENDIX 1

PRODUCTS INCLUDED IN THIS EPD

The GOLD/SILVER RX line includes sizes 004, 005, 007, 008, 011, 012, 014, 020, 025, 030, 035, 040, 050, 060, 070, 080, 100 and 120. In this EPD, the declared impacts relate to size 012, which is the most sold one. The table below presents the GWP-fossil impact per size and version, obtained by modelling each configuration individually.

Product name	GOLD Total weight (kg)	GOLD GWP-fossil, A1-A3 (kg CO_2e/item)	GOLD GWP-GHG, A1-A3 (kg CO_2e/item)	SILVER Total weight (kg)	SILVER GWP-fossil, A1-A3 (kg CO_2e/item)	SILVER GWP-GHG, A1-A3 (kg CO_2e/item)
GOLD/SILVER RX 004	264	1.02E+03	1.03E+03	259	9.09E+02	9.20E+02
GOLD/SILVER RX 005	266	1.02E+03	1.03E+03	261	9.09E+02	9.20E+02
GOLD/SILVER RX 007	328	1.23E+03	1.25E+03	322	1.08E+03	1.09E+03
GOLD/SILVER RX 008	340	1.28E+03	1.29E+03	333	1.12E+03	1.14E+03
GOLD/SILVER RX 011	493	1.71E+03	1.73E+03	487	1.59E+03	1.62E+03
GOLD/SILVER **RX 012**	**509**	**1.77E+03**	**1.80E+03**	503	1.66E+03	1.68E+03
GOLD/SILVER RX 014	641	2.13E+03	2.16E+03	635	2.02E+03	2.05E+03
GOLD/SILVER RX 020	674	2.24E+03	2.27E+03	669	2.12E+03	2.16E+03
GOLD/SILVER RX 025	821	2.77E+03	2.82E+03	816	2.65E+03	2.69E+03
GOLD/SILVER RX 030	860	2.94E+03	2.98E+03	855	2.82E+03	2.86E+03
GOLD/SILVER RX 035	1171	3.82E+03	3.88E+03	1167	3.70E+03	3.76E+03
GOLD/SILVER RX 040	1212	4.05E+03	4.11E+03	1208	3.93E+03	3.99E+03
GOLD/SILVER RX 050	1391	4.91E+03	4.98E+03	1380	4.78E+03	4.86E+03
GOLD/SILVER RX 060	1482	5.17E+03	5.25E+03	1471	5.04E+03	5.12E+03
GOLD/SILVER RX 070	2308	7.66E+03	7.78E+03	2297	7.52E+03	7.64E+03
GOLD/SILVER RX 080	2392	8.11E+03	8.23E+03	2381	7.97E+03	8.10E+03
GOLD/SILVER RX 100	3681	1.17E+04	1.19E+04	3668	1.15E+04	1.17E+04
GOLD/SILVER RX 120	3869	1.25E+04	1.27E+04	3854	1.23E+04	1.25E+04

APPENDIX 2 – B6 USE PHASE SCENARIO DETAILS

The air handling unit under study relies on electric power to operate its fans and recovers heat through a rotary heat exchanger. Several project-specific factors, including air volume, external pressure drop, operating hours, climate and outdoor conditions, supply and extract temperatures, electricity source, and other variables, influence its performance. To accurately determine the environmental impact of this product, it's essential to calculate energy consumption and heat recovery based on these specific factors. These calculations can be performed using our Swegon AHU Design software. For more information, please visit www.swegon.com. The table below shows the details relevant to the energy consumption calculation for the defined, typical scenario.

Scenario	Parameter	Unit	RX 012
Design airflow rate 100%	Design airflow rate	m^3/s	0.95
	Operating hours	h/year	1409
	External static pressure (on supply)	Pa	230
	External static pressure (on extract)	Pa	230
Airflow rate 75%	Design airflow rate	m^3/s	0.71
	Operating hours	h/year	1618
	External static pressure (on supply)	Pa	170
	External static pressure (on extract)	Pa	170
Airflow rate 50%	Design airflow rate	m^3/s	0.48
	Operating hours	h/year	1617
	External static pressure (on supply)	Pa	120
	External static pressure (on extract)	Pa	120
Airflow rate 25%	Design airflow rate	m^3/s	0.24
	Operating hours	h/year	2400
	External static pressure (on supply)	Pa	90
	External static pressure (on extract)	Pa	90
Airflow rate 0%	Design airflow rate	m^3/s	0
	Operating hours	h/year	1716
	External static pressure (on supply)	Pa	-
	External static pressure (on extract)	Pa	-
Operating hours weighted mean airflow rate		m^3/s	0.44
Operating hours weighted external static pressure		Pa	143