Environmental **Product Declaration**

VLT® AQUA/HVAC/Refrigeration Drive FC-202/FC-102/FC-103 series, A Frame

EPD owner	Danfoss A/S
EPD registration number	EPD-IES-0025798:001
Programme	The International EPD® System, www.environdec.com
Programme operator	EPD International AB
EPD type	Cradle-to-gate with options, EPD of multiple products, based on worst-case results
Version date	2026-01-26
Validity date	2031-01-26

Environmental Product Declaration in accordance with EN 15804.2012+A2:2019/AC:2021 and ISO 14025:2006

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com



General information

EPD author	Danfoss Power Electronics & Drives A/S
Declared unit	One product over its Reference Service Life
Product included	FC-102P7K5T6P55HX (131F8347)
Products covered by the EPD	List of products covered included in Annex
Manufacturing Location	Gråsten, Denmark
Use Location	Europe
Application	Water/Wastewater e.g. HVAC, Refrigeration etc.
Mass	13 kg without packaging 14 kg with packaging
Dimensions (H×W×D)	420 x 242 x 200 mm without packaging
Rated power	7,5 kW
Rated voltage	3x 525 - 600 VAC
Rated frequency	50 Hz
Cooling method	Air-cooled
Verification	[X] External [ ] Internal [ ] None
Produced to	PCR 2019:14 version 2.0.1
External verifier	Bureau Veritas Certification Sweden, accredited by SWEDAC accr. No. 1236

Programme information	
Programme	The International EPD® System
Adress	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
E-mail	support@environdec.com



General information

Product Category Rules (PCR)	
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)	
Product Category Rules (PCR):	Construction products PCR 2019:14 v. 2.0.1, CPC code 46122
PCR review was conducted by:	The Technical Committee of the International EPD® System. Chair: Rob Rouwette, Greendesk (on behalf of EPD International AB). Contact via support@environdec.com
Verification	
External and independent ('third-party') verification of the declaration and data, according to ISO 14025:2006, via: ✓ EPD verification through an individual EPD verification	
Third-party verifier	Bureau Veritas Certification Sweden
Accredited by	SWEDAC with accreditation number 1236
More information can be found in the General Programme Instructions on www.environdec.com. International EPD System	
Procedure for follow-up of data during EPD validity involves third-party verifier: ☐ Yes ✓ No	
Ownership and limitations on use of the EPD	

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison

The EPD owner has the sole ownership, liability, and responsibility for the EPD.





Company Information

EPD owner information	
EPD owner	Danfoss A/S
Address	Nordborgvej 81 6430 Nordborg Denmark
E-mail	epd_danfoss@danfoss.com

Danfoss is committed to being our customers' preferred decarbonization partner, and empowering our customers to make decarbonization decisions is one way that we ensure this commitment.

By providing transparency in our products, Environmental Product Declarations support data driven decision-making for customers wishing to drive the green transition with us. Compliant with wide-reaching regulations, EPDs support the creditability of our products footprint through certification.

Find more on our annual report:

Danfoss annual report 2024 | Download the latest annual report | Danfoss

Product information

The reference product used for this EPD is representative of Danfoss VLT® HVAC Frequency Converter A5 frame size (Model Code: FC-102P7K5T6P55HX). The EPD covers products in the VLT® FC-102, FC-103, and FC-202 range within the A frame range (list in Annex) since the reference product is the biggest and most powerful frequency converter in this range, therefore representing a worst-case scenario. This assumption is based on the mass, material composition and power of the product. The products in this range have masses from 4,9 kg to 14,2 kg and power ratings of 1,1 kW to 7,5 kW. The three product series covered by this EPD share the same hardware for the same frame sizes and only differ in their software. The production location is the Danfoss plant in Gråsten, Denmark. See more information on Danfoss Product Store.

The VLT® Frequency Converter represents a single drive concept that controls the entire range of operations from ordinary to servo-like applications on any machine or production line.

Product information	
UNCPC code	46122

The product does not contain any substances from the Candidate List of Substances of Very High Concern for Authorisation of the European Union's REACH Regulation (EC 1907/2006) above the threshold of 0.1% weight/weight.

This Environmental Product Declaration (EPD) follows the PCR 2.0.1 Construction products. These rules provide a consistent framework for calculating and reporting the environmental performance of Danfoss' product and is aligned with relevant standards, particularly ISO 14025:2006, EN 15804+A2: 2019 and EN 50598-3:2015.

This document has been produced by Danfoss A/S and an external third-party verification is conducted.



Figure 1: VLT® HVAC Frequency Converter A5 frame size

Content declaration

Table 1: Product composition

Material	Mass (kg)	%	Post-consumer scrap (%)
Metals	**10**	**80%**	**0%**
Aluminium and its alloys	7,6	59%	0%
Steel	2,4	19%	0%
Copper and its alloys	0,28	2,2%	0%
Plastics	**1,0**	**7,2%**	**0%**
Polycarbonate	0,88	6,8%	0%
Other plastics	0,12	0,4%	0%
Electrical/electronic	**1,6**	**13%**	0%
Product Total	**13**	**100%**	**0%**

Table 2: Packaging composition

Material	Mass (kg)	Mass versus product (%)
Plastics	0,10	0,77%
Paper (documentation)	0,12	0,92%
EPS	0,35	2,7%
Packaging Total	**0,57**	**4,4%**
Total (Product + Packaging)	**14**	

Figure 2: Product material composition overview

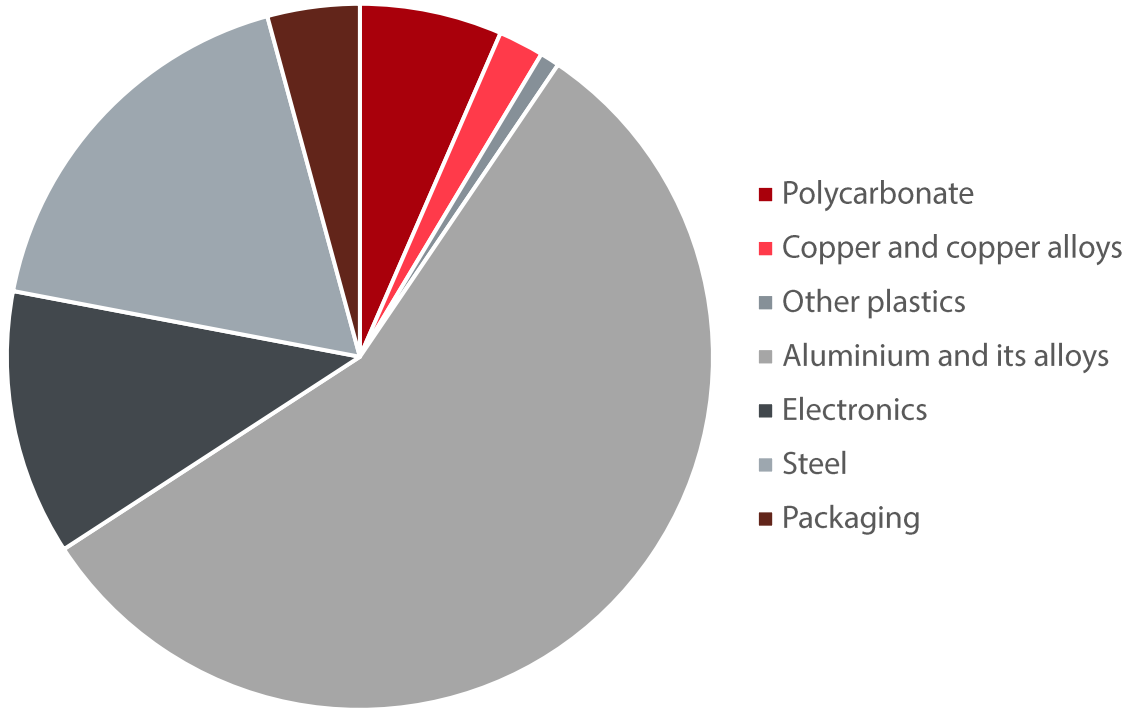


Table 3: Biogenic and recycled content overview

Biogenic content in the product [kg]	**0**
Biogenic content in the packaging [kg]	**0,19**

LCA Information

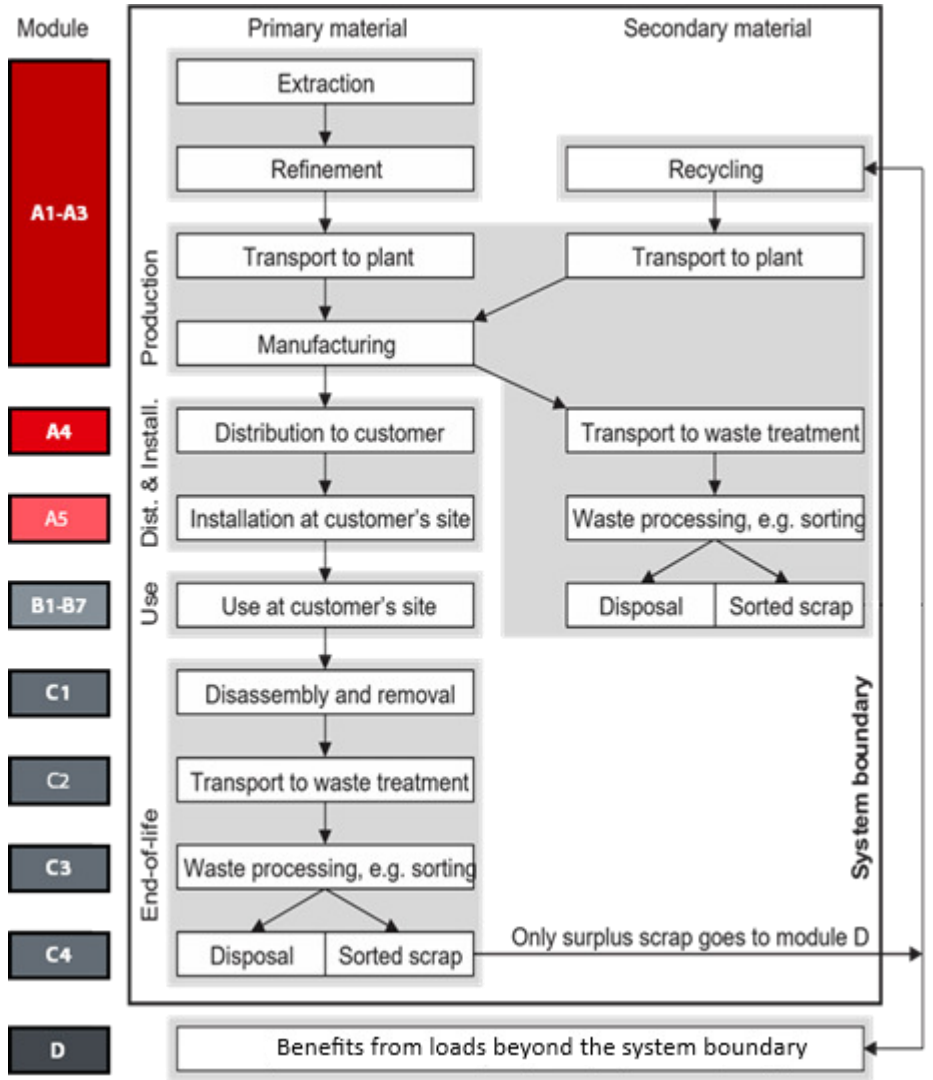
An EPD is a document used to communicate transparently, the quantified environmental impacts of a product over its lifecycle stages. This quantification is done by performing a Life Cycle Assessment (LCA) in line with a consistent set of rules known as a PCR (Product Category Rules).

This EPD is of the type 'cradle-to-gate with options' and includes all relevant modules: production (A1-A3), shipping (A4) and installation (A5); operational energy use (B6); 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, maintenance, repair, replacement, refurbishment (B1-B5) and operational water use (B7) are excluded, following the cut-off rules from EN 15804. Personnel activities and infrastructure/capital goods are not assessed in the LCA.

Table 4: Module of the product's life cycle included in the EPD

	Production stage			Installation		Use stage							End-of-life-stage				Benefits
	Raw materials	Transport	Manufacture	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Optional energy use	Optional water use	De-installation	Transport	Waste processing	Disposal	Benefits and loads outside system boundaries
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Module declared	X	X	X	X	X	ND	ND	ND	ND	ND	X	ND	X	X	X	X	X
Geography	Global	Global	DK	EU-27	EU 27	-	-	-	-	-	EU 27	-	EU 27	EU 27	EU 27	EU 27	EU 27
Specific data used	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation products	65%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation sites	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure 3: Modular structure used in this EPD (EN15804+A2)



LCA Information

Product and packaging (A1-A3)

Final manufacturing occurs in the Danfoss Gråsten plant, Denmark. The facility is certified according to IATF 16949, ISO 14001, ISO 45001, 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. All packaging materials can be safely recycled or incinerated if appropriate local facilities are available. The on-site data was gathered for 2024. The site uses PPAs for its electricity consumption (wind), with a GWPT of 1,31E-02 kgCO2eq/kWh.

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.

Table 5: Overview of LCA study

Assumptions	
Reference service life	10 years
Intended market	Europe – The baseline scenario involves the distribution, installation, and end-of-life in Europe.
Use-phase	One average factor has been applied, representing a conservative scenario as the grid will decarbonize over time
Data	LCA for Experts (Sphera) database version 2025.2.
Data quality	A data quality assessment that complies with EN 15941 and EN15804 annex E, was performed and reported in the LCA report per dataset. Data quality of the selected datasets is generally assessed as good and very good in terms of geographical, time and technology representativeness and applicability. The data was collected for a period from January to December 2024
Allocation and cut-off criteria	The allocation is done in accordance with EN 15804+A2. All major raw materials and 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.

LCA Information

Use phase (B1-B7)

The electricity consumption by the drive during the use phase (B6) can vary based on application. The use scenario considered here is an average scenario to represent a range of industrial applications, developed according to Danfoss Power Electronics & Drives Segment global applications experts and internal sales data. The use phase results covered in this EPD are based on a VLT® FC-102 Frequency Converter, A5 frame size, and are therefore only valid for this specific product. The other products covered by this EPD have a similar or smaller energy consumption than this reference product.

The energy consumption is calculated considering an efficiency of 97,2%. Only the loss from the frequency converter is assigned as energy consumption of the inverter module. The remaining energy is allocated to the motor and is out of the scope of this EPD. The drive is in active mode on average for 6000 hours/year which results in 60.000 hours over 10 years lifetime or 16,44 hours per day. An average load of 80% is applied. For the remaining hours, the drive is either in standby mode or turned off completely. Standby mode is 2500 hours per year and during the remaining 260 hours the drive is turned off. This therefore results in 25.000 hours over 10 years or 6,85 hours per day, in standby mode.

For the purpose of this assessment, use within Europe is assumed and an average EU-27 CO_2 factor from LCA for Experts database (2025.2) is applied. Sales also occur outside of Europe, which is important to note considering the impact the electricity grid mix can have on the emissions in the use phase. The factor will differ, depending on the country and share of renewables and fossil energy sources in the corresponding local electricity grid. For that reason, three scenarios are additionally applied to demonstrate the impact of the results: Norway, Italy and Poland.

Table 6: CO2 emissions per use phase location

Location of use	GWPT Use phase (B6), kgCO2eq
Europe, EU-27 (Baseline scenario)	3,2E03
Norway	0,47E03
Poland	8,6E03
Italy	4,0E03

LCA Information

End-of-life (C1-C4)

The standard end-of-life procedure from EN 50598-3 has been applied. 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). For this EPD the 100% recycling scenario has been applied, due to being the most conservative in comparison to 100% landfill (based on sensitivity analysis). This is due to the composition of the product, that results in lower GWPT from landfill in comparison to recycling (processing of waste).

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.
Module D covers the two end-of-life scenarios, as described above.

Table 7: Share of primary data, of GWP-GHG in A1-A3

Process	Source type	Source	Reference year	Data category	Primary data share (%)
Generation of electricity used in manufacturing of product	Database	Sphera my professional database 2025.2	2024	Primary data	**0,17%**
Total share of primary data, of GWP-GHG results for A1-A3					**0,17%**

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Table 8: Characterization methods of environmental performance

Environmental impact indicators	Characterization methods
GWPT	Carbon footprint-total, GWP100, EN 15804. Version: August 2021
GWPF	Carbon footprint-fossil, GWP100, EN 15804. Version: August 2021
GWPB	Carbon footprint-biogenic, GWP100, EN 15804. Version: August 2021
GWPLULUC	Carbon footprint-land use and land use change, GWP100, EN 15804. Version: August 2021
ODP	Depletion potential of the stratospheric ozone layer, ODP, EN 15804. Version: August 2021
AP	Acidification potential, AP, CML 2001 non baseline (fate not included). Version: January 2016
EPfw	Eutrophication potential- aquatic freshwater, Ep, aquatic marine, EUTREND model EN 15804. Version: August 2021
Epmar	Eutrophication potential- aquatic marine, EP, aquatic marine, EUTREND model EN 15804. Version: August 2021
Epter	Eutrophication potential- terrestrial, EP, aquatic marine, EUTREND model EN 15804. Version: August 2021
POCP	Photochemical ozone creation potential, POPCP, LOTOS-EUROS as applied in ReCiPe, EN15804. Version: August 2021
ADPE	Depletion of abiotic resources – minerals and metals, EPD minerals & metals, EN 15804, Version: August 2021.
ADPF	Depletion of abiotic resources – fossil fuels, EPD fossil resources, EN 15804, Version: August 2021.
WDP	Water deprivation potential (deprivation-weighted water consumption), Water deprivation (Available water remaining (AWARE), EN 15804

Environmental performance

This section presents the environmental performance of one-unit VLT® FC-102 Frequency Converter, A5 frame size. Figure 4 presents the environmental impact of the VLT® FC-102 Frequency Converter, A5 frame size across a number of environmental impact categories (following EN 15804+A2:2019) per life cycle stage, over its full 10-year life cycle, including Global Warming Potential.

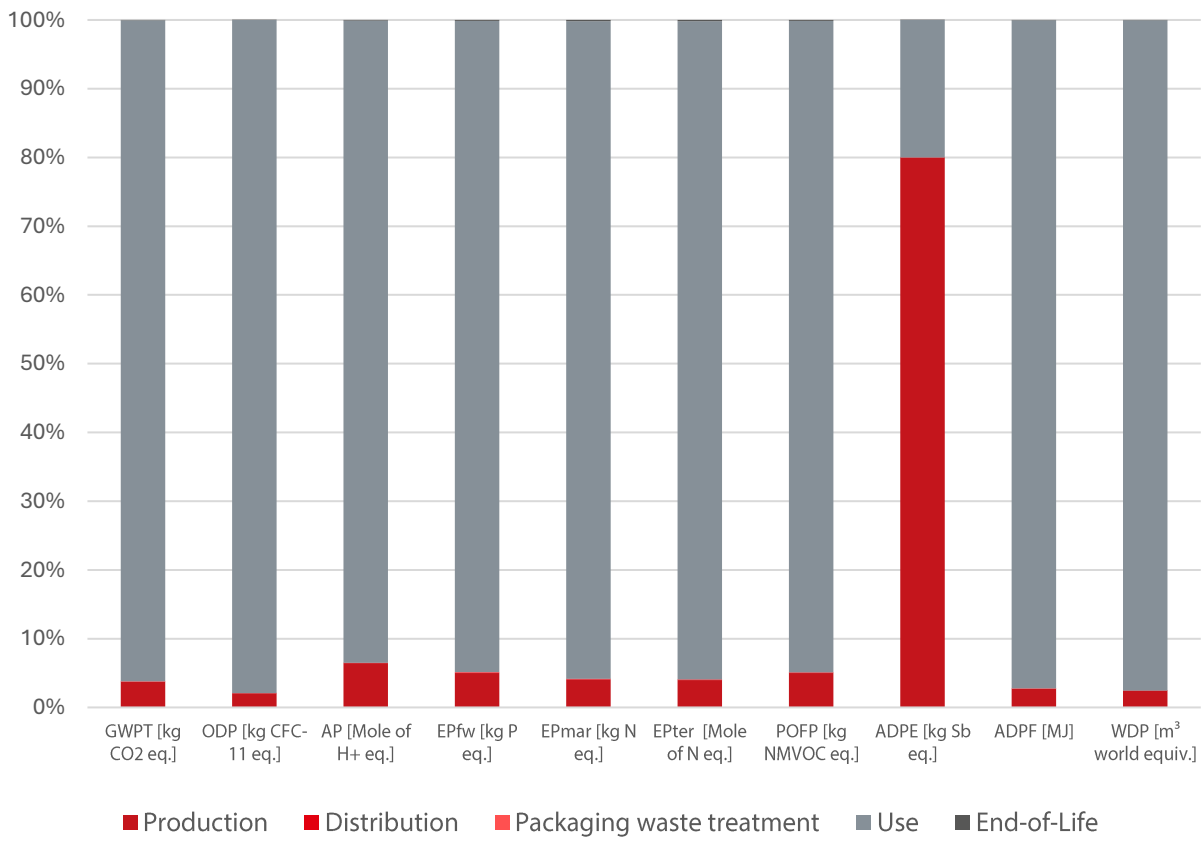
The environmental performance results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. The results of the end-of-life stage (module C) should be considered when using the results of the production stage (modules A1-A3).

Table 9: Environmental impact indicators results per declared unit

Acronym	Indicator
GWPT	Carbon footprint (Global Warming Potential) – total
ODP	Depletion potential of the stratospheric ozone layer
AP	Acidification potential
EPfw	Eutrophication potential – aquatic freshwater
EPmar	Eutrophication potential – aquatic marine
EPter	Eutrophication potential – terrestrial
POFP	Summer smog (photochemical ozone formation potential)
ADPE*	Depletion of abiotic resources – minerals and metals
ADPF*	Depletion of abiotic resources – fossil fuels
WDP*	Water deprivation potential (deprivation-weighted water consumption)

***Disclaimer for ADPE, ADPF, WDP:** 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.

Figure 4: Breakdown of environmental impacts by life cycle stages with Module D is not included. (See Table 6 for descriptions of environmental impact indicators)



Environmental performance

Of one-unit VLT® FC-102, A5 frame size

			Production	Distribution	Packaging waste treatment	Use	End-of-Life				Benefits & Loads
			A1-A3	A4	A5	B6	C1	C2	C3	C4	D
			Manufacture of the product from 'cradle-to-gate'	Transport of the product to the customer	Installation of the product and disposal of used packaging	Use of the product over its lifetime e.g. 10 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
Impact category	**Environmental Impact indicators**	**Unit**									
Global Warming Potential	**Total (GWPT)**	kg CO_2 eq.	1,2E02	2,3E00	2,2E-01	3,2E03	0,0E00	1,3E-01	1,6E00	0,0E00	-7,1E01
	Fossil (GWPF)	kg CO_2 eq.	1,2E02	2,3E00	3,3E-02	3,2E03	0,0E00	1,3E-01	1,6E00	0,0E00	-7,1E01
	Biogenic (GWPB)	kg CO_2 eq.	-1,9E-01	0,0E00	1,9E-01	3,3E01	0,0E00	0,0E00	0,0E00	0,0E00	0,0E00
	Land use & change (GWPLULUC)	kg CO_2 eq.	2,3E-01	2,4E-02	3,3E-05	1,0E01	0,0E00	3,1E-06	1,4E-02	0,0E00	-2,0E-02
	Greenhouse gases (GWP-GHG)*	kg CO_2 eq.	1,2E02	2,3E00	3,3E-02	3,2E03	0,0E00	1,3E-01	1,6E00	0,0E00	-7,1E01
Ozone Depletion Potential	**ODP**	kg CFC-11 eq.	1,5E-09	3,8E-13	2,9E-14	7,2E-08	0,0E00	1,5E-17	2,7E-12	0,0E00	-6,7E-10
Acidification of soils and water	**AP**	Mole of H+ eq.	4,8E-01	4,4E-03	1,9E-04	6,9E00	0,0E00	1,8E-04	8,9E-03	0,0E00	-7,9E-01
Eutrophication	**Freshwater (EPfw)**	kg P eq.	3,6E-04	6,2E-06	3,9E-06	6,8E-03	0,0E00	2,8E-08	3,9E-06	0,0E00	-3,6E-05
	Marine (EPmar)	kg N eq.	7,1E-02	1,9E-03	8,7E-05	1,7E00	0,0E00	7,1E-05	4,4E-03	0,0E00	-5,2E-02
	Terrestrial (EPter)	Mole of N eq.	7,7E-01	2,0E-02	9,4E-04	1,9E01	0,0E00	7,9E-04	4,7E-02	0,0E00	-5,6E-01
Photochemical ozone formation	**POFP (POFP)**	kg NMVOC eq.	2,2E-01	4,0E-03	1,7E-04	4,1E00	0,0E00	1,7E-04	8,2E-03	0,0E00	-1,9E-01
Depletion of abiotic resources	**Minerals, metals (ADPE)**	kg Sb eq.	2,6E-03	1,5E-07	4,7E-09	6,6E-04	0,0E00	4,6E-09	1,2E-07	0,0E00	-2,6E-03
	Fossil fuels (ADPF)	MJ	1,8E03	2,9E01	4,6E-01	6,4E04	0,0E00	1,9E00	2,1E01	0,0E00	-1,0E03
Water deprivation	**WDP**	m^3 world equiv.	2,0E01	1,0E-02	1,2E-03	7,8E02	0,0E00	2,2E-04	3,4E-02	0,0E00	-5,6E00

Table 10: Environmental impact indicators results per declared unit

***GWP-GHG** environmental indicator is calculated without the biogenic global warming potential (GWPB), the formula is GWP-GHG=GWPF+GWPLULUC

Environmental performance

Of one-unit VLT® FC-102, A5 frame size

		Production	Distribution	Packaging waste treatment	Use	End-of-Life				Benefits & Loads
		A1-A3	A4	A5	B6	C1	C2	C3	C4	D
Resource Use indicator	**Unit**									
Use of renewable primary energy excluding renewable primary energy resources used as raw materials (PERE)	MJ	9,9E02	2,2E00	3,3E-02	4,4E04	0,00E00	6,2E-03	2,8E00	0,0E00	-3,6E02
Use of renewable primary energy resources used as raw materials (PERM)	MJ	1,8E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) (PERT)	MJ	9,9E02	2,2E00	3,3E-02	4,4E04	0,00E00	6,2E-03	2,8E00	0,0E00	-3,6E02
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials (PENRE)	MJ	1,8E03	2,9E01	4,6E-01	6,4E04	0,00E00	1,9E00	2,1E01	0,0E00	-1,0E03
Use of non-renewable primary energy resources used as raw materials (PENRM)	MJ	3,2E01	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) (PENRT)	MJ	1,8E03	2,9E01	4,6E-01	6,4E04	0,00E00	1,9E00	2,1E01	0,0E00	-1,0E03
Use of secondary material (SM)	kg	6,2E-01	0,0E00	0,0E00	0,0E00	0,00E00	0,000	0,0E00	0,0E00	0,0E00
Use of renewable secondary fuels (RSF)	MJ	0,0E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Use of non-renewable secondary fuels (NRSF)	MJ	0,0E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Net use of fresh water (FW)	m^3	7,7E-01	1,1E-03	4,0E-05	3,4E01	0,00E00	9,9E-06	1,8E-03	0,0E00	-7,0E-01
Waste categories and output flows indicators	**Unit**									
Hazardous waste disposed (HWD)	kg	2,8E-06	1,2E-09	8,3E-11	8,4E-05	0,00E00	1,3E-11	4,1E-09	0,0E00	-10E-08
Non-hazardous waste disposed (NHWD)	kg	4,7E00	4,1E-03	2,3E-01	5,0E01	0,00E00	1,9E-04	1,3E00	0,0E00	-1,6E01
Radioactive waste disposed (RWD)	kg	1,7E-01	5,6E-05	2,7E-06	1,0E01	0,00E00	2,0E-06	4,2E-04	0,0E00	-8,1E-02
Components for reuse (CRU)	kg	0,0E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Materials for recycling (MFR)	kg	0,0E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	1,2E01	0,0E00	0,0E00
Materials for energy recovery (MER)	kg	0,0E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Exported energy (electrical) (EEE)	MJ	1,0E-02	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00
Exported energy (thermal) (EET)	MJ	0,0E00	0,0E00	0,0E00	0,0E00	0,00E00	0,0E00	0,0E00	0,0E00	0,0E00

Table 11: Resource use, waste categories, and output flows result per declared unit.

Environmental performance

Of one-unit VLT® FC-102, A5 frame size

		Production	Distribution	Packaging waste treatment	Use	End-of-Life				Benefits & Loads
		A1-A3	A4	A5	B6	C1	C2	C3	C4	D
Additional indicators	**Unit**									
Potential incidence of disease due to particulate matter emissions (PM)	Disease incidences	4,6E-06	3,7E-08	1,4E-09	5,7E-05	0,00E00	1,1E-09	6,7E-08	0,0E00	-8,2E-06
Potential human exposure efficiency relative to U235 (IRP)**	kBq U235 eq.	2,7E01	8,0E-03	3,1E-04	1,7E03	0,00E00	2,8E-04	6,8E-02	0,0E00	-1,6E01
Potential Comparative Toxic Unit for ecosystems (fresh water) (ETPfw)*	[CTUe]	6,2E02	3,8E01	5,1E-01	1,1E04	0,00E00	1,4E00	2,4E01	0,0E00	-3,6E02
Potential Comparative Toxic Unit for humans (cancer) (HTPc)*	CTUh	3,7E-08	5,2E-10	7,5E-12	1,0E-06	0,00E00	2,5E-11	3,9E-10	0,0E00	-3,0E-08
Potential Comparative Toxic Unit for humans (non-cancer) (HTPnc)*	CTUh	8,7E-07	2,9E-08	1,9E-10	2,2E-05	0,00E00	8,3E-10	2,1E-08	0,0E00	-5,0E-07
Potential soil quality index (SQP)*	Dimensionless	5,7E02	1,3E01	6,9E-02	2,6E04	0,00E00	4,8E-03	8,8E00	0,0E00	-4,9E01

Table 12: Additional indicators* results per declared unit.

***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



References

CEN (2015). EN 50598-3:2015:
Ecodesign for power drive systems, motor starters, power electronics and their driven applications – Part 3: Quantitative eco design approach through life cycle assessment including product category rules and the content of environmental declarations.
Brussels, Belgium: European Committee for Standardization.

CEN (2019). EN 15804:2012+A2:2019:
Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.
Brussels, Belgium: European Committee for Standardization.

PCR 2019:14 Construction products (EN 15804+A2) (version 2.0.1)

ISO (2006a). ISO 14025:2006:
Environmental labels and declarations – Type III environmental declarations – Principles and procedures.
Geneva, Switzerland: International Organization for Standardization.

ISO (2006b). ISO 14040:2006:
Environmental management – Life cycle assessment – Principles and framework.
Geneva, Switzerland: International Organization for Standardization.

ISO (2006c). ISO 14044:2006:
Environmental management – Life cycle assessment – Requirements and guidelines.
Geneva, Switzerland: International Organization for Standardization.



Abbreviations

Abbreviation	Definition
EPD	Environmental Product Declaration
LCA	Life Cycle Assessment
EoL	End-of-Life
GHG	Greenhouse Gas
GWP	Global Warming Potential
ISO	International Organization for Standardization
PCR	Product Category Rule



Annex

Table A1: Product codes covered by the EPD

131F8347	134N4680	131U3072	132H4389	132H2620
131B3318	131N9382	131U3697	132L1879	132H6057
131B3341	131N9376	131F3974	132L3209	132L2899
131B3342	131N5656	131G7193	132L3283	132L5647
131B3527	131B8511	131N1994	132H0554	132N5036
131B3286	131B8972	131B8290	132H3110	132H1520
137X0304	131B9158	131F3082	132L0818	132H4577
131B3729	131F1390	131F3948	132N4554	132L1853
131B3287	131N9939	132X0708	132L4829	132L9898



Version history

Original version of the EPD, 2026-01-26


Danfoss