Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019

LK Cabinet With LK Frame/Hatch & Base

LK Systems AB

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-06381
Publication date:	2022-09-23
Valid until:	2027-08-25

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

Company information

Owner of the EPD:	LK Systems AB Johannesfredsvägen 7 168 69 Bromma Sweden
Contact:	info@lksystems.se https://www.lksystems.se/
Name and location of production site:	Alfing i Älmhult AB Bäckgatan 32 343 22 Älmhult Sweden Modulsystem i Kalix AB Bangårdsvägen 3 952 31 Kalix Sweden
Product-related or management system-related certifications:	Safe water installation

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

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)	
Product category rules (PCR): 2019:14, Construction products (EN 15804:A2) (1.11)	
PCR review was conducted by: Claudia A. Peña, The Technical Committee of the International EPD® System.	
Contact: info@environdec.com	
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☒ EPD verification	
Third party verifier: Daniel Böckin, PhD, under guidance of Pär Lindman, Miljögiraff AB, daniel@miljogiraff.se. Approved by: The International EPD® System.	

Company information

LK Systems is the leading manufacturer of easy-to-install systems for heating and tap water distribution in the Nordics. Through our prefabrication factory, we also provide tailor-made solutions that simplify the installation process even further. From idea to final solution, you can be sure of the smartest answers for your everyday challenges, today and tomorrow.

For the simpler, smarter everyday

Simpler. Smarter. More sustainable. At LK, we believe there's a better way to do everything. That's why – from water, heating and hydronic solutions to pipe extrusion – we push for innovation over status quo and simplicity over complexity. It's a belief all of us at LK apply to every product and solution we create

Product information

The products including in this study is LK Cabinets with frame/hatch and base. The cabinets are manufactured to easier connect both heating and water installations. LK cabinets with associated installation instructions are adapted to Industry Rules safe water installation. The cabinets come with accessories for the mounting including a dense base with rubber pipe grommets. The cabinets dense base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected. The cabinets are combined with an associated frame/hatch which can be found in two varieties depending on the cabinet, one for cabinets that are built into a wall and one for cabinets that are mounted onto a wall. LK Manifold Cabinet shall also combine with a base when it is installed on the surface of an existing wall. LK Base conceals the pipe installation between cabinet and floor.

The EPD is an average EPD and the declared unit is based on LK Shunt Cabinet M60n with associated frame/hatch, that have the average result. See appendix for total weight of the products included in the EPD.

Further information can be found at https://www.lksystems.se/

Product name	Product number
LK Manifold Cabinet UFH	2434684; 2434683; 2410313
LK Shunt Cabinet VS2	2435361; 2435362
LK Manifold Cabinet HX	2410318
LK Manifold Cabinet Qmax	2410310
LK Shunt Cabinet M60n	2435370; 2435369
LK Frame/hatch	2435367; 2434680; 2434679; 2435363; 2434676; 2435368; 2434681; 2434678; 2435364; 2434677
Base	2434689; 2435372; 2434688; 2435242; 2435365; 2410311; 2434686
LK Increased frame UFH	33014; 33015; 33016; 33017; 33018

Product name	Product number
LK Manifold Cabinet UNI	1881315; 1881314; 1881313; 1881316
LK Manifold Cabinet UNI 550 L & XL	1875827; 1875828
LK Manifold Cabinet UNI 550 CS	1882341
LK Manifold Cabinet UNI VM	1882399
LK Fitting Cabinet VUK	1876498
LK Fitting Cabinet UNI 350x350	1882340
LK Valve Cabinet	29725
LK Installation cabinet RTB	2988856; 2988857
LK Manifold Cabinet UNI 550 FH	1882678
LK Frame/Hatch	1882348; 1881308; 1881311; 1881305; 1881303; 1882296; 2054838; 1881310; 1881312; 1881306; 1881304; 1882642; 1882643; 1882644; 1882645; 1882646; 1882647; 1882648; 1882649; 1882137; 1882663; 1881307; 1882348; 2054838; 29726; 29729
Base	1881300; 1881301; 1881302

LCA information

Functional unit / declared unit	In accordance with EN 15804 + A2 the declared unit is mass 1 kg of pipe.
Time representativeness:	2021
Database:	Ecoinvent 3.8. - “allocation cut off by classification” is used throughout the study.
LCA software used:	SimaPro 9.3.0.3
Geographical scope	Europe
LCA Report	LK Systems AB, Report no. 5

Description of system boundaries:

The scope of the EPD is a cradle to gate with options, including A4, C and D. See Table 1 for the modules declared. The system boundary mean that all processes needed for raw material extraction, transport, manufacturing and disposal are included in the study. Figure 1. gives an overview of the included processes.

Table 1, Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation

	Product stage			Construc-tion process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geog-raphy	Euro	Euro	SE	SE									SE	SE	SE	SE	SE
Specific data used	15%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	<3%					-	-	-	-	-	-	-	-	-	-	-	-

X = Modules included in the analysis ND = Module not declared O= Optional modules

Content information

Table 2, shows the weight for the raw material of the declared product.

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel	0,85	60	0
Coating powder	0,07	0	0
Rubber	0,02	0	0
Plastic	0,06	0	0
TOTAL	1	51	0
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	
Cardboard box	0,12	12	
Wood	0,03	3	
Plastic	0,005	0,5	
TOTAL	0,155	15,5	

Declared product contains no dangerous substances from the candidate list of SVHC for Authorisation.

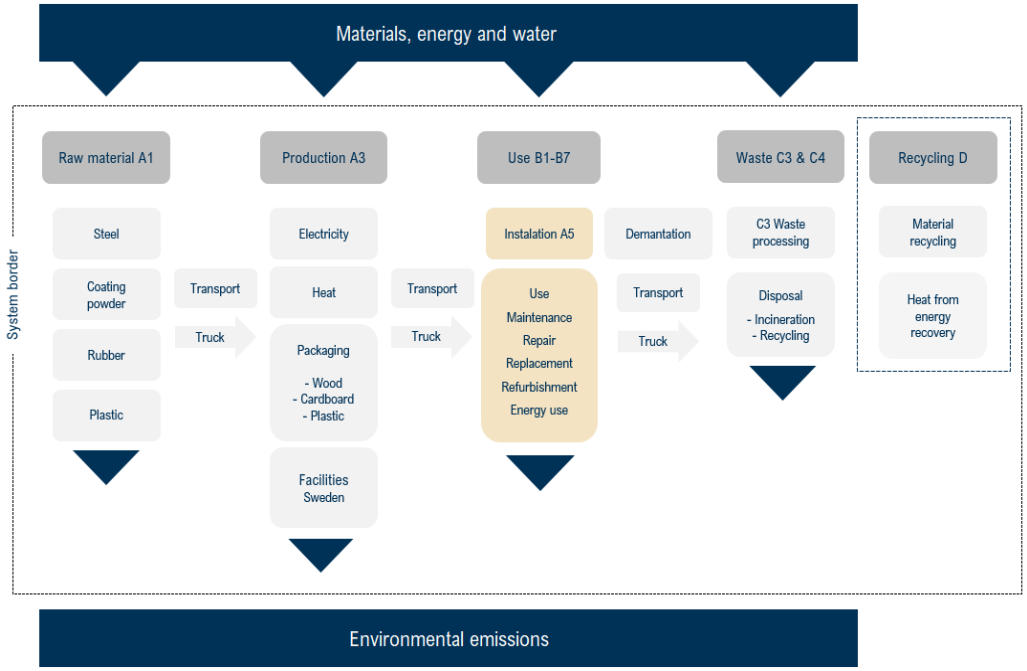

Figure 1, overview of the included processes. Light gray represents modules included, yellow represent models not declared.

Product life-cycle

Raw material supply, transport, manufacturing and packaging (A1-A3)

The raw materials that are included and calculated in the EPD are the material content for the product and the packaging materials for the raw materials.

The cabinets consist of powder-coated cold-rolled steel and accessories for mounting the cabinets. The cold-rolled steel deliverers in large sheets that are cut in a machine with the help of a laser and then bent to the right shape. After the correct shape is made, the ends are welded together into a stable cabinet. When the shape of the cabinet is completed, the cabinet is coated with powder, which then goes into an oven to harden. When the curing is complete, the cabinets are cooled down in room temperature. After the manufacturing of the cabinets are finished and inspected, the cabinets are packed in their packaging with associated accessories. The cabinets are packed in cardboard box and foam, which is then stacked on a pallet.

The frames/hatches and the bases are manufacturing in the same way and are packed in separated packaging.

Transport (A4)

Transportation impacts represent the transport from the final products delivery to the construction site. The transport distance is based on average distance. The transportation is performed by truck with fuel.

Product end of life (C1-C4, D)

The product end of life (C1) is assumed zero since the consumption of energy and natural resources is negligible for disassembling. Steel is a fully recyclable material and has a strong market position, therefore assumptions has taken that the cabinet will end up in material recycling when the building, where the cabinet is installed, is demolished and that the accessories for the cabinet ends up in combustible waste. For the packaging, it has been assumed that the coardbox is material recycled and the plastic ends up in combustible waste. The product assumed to be sent to the nearest waste facility. The benefits in the resource recovery stage will be mostly material recycling and a smaller part energy recovery.

Cut-off rules

Life cycle inventory data shall according to EN 15804 include a minimum of 95% of total inflows (mass and energy) per module. In addition, if less than 100% of the inflows are accounted for, proxy data or extrapolation should be used to achieve 100% completeness. Transport of waste packaging to waste treatment has excluded from the study, since it is outside the system boundary (A5).

Background data

The data quality of the background data is considered good. All specific data that includes processes, volume of different materials, energy & water usage and transport distance has been collected by questionnaire and personal contact with the manufacturer. Ecoinvent database has been used. Ecoinvent is the world's biggest LCI data library and contains data for the specific geographical regions relevant for this study, that have been analysed to be the most suitable for the various steps in the process. Information on biogenic carbon content is calculated with the formula from EN 350-2 and information from IVL.
Collected data represent average yearly data for 2021 and assumed to be representative for the EPDs period of validity of 5 years.

Electricity data

The electricity consumption in the A3 module accounts for less than 30% of the total energy use in module A1-A3. The electricity used is from renewable resources from Sweden, that are modulated in Ecoinvent 3.8.

Allocation and assumptions

The declare unit values for 1 kg of product that are used in this study and are calculated, based on the total product weight produced during the year studied. The content of raw material can vary slightly between the different dimensions of the cabinets and are examined with high accuracy that they variation of GWP-GHG stays within 10%. Data is allocated for the energy use of the declared unit. The allocation is based on production rate with complexity and high accuracy. The raw material necessary for the manufacturing and the amount of packaging is allocated to product based on the amount of material used to manufacture the declare unit, including waste. Allocation is made with complexity and high accuracy. The declared unit is based on LK Shunt Cabinet M60n with associated frame/hatch. The variance of the declared products is less than 10%, that is based according to data quality requirements outlined in PCR 2019:14.

The used cabinet is assumed to be transported 50 km to the nearest waste disposal facility. The waste treatment assumption has resulted in that the cabinet will get material recycle as metal and that the accessories for the cabinet ends up in combustible waste. The waste treatment builds and presupposes that the cabinet is installed in the building and that they are easy to de-construct when the building demolished. The cabinet and the cardboard are assumed to be material recycled at 95%. The accessories and the plastic in the packaging are assumed to be incinerated with energy recovery efficiency at 61%.

Recycling of packaging and product

Within the framework of producer responsibility, LK are affiliated with FTI, the Packaging and Newspaper Collection, which is the business community's collection system for recycling packaging. Packaging shall recycle as carton and plastic. None of the packaging material are classified as hazardous waste.

EPD®
THE INTERNATIONAL EPD® SYSTEM

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804.
Results of declared unit of the study.

Results per declared unit

Indicator	Unit	A1	A2	A3	Tot.A1-A3	A4	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq.	2,17E+00	3,51E-02	2,69E-01	2,47E+00	6,01E-02	0	6,56E-03	6,31E-03	9,62E-06	-9,35E-01
GWP-biogenic	kg CO2 eq.	2,33E-03	2,99E-05	-3,87E-02	-3,64E-02	5,12E-05	0	6,09E-06	4,73E-05	5,44E-08	-1,66E-02
GWP-luluc	kg CO2 eq.	1,57E-03	1,38E-05	7,21E-04	2,30E-03	2,36E-05	0	2,67E-06	7,16E-06	3,34E-09	-1,95E-03
GWP-total	kg CO2 eq.	2,17E+00	3,51E-02	2,31E-01	2,44E+00	6,02E-02	0	6,57E-03	6,36E-03	9,68E-06	-9,55E-01
ODP	kg CFC 11 eq.	1,40E-07	8,12E-09	3,50E-08	1,83E-07	1,39E-08	0	1,54E-09	2,51E-09	4,42E-12	-8,16E-08
AP	mol H+ eq.	1,21E-02	1,42E-04	1,10E-03	1,34E-02	2,44E-04	0	3,72E-05	7,07E-05	7,66E-08	-6,23E-03
EP-freshwater	kg PO_4^{3-} eq.	3,03E-03	6,94E-06	2,29E-04	3,26E-03	1,19E-05	0	1,36E-06	6,27E-06	1,67E-07	-2,00E-03
EP-freshwater	kg P eq.	9,86E-04	2,26E-06	7,45E-05	1,06E-03	3,87E-06	0	4,43E-07	2,04E-06	5,43E-08	-6,53E-04
EP-marine	kg N eq.	1,98E-03	4,29E-05	4,03E-04	2,42E-03	7,35E-05	0	1,35E-05	2,67E-05	1,05E-05	-1,45E-03
EP-terrestrial	mol N eq.	2,04E-02	4,69E-04	2,91E-03	2,38E-02	8,03E-04	0	1,47E-04	3,02E-04	2,93E-07	-1,46E-02
POCP	kg NMVOC eq.	8,48E-03	1,44E-04	7,26E-04	9,35E-03	2,46E-04	0	4,21E-05	8,08E-05	8,56E-08	-5,36E-03
ADP-minerals&metals[2]	kg Sb eq.	3,48E-05	1,22E-07	8,45E-07	3,58E-05	2,09E-07	0	2,20E-08	5,90E-08	2,85E-11	-3,24E-05
ADP-fossil[2]	MJ	3,00E+01	5,31E-01	3,07E+00	3,36E+01	9,09E-01	0	1,01E-01	7,51E-02	2,95E-04	-1,41E+01
WDP[2]	m3	1,17E+00	1,59E-03	8,94E-02	1,26E+00	2,72E-03	0	3,32E-04	4,28E-03	1,07E-06	-4,20E-01

Acronyms

GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

Potential environmental impact – additional mandatory indicators according to EN 15804.

Results per declared unit

Indicator	Unit	A1	A2	A3	Tot.A1-A3	A4	C1	C2	C3	C4	D
Particulate matter	disease inc.	1,44E-07	3,03E-09	1,50E-08	1,62E-07	5,19E-09	0	7,26E-10	1,53E-09	1,54E-12	-1,02E-07
Ionnising radiation[1]	kBq U-235 eq	2,04E-01	2,73E-03	1,88E-02	2,25E-01	4,67E-03	0	5,21E-04	5,98E-04	1,47E-06	-8,21E-02
Ecotoxicity, freshwater[2]	CTUe	5,90E+01	4,14E-01	4,55E+00	6,40E+01	7,09E-01	0	8,00E-02	1,19E-01	8,55E-01	-4,28E+01
Human toxicity, cancer[2]	CTUh	1,00E-08	1,34E-11	1,58E-10	1,02E-08	2,30E-11	0	3,19E-12	4,72E-11	2,54E-11	-7,65E-09
Human toxicity, non-cancer[2]	CTUh	4,71E-08	4,35E-10	2,62E-09	5,01E-08	7,45E-10	0	9,23E-11	1,02E-10	5,32E-10	-3,20E-08
Land use[2]	Pt	9,19E+00	3,65E-01	5,18E+00	1,47E+01	6,24E-01	0	8,62E-02	2,05E-02	1,03E-03	-1,56E+01

Disclaimer 1 – 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.

Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Climate impact IPCC 2013 GWP 100

Results per declared unit

Indicator	Unit	A1	A2	A3	Tot.A1-A3	A4	C1	C2	C3	C4	D
GWP-GHG	kg CO2 eq.	2,10E+00	3,48E-02	2,73E-01	2,41E+00	5,96E-02	0	6,51E-03	6,21E-03	9,50E-06	-9,05E-01

The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Use of resources

Results per declared unit

Indicator	Unit	A1	A2	A3	Tot.A1-A3	A4	C1	C2	C3	C4	D
PERE	MJ	3,04E+00	7,48E-03	6,08E+00	9,12E+00	1,28E-02	0	1,45E-03	6,51E-03	9,32E-06	-4,10E+00
PERM	MJ	0	0	1,87E+00	1,87E+00	0	0	0	0	0	0
PERT	MJ	3,04E+00	7,48E-03	7,95E+00	1,09E+01	1,28E-02	0	1,45E-03	6,51E-03	9,32E-06	-4,10E+00
PENRE	MJ	3,19E+01	5,63E-01	3,29E+00	3,58E+01	9,65E-01	0	1,07E-01	8,02E-02	3,14E-04	-1,50E+01
PENRM	MJ	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	3,19E+01	5,63E-01	3,29E+00	3,58E+01	9,65E-01	0	1,07E-01	8,02E-02	3,14E-04	-1,50E+01
SM	kg	5,03E-01	0	0	5,03E-01	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m3	1,26E-01	8,21E-04	1,03E-02	1,37E-01	1,41E-03	0	1,80E-04	1,66E-03	5,62E-07	-7,34E-02

Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Waste production and output flows

Waste production

Results per declared unit

Indicator	Unit	A1	A2	A3	Tot.A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0	0	0	0	0	0	0	0	0	0
Non-hazardous waste disposed	kg	0	0	0	0	0	0	0	0	0	0
Radioactive waste disposed	kg	0	0	0	0	0	0	0	0	0	0

Note: Ecoinvent database include all waste treatment processes within the system boundaries, i.e. there are no waste flows exiting the system boundaries and the waste indicators to be declared are therefore zero.

Output flows

Results declared unit

Indicator	Unit	A1	A2	A3	Tot.A1-A3	A4	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	0	0	0	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	MJ	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0,05

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2.

References

General Programme Instructions of the International EPD® System. Version 3.01.

PCR Construction Products. 2019:14, version 1.11.33, the International EPD System, Date 2021-02-05.

EN 15804:2012+A2:2019, "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"

EN ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures, Edited in 2010

PRé Consultants, "SimaPro 9.3.0.3" (PRé Consultants, 2019), http://www.pre-sustainability.com/simapro

Ecoinvent, 'Ecoinvent' <https://www.ecoinvent.org/database/database.html

Eriksson, E. et al., (2010) *Carbon Footprint of Cartons in Europe – Carbon Footprint methodology and biogenic carbon sequestration*, IVL.

EUTREND model, Struijs et al, 2009b, as implemented in ReCiPe; http://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml

Renewable energy https://www.enklaelbolaget.se/?gclid=EAIaIQobChMI-4P7us3S-AIV40WRBR1zXwOgEAAYASAAEgJKuPD_BwE

Appendix

Product name	Product number	Weight (kg)	Weight without packaging (kg)
LK Manifold Cabinet UFH	2434684	8	7.4
	2434683	10.45	9.9
	2410313	13.32	12.5
LK Shunt Cabinet VS2	2435361	10.82	10
	2435362	13.49	12.5
LK Manifold Cabinet HX	2410318	12.55	11.8
LK Manifold Cabinet Qmax	2410310	16.93	16.1
LK Shunt Cabinet M60n	2435370	5.58	5
	2435369	9.37	8.7
LK Frame/hatch	2435367	3.91	3.4
	2434680	6.06	5.5
	2434679	8.3	7.7
	2435363	9.79	9
	2434676	10	9.4
	2435368	2.5	2.1
	2434681	4.7	3.9
	2434678	6.5	5.5
	2435364	8.3	7.05
	2434677	9.1	7,73
Base	2434689	1.8	1.53
	2435372	2.65	2.25
	2434688	2.3	1.95
	2435242	3.4	2.9
	2435365	3.3	2.8
	2410311	3.8	3.23
	2434686	3.7	3.15
LK Increased frame UFH	33014	1.4	1.2
	33015	1.6	1.36
	33016	2	1.7
	33017	8.6	7.31
	33018	9.4	7.9

Product name	Product number	Weight (kg)	Weight without packaging (kg)
LK Manifold Cabinet UNI	1881315	4.02	3.54
	1881314	5.02	4.48
	1881313	5.63	5.2
	1881316	7.08	6.37
LK Manifold Cabinet UNI 550 L & XL	1875827	5.77	5.3
	1875828	6.31	5.65
LK Manifold Cabinet UNI 550 CS	1882341	7.78	7.2
LK Manifold Cabinet UNI VM	1882399	6.12	5.4
LK Fitting Cabinet VUK	1876498	2.25	2.09
LK Fitting Cabinet UNI 350x350	1882340	3.77	3.39
LK Valve Cabinet	29725	3.05	2.67
LK Installation cabinet RTB	2988856	3.8	3.55
	2988857	4.75	4
LK Manifold Cabinet UNI 550 FH	1882678	7.78	7.2
LK Frame/Hatch	1882348	2.13	1.8
	1881308	2.97	2.55
	1881311	3.58	3.07
	1881305	4.22	3.64
	1881303	5.1	4.51
	1882296	5.21	4.51
	1881310	2.68	2.27
	1881312	3.29	2.8
	1881306	3.9	3.31
	1881304	4.82	4.13
	1882642	1.6	1.36
	1882643	2.3	1.95
	1882644	3	2.55
	1882645	3.6	3.06
	1882646	4.2	3.57
	1882647	4.3	3.65
	1882648	6	5.1
	1882649	7.7	6.54
	1882137	2.7	2.3
	1882663	2.1	1.77
	1881307	4.23	3.65
	2054838	1.9	1.55
	29726	1.2	1.02
	29729	1.6	1.36
Base	1881300	2.4	2
	1881301	1.4	1.2
	1881302	1.7	1.44