ENGINEERING TOMORROW

Environmental **Product Declaration**

Energy meter SonoSelect 10
DN15, DN20, DN25 and DN32

EPD issued	2024-11-20
EPD expires	2029-11-20
EPD author	Danfoss Climate Solutions A/S
EPD type	Cradle-to-grave
Declared unit	One product over its Reference Service Life
Product included	Representative product: Energy meter SonoSelect 10-DN32 (014U1432)
Products covered by EPD	See Annex A
Manufacturing Location	Tianjin China and Ljubljana Slovenia
Use Location	West Asia (Oman)
Application	HVAC systems
Mass	1,83 kg without packaging 2,42 kg with packaging
Dimensions (H×W×D)	260 x 89 x 121 mm without packaging
Verification	[ ] External [X] Internal [ ] None
Produced to	Danfoss Product Category Rules (2022-09)
Internal independent verifier	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:

- 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.
- 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-grave' and includes all relevant modules: production (A1-A3), shipping (A4) and installation (A5); 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.

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	MNR	MNR	MNR	MNR	MNR	MNR	**X**	**X**	**X**	**X**	**X**

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

Product Description

The product covered by this EPD is representative of Energy meter SonoSelect 10 DN10, DN20, DN25 and DN32. The production location are the Danfoss plant in Ljubljana, Slovenia and Tianjin, China. See more information on Danfoss Product Store.

The Danfoss SonoSelect 10 is ultrasonic compact energy meter intended for measuring energy consumption in heating, cooling and combined heating and cooling applications for billing purposes. The meter is designed for remote meter read-out (AMR). The energy meter consists of an ultrasonic flow sensor, a pair of Pt1000 temperature sensors and a calculator with integrated circuits for temperature measurement, flow calculation and energy calculation. The Energy meter is built modularly with DN15, DN20, DN25 and DN32 size connections. The Energy meter SonoSelect 10 is powered by two half-sized AA batteries, that do not need to be replaced during the lifetime of the device.

Figure 1: The illustration of the Energy meter SonoSelect 10 DN32 with its main components.

The reference product used for this EPD is representative for all Energy meter SonoSelect 10 DN15, DN20, DN25 and DN32. The representative product for this EPD is Energy meter SonoSelect 10-DN32 (014U1432).
For each connection size i.e. DN15, DN20, DN25 and DN32 a representative product code was selected (see Annex A, Table 12). All 4 representative product codes have the same control box, the difference is in the connector size (DN15, DN20, DN 26 & DN32) which results in mass difference. The products within each representative product code varies in terms of energy measurement functions and the length of the measuring cables. However, the differences between products within each group (DN15, DN20, DN 25 & DN32) are minor and are considered to be negligible, meaning the same scalar factor can be used when determining the environmental parameters. The factors for each representative group of product codes are presented in Table 13 of Annex A.

For each representative product code (DN15, DN20, DN 26 & DN32), an LCA (Life Cycle Assessments) has been conducted to assess the environmental impact. The scalar factor is calculated as the ration of two GWPT values (A1-C4), based on the LCA calculation for each of the four representative product codes.

Product Description

Reference Service Life

For the purpose of this EPD the reference service life (RSL) of the product is considered to be 16 years.

Intended market

The intended market for this study is West Asia region (Oman), and the baseline scenario includes distribution, installation, and end-of-life in Oman. With regards to the use stage and the end-of-life stage, this EPD is not representative of regions other than Oman.

Table 2: Product composition

Material	Mass (kg)	%
Metals	**1,202**	**65,6%**
Steel (excl, stainless steel)	0,014	0,7%
Stainless steel	0,033	1,8%
Copper and its alloys (Brass)	1,155	63,1%
Plastics & Rubbers	**0,233**	**12,7%**
Plastic with no GF	0,007	0,4%
Plastic with GF	0,218	11,9%
Rubbers	0,008	0,4%
Natural materials	**0,074**	**4,0%**
Paper and cardboard	0,074	4,0%
Electrical/electronic	**0,323**	**17,7%**
Cables	0,261	14,2%
PCBA	0,037	2,0%
Display	0,025	1,4%
Product Total	**1,832**	**100,0%**
Packaging Total	**0,591**	**100,0%**
Paper and cardboard	0,439	74,4%
PE (film+foam)	0,008	1,4%
PET film	0,143	24,2%
Total (Product+Packaging)	**2,422**	

Product Description

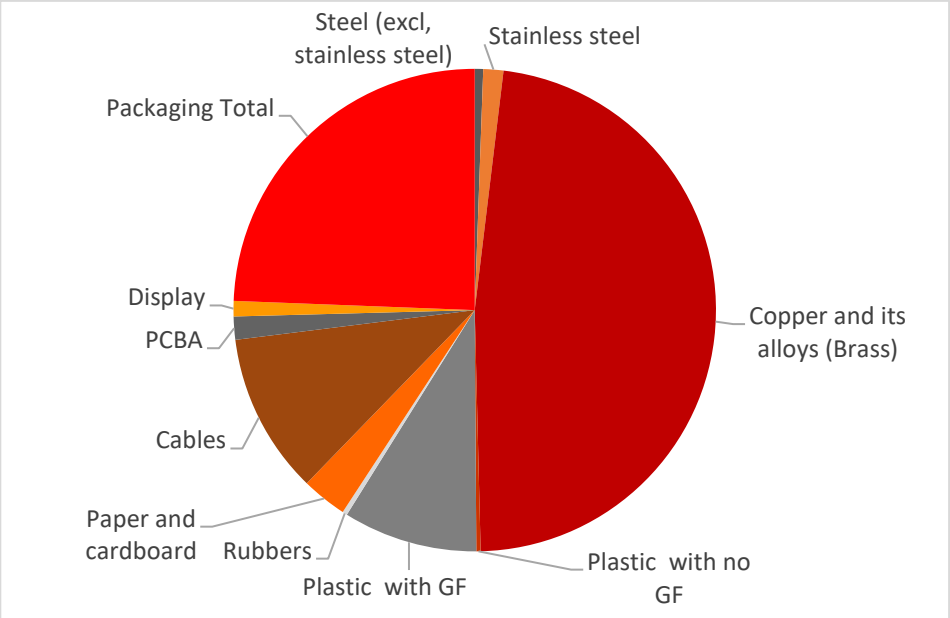

Figure 2: Material Composition Overview

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.

The final assembly of the product is in China. A mass allocation method is used to calculate the assembly energy consumption. The sensor, which in terms of volume and number of components represents a smaller sub-assembly, is assembled at a location in Slovenia. The data for energy consumption for the assembly of one piece is not known, so the same value of energy consumption as for the final assembly of the entire product is considered in the calculation. This assumption is representing a conservative approach.

All major raw materials and all the essential energy are included, besides:

- Heat conducting paste with low mass
- Glue with low mass

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.

Due to unavailability of data sets for the AA size battery, the calculation uses the data for a 16mm diameter coin cell battery as a substitute. However, a mass factor is applied to the coin cell battery to represent the correct weight of the AA size battery to ensure the consistency of the result.

Overview of LCA study

System boundaries

The results in this EPD are split into life cycle modules following EN 15804 (Figure 1): production (A1-A3), distribution (A4) installation (A5) 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).

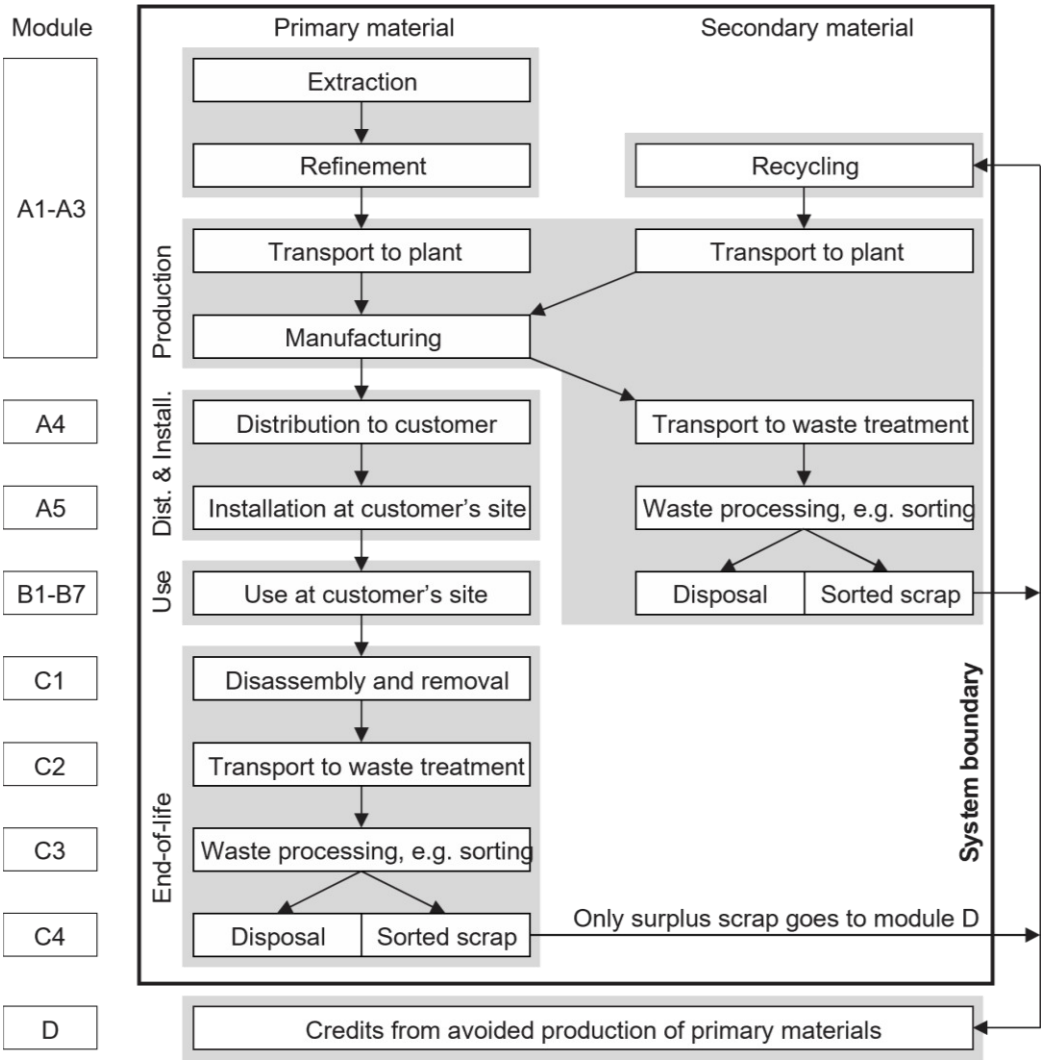

Figure 3: Modular structure used in this EPD (following EN 15804+A2)

Overview of LCA study

Product and packaging manufacture (A1-A3)

Final manufacturing occurs in the Danfoss Tianjin plant, China. 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 as described in Table 1. All packaging materials can be safely recycled or incinerated if appropriate local facilities are available.

Two production location of the product are considered in the calculation. The final production location of the product is at Danfoss' production facility in Tianjin, China, from where the product is delivered to the customer. The Energy meter SonoSelect 10 has a built-in measuring sensor, which by mass represents a small share of the entire product. The measuring sensor consists of several components and its production takes place at Danfoss' production facility in Ljubljana, Slovenia. The measuring sensor is shipped as a sub-assembly to the product's final production location in Tianjin, China. Therefore, two production location are considered in the calculation. For both locations, the electricity consumption for the assembly of one product or sub-assembly is taken into account.

Table 3: Biogenic carbon content in product and packaging

	Total (excluding recycling)
Biogenic carbon content in product [kg]	3,17E-02
Biogenic carbon content in accompanying packaging [kg]	1,89E-01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg of CO_2.

Shipping and installation (A4-A5)

Distribution is assumed to occur to customers within Oman. The Energy meter SonoSelect 10 is delivered from the final Danfoss manufacturing location in Tianjin, China by ship, to the Danfoss central warehouse of the finished products in Dubai, UAE. From the Danfoss central warehouse location the Energy meter SonoSelect 10 is delivered by road transport to the Oman market. The calculation considers sea transport in the length of 3345 km and road transportation at 1000 km.

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.

End-of-life (C1-C4)

The following end-of-life procedure 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

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 Energy meter SonoSelect 10. Figure 4 presents the environmental impact of the Energy meter SonoSelect 10 across a number of environmental impact categories (following EN 15804+A2:2019) per life cycle stage, over its full 16 years life cycle, including Global Warming Potential.

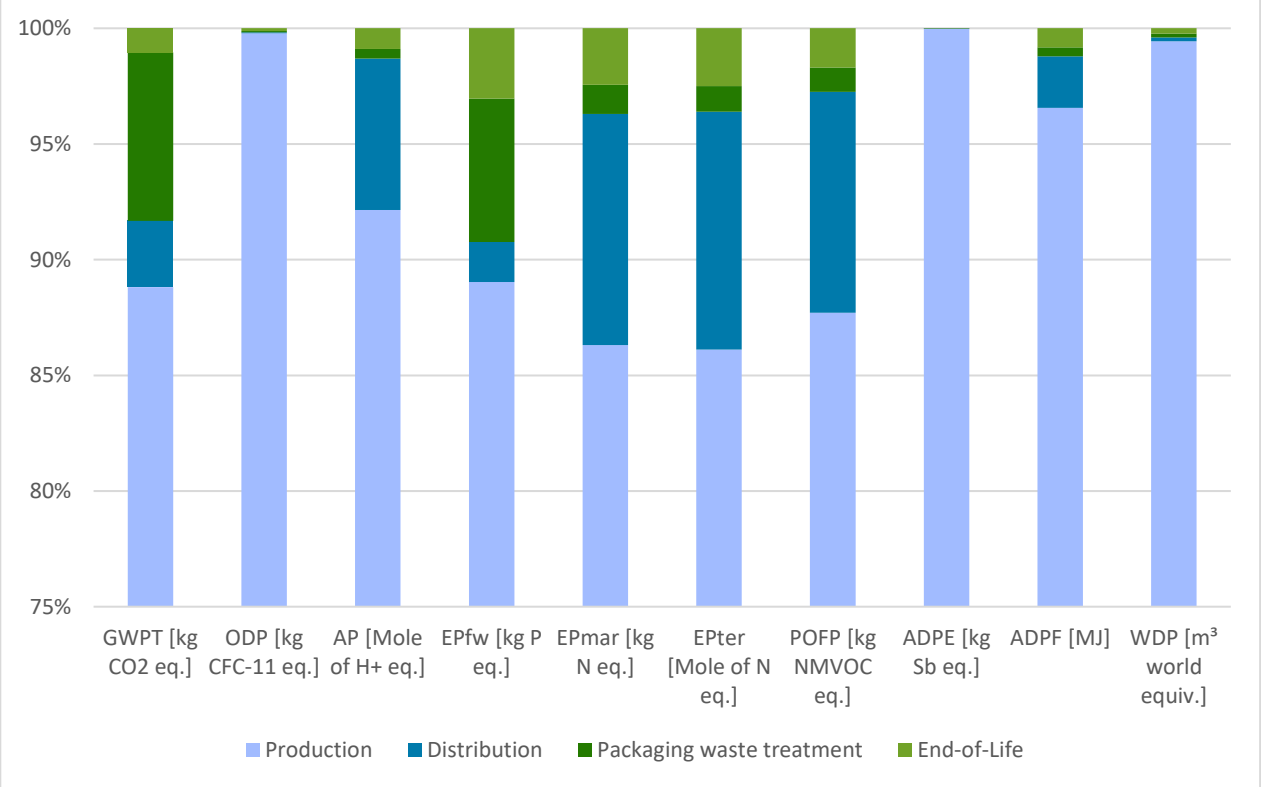

Figure 4: Breakdown of environmental impacts by life cycle stages (Average of Landfill and Recycling End-of-Life scenario/only Landfill scenario) See Table 5 and 6 for descriptions of environmental impact indicators).

Environmental performance

Table 4: Environmental impact indicators

	Production	Distribution	Packaging waste treatment	End-of-Life				(not included in Figure 4)
Life cycle stages based on EN 15804+A2	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Description / **Environmental Impact Indicators**	Manufacture of the product from 'cradle-to-gate'	Transport of the product to the customer	Installation of the product and disposal of used packaging	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 CO2 eq.]	1,05E+01	3,39E-01	8,61E-01	0,00E+00	1,82E-02	6,53E-02	3,94E-02	-5,92E-01
GWPF [kg CO2 eq.]	1,13E+01	3,36E-01	5,11E-02	0,00E+00	1,82E-02	6,43E-02	3,93E-02	-5,92E-01
GWPB [kg CO2 eq.]	-8,10E-01	0,00E+00	8,10E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWPLULUC [kg CO2 eq.]	1,34E-02	3,39E-03	5,17E-05	0,00E+00	4,45E-07	1,02E-03	5,57E-05	-6,07E-05
ODP [kg CFC-11 eq.]	8,14E-11	3,98E-14	4,13E-14	0,00E+00	2,15E-18	6,12E-14	3,32E-14	1,19E-12
AP [Mole of H+ eq.]	6,45E-02	4,59E-03	2,89E-04	0,00E+00	2,57E-05	3,92E-04	2,04E-04	-3,37E-03
EPfw [kg P eq.]	4,61E-05	8,95E-07	3,21E-06	0,00E+00	3,98E-09	2,69E-07	1,30E-06	9,43E-08
EPmar [kg N eq.]	1,02E-02	1,18E-03	1,50E-04	0,00E+00	1,00E-05	1,92E-04	8,61E-05	-3,43E-04
EPter [Mole of N eq.]	1,09E-01	1,30E-02	1,41E-03	0,00E+00	1,13E-04	2,12E-03	9,23E-04	-3,73E-03
POFP [kg NMVOC eq.]	3,04E-02	3,31E-03	3,62E-04	0,00E+00	2,38E-05	3,72E-04	1,93E-04	-1,77E-03
ADPE [kg Sb eq.]	8,23E-04	2,04E-08	5,39E-09	0,00E+00	6,55E-10	5,72E-09	1,41E-09	4,31E-04
ADPF [MJ]	1,82E+02	4,20E+00	7,17E-01	0,00E+00	2,66E-01	8,47E-01	4,52E-01	-1,91E+01
WDP [m^3 world equiv.]	2,06E+00	3,36E-03	3,47E-03	0,00E+00	3,11E-05	1,57E-03	3,17E-03	4,41E-02

How to read scientific numbers:

e.g. 2,05E+02 = 2,05 x 10^2 = 205

2,04E-01 = 2,04 x 10^{-1} = 0,204

Environmental performance

Table 5: Environmental impact indicator descriptions

Acronym	Unit	Indicator
GWPT	kg CO_2 eq.	Carbon footprint (Global Warming Potential) – total
GWPF	kg CO_2 eq.	Carbon footprint (Global Warming Potential) – fossil
GWPB	kg CO_2 eq.	Carbon footprint (Global Warming Potential) – biogenic
GWPLULUC	kg CO_2 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+ 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^3 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 **1,18E+01 kg CO2-eq** (A1-C4), based on the baseline use phase scenario. The carbon footprint of production of this product, cradle-to-gate, is **1,05E+01 kg CO2-eq** (A1-A3).

Environmental performance

Table 6: Resource use

	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PERE [MJ]	6,81E+01	2,36E-01	4,84E-02	0,00E+00	0,00E+00	8,75E-04	1,04E-01	2,74E-02	7,35E-01
PERM [MJ]	1,11E+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
PERT [MJ]	6,92E+01	2,36E-01	4,84E-02	0,00E+00	0,00E+00	8,75E-04	1,04E-01	2,74E-02	7,35E-01
PENRE [MJ]	1,73E+02	4,20E+00	7,17E-01	0,00E+00	0,00E+00	2,66E-01	8,47E-01	4,52E-01	-1,91E01
PENRM [MJ]	8,99E+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
PENRT [MJ]	1,82E+02	4,20E+00	7,17E-01	0,00E+00	0,00E+00	2,66E-01	8,47E-01	4,52E-01	-1,91E01
SM [kg]	1,54E+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
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]	7,25E-02	2,64E-04	1,09E-04	0,00E+00	0,00E+00	1,41E-06	1,03E-04	8,36E-05	-3,34E-03

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^3	Net use of fresh water

Environmental performance

Table 8: Waste categories and output flows

	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
HWD [kg]	1,37E-06	1,50E-10	1,10E-10	0,00E+00	0,00E+00	1,83E-12	1,00E-10	4,31E-11	-6,68E-06
NHWD [kg]	6,34E-01	5,82E-04	2,37E-01	0,00E+00	0,00E+00	2,66E-05	1,70E-04	5,79E-01	-1,45E-02
RWD [kg]	8,43E-03	6,61E-06	4,47E-06	0,00E+00	0,00E+00	2,84E-07	9,15E-06	2,41E-06	2,33E-04
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	5,45E-01	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]	3,63E-02	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	B6	C1	C2	C3	C4	D
PM [Disease incidences]	7,16E-07	7,91E-08	2,09E-09	0,00E+00	0,00E+00	1,53E-10	2,62E-09	1,66E-09	-3,78E-08
IRP [kBq U235 eq,]	1,15E+00	9,47E-04	5,84E-04	0,00E+00	0,00E+00	4,03E-05	1,48E-03	3,18E-04	1,67E-02
ETPfw [CTUe]	1,26E+02	3,08E+00	6,53E-01	0,00E+00	0,00E+00	1,92E-01	6,10E-01	1,77E+00	-1,10E+01
HTPc [CTUh]	5,64E-08	6,05E-11	1,11E-11	0,00E+00	0,00E+00	3,58E-12	1,28E-11	7,21E-12	-1,06E-09
HTPnc [CTUh]	1,52E-07	3,16E-09	7,82E-10	0,00E+00	0,00E+00	1,56E-10	7,73E-10	4,09E-10	6,59E-09
SQP [Pt]	8,01E+01	1,31E+00	1,17E-01	0,00E+00	0,00E+00	6,79E-04	4,14E-01	3,78E-02	1,61E+00

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 codes of all products covered in this EPD

The EPD results are presented for the product code 014U1432.

For each pipe connection size DN15, DN20, DN25 and DN32 representative product sales codes have been selected and are listed in Table12. An LCA calculation has been prepared for each representative product code.

Table 12: Energy meter SonoSelect 10 representative product codes

Sales code	Product description
014U1432	Energy meter SonoSelect 10 DN32R,qp6.0,260,MBus,H,EU,kWh
014U1404	Energy meter SonoSelect 10 DN25R,qp3.5,160,Mbus,H,EU,kWh
014U1403	Energy meter SonoSelect 10 DN20R,qp2.5,130,Mbus,H,EU,kWh
014U1401	Energy meter SonoSelect 10 DN15R,qp1.5,110,Mbus,H,EU,kWh

To calculate the actual GWPT of purchased product, just multiply the GWPT 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: 014U1404
Factor: 0,887
GWPT (014U1432): 1,18E+01 kg CO2-eq (A1-C4)
GWPT (014U1404): 0,887x 1,18E+01 kgCO2eq = 1,05E+01 kgCO2eq

Table 13: Energy meter SonoSelect 10 covered by this EPD

Sales code	Product description	Scale Factor
DN15		
014U0001	DN15R,qp0.6,110,L,EU,kWh	0,833
014U0002	DN15S,qp0.6,110,L,EU,kWh	0,833
014U0003	DN15R,qp0.6,110,MBus,L,EU,kWh	0,833
014U0004	DN15S,qp0.6,110,MBus,L,EU,kWh	0,833
014U0005	DN15R,qp1.5,110,L,EU,kWh	0,833
014U0007	DN15R,qp1.5,110,MBus,L,EU,kWh	0,833
014U0008	DN15S,qp1.5,110,MBus,L,EU,kWh	0,833
014U0025	DN15S,qp0.6,110,MBus,L,CN,kWh	0,833
014U0032	DN15S,qp1.5,110,MBus,L,CN,kWh	0,833
014U0068	DN15R,qp0.6,110,H,EU,kWh,Radio+PI	0,833

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014U0081	DN15R,qp1.5,110,H,EU,kWh,Radio+PI	0,833
014U0165	DN15R,qp0.6,110,Mbus,H,EU,kWh	0,833
014U0167	DN15R,qp1.5,110,Mbus,H,EU,kWh	0,833
014U0183	DN15R,qp0.6,110,Mbus,H,EU,kWh,2*PI	0,833
014U0185	DN15R,qp1.5,110,Mbus,H,EU,kWh,2*PI	0,833
014U0203	DN15R,qp0.6,110,Mbus,L,EU,kWh,2*PI	0,833
014U0204	DN15S,qp0.6,110,Mbus,L,EU,kWh,2*PI	0,833
014U0205	DN15R,qp1.5,110,Mbus,L,EU,kWh,2*PI	0,833
014U0229	DN15R,qp0.6,110,MBus,L,BA,kWh	0,833
014U0230	DN15R,qp1.5,110,MBus,L,BA,kWh	0,833
014U0235	DN15R,qp0.6,110,L,EU,kWh,Radio+PI	0,833
014U0236	DN15S,qp0.6,110,L,EU,kWh,Radio+PI	0,833
014U0237	DN15R,qp1.5,110,L,EU,kWh,Radio+PI	0,833
014U0250	DN15R,qp0.6,110,L,EU,kWh,RadioWB+PI	0,833
014U0251	DN15R,qp1.5,110,L,EU,kWh,RadioWB+PI	0,833
014U0253	DN15R,qp1.5,110,H,EU,kWh,RadioWB+PI	0,833
014U0254	DN15R,qp0.6,110,L,BA,kWh,RadioWB+PI	0,833
014U0255	DN15R,qp1.5,110,L,BA,kWh,RadioWB+PI	0,833
014U0313	DN15R,qp1.5,110,MBus,L,CN,kWh	0,833
014U0350	DN15R,qp1.5,110,Mbus,H,EU,kWh,MP,Mbus+PI	0,833
014U0361	DN15R,qp0.6,110,MBus,L,EU,kWh,MP	0,833
014U0363	DN15R,qp1.5,110,MBus,L,EU,kWh,MP	0,833
014U0397	DN15S,qp1.5,110,MBus,L,CN,kWh,DailyLog	0,833
014U0419	DN15R,qp0.6,110,Mbus,H,130C,EU,kWh	0,833
014U0421	DN15R,qp1.5,110,Mbus,H,130C,EU,kWh	0,833
014U0434	DN15S,qp0.6,110,Mbus,H,130C,EU,kWh,2*PI	0,833
014U0449	DN15R,qp0.6,110,Mbus,H,EU,kWh,MP	0,833
014U0451	DN15R,qp1.5,110,Mbus,H,EU,kWh,MP	0,833
014U0495	DN15R,qp1.5,110,Mbus,H3m,EU,kWh,Pt5m,Mbu	0,833
014U0542	DN15R,qp0.6,110,MBus,H,130C,EU,kWh,MP	0,833
014U0544	DN15R,qp1.5,110,MBus,H,130C,EU,kWh,MP	0,833
014U0556	DN15R,qp1.5,110,MBus,L,EU,kWh,MP,2*PI	0,833
014U0562	DN15R,qp0.6,110,H,130C,BA,kWh,RadioWB+PI	0,833
014U0563	DN15R,qp1.5,110,H,130C,BA,kWh,RadioWB+PI	0,833
014U0569	DN15R,qp0.6,110,Mbus,H,130C,BA,kWh	0,833
014U0570	DN15R,qp1.5,110,Mbus,H,130C,BA,kWh	0,833
014U1300	DN15R,qp0.6,110,Mbus,H,EU,kWh	0,833
014U1301	DN15R,qp1.5,110,Mbus,H,EU,kWh	0,833
014U1307	DN15R,qp0.6,110,H,EU,kWh,RadioWB+PI	0,833
014U1308	DN15R,qp1.5,110,H,EU,kWh,RadioWB+PI	0,833
014U1315	DN15R,qp1.5,110,Mbus,H,EU,kWh,2*PI	0,833
014U1334	DN15R,qp0.6,110,Mbus,H,EU,kWh,MP	0,833

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014U1335	DN15R,qp1.5,110,Mbus,H,EU,kWh,MP	0,833
014U1400	DN15R,qp0.6,110,Mbus,H,EU,kWh	0,833
014U1401	DN15R,qp1.5,110,Mbus,H,EU,kWh	0,833
014U1415	DN15R,qp1.5,110,Mbus,H,EU,kWh,Mbus+PI	0,833
014U1435	DN15R,qp1.5,110,H,EU,kWh,Pt3m,RadioWB+PI	0,833
014U1449	DN15R,qp1.5,110,H,EU,kWh,RadioWB+PI	0,833
014U1455	DN15R,qp1.5,110,MB,H3m,EU,kWh,Pt3m,MB+PI	0,833
014U1456	DN15R,qp0.6,110,Mbus,H,EU,kWh,MP	0,833
014U1457	DN15R,qp1.5,110,Mbus,H,EU,kWh,MP	0,833
014U1470	DN15R,qp1.5,110,Mbus,H,EU,kWh,MP,Mbus+PI	0,833
014U1478	DN15R,QP1.5,110,MB,H3,EU,KWH,PT5,MP,MBPI	0,833
014U1494	DN15R,qp0.6,110,Mbus,H,EU,kWh,3m	0,833
014U1495	DN15R,qp1.5,110,Mbus,H,EU,kWh,3m	0,833
014U0373	DN15S,qp0.6,110,L,KZ,Gcal	0,833
014U0375	DN15S,qp1.5,110,L,KZ,Gcal	0,833
014U1485	DN15R,qp0.6,110,H,KZ,Gcal	0,833
014U1486	DN15R,qp1.5,110,H,KZ,Gcal	0,833
014U1386	DN15S,qp0.6,110,MBus,H,KZ,Gcal	0,833
014U1388	DN15S,qp1.5,110,MBus,H,KZ,Gcal	0,833
DN20		
014U0009	DN20R,qp1.5,130,L,EU,kWh	0,803
014U0011	DN20R,qp1.5,130,MBus,L,EU,kWh	0,803
014U0012	DN20S,qp1.5,130,MBus,L,EU,kWh	0,803
014U0039	DN20S,qp1.5,130,MBus,L,CN,kWh	0,803
014U0169	DN20R,qp1.5,130,Mbus,H,EU,kWh	0,803
014U0231	DN20R,qp1.5,130,MBus,L,BA,kWh	0,803
014U0256	DN20R,qp1.5,130,L,BA,kWh,RadioWB+PI	0,803
014U0314	DN20R,qp1.5,130,MBus,L,CN,kWh	0,803
014U0329	DN20S,QP1.5,130,MBUS,L,CN,KWH, IPC	0,803
014U0365	DN20R,qp1.5,130,MBus,L,EU,kWh,MP	0,803
014U0398	DN20S,qp1.5,130,MBus,L,CN,kWh,DailyLog	0,803
014U0402	DN20S,QP1.5,130,MBUS,L1.5M,CN,KWH,IPC	0,803
014U0423	DN20R,qp1.5,130,Mbus,H,130C,EU,kWh	0,803
014U0438	DN20S,qp1.5,130,Mbus,H,130C,EU,kWh,2*PI	0,803
014U0546	DN20R,qp1.5,130,MBus,H,130C,EU,kWh,MP	0,803
014U0564	DN20R,qp1.5,130,H,130C,BA,kWh,RadioWB+PI	0,803
014U0571	DN20R,qp1.5,130,Mbus,H,130C,BA,kWh	0,803
014U0594	DN20S,QP1.5,130,MBUS,L,CN,KWH, IPC	0,803
014U1302	DN20R,qp1.5,130,Mbus,H,EU,kWh	0,803
014U1309	DN20R,qp1.5,130,H,EU,kWh,RadioWB+PI	0,803
014U1336	DN20R,qp1.5,130,Mbus,H,EU,kWh,MP	0,803
014U1358	DN20R,qp1.5,130,MBus,H,CN,kWh	0,803

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014U1402	DN20R,qp1.5,130,Mbus,H,EU,kWh	0,803
014U1412	DN20R,qp1.5,130,H,EU,kWh,Radio+PI	0,803
014U1450	DN20R,qp1.5,130,H,EU,kWh,RadioWB+PI	0,803
014U1458	DN20R,qp1.5,130,Mbus,H,EU,kWh,MP	0,803
014U1496	DN20R,qp1.5,130,Mbus,H,EU,kWh.3m	0,803
014U0013	DN20R,qp2.5,130,L,EU,kWh	0,803
014U0015	DN20R,qp2.5,130,MBus,L,EU,kWh	0,803
014U0016	DN20S,qp2.5,130,MBus,L,EU,kWh	0,803
014U0046	DN20S,qp2.5,130,MBus,L,CN,kWh	0,803
014U0107	DN20R,qp2.5,130,H,EU,kWh,Radio+PI	0,803
014U0171	DN20R,qp2.5,130,Mbus,H,EU,kWh	0,803
014U0189	DN20R,qp2.5,130,Mbus,H,EU,kWh,2*PI	0,803
014U0209	DN20R,qp2.5,130,Mbus,L,EU,kWh,2*PI	0,803
014U0232	DN20R,qp2.5,130,MBus,L,BA,kWh	0,803
014U0241	DN20R,qp2.5,130,L,EU,kWh,Radio+PI	0,803
014U0252	DN20R,qp2.5,130,L,EU,kWh,RadioWB+PI	0,803
014U0257	DN20R,qp2.5,130,L,BA,kWh,RadioWB+PI	0,803
014U0315	DN20R,qp2.5,130,MBus,L,CN,kWh	0,803
014U0367	DN20R,qp2.5,130,MBus,L,EU,kWh,MP	0,803
014U0399	DN20S,qp2.5,130,MBus,L,CN,kWh,DailyLog	0,803
014U0425	DN20R,qp2.5,130,Mbus,H,130C,EU,kWh	0,803
014U0440	DN20S,qp2.5,130,Mbus,H,130C,EU,kWh,2*PI	0,803
014U0455	DN20R,qp2.5,130,Mbus,H,EU,kWh,MP	0,803
014U0496	DN20R,qp2.5,130,MBus,H3m,EU,kWh,Pt5m,MBu	0,803
014U0548	DN20R,qp2.5,130,MBus,H,130C,EU,kWh,MP	0,803
014U0557	DN20R,qp2.5,130,MBus,L,EU,kWh,MP,2*PI	0,803
014U0565	DN20R,qp2.5,130,H,130C,BA,kWh,RadioWB+PI	0,803
014U0572	DN20R,qp2.5,130,Mbus,H,130C,BA,kWh	0,803
014U1303	DN20R,qp2.5,130,Mbus,H,EU,kWh	0,803
014U1310	DN20R,qp2.5,130,H,EU,kWh,RadioWB+PI	0,803
014U1317	DN20R,qp2.5,130,Mbus,H,EU,kWh,2*PI	0,803
014U1337	DN20R,qp2.5,130,Mbus,H,EU,kWh,MP	0,803
014U1360	DN20R,qp2.5,130,MBus,H,CN,kWh	0,803
014U1403	DN20R,qp2.5,130,Mbus,H,EU,kWh	0,803
014U1413	DN20R,qp2.5,130,H,EU,kWh,Radio+PI	0,803
014U1436	DN20R,qp2.5,130,H,EU,kWh,Pt3m,RadioWB+PI	0,803
014U1451	DN20R,qp2.5,130,H,EU,kWh,RadioWB+PI	0,803
014U1459	DN20R,qp2.5,130,Mbus,H,EU,kWh,MP	0,803
014U1473	DN20R,qp2.5,130,Mbus,H3m,EU,kWh,Pt5m,Mbu	0,803
014U1490	DN20S,qp2.5,130,Mbus,H,EU,kWh	0,803
014U1497	DN20R,qp2.5,130,Mbus,H,EU,kWh.3m	0,803
014U0379	DN20S,qp2.5,130,L,KZ,Gcal	0,803

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014U1488	DN20R,qp2.5,130,H,KZ,Gcal	0,803
014U1390	DN20S,qp2.5,130,MBus,H,KZ,Gcal	0,803
DN25		
014U0019	DN25R,qp3.5,160,MBus,L,EU,kWh	0,887
014U0020	DN25S,qp3.5,160,MBus,L,EU,kWh	0,887
014U0053	DN25S,qp3.5,160,MBus,L,CN,kWh	0,887
014U0120	DN25R,qp3.5,160,H,EU,kWh,Radio+PI	0,887
014U0173	DN25R,qp3.5,160,Mbus,H,EU,kWh	0,887
014U0191	DN25R,qp3.5,160,Mbus,H,EU,kWh,2*PI	0,887
014U0211	DN25R,qp3.5,160,Mbus,L,EU,kWh,2*PI	0,887
014U0233	DN25R,qp3.5,160,MBus,L,BA,kWh	0,887
014U0243	DN25R,qp3.5,160,L,EU,kWh,Radio+PI	0,887
014U0258	DN25R,qp3.5,160,L,BA,kWh,RadioWB+PI	0,887
014U0316	DN25R,qp3.5,160,MBus,L,CN,kWh	0,887
014U0360	DN25S,qp3.5,160,MBus,H3m,CN,kWh,Pt5m	0,887
014U0400	DN25S,qp3.5,160,MBus,L,CN,kWh,DailyLog	0,887
014U0403	DN25S,QP3.5,160,MBUS,L1.5M,CN,KWH,IPC	0,887
014U0457	DN25R,qp3.5,160,Mbus,H,EU,kWh,MP	0,887
014U0595	DN25S,qp3.5,160,MBus,L,CN,kWh,IPC	0,887
014U1304	DN25R,qp3.5,160,Mbus,H,EU,kWh	0,887
014U1311	DN25R,qp3.5,160,H,EU,kWh,RadioWB+PI	0,887
014U1338	DN25R,qp3.5,160,Mbus,H,EU,kWh,MP	0,887
014U1362	DN25R,qp3.5,160,MBus,H,CN,kWh	0,887
014U1404	DN25R,qp3.5,160,Mbus,H,EU,kWh	0,887
014U1414	DN25R,qp3.5,160,H,EU,kWh,Radio+PI	0,887
014U1452	DN25R,qp3.5,160,H,EU,kWh,RadioWB+PI	0,887
014U1453	DN25R,qp3.5,160,H,EU,kWh,Pt3m,RadioWB+PI	0,887
014U1460	DN25R,qp3.5,160,Mbus,H,EU,kWh,MP	0,887
014U1474	DN25R,qp3.5,160,Mbus,H3m,EU,kWh,Pt5m,Mbu	0,887
014U1491	DN25S,qp3.5,160,Mbus,H,EU,kWh	0,887
014U1498	DN25R,qp3.5,160,Mbus,H,EU,kWh.3m	0,887
014U0381	DN25S,qp3.5,160,L,KZ,Gcal	0,887
014U1489	DN25R,qp3.5,160,H,KZ,Gcal	0,887
014U1392	DN25S,qp3.5,160,MBus,H,KZ,Gcal	0,887
014U0023	DN25R,qp3.5,260,MBus,L,EU,kWh	0,887
014U0024	DN25S,qp3.5,260,MBus,L,EU,kWh	0,887
014U0133	DN25R,qp3.5,260,H,EU,kWh,Radio+PI	0,887
014U0245	DN25R,qp3.5,260,L,EU,kWh,Radio+PI	0,887
014U0369	DN25R,qp3.5,260,MBus,L,EU,kWh,MP	0,887
014U0427	DN25R,qp3.5,260,Mbus,H,130C,EU,kWh	0,887
014U0447	DN25R,qp3.5,260,Mbus,H,EU,kWh	0,887
014U0459	DN25R,qp3.5,260,Mbus,H,EU,kWh,MP	0,887

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014U0550	DN25R,qp3.5,260,MBus,H,130C,EU,kWh,MP	0,887
014U0566	DN25R,qp3.5,260,H,130C,BA,kWh,RadioWB+PI	0,887
014U0573	DN25R,qp3.5,260,Mbus,H,130C,BA,kWh	0,887
014U1424	DN25R,qp3.5,260,MBus,H,EU,kWh	0,887
014U1426	DN25R,qp3.5,260,H,EU,kWh,Radio+PI	0,887
014U0266	DN25R,qp6.0,260,MBus,L,EU,kWh	0,887
014U0267	DN25S,qp6.0,260,MBus,L,EU,kWh	0,887
014U0268	DN25R,qp6.0,260,H,EU,kWh,Radio+PI	0,887
014U0270	DN25R,qp6.0,260,MBus,H,EU,kWh,2*PI	0,887
014U0272	DN25R,qp6.0,260,MBus,H,EU,kWh	0,887
014U0371	DN25R,qp6.0,260,MBus,L,EU,kWh,MP	0,887
014U0429	DN25R,qp6.0,260,MBus,H,130C,EU,kWh	0,887
014U0443	DN25R,qp6.0,260,MBus,H,130C,EU,kWh,2*PI	0,887
014U0444	DN25S,qp6.0,260,MBus,H,130C,EU,kWh,2*PI	0,887
014U0461	DN25R,qp6.0,260,MBus,H,EU,kWh,MP	0,887
014U0552	DN25R,qp6.0,260,MBus,H,130C,EU,kWh,MP	0,887
014U0567	DN25R,qp6.0,260,H,130C,BA,kWh,RadioWB+PI	0,887
014U0574	DN25R,qp6.0,260,MBus,H,130C,BA,kWh	0,887
014U1305	DN25R,qp6.0,260,MBus,H,EU,kWh	0,887
014U1312	DN25R,qp6.0,260,H,EU,kWh,RadioWB+PI	0,887
014U1339	DN25R,qp6.0,260,MBus,H,EU,kWh,MP	0,887
014U1429	DN25R,qp6.0,260,MBus,H,EU,kWh	0,887
014U1431	DN25R,qp6.0,260,H,EU,kWh,Radio+PI	0,887
014U1437	DN25R,qp6.0,260,H,EU,kWh,Pt3m,RadioWB+PI	0,887
014U1461	DN25R,qp6.0,260,MBus,H,EU,kWh,MP	0,887
014U1477	DN25R,qp6.0,260,H3m,EU,kWh,Pt3m,MP	0,887
014U1481	DN25R,qp6.0,260,H,EU,kWh,RadioWB+PI	0,887
014U1492	DN25S,qp6.0,260,MBus,H,EU,kWh	0,887
014U1499	DN25R,qp6.0,260,MBus,H,EU,kWh.3m	0,887
DN32		
014U0262	DN32S,qp6.0,260,Mbus,L,CN,kWh	1,00
014U0276	DN32R,qp6.0,260,MBus,L,EU,kWh	1,00
014U0277	DN32S,qp6.0,260,MBus,L,EU,kWh	1,00
014U0280	DN32R,qp6.0,260,MBus,H,EU,kWh,2*PI	1,00
014U0282	DN32R,qp6.0,260,MBus,H,EU,kWh	1,00
014U0319	DN32R,qp6.0,260,MBus,L,CN,kWh	1,00
014U0358	DN32S,qp6.0,260,MBus,H3m,CN,kWh,Pt3m	1,00
014U0401	DN32S,qp6.0,260,MBus,L,CN,kWh,DailyLog	1,00
014U0404	DN32S,qp6.0,260,MBus,L1.5m,CN,kWh	1,00
014U0431	DN32R,qp6.0,260,MBus,H,130C,EU,kWh	1,00
014U0463	DN32R,qp6.0,260,MBus,H,EU,kWh,MP	1,00
014U0554	DN32R,qp6.0,260,MBus,H,130C,EU,kWh,MP	1,00

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014U0568	DN32R,qp6.0,260,H,130C,BA,kWh,RadioWB+PI	1,00
014U0575	DN32R,qp6.0,260,MBus,H,130C,BA,kWh	1,00
014U1306	DN32R,qp6.0,260,MBus,H,EU,kWh	1,00
014U1313	DN32R,qp6.0,260,H,EU,kWh,RadioWB+PI	1,00
014U1340	DN32R,qp6.0,260,MBus,H,EU,kWh,MP	1,00
014U1366	DN32R,qp6.0,260,MBus,H,CN,kWh	1,00
014U1432	DN32R,qp6.0,260,MBus,H,EU,kWh	1,00
014U1454	DN32R,qp6.0,260,H,EU,kWh,Pt3m,RadioWB+PI	1,00
014U1462	DN32R,qp6.0,260,MBus,H,EU,kWh,MP	1,00
014U1475	DN32R,qp6.0,260,MBus,H3m,EU,kWh,Pt5m,Mbu	1,00
014U1493	DN32S,qp6.0,260,MBus,H,EU,kWh	1,00
014U1000	DN32R,qp6.0,260,MBus,H,EU,kWh.3m	1,00
014U0593	DN32S,qp6.0,260,L,KZ,Gcal	1,00
014U1394	DN32S,qp6.0,260,MBus,H,KZ,Gcal	1,00

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