



ENGINEERING  
TOMORROW



## Environmental **Product Declaration**



### **Danfoss Icon2™ Room Thermostat** **Wireless, Zigbee Communication**

<b>EPD issued</b>	2025-04-07
<b>EPD expires</b>	2030-04-07
<b>EPD author</b>	Danfoss Climate Solutions A/S
<b>EPD type</b>	Cradle-to-gate with options
<b>Declared unit</b>	One product over its Reference Service Life
<b>Products included</b>	Reference product: Danfoss Icon2™ Room Thermostat (088U2122), other product codes covered by this EPD are presented in Annex 1 (088U2120, 088U2121)
<b>Manufacturing Location</b>	Sieradz, Poland
<b>Use Location</b>	Europe
<b>Application</b>	Floor Heating Controls
<b>Mass</b>	0.069 kg without packaging 0.094 kg with packaging
<b>Dimensions (HxWxD)</b>	57 x 57 x 16 mm without packaging
<b>Verification</b>	<input type="checkbox"/> External <input checked="" type="checkbox"/> Internal <input type="checkbox"/> None
<b>Produced to</b>	<a href="#">Danfoss Product Category Rules</a> (2022-09)
<b>Internal independent verifier</b>	Danfoss Power electronics & Drives A/S

#### **DISCLAIMER**

This EPD was prepared to the best of knowledge of Danfoss A/S. The life cycle assessment calculations were performed in accordance with ISO 14040 & 14044 and EN15804+A2.

All results were internally reviewed by independent experts. While this declaration has followed the guidance of ISO 14025, it has not been externally verified or registered by an EPD programme and therefore does not fully comply with the ISO 14025 standard.

This EPD has been published by Danfoss A/S on Danfoss Product Store and Danfoss Website. For questions, feedback or requests please contact your Danfoss sales representative.

## Product Description

This Environmental Product Declaration (EPD) follows the Danfoss Product Category Rules (PCR) (2022-09-20). These rules provide a consistent framework for calculating and reporting the environmental performance of Danfoss' products and is aligned with relevant international standards, particularly ISO 14025:2006, EN 15804+A2:2019 and EN 50598-3:2015.

This document has been produced by Danfoss A/S following an internal verification process, but it is not a third-party verified document.

### What is an EPD?

An EPD is a document used to communicate transparently, the quantified environmental impacts of a product over its lifecycle stages. This quantification is done by performing a Life Cycle Assessment (LCA) in line with a consistent set of rules known as a PCR (Product Category Rules).

An EPD provides:

- i. A product's carbon footprint together with other relevant environmental indicators, including air pollution, water use, energy consumption and waste, over its own life cycle (Modules A-C), as well as the expected benefits of reuse and recycling in reducing the impact of future products (Module D). See Table 1 for module descriptions.
- ii. Environmental data allowing customers to calculate LCAs and produce EPDs for their own products.

### Type of EPD

This EPD is of the type 'cradle-to-gate with options' and includes all relevant modules: production (A1-A3), shipping (A4) and installation (A5); maintenance (B2); deconstruction (C1), waste collection and transport (C2), treatment (C3) and disposal (C4). It also includes potential net benefits to future products from recycling or reusing post-consumer waste (D). The codes in brackets are the module labels from EN 15804+A2. Modules concerning use (B1), repair, replacement, refurbishment, operational energy use and operational water use (B3-B7) are excluded, following the cut-off rules from EN 15804.

**Table 1:** Modules of the product's life cycle included in the EPD

Product stage			Installation		Use stage							End-of-life stage				Benefits
Raw materials	Transport	Manufacture	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-install.	Transport	Waste processing	Disposal	Benefits and loads outside system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MNR	X	MNR	MNR	MNR	MNR	MNR	X	X	X	X	X

(X = declared module; MNR = module not relevant)

## Product Description

The EPD results in this document are presented for the product code 088U2122. The EPD covers all products in the Danfoss Icon2™ Room Thermostat Wireless product group, since the reference product is the biggest thermostat in the product group, therefore representing a conservative scenario. This assumption is based on the mass and material composition. All the products use the same number of batteries during its lifetime. For each product code covered by this EPD a factor was calculated based on mass of the product. The products covered and their conversion factors are located in annex 1.

The Icon2™ RT is Zigbee 3.0 certified and can be integrated with compatible smart home solution. The Danfoss Icon2™ wireless thermostats offer the following features:

- Touch user interface
- Infrared floor sensor (only on IR version)
- UV resistant plastic to reduce yellowing
- Temperature limiting (between 4 °C and 35 °C)
- Possibility to deselect cooling for specific room
- Dual heat emitter (e.g. radiator and floor heating in same room)
- rH measurement

The production location is a contract production company in Sieradz, Poland. See more information on [Danfoss Product Store](#).



**Figure 1:** Illustration of the Danfoss Icon2™ Room Thermostat Wireless, Zigbee Communication

### Reference Service Life

For the purpose of this EPD, the reference service life (RSL) of the product is considered to be 15 years.

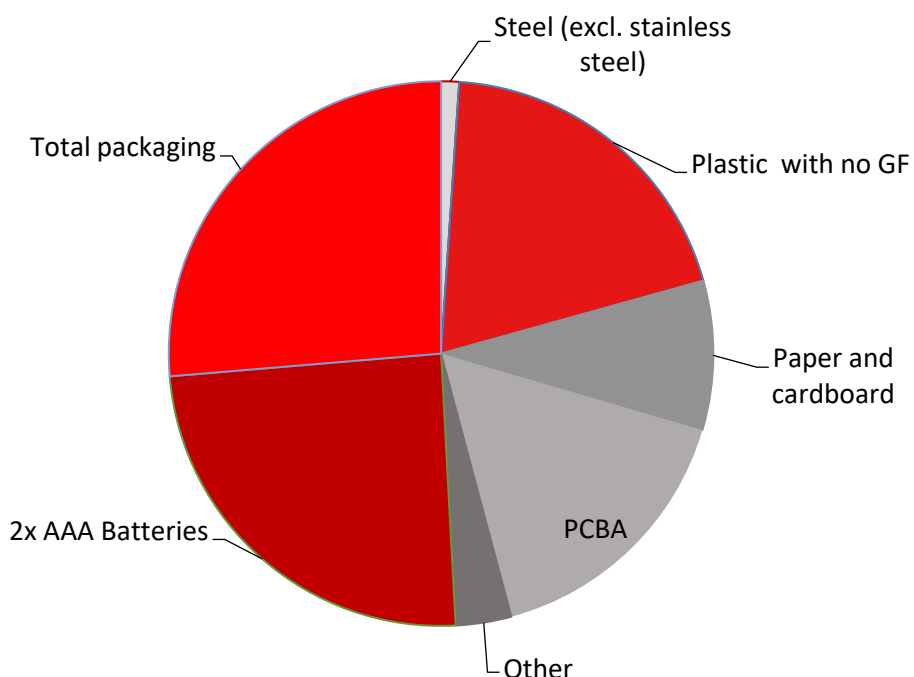
### Intended Market

The intended market of this study is Europe (EU), and the baseline scenario involves the distribution, installation, and end-of-life in EU. With regards to the use stage and the end-of-life, this EPD is not representative of regions other than EU.

## Product Description

**Table 2:** Product composition

Material	Mass (kg)	%
<b>Metals</b>	<b>0.001</b>	<b>1.4%</b>
Steel (excl. stainless steel)	0.001	1.4%
<b>Plastics &amp; Rubbers</b>	<b>0.018</b>	<b>26.4%</b>
Plastic with no GF	0.018	26.4%
<b>Natural materials</b>	<b>0.008</b>	<b>11.9%</b>
Paper and cardboard	0.008	11.9%
<b>Electrical/Electronic</b>	<b>0.016</b>	<b>22.7%</b>
PCBA	0.016	22.7%
<b>Other materials</b>	<b>0.026</b>	<b>37.5%</b>
Other	0.003	4.5%
2xAAA alkaline batteries	0.023	33.0%
<b>Total product</b>	<b>0.070</b>	<b>100%</b>
<b>Total packaging</b>	<b>0.025</b>	<b>100%</b>
Paper and cardboard	0.025	100%
<b>Total (Product + Packaging)</b>	<b>0.095</b>	



**Figure 2:** Material Composition Overview

## Overview of LCA study

### Data Quality

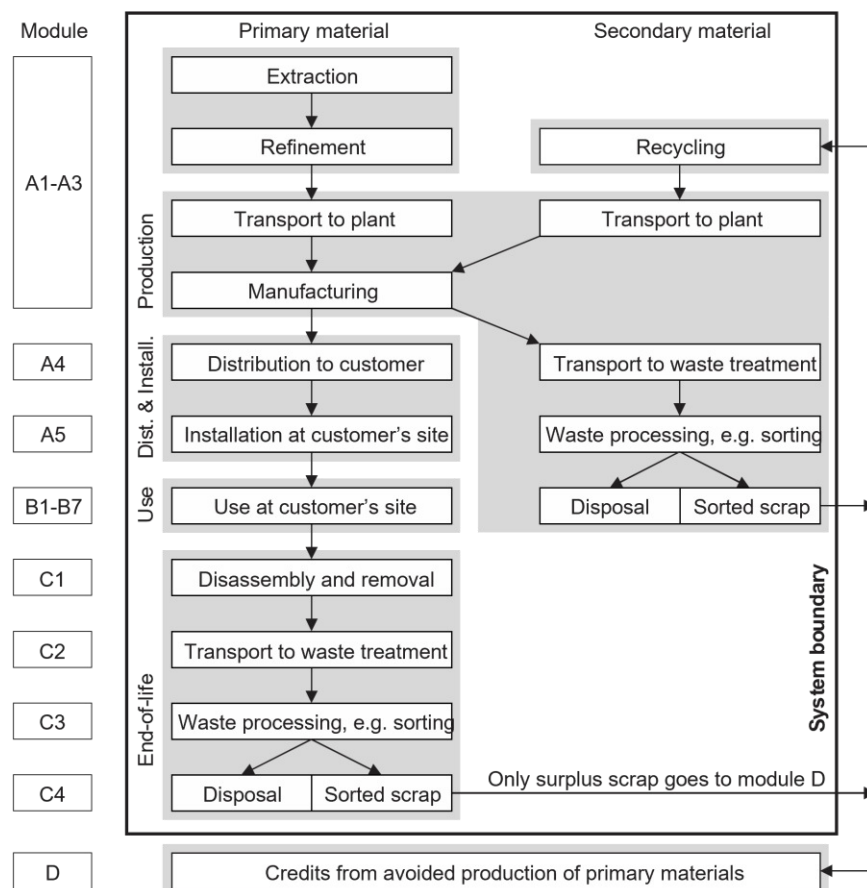
Data quality of the selected datasets is generally assessed as good and very good in terms of geographical, time and technology representativeness and applicability. Background data is from *LCA for Experts*© database version 2024.2.

### Allocation and cut-off criteria

The allocation is made in accordance with the provisions of EN 15804+A2. All major raw materials and all the essential energy are included. All hazardous materials and substances are considered in the inventory. Data sets within the system boundary are complete and fulfil the criteria for the exclusion of inputs and output criteria.

### System Boundaries

The results in this EPD are split into life cycle modules following EN 15804 (Figure 3): production (A1-A3), distribution (A4), installation (A5), use (B2) and the end of the product's life (C1-C4). Module D represents environmental benefits and loads that occur beyond the system boundary (i.e., in future products).



**Figure 2:** Modular structure used in this EPD (following EN 15804+A2)

## Overview of LCA study

### Product and packaging manufacture (A1-A3)

Final manufacturing occurs in the Sieradz plant, Poland. The facility is certified according to ISO 14001, ISO 45001, ISO 13485 and ISO 9001. Where waste generated on-site is recyclable, it is separated and recycled. For further information, [see here](#). The product is shipped in the packaging as described in Table 2. All packaging materials can be safely recycled or incinerated if appropriate local facilities are available. Data was collected for year 2024.

**Table 3:** Biogenic carbon content in product and packaging

	Total (excluding recycling)
Biogenic carbon content in product [kg]	3.57E-03
Biogenic carbon content in accompanying packaging [kg]	1.06E-02

*Note: 1 kg biogenic carbon is equivalent to 3.67 kg of CO<sub>2</sub>.*

### Shipping and installation (A4-A5)

Distribution is assumed to occur to customers within Europe. Transportation at 2000 km distance by truck is assumed between the factory and the final customer. This assumption was made following EN 50598-3, section 7.11 on default distance assumptions.

Module A5 includes disposal of packaging materials only, the benefits from e.g., energy recovered after plastic incineration are allocated to module D. The product is assumed to be installed by hand. Energy use in handheld tools during installation is not included as it falls under the cut-off criteria.

### Use phase (B2)

The expected lifetime of the Danfoss Icon2™ Room Thermostat is 15 years. The product runs on two 1.5V AAA alkaline batteries, lasting two years per set. Over its lifetime, 14 batteries are estimated to be replaced after the first two years of purchase. The initial 2 batteries are part of A1-A3 (production), while the separate LCA calculation performed for the 14 replacement batteries is included in module B2 (maintenance).

Due to LCA database limitation, cell coin is chosen as representative of the 1.5V AAA alkaline batteries with the weight adjusted accordingly.

The scope of this study is targeted for the European market; therefore, the product under study is sold and used in Europe.

### End-of-life (C1-C4)

The standard end-of-life procedure from EN 50598-3 has been applied:

- Manual dismantling is used to separate recyclable bulk materials, e.g. bulk metals and plastics.
- Shredding is used for the remaining parts, such as printed circuit board assemblies.
- Ferrous metals, non-ferrous metals and bulk plastics are recovered through recycling.
- The remaining materials go to either energy recovery or landfill.

In line with EN 15804+A2, only the 'net scrap' (i.e., the leftover recyclable materials remaining after inputs of recycled content required in the manufacturing phase are first satisfied) is used to calculate the benefits and loads beyond the system boundary (Module D).

## Overview of LCA study

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For this EPD an average scenario with 50% of the product sent to recycling & 50% of the product sent to landfill (C3, C4, D) was used. This scenario is designed to represent an average end-of-life scenario.

For the EPD this average scenario was chosen as it is assumed that it represents the majority of cases on average.

1. Recycling scenario with 100% of the product sent to recycling at the end-of-life, excluding fractions that cannot be recycled or incinerated (e.g., glass reinforcing in glass-filled plastics) and are sent to landfill.

This scenario illustrates best case performance. It assumes a 100% collection rate and best available recycling technologies. Under this scenario electrical cables, and all metals, flat glass and unreinforced plastics found within the body and chassis of the product are recycled. Printed circuit board assemblies are incinerated, and the copper and precious metals (gold, silver, palladium, and platinum) are recycled.

2. Landfill scenario with 100% of the product sent to landfill.

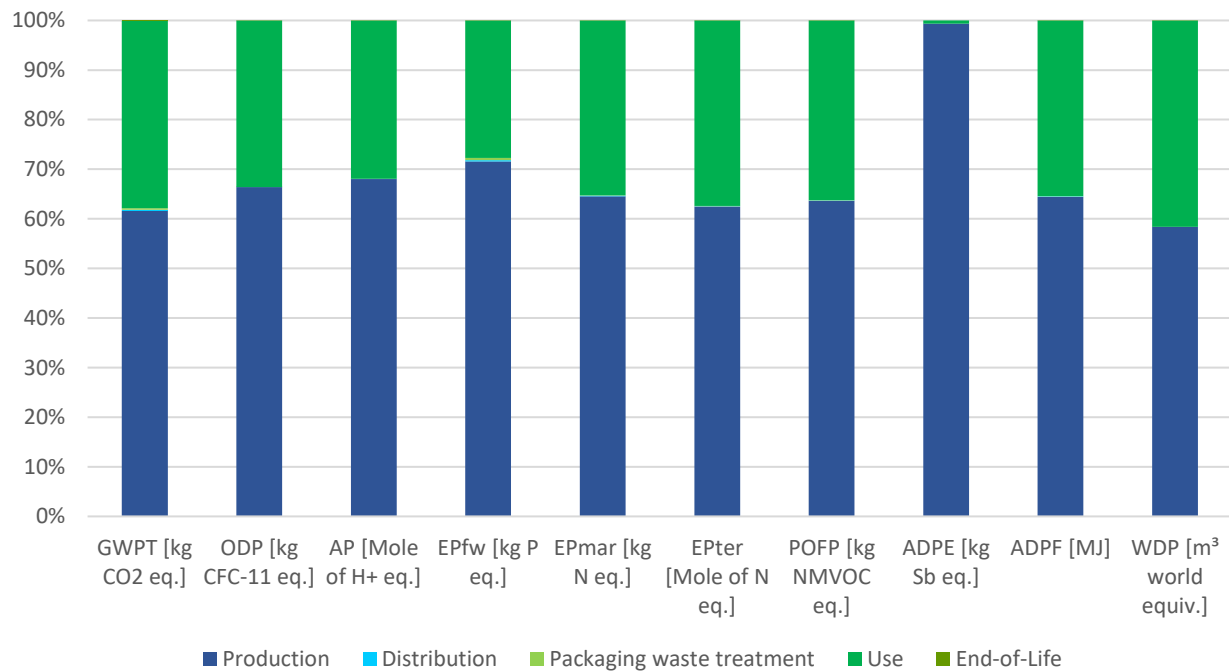
This scenario assumes that the whole product, including its packaging, is landfilled. It is designed to represent a poor end-of-life-route where valuable resources are lost.

### Benefits and loads beyond the system boundary (D)

Module D considers the net benefit of recycling (including energy recovery) of materials in the product and packaging, taking account of losses in the recycling process and the recycled material used in the production of the product. Module D covers the two end-of-life scenarios, as described above. It does not cover energy recovery from incineration since the process used in LCA for Experts has an efficiency below 60%. Therefore, the impacts of this process are reported in module C4, and no benefits are claimed in module D.

## Environmental performance

This section presents the environmental performance of one Danfoss Icon2™ Room Thermostat. Figure 4 presents the environmental impact of the Danfoss Icon2™ Room Thermostat across a number of environmental impact categories (following EN 15804+A2:2019) per life cycle stage, over its full 15-year life cycle, including Global Warming Potential.



**Figure 4:** Breakdown of environmental impacts by life cycle stages (see Table 4 for descriptions of environmental impact indicators).



## Environmental performance

**Table 4:** Environmental impact indicators

	Production	Distribution	Packaging waste treatment	Use	End-of-Life				(not included in Figure 4)
Life cycle stages based on EN 15804+A2	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
Environmental Impact Indicators / Description	Manufacture of the product from 'cradle-to-gate'	Transport of the product to the customer	Installation of the product and disposal of used packaging	Maintenance of the product over its lifetime e.g. 15 years	Deinstallation of the product from the site	Transport of the product to waste treatment	Processing waste for recycling	Disposal of waste that cannot be recycled (through landfill and incineration)	Potential benefits and loads beyond the system boundary due to reuse, recycling, and energy recovery
GWPT [kg CO <sub>2</sub> eq.]	7.53E+00	1.63E-02	3.52E-02	4.53E+00	0.00E+00	7.47E-04	3.35E-04	2.81E-03	-2.97E-02
GWPF [kg CO <sub>2</sub> eq.]	7.58E+00	1.63E-02	2.27E-03	4.55E+00	0.00E+00	7.14E-04	3.33E-04	2.41E-03	-2.96E-02
GWPB [kg CO <sub>2</sub> eq.]	-5.20E-02	0.00E+00	5.20E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWPLULUC [kg CO <sub>2</sub> eq.]	4.37E-03	2.70E-04	2.17E-06	2.98E-03	0.00E+00	1.75E-08	1.48E-06	4.09E-07	-1.15E-05
ODP [kg CFC-11 eq.]	5.49E-11	2.37E-15	1.85E-15	2.69E-11	0.00E+00	8.44E-20	5.59E-15	5.66E-16	-2.95E-14
AP [Mole of H <sup>+</sup> eq.]	3.72E-02	2.93E-05	1.26E-05	1.72E-02	0.00E+00	1.01E-06	1.02E-06	1.01E-05	-2.79E-04
EPfw [kg P eq.]	1.86E-05	6.86E-08	1.06E-07	7.08E-06	0.00E+00	1.56E-10	1.39E-09	1.30E-08	-1.37E-08
EPmar [kg N eq.]	7.13E-03	1.18E-05	6.81E-06	3.84E-03	0.00E+00	3.93E-07	3.87E-07	4.95E-06	-4.21E-05
EPter [Mole of N eq.]	7.30E-02	1.37E-04	6.18E-05	4.31E-02	0.00E+00	4.42E-06	4.22E-06	5.42E-05	-4.59E-04
POFP [kg NMVOC eq.]	1.97E-02	2.88E-05	1.72E-05	1.11E-02	0.00E+00	9.34E-07	8.34E-07	9.76E-06	-1.33E-04
ADPE [kg Sb eq.]	7.89E-04	1.40E-09	2.29E-10	4.83E-06	0.00E+00	2.57E-11	5.34E-11	5.73E-11	-1.65E-05
ADPF [MJ]	1.07E+02	2.12E-01	3.17E-02	5.77E+01	0.00E+00	1.04E-02	6.28E-03	2.28E-02	-5.73E-01
WDP [m <sup>3</sup> world equiv.]	1.88E+00	2.49E-04	1.50E-04	1.31E+00	0.00E+00	1.22E-06	6.83E-05	2.15E-04	-3.58E-03

How to read scientific numbers:

e.g. 2.05E02 = 2.05 x 10<sup>2</sup> = 205

2.04E-01 = 2.04 x 10<sup>-1</sup> = 0.204

## Environmental performance

**Table 5:** Environmental impact indicator descriptions

Acronym	Unit	Indicator
GWPT	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – total
GWPF	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – fossil
GWPB	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – biogenic
GWPLULUC	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – land use and land use change
ODP	kg CFC-11 eq.	Depletion potential of the stratospheric ozone layer
AP	Mole H <sup>+</sup> eq.	Acidification potential
EPfw	kg P eq.	Eutrophication potential – aquatic freshwater
EPmar	kg N eq.	Eutrophication potential – aquatic marine
EPter	Mole of N eq.	Eutrophication potential – terrestrial
POFP	kg NMVOC eq.	Summer smog (photochemical ozone formation potential)
ADPE*	kg Sb eq.	Depletion of abiotic resources – minerals and metals
ADPF*	MJ	Depletion of abiotic resources – fossil fuels
WDP*	m <sup>3</sup> world eq.	Water deprivation potential (deprivation-weighted water consumption)

Results for module A1-A3 are specific to the product. All results from module A4 onwards should be considered as scenarios that represent one possible outcome. The true environmental performance of the product will depend on actual use.

The results in this section are relative expressions only and do not predict actual impacts, the exceeding of thresholds, safety margins, or risks. EPDs from others may not be comparable.

### Carbon footprint

The total carbon footprint, cradle-to-grave, of the product is **12.12 kg CO<sub>2</sub>-eq (A1-C4)**, based on the baseline use phase scenario. The carbon footprint of production of this product, cradle-to-gate, is **7.53 kg CO<sub>2</sub>-eq (A1-A3)**.

## Environmental performance

**Table 6:** Resource use

	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PERE [MJ]	3.13E+01	1.82E-02	2.12E-03	1.27E+01	0.00E+00	3.44E-05	3.82E-03	4.25E-04	-2.85E-02
PERM [MJ]	1.25E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT [MJ]	3.14E+01	1.82E-02	2.12E-03	1.27E+01	0.00E+00	3.44E-05	3.82E-03	4.25E-04	-2.85E-02
PENRE [MJ]	1.07E+02	2.12E-01	3.17E-02	5.77E+01	0.00E+00	1.04E-02	6.28E-03	2.28E-02	-5.73E-01
PENRM [MJ]	5.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT [MJ]	1.07E+02	2.12E-01	3.17E-02	5.77E+01	0.00E+00	1.04E-02	6.28E-03	2.28E-02	-5.73E-01
SM [kg]	1.72E-02	0.00E+00	0.00E+00	7.47E-03	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	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	0.00E+00	0.00E+00	0.00E+00
FW [m3]	6.72E-02	2.03E-05	4.70E-06	3.47E-02	0.00E+00	5.52E-08	2.95E-06	5.14E-06	-1.17E-04

**Table 7:** Resource use indicator descriptions

Acronym	Unit	Indicator
PERE	MJ	Use of renewable primary energy excluding renewable primary energy resources used as raw materials
PERM	MJ	Use of renewable primary energy resources used as raw materials
PERT	MJ	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)
PENRE	MJ	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials
PENRM	MJ	Use of non-renewable primary energy resources used as raw materials
PENRT	MJ	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)
SM	kg	Use of secondary material
RSF	MJ	Use of renewable secondary fuels
NRSF	MJ	Use of non-renewable secondary fuels
FW	m <sup>3</sup>	Net use of fresh water

## Environmental performance

**Table 8:** Waste categories and output flows

	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HWD [kg]	8.06E-07	8.11E-12	4.79E-12	1.88E-06	0.00E+00	7.17E-14	7.48E-12	8.38E-13	7.10E-10
NHWD [kg]	2.07E-01	3.46E-05	9.12E-03	9.76E-02	0.00E+00	1.04E-06	4.44E-06	2.67E-03	6.28E-04
RWD [kg]	5.38E-03	3.86E-07	2.05E-07	9.72E-04	0.00E+00	1.12E-08	8.24E-07	6.82E-08	-2.47E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.69E-04	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**Table 9:** Waste category and output flow descriptions

Acronym	Unit	Indicator
HWD	kg	Hazardous waste disposed
NHWD	kg	Non-hazardous waste disposed
RWD	kg	Radioactive waste disposed
CRU	kg	Components for reuse
MFR	kg	Materials for recycling
MER	kg	Materials for energy recovery
EEE	kg	Exported energy (electrical)
EET	kg	Exported energy (thermal)

## Environmental performance

**Table 10:** Additional indicators\*

	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PM [Disease incidences]	4.48E-07	2.63E-10	9.25E-11	2.20E-07	0.00E+00	5.99E-12	7.60E-12	6.53E-11	-2.37E-09
IRP [kBq U235 eq.]	6.37E-01	5.59E-05	2.73E-05	1.06E-01	0.00E+00	1.58E-06	1.35E-04	9.84E-06	-4.90E-05
ETPfw [CTUe]	7.18E01	1.56E-01	2.67E-02	9.11E+01	0.00E+00	7.55E-03	3.18E-03	1.71E-02	-3.50E-01
HTPc [CTUh]	1.71E-09	3.17E-12	4.68E-13	9.71E-10	0.00E+00	1.41E-13	1.01E-13	3.59E-13	-6.80E-12
HTPnc [CTUh]	7.04E-08	1.78E-10	3.82E-11	6.66E-08	0.00E+00	6.14E-12	3.00E-12	1.96E-11	-3.45E-10
SQP [Pt]	2.23E01	1.04E-01	4.93E-03	-2.32E+00	0.00E+00	2.67E-05	2.73E-03	4.73E-04	-2.10E-02

**Table 11:** Optional indicator descriptions

Acronym	Unit	Indicator
PM	Disease incidence	Potential incidence of disease due to particulate matter emissions
IRP**	kBq U235 eq.	Potential human exposure efficiency relative to U235
ETPfw*	CTUe	Potential Comparative Toxic Unit for ecosystems (fresh water)
HTPc*	CTUh	Potential Comparative Toxic Unit for humans (cancer)
HTPnc*	CTUh	Potential Comparative Toxic Unit for humans (non-cancer)
SQP*	Dimensionless	Potential soil quality index

\**Disclaimer for ADPE, ADPF, WDP, ETPfw, HTPc, HTPnc, SQP:* 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 experienced with the indicator.

\*\**Disclaimer for ionizing radiation:* 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.

## Annex

### Annex 1: The sales code of all products covered in this EPD

The EPD results are presented for the product code 088U2122. Other product codes from the product line of the product differ in some smaller electronic components.

**Table 12:** Sales codes, covered by this EPD

Sales Code	Description	Scale Factor	
		A1-A5 and C1-C4	B2
088U2120	Danfoss Icon2™ RT wireless, No LED Display	0,48	1,00
088U2121	Danfoss Icon2™ RT wireless, LED Display	0,98	1,00
088U2122	Danfoss Icon2™ RT wireless, LED Display with Infrared Floor Sensor	1,00	1,00

To calculate the actual GWPT of purchased product, just multiply the GWPT (see table 4) from this EPD by the factor associated with the purchased product's code. You can also use this factor to calculate other indicators.

Example:

**Sales code:** 088U2120

**A1-A3 Factor:** 0,48

**GWPT (088U2122):** 7,53E+00 kg CO<sub>2</sub> eq

**GWPT (088U2120):** 0,48 x 7,53E+00 kg CO<sub>2</sub> eq = 3,64 kg CO<sub>2</sub> eq

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