

Kampmann

Price List

2019



Discover our product range online too:
Kampmann.eu

KAMPMANN
Genau mein Klima.

Kampmann.

Genau

mein

Klima.



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Kampmann. Genau mein Klima – Precisely my kind of climate.

With over 915 employees at 16 locations around the world, Kampmann is one of the major players in the construction and building services industries. Kampmann systems for heating, cooling and ventilation are at the forefront of different market segments today.

Innovation and the ultimate quality standards in all divisions reinforce this success for the future as well.

Our customers attach importance to working with reliable partners rather than with interchangeable suppliers. We can state clearly and succinctly why Kampmann is such a reliable partner:

Genau mein Klima – Precisely my kind of climate.

Precisely

The precision with which Kampmann adapts its solutions to customers' requirements.

my

The individual approach with which Kampmann meets its customers.

kind of climate

The partnership-based atmosphere that customers, and suppliers alike experience with Kampmann.



Consistently cooperative.

Kampmann.

Genau mein Klima.

We believe that fairness is the best foundation for sustainable success. That a handshake can mean more than a 100-page contract. And that mutual respect comes from seeing eye-to-eye. This is the way we are – and this is how we interact, with our customers, with our suppliers, with each other: a cordial and sincere invitation to genuine partnership.

Consistently there.

Kampmann.

Genau mein Klima.

Wherever our customers and partners need us: We are there. Around the corner. Around the globe. On the web. We are there transforming today's challenges into tomorrow's solutions. We are there when the standards and norms of the future are defined. **Down-to-earth, attentive, available at any time. And always ready for the next step.**





Consistently solution-focused.

Kampmann.

Genau mein Klima.

A hotel needs a different climate than a retail outlet. And when the southern side of an office block needs to be cooled down, the north may still need warming up. Our customers' requirements are highly specific. So are our solutions. Which means that even the trickiest challenges have a predictable (and most satisfying) outcome: **We turn complexity into clarity – and create the perfect climate.**

Consistently sophisticated.

Kampmann.

Genau mein Klima.



We leave nothing to chance. Including the future. We check and recheck. We enhance and optimize. And we don't let go until we are thoroughly satisfied. With a love for detail that is only rivalled by our passion for thinking in systems, we maintain and nurture our spirit of discovery and invention that drives us from good ideas to useful products.

The modern Research & Development Centre

completes Kampmann GmbH.

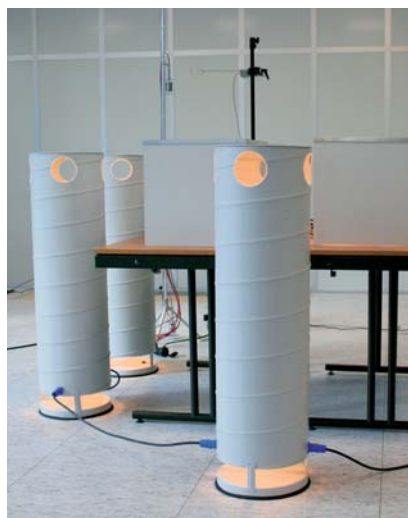
The R & D Centre (FEC) enables the company to:

- > develop new standard products
- > continuously optimise products
- > undertake applied research
- > provide detailed analysis of the units to be tested
- > undertake standard tests



We record precise technical performance data in the Research & Development Centre at our headquarters in Lingen. Set up in 2008, it is one of the most modern facilities of its kind.

Covering some 1,200 m², it comprises an airflow chamber, multi-purpose chamber and an acoustic measurement chamber.



The laboratories meet the latest technical standards with a chamber test rig, two indoor climate simulation systems and an indoor climate chamber. They permit:

- > function demonstration of products
- > testing in real installation situations
- > reliable proof of performance.

We work closely with leading scientific research institutions, universities and test laboratories.

Systems from strong partners

KAMPMANN

NOVA

EMCO

Kampmann, NOVA and emco

Efficient solutions through cooperation

The core expertise of the Kampmann Group lies in its project-specific solutions and hence its outstanding adaptability to customers' requirements. The air diffusers, decentralised ventilation technology and surface cooling systems manufactured by our new subsidiary emco Klima also contribute to this, and which have formed part of our product range since the start of 2018.

Our majority shareholding in Nova Apparate GmbH, which came into effect in the spring of 2011, also helped to concentrate our knowledge and expertise in centralised ventilation and decentralised temperature control. In conjunction with its two subsidiaries, Kampmann now has one of the most extensive product ranges for heating, cooling and ventilation.

Know-how transfer

Kampmann's, NOVA's and emco Klima's expert knowledge is closely interwoven. The Kampmann Research & Development Centre, located at Kampmann's head office in Lingen, plays a particularly key role in know-how transfer between the three companies. The emco Laboratory has also provided an additional research site for cross-brand development work since 2018.

Consulting expertise

This provides very specific benefits for our customers. Whether they contact Kampmann, NOVA or emco – customers now benefit from the product range as a whole and the joint consulting expertise of the Kampmann Group. Perfectly combined and perfectly sized products offer economic and environmental added value when planning systems with centralised and decentralised components.

Strong sales network and after-sales service

This cooperation enables straightforward and fast project management. Our customers can now rely on the combined expertise of the three companies and a strong national and international sales network. In terms of after-sales service, training courses and advance functional testing with test reports are now offered.

Expertise you can rely on

In spite of their joint goals, all three brands and sales systems will continue to operate on the market. Customers who are already familiar with the expertise of Kampmann, NOVA or emco Klima can continue to rely on the processes and services they have come to expect.

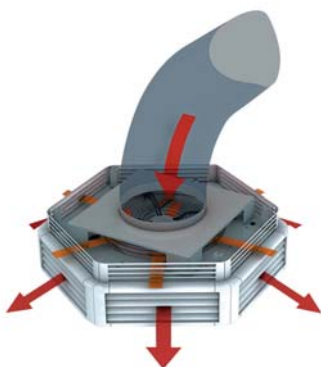
The HYBRID ECO System

Energy-efficient and environment-friendly solution for the ventilation and air conditioning of buildings

The HYBRID ECO system is a bidirectional ventilation system with efficient heat recovery. Although the temperature is adjusted on this system by decentralised equipment in the inside of the room and not via the central ventilation unit (air handling unit).

Centralised ventilation

- 1 The air handling unit only transports air into the building when the sensors also detect a need for outside air.

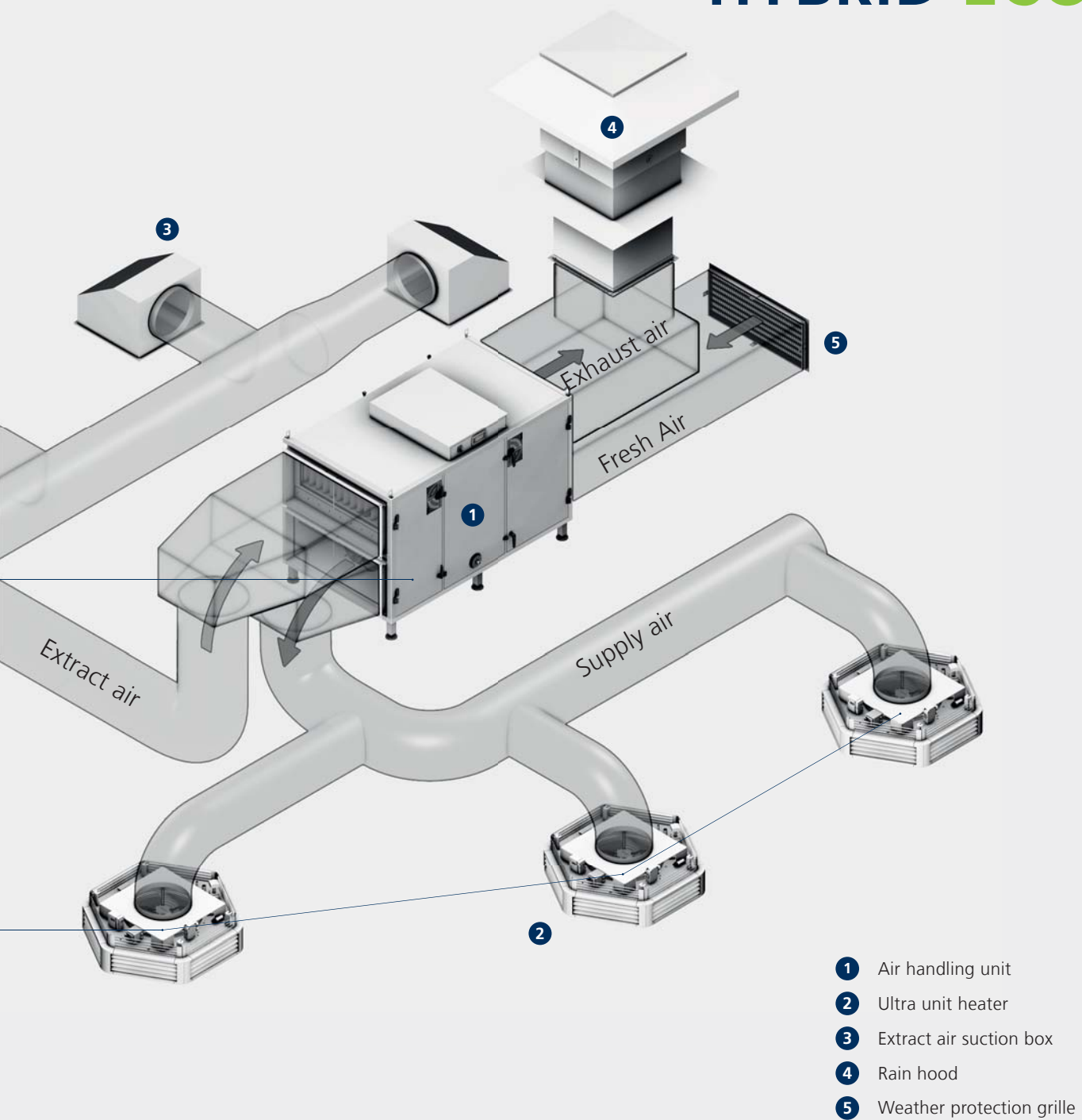


Decentralized temperature control

- 2 Then it supplies primary air (fresh air) to the decentralised units, which is only heated or cooled here, as required. If this is not the case, there is only basic ventilation or the unit is switched off. The decentralised units are then operated with secondary air. The pressure losses of the air handling unit are thus reduced or entirely avoided when air flows through the heating element, filter, heat recovery unit and air ductwork.



HYBRID ECO



Time to cool down

The air conditioning market has been growing at a rapid pace for some years. And the market is changing. It's now the turn of HVAC engineers due to the increasingly important role played by cooling systems that use water as the transport medium. The expertise of specialist heating companies means that they are perfectly positioned to open up a new market segment.

Why is now the perfect time to become an air conditioning professional?

The conditions are currently perfect for adding air conditioning services to your current portfolio. The importance of building cooling is growing. That fact is undisputed. Today's building shells are also generating ever-lower heat loads. Our chilled water systems and consulting expertise will enable you to make ideal use of your existing knowledge and expertise. As a heating specialist, you will already be familiar with much of the technology.

We would be glad to assist you in planning the systems and expanding your service portfolio with cooling solutions!

Kampmann.eu/cooling



Kampmann international

Professional advice – worldwide.

International contact

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Trading Co., Ltd.
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IE Kampmann UK Ltd.
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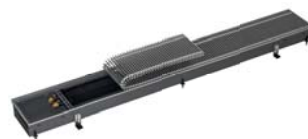
RU Kampmann GmbH Representative Office
Moscow
T + 7 495 3630244 | Kampmann.ru

Trench Heating

Indoor climate from the floor.

Trench systems for effective primary heating and cooling, supplementary heating or cold air screening under large areas of glazing.

Katherm NK



Complete adaption to building contours.

Convection

natural

Heating

LPHW

Cooling

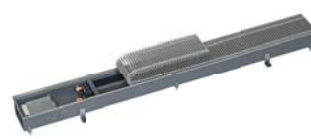
Ventilation

optionally by supply-air modules

KaControl

page 18

Katherm QK



Shallow unit depths combined with high outputs.

EC tangential fan

LPHW

optionally by supply-air modules

optional

page 42



Katherm QK nano



The smallest height and depth. Top performance in a nano format.

EC tangential fan

LPHW

optional

page **50**

Katherm HK



Low-cost effective heating and cooling with low noise levels.

EC tangential fan

LPHW

CHW

optionally by supply-air modules or air supply ducts

optional

page **56**

Katherm NE



The ideal alternative to convectors with LPHW.

natural

electric heating element

page **76**

Katherm QE



The ideal solution for high heat outputs without a hot water connection.

EC tangential fan

electric heating element

page **80**

Katherm NK

Natural convection.

Product benefits

- ▶ compact, performance-optimised
- ▶ heat outputs tested independently in accordance with DIN EN 16430
- ▶ shallow unit depths combined with high outputs
- ▶ matching frame for every roll-up grille for a perfect overall look
- ▶ fast installation with Eurokonus valve connection, adjustment feet and raised floor height adjustment feet
- ▶ project solutions for all geometries incorporating mitred corners, curved sections, column cut-outs or angles are possible
- ▶ optionally available with supply air modules to feed in treated fresh air

Features

Convection	› natural
Heating	› LPHW
Cooling	› ---
Ventilation	› optionally by supply-air modules
KaControl	› ---

References

Factory Outlet Centre, Ochtrup | Hotel Roomers, Baden-Baden | Rezydencja Busko, Busko Zdrój

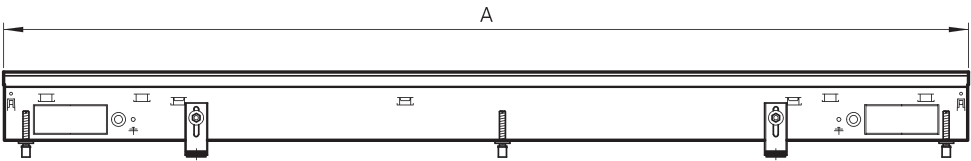
Technical data



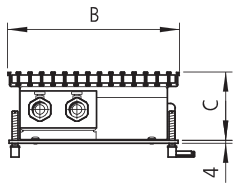
Heat output [W] ¹⁾ > 78 – 5590

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

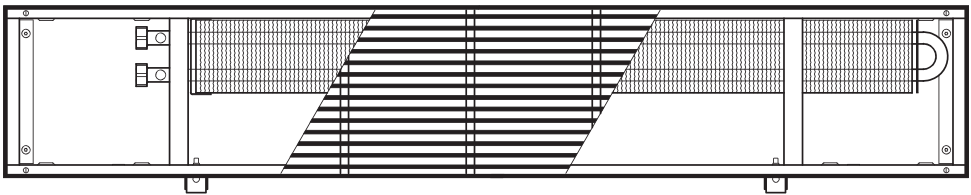
Technical drawing



Front view



Sectional view



Top view

Selection guide

Heat output ¹⁾	Height (C)	Width (B)	Length (A)
[W]	[mm]	[mm]	[mm]
78 – 981	92	137	800 – 5000
84 – 1050	120		
132 – 1295	92		
162 – 1594	120		
206 – 1857	150	182	
232 – 2084	200		
157 – 1530	92		
193 – 1881	120		
309 – 2778	150	232	
334 – 3010	200		
209 – 2036	92		
268 – 2609	120		
394 – 3545	150	300	
445 – 4003	200		
279 – 2717	92		
344 – 3353	120		
485 – 4362	150	380	
621 – 5590	200		

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]

1.45 | Length 800 mm

NK 137	137	92	78	roll-up grille	14514091111	294.00	27.00
				linear grille	14514093111	294.00	27.00
		120	84	roll-up grille	14514121111	302.00	27.00
				linear grille	14514123111	302.00	27.00
NK 182	182	92	132	roll-up grille	14519091111	309.00	30.00
				linear grille	14519093111	309.00	30.00
		120	162	roll-up grille	14519121111	362.00	30.00
				linear grille	14519123111	362.00	30.00
		150	206	roll-up grille	14519151111	386.00	30.00
				linear grille	14519153111	386.00	30.00
		200	232	roll-up grille	14519201111	402.00	30.00
				linear grille	14519203111	402.00	30.00
NK 232	232	92	157	roll-up grille	14524091111	417.00	38.00
				linear grille	14524093111	417.00	38.00
		120	193	roll-up grille	14524121111	490.00	38.00
				linear grille	14524123111	490.00	38.00
		150	309	roll-up grille	14524151111	521.00	38.00
				linear grille	14524153111	521.00	38.00
		200	334	roll-up grille	14524201111	537.00	38.00
				linear grille	14524203111	537.00	38.00
NK 300	300	92	209	roll-up grille	14530091111	471.00	45.00
				linear grille	14530093111	471.00	45.00
		120	268	roll-up grille	14530121111	552.00	45.00
				linear grille	14530123111	552.00	45.00
		150	394	roll-up grille	14530151111	587.00	45.00
				linear grille	14530153111	587.00	45.00
		200	445	roll-up grille	14530201111	601.00	45.00
				linear grille	14530203111	601.00	45.00
NK 380	380	92	279	roll-up grille	14538091111	565.00	55.00
				linear grille	14538093111	565.00	55.00
		120	344	roll-up grille	14538121111	660.00	55.00
				linear grille	14538123111	660.00	55.00
		150	485	roll-up grille	14538151111	700.00	55.00
				linear grille	14538153111	700.00	55.00
		200	621	roll-up grille	14538201111	718.00	55.00
				linear grille	14538203111	718.00	55.00

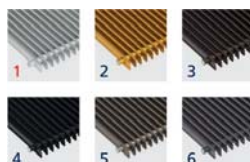
1.45 | Length 1000 mm

NK 137	137	92	121	roll-up grille	14514091115	334.00	27.00
				linear grille	14514093115	334.00	27.00
		120	130	roll-up grille	14514121115	343.00	27.00
				linear grille	14514123115	343.00	27.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 14514091111 ► natural anodised (standard)
 2 ► brass anodised
 3 ► bronze anodised
 4 ► black anodised
 5 ► bronze finish
 6 ► coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 182	182	92	187	roll-up grille	145190911115	358.00	30.00
				linear grille	145190931115	358.00	30.00
		120	230	roll-up grille	145191211115	417.00	30.00
				linear grille	145191231115	417.00	30.00
		150	285	roll-up grille	145191511115	448.00	30.00
				linear grille	145191531115	448.00	30.00
		200	320	roll-up grille	145192011115	466.00	30.00
				linear grille	145192031115	466.00	30.00
		92	222	roll-up grille	145240911115	483.00	41.00
				linear grille	145240931115	483.00	41.00
NK 232	232	120	273	roll-up grille	145241211115	563.00	41.00
				linear grille	145241231115	563.00	41.00
		150	426	roll-up grille	145241511115	599.00	41.00
				linear grille	145241531115	599.00	41.00
		200	462	roll-up grille	145242011115	620.00	41.00
				linear grille	145242031115	620.00	41.00
NK 300	300	92	296	roll-up grille	145300911115	547.00	48.00
				linear grille	145300931115	547.00	48.00
		120	379	roll-up grille	145301211115	635.00	48.00
				linear grille	145301231115	635.00	48.00
		150	544	roll-up grille	145301511115	674.00	48.00
				linear grille	145301531115	674.00	48.00
		200	614	roll-up grille	145302011115	695.00	48.00
				linear grille	145302031115	695.00	48.00
NK 380	380	92	395	roll-up grille	145380911115	653.00	59.00
				linear grille	145380931115	653.00	59.00
		120	487	roll-up grille	145381211115	759.00	59.00
				linear grille	145381231115	759.00	59.00
		150	669	roll-up grille	145381511115	804.00	59.00
				linear grille	145381531115	804.00	59.00
		200	858	roll-up grille	145382011115	826.00	59.00
				linear grille	145382031115	826.00	59.00

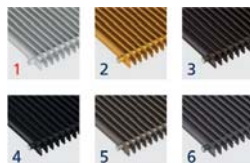
1.45 | Length 1200 mm

NK 137	137	92	164	roll-up grille	145140911119	373.00	28.00
				linear grille	145140931119	373.00	28.00
		120	176	roll-up grille	145141211119	383.00	28.00
				linear grille	145141231119	383.00	28.00
NK 182	182	92	242	roll-up grille	145190911119	410.00	33.00
				linear grille	145190931119	410.00	33.00
		120	298	roll-up grille	145191211119	474.00	33.00
				linear grille	145191231119	474.00	33.00
		150	364	roll-up grille	145191511119	509.00	33.00
				linear grille	145191531119	509.00	33.00
		200	408	roll-up grille	145192011119	532.00	33.00
				linear grille	145192031119	532.00	33.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111 —► natural anodised (standard)
 2 —► brass anodised
 3 —► bronze anodised
 4 —► black anodised
 5 —► bronze finish
 6 —► coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 232	232	92	288	roll-up grille	145240911119	550.00	45.00
				linear grille	145240931119	550.00	45.00
		120	354	roll-up grille	145241211119	637.00	45.00
				linear grille	145241231119	637.00	45.00
		150	544	roll-up grille	145241511119	680.00	45.00
				linear grille	145241531119	680.00	45.00
		200	589	roll-up grille	145242011119	704.00	45.00
				linear grille	145242031119	704.00	45.00
		92	383	roll-up grille	145300911119	618.00	54.00
				linear grille	145300931119	618.00	54.00
NK 300	300	120	491	roll-up grille	145301211119	715.00	54.00
				linear grille	145301231119	715.00	54.00
		150	694	roll-up grille	145301511119	762.00	54.00
				linear grille	145301531119	762.00	54.00
		200	784	roll-up grille	145302011119	788.00	54.00
				linear grille	145302031119	788.00	54.00
		92	511	roll-up grille	145380911119	739.00	63.00
				linear grille	145380931119	739.00	63.00
		120	631	roll-up grille	145381211119	855.00	63.00
				linear grille	145381231119	855.00	63.00
NK 380	380	150	854	roll-up grille	145381511119	908.00	63.00
				linear grille	145381531119	908.00	63.00
		200	1094	roll-up grille	145382011119	935.00	63.00
				linear grille	145382031119	935.00	63.00

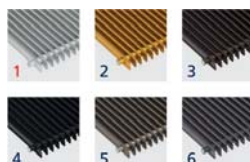
1.45 | Length 1400 mm

NK 137	137	92	207	roll-up grille	145140911123	412.00	30.00
				linear grille	145140931123	412.00	30.00
		120	222	roll-up grille	145141211123	422.00	30.00
				linear grille	145141231123	422.00	30.00
NK 182	182	92	298	roll-up grille	145190911123	459.00	35.00
				linear grille	145190931123	459.00	35.00
		120	367	roll-up grille	145191211123	530.00	35.00
				linear grille	145191231123	530.00	35.00
		150	442	roll-up grille	145191511123	568.00	35.00
				linear grille	145191531123	568.00	35.00
		200	496	roll-up grille	145192011123	596.00	35.00
				linear grille	145192031123	596.00	35.00
		92	353	roll-up grille	145240911123	614.00	48.00
				linear grille	145240931123	614.00	48.00
NK 232	232	120	434	roll-up grille	145241211123	709.00	48.00
				linear grille	145241231123	709.00	48.00
		150	662	roll-up grille	145241511123	759.00	48.00
				linear grille	145241531123	759.00	48.00
		200	717	roll-up grille	145242011123	788.00	48.00
				linear grille	145242031123	788.00	48.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 300	300	92	470	roll-up grille	145300911123	692.00	57.00
				linear grille	145300931123	692.00	57.00
		120	602	roll-up grille	145301211123	798.00	57.00
				linear grille	145301231123	798.00	57.00
		150	844	roll-up grille	145301511123	849.00	57.00
				linear grille	145301531123	849.00	57.00
		200	953	roll-up grille	145302011123	878.00	57.00
				linear grille	145302031123	878.00	57.00
		92	627	roll-up grille	145380911123	827.00	68.00
				linear grille	145380931123	827.00	68.00
NK 380	380	120	774	roll-up grille	145381211123	951.00	68.00
				linear grille	145381231123	951.00	68.00
		150	1039	roll-up grille	145381511123	1,011.00	68.00
				linear grille	145381531123	1,011.00	68.00
		200	1331	roll-up grille	145382011123	1,041.00	68.00
				linear grille	145382031123	1,041.00	68.00







1.45 | Length 1600 mm

NK 137	137	92	250	roll-up grille	145140911127	450.00	33.00
				linear grille	145140931127	450.00	33.00
		120	268	roll-up grille	145141211127	463.00	33.00
				linear grille	145141231127	463.00	33.00
NK 182	182	92	353	roll-up grille	145190911127	509.00	38.00
				linear grille	145190931127	509.00	38.00
		120	435	roll-up grille	145191211127	587.00	38.00
				linear grille	145191231127	587.00	38.00
		150	521	roll-up grille	145191511127	630.00	38.00
				linear grille	145191531127	630.00	38.00
		200	584	roll-up grille	145192011127	662.00	38.00
				linear grille	145192031127	662.00	38.00
		92	419	roll-up grille	145240911127	681.00	54.00
				linear grille	145240931127	681.00	54.00
NK 232	232	120	515	roll-up grille	145241211127	783.00	54.00
				linear grille	145241231127	783.00	54.00
		150	779	roll-up grille	145241511127	837.00	54.00
				linear grille	145241531127	837.00	54.00
		200	844	roll-up grille	145242011127	868.00	54.00
				linear grille	145242031127	868.00	54.00
NK 300	300	92	557	roll-up grille	145300911127	764.00	60.00
				linear grille	145300931127	764.00	60.00
		120	714	roll-up grille	145301211127	880.00	60.00
				linear grille	145301231127	880.00	60.00
		150	994	roll-up grille	145301511127	939.00	60.00
				linear grille	145301531127	939.00	60.00
		200	1122	roll-up grille	145302011127	968.00	60.00
				linear grille	145302031127	968.00	60.00

CONTINUED ▶

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:

Matching grille

Article key

14514091111

2

3

4

5

6

→

→

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→

→

natural anodised (standard)

brass anodised

bronze anodised

black anodised


bronze finish

coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 380	380	92	743	roll-up grille	145380911127	912.00	71.00
				linear grille	145380931127	912.00	71.00
		120	917	roll-up grille	145381211127	1,049.00	71.00
				linear grille	145381231127	1,049.00	71.00
		150	1223	roll-up grille	145381511127	1,116.00	71.00
				linear grille	145381531127	1,116.00	71.00
		200	1568	roll-up grille	145382011127	1,149.00	71.00
				linear grille	145382031127	1,149.00	71.00

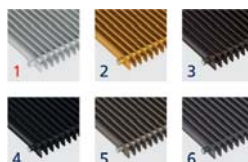
1.45 | Length 1800 mm

NK 137	137	92	293	roll-up grille	145140911131	490.00	35.00
				linear grille	145140931131	490.00	35.00
		120	314	roll-up grille	145141211131	502.00	35.00
				linear grille	145141231131	502.00	35.00
NK 182	182	92	409	roll-up grille	145190911131	561.00	41.00
				linear grille	145190931131	561.00	41.00
		120	503	roll-up grille	145191211131	642.00	41.00
				linear grille	145191231131	642.00	41.00
		150	599	roll-up grille	145191511131	691.00	41.00
				linear grille	145191531131	691.00	41.00
		200	673	roll-up grille	145192011131	727.00	41.00
				linear grille	145192031131	727.00	41.00
NK 232	232	92	484	roll-up grille	145240911131	746.00	56.00
				linear grille	145240931131	746.00	56.00
		120	595	roll-up grille	145241211131	857.00	56.00
				linear grille	145241231131	857.00	56.00
		150	897	roll-up grille	145241511131	917.00	56.00
				linear grille	145241531131	917.00	56.00
		200	971	roll-up grille	145242011131	951.00	56.00
				linear grille	145242031131	951.00	56.00
NK 300	300	92	644	roll-up grille	145300911131	838.00	65.00
				linear grille	145300931131	838.00	65.00
		120	825	roll-up grille	145301211131	963.00	65.00
				linear grille	145301231131	963.00	65.00
		150	1144	roll-up grille	145301511131	1,026.00	65.00
				linear grille	145301531131	1,026.00	65.00
		200	1292	roll-up grille	145302011131	1,059.00	65.00
				linear grille	145302031131	1,059.00	65.00
NK 380	380	92	859	roll-up grille	145380911131	1,002.00	79.00
				linear grille	145380931131	1,002.00	79.00
		120	1060	roll-up grille	145381211131	1,147.00	79.00
				linear grille	145381231131	1,147.00	79.00
		150	1408	roll-up grille	145381511131	1,219.00	79.00
				linear grille	145381531131	1,219.00	79.00
		200	1804	roll-up grille	145382011131	1,257.00	79.00
				linear grille	145382031131	1,257.00	79.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]

1.45 | Length 2000 mm

NK 137	137	92	336	roll-up grille	145140911135	528.00	38.00
				linear grille	145140931135	528.00	38.00
		120	360	roll-up grille	145141211135	542.00	38.00
				linear grille	145141231135	542.00	38.00
		92	464	roll-up grille	145190911135	611.00	43.00
				linear grille	145190931135	611.00	43.00
		120	571	roll-up grille	145191211135	698.00	43.00
				linear grille	145191231135	698.00	43.00
		150	678	roll-up grille	145191511135	753.00	43.00
				linear grille	145191531135	753.00	43.00
		200	761	roll-up grille	145192011135	792.00	43.00
				linear grille	145192031135	792.00	43.00
		92	549	roll-up grille	145240911135	812.00	59.00
				linear grille	145240931135	812.00	59.00
		120	675	roll-up grille	145241211135	932.00	59.00
				linear grille	145241231135	932.00	59.00
		150	1014	roll-up grille	145241511135	996.00	59.00
				linear grille	145241531135	996.00	59.00
		200	1099	roll-up grille	145242011135	1,036.00	59.00
				linear grille	145242031135	1,036.00	59.00
		92	731	roll-up grille	145300911135	911.00	68.00
				linear grille	145300931135	911.00	68.00
		120	937	roll-up grille	145301211135	1,044.00	68.00
				linear grille	145301231135	1,044.00	68.00
		150	1294	roll-up grille	145301511135	1,114.00	68.00
				linear grille	145301531135	1,114.00	68.00
		200	1461	roll-up grille	145302011135	1,152.00	68.00
				linear grille	145302031135	1,152.00	68.00
		92	975	roll-up grille	145380911135	1,088.00	83.00
				linear grille	145380931135	1,088.00	83.00
		120	1204	roll-up grille	145381211135	1,243.00	83.00
				linear grille	145381231135	1,243.00	83.00
		150	1593	roll-up grille	145381511135	1,323.00	83.00
				linear grille	145381531135	1,323.00	83.00
		200	2041	roll-up grille	145382011135	1,363.00	83.00
				linear grille	145382031135	1,363.00	83.00

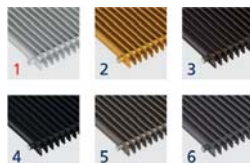
1.45 | Length 2200 mm

NK 137	137	92	379	roll-up grille	145140911139	567.00	40.00
				linear grille	145140931139	567.00	40.00
		120	406	roll-up grille	145141211139	583.00	40.00
				linear grille	145141231139	583.00	40.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

14514091111 ► natural anodised (standard)
 2 ► brass anodised
 3 ► bronze anodised
 4 ► black anodised
 5 ► bronze finish
 6 ► coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 182	182	92	519	roll-up grille	145190911139	660.00	46.00
				linear grille	145190931139	660.00	46.00
		120	639	roll-up grille	145191211139	755.00	46.00
				linear grille	145191231139	755.00	46.00
		150	757	roll-up grille	145191511139	813.00	46.00
				linear grille	145191531139	813.00	46.00
		200	849	roll-up grille	145192011139	856.00	46.00
				linear grille	145192031139	856.00	46.00
		92	615	roll-up grille	145240911139	878.00	62.00
				linear grille	145240931139	878.00	62.00
NK 232	232	120	756	roll-up grille	145241211139	1,005.00	62.00
				linear grille	145241231139	1,005.00	62.00
		150	1132	roll-up grille	145241511139	1,074.00	62.00
				linear grille	145241531139	1,074.00	62.00
		200	1226	roll-up grille	145242011139	1,118.00	62.00
				linear grille	145242031139	1,118.00	62.00
		92	818	roll-up grille	145300911139	984.00	71.00
				linear grille	145300931139	984.00	71.00
		120	1048	roll-up grille	145301211139	1,124.00	71.00
				linear grille	145301231139	1,124.00	71.00
NK 300	300	150	1444	roll-up grille	145301511139	1,201.00	71.00
				linear grille	145301531139	1,201.00	71.00
		200	1631	roll-up grille	145302011139	1,244.00	71.00
				linear grille	145302031139	1,244.00	71.00
		92	1091	roll-up grille	145380911139	1,175.00	88.00
				linear grille	145380931139	1,175.00	88.00
		120	1347	roll-up grille	145381211139	1,339.00	88.00
				linear grille	145381231139	1,339.00	88.00
		150	1777	roll-up grille	145381511139	1,428.00	88.00
				linear grille	145381531139	1,428.00	88.00
NK 380	380	200	2278	roll-up grille	145382011139	1,471.00	88.00
				linear grille	145382031139	1,471.00	88.00

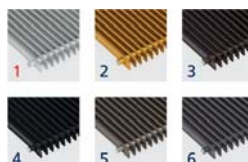
1.45 | Length 2400 mm

NK 137	137	92	422	roll-up grille	145140911143	607.00	42.00
				linear grille	145140931143	607.00	42.00
		120	452	roll-up grille	145141211143	622.00	42.00
				linear grille	145141231143	622.00	42.00
NK 182	182	92	575	roll-up grille	145190911143	710.00	48.00
				linear grille	145190931143	710.00	48.00
		120	708	roll-up grille	145191211143	810.00	48.00
				linear grille	145191231143	810.00	48.00
		150	835	roll-up grille	145191511143	874.00	48.00
				linear grille	145191531143	874.00	48.00
		200	937	roll-up grille	145192011143	920.00	48.00
				linear grille	145192031143	920.00	48.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111 ► natural anodised (standard)
 2 ► brass anodised
 3 ► bronze anodised
 4 ► black anodised
 5 ► bronze finish
 6 ► coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 232	232	92	680	roll-up grille	145240911143	944.00	66.00
				linear grille	145240931143	944.00	66.00
		120	836	roll-up grille	145241211143	1,079.00	66.00
				linear grille	145241231143	1,079.00	66.00
		150	1250	roll-up grille	145241511143	1,154.00	66.00
				linear grille	145241531143	1,154.00	66.00
		200	1354	roll-up grille	145242011143	1,202.00	66.00
				linear grille	145242031143	1,202.00	66.00
		92	905	roll-up grille	145300911143	1,058.00	77.00
				linear grille	145300931143	1,058.00	77.00
NK 300	300	120	1160	roll-up grille	145301211143	1,208.00	77.00
				linear grille	145301231143	1,208.00	77.00
		150	1594	roll-up grille	145301511143	1,290.00	77.00
				linear grille	145301531143	1,290.00	77.00
		200	1800	roll-up grille	145302011143	1,335.00	77.00
				linear grille	145302031143	1,335.00	77.00
		92	1207	roll-up grille	145380911143	1,261.00	93.00
				linear grille	145380931143	1,261.00	93.00
		120	1490	roll-up grille	145381211143	1,436.00	93.00
				linear grille	145381231143	1,436.00	93.00
NK 380	380	150	1962	roll-up grille	145381511143	1,532.00	93.00
				linear grille	145381531143	1,532.00	93.00
		200	2514	roll-up grille	145382011143	1,579.00	93.00
				linear grille	145382031143	1,579.00	93.00

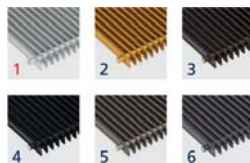
1.45 | Length 2600 mm

NK 137	137	92	465	roll-up grille	145140911147	647.00	43.00
				linear grille	145140931147	647.00	43.00
		120	498	roll-up grille	145141211147	662.00	43.00
				linear grille	145141231147	662.00	43.00
NK 182	182	92	630	roll-up grille	145190911147	761.00	51.00
				linear grille	145190931147	761.00	51.00
		120	776	roll-up grille	145191211147	865.00	51.00
				linear grille	145191231147	865.00	51.00
		150	914	roll-up grille	145191511147	936.00	51.00
				linear grille	145191531147	936.00	51.00
		200	1025	roll-up grille	145192011147	986.00	51.00
				linear grille	145192031147	986.00	51.00
		92	746	roll-up grille	145240911147	1,009.00	68.00
				linear grille	145240931147	1,009.00	68.00
NK 232	232	120	917	roll-up grille	145241211147	1,152.00	68.00
				linear grille	145241231147	1,152.00	68.00
		150	1367	roll-up grille	145241511147	1,234.00	68.00
				linear grille	145241531147	1,234.00	68.00
		200	1481	roll-up grille	145242011147	1,286.00	68.00
				linear grille	145242031147	1,286.00	68.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 14514091111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 300	300	92	992	roll-up grille	145300911147	1,131.00	81.00
				linear grille	145300931147	1,131.00	81.00
		120	1271	roll-up grille	145301211147	1,289.00	81.00
				linear grille	145301231147	1,289.00	81.00
		150	1744	roll-up grille	145301511147	1,379.00	81.00
				linear grille	145301531147	1,379.00	81.00
		200	1970	roll-up grille	145302011147	1,427.00	81.00
				linear grille	145302031147	1,427.00	81.00
NK 380	380	92	1323	roll-up grille	145380911147	1,349.00	98.00
				linear grille	145380931147	1,349.00	98.00
		120	1634	roll-up grille	145381211147	1,534.00	98.00
				linear grille	145381231147	1,534.00	98.00
		150	2147	roll-up grille	145381511147	1,635.00	98.00
				linear grille	145381531147	1,635.00	98.00
		200	2751	roll-up grille	145382011147	1,686.00	98.00
				linear grille	145382031147	1,686.00	98.00

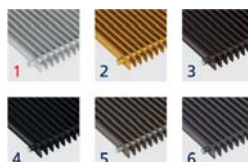
1.45 | Length 2800 mm

NK 137	137	92	508	roll-up grille	145140911151	685.00	46.00
				linear grille	145140931151	685.00	46.00
		120	544	roll-up grille	145141211151	702.00	46.00
				linear grille	145141231151	702.00	46.00
NK 182	182	92	686	roll-up grille	145190911151	812.00	55.00
				linear grille	145190931151	812.00	55.00
		120	844	roll-up grille	145191211151	921.00	55.00
				linear grille	145191231151	921.00	55.00
		150	992	roll-up grille	145191511151	995.00	55.00
				linear grille	145191531151	995.00	55.00
		200	1114	roll-up grille	145192011151	1,050.00	55.00
				linear grille	145192031151	1,050.00	55.00
NK 232	232	92	811	roll-up grille	145240911151	1,074.00	71.00
				linear grille	145240931151	1,074.00	71.00
		120	997	roll-up grille	145241211151	1,224.00	71.00
				linear grille	145241231151	1,224.00	71.00
		150	1485	roll-up grille	145241511151	1,314.00	71.00
				linear grille	145241531151	1,314.00	71.00
		200	1608	roll-up grille	145242011151	1,367.00	71.00
				linear grille	145242031151	1,367.00	71.00
NK 300	300	92	1079	roll-up grille	145300911151	1,205.00	84.00
				linear grille	145300931151	1,205.00	84.00
		120	1383	roll-up grille	145301211151	1,370.00	84.00
				linear grille	145301231151	1,370.00	84.00
		150	1894	roll-up grille	145301511151	1,465.00	84.00
				linear grille	145301531151	1,465.00	84.00
		200	2139	roll-up grille	145302011151	1,519.00	84.00
				linear grille	145302031151	1,519.00	84.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 14514091111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 380	380	92	1440	roll-up grille	145380911151	1,435.00	102.00
				linear grille	145380931151	1,435.00	102.00
		120	1777	roll-up grille	145381211151	1,631.00	102.00
				linear grille	145381231151	1,631.00	102.00
		150	2331	roll-up grille	145381511151	1,740.00	102.00
				linear grille	145381531151	1,740.00	102.00
		200	2987	roll-up grille	145382011151	1,794.00	102.00
				linear grille	145382031151	1,794.00	102.00

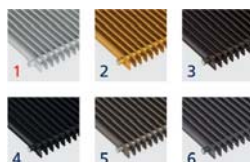
1.45 | Length 3000 mm

NK 137	137	92	551	roll-up grille	145140911155	723.00	47.00
				linear grille	145140931155	723.00	47.00
		120	590	roll-up grille	145141211155	741.00	47.00
				linear grille	145141231155	741.00	47.00
NK 182	182	92	741	roll-up grille	145190911155	862.00	57.00
				linear grille	145190931155	862.00	57.00
		120	912	roll-up grille	145191211155	979.00	57.00
				linear grille	145191231155	979.00	57.00
		150	1071	roll-up grille	145191511155	1,055.00	57.00
				linear grille	145191531155	1,055.00	57.00
		200	1202	roll-up grille	145192011155	1,115.00	57.00
				linear grille	145192031155	1,115.00	57.00
NK 232	232	92	876	roll-up grille	145240911155	1,142.00	77.00
				linear grille	145240931155	1,142.00	77.00
		120	1077	roll-up grille	145241211155	1,299.00	77.00
				linear grille	145241231155	1,299.00	77.00
		150	1602	roll-up grille	145241511155	1,392.00	77.00
				linear grille	145241531155	1,392.00	77.00
		200	1736	roll-up grille	145242011155	1,451.00	77.00
				linear grille	145242031155	1,451.00	77.00
NK 300	300	92	1166	roll-up grille	145300911155	1,279.00	89.00
				linear grille	145300931155	1,279.00	89.00
		120	1494	roll-up grille	145301211155	1,452.00	89.00
				linear grille	145301231155	1,452.00	89.00
		150	2044	roll-up grille	145301511155	1,554.00	89.00
				linear grille	145301531155	1,554.00	89.00
		200	2308	roll-up grille	145302011155	1,611.00	89.00
				linear grille	145302031155	1,611.00	89.00
NK 380	380	92	1556	roll-up grille	145380911155	1,521.00	108.00
				linear grille	145380931155	1,521.00	108.00
		120	1920	roll-up grille	145381211155	1,729.00	108.00
				linear grille	145381231155	1,729.00	108.00
		150	2516	roll-up grille	145381511155	1,844.00	108.00
				linear grille	145381531155	1,844.00	108.00
		200	3224	roll-up grille	145382011155	1,904.00	108.00
				linear grille	145382031155	1,904.00	108.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]

1.45 | Length 3200 mm

NK 137	137	92	594	roll-up grille	145140911159	763.00	50.00
				linear grille	145140931159	763.00	50.00
		120	636	roll-up grille	145141211159	782.00	50.00
				linear grille	145141231159	782.00	50.00
		92	796	roll-up grille	145190911159	911.00	59.00
				linear grille	145190931159	911.00	59.00
		120	980	roll-up grille	145191211159	1,035.00	59.00
				linear grille	145191231159	1,035.00	59.00
		150	1150	roll-up grille	145191511159	1,116.00	59.00
				linear grille	145191531159	1,116.00	59.00
		200	1290	roll-up grille	145192011159	1,180.00	59.00
				linear grille	145192031159	1,180.00	59.00
		92	942	roll-up grille	145240911159	1,206.00	81.00
				linear grille	145240931159	1,206.00	81.00
		120	1158	roll-up grille	145241211159	1,372.00	81.00
				linear grille	145241231159	1,372.00	81.00
		150	1720	roll-up grille	145241511159	1,471.00	81.00
				linear grille	145241531159	1,471.00	81.00
		200	1863	roll-up grille	145242011159	1,535.00	81.00
				linear grille	145242031159	1,535.00	81.00
		92	1253	roll-up grille	145300911159	1,351.00	93.00
				linear grille	145300931159	1,351.00	93.00
		120	1606	roll-up grille	145301211159	1,535.00	93.00
				linear grille	145301231159	1,535.00	93.00
		150	2194	roll-up grille	145301511159	1,641.00	93.00
				linear grille	145301531159	1,641.00	93.00
		200	2478	roll-up grille	145302011159	1,702.00	93.00
				linear grille	145302031159	1,702.00	93.00
		92	1672	roll-up grille	145380911159	1,610.00	111.00
				linear grille	145380931159	1,610.00	111.00
		120	2064	roll-up grille	145381211159	1,825.00	111.00
				linear grille	145381231159	1,825.00	111.00
		150	2700	roll-up grille	145381511159	1,947.00	111.00
				linear grille	145381531159	1,947.00	111.00
		200	3461	roll-up grille	145382011159	2,011.00	111.00
				linear grille	145382031159	2,011.00	111.00

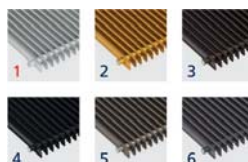
1.45 | Length 3400 mm

NK 137	137	92	637	roll-up grille	145140911163	802.00	54.00
				linear grille	145140931163	802.00	54.00
		120	682	roll-up grille	145141211163	822.00	54.00
				linear grille	145141231163	822.00	54.00

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 14514091111 ► natural anodised (standard)
 2 ► brass anodised
 3 ► bronze anodised
 4 ► black anodised
 5 ► bronze finish
 6 ► coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 182	182	92	852	roll-up grille	145190911163	963.00	62.00
				linear grille	145190931163	963.00	62.00
		120	1049	roll-up grille	145191211163	1,090.00	62.00
				linear grille	145191231163	1,090.00	62.00
		150	1228	roll-up grille	145191511163	1,178.00	62.00
				linear grille	145191531163	1,178.00	62.00
		200	1378	roll-up grille	145192011163	1,245.00	62.00
				linear grille	145192031163	1,245.00	62.00
		92	1007	roll-up grille	145240911163	1,272.00	83.00
				linear grille	145240931163	1,272.00	83.00
NK 232	232	120	1238	roll-up grille	145241211163	1,446.00	83.00
				linear grille	145241231163	1,446.00	83.00
		150	1838	roll-up grille	145241511163	1,551.00	83.00
				linear grille	145241531163	1,551.00	83.00
		200	1991	roll-up grille	145242011163	1,617.00	83.00
				linear grille	145242031163	1,617.00	83.00
		92	1340	roll-up grille	145300911163	1,424.00	97.00
				linear grille	145300931163	1,424.00	97.00
		120	1717	roll-up grille	145301211163	1,616.00	97.00
				linear grille	145301231163	1,616.00	97.00
NK 300	300	150	2344	roll-up grille	145301511163	1,730.00	97.00
				linear grille	145301531163	1,730.00	97.00
		200	2647	roll-up grille	145302011163	1,792.00	97.00
				linear grille	145302031163	1,792.00	97.00
		92	1788	roll-up grille	145380911163	1,697.00	116.00
				linear grille	145380931163	1,697.00	116.00
		120	2207	roll-up grille	145381211163	1,922.00	116.00
				linear grille	145381231163	1,922.00	116.00
		150	2885	roll-up grille	145381511163	2,052.00	116.00
				linear grille	145381531163	2,052.00	116.00
NK 380	380	200	3697	roll-up grille	145382011163	2,118.00	116.00
				linear grille	145382031163	2,118.00	116.00

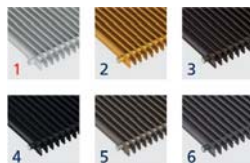
1.45 | Length 3600 mm

NK 137	137	92	680	roll-up grille	145140911167	841.00	56.00
				linear grille	145140931167	841.00	56.00
		120	728	roll-up grille	145141211167	862.00	56.00
				linear grille	145141231167	862.00	56.00
NK 182	182	92	907	roll-up grille	145190911167	1,011.00	65.00
				linear grille	145190931167	1,011.00	65.00
		120	1117	roll-up grille	145191211167	1,147.00	65.00
				linear grille	145191231167	1,147.00	65.00
		150	1307	roll-up grille	145191511167	1,239.00	65.00
				linear grille	145191531167	1,239.00	65.00
		200	1466	roll-up grille	145192011167	1,309.00	65.00
				linear grille	145192031167	1,309.00	65.00

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 14514091111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 232	232	92	1073	roll-up grille	145240911167	1,337.00	86.00
				linear grille	145240931167	1,337.00	86.00
		120	1319	roll-up grille	145241211167	1,520.00	86.00
				linear grille	145241231167	1,520.00	86.00
		150	1955	roll-up grille	145241511167	1,631.00	86.00
				linear grille	145241531167	1,631.00	86.00
		200	2118	roll-up grille	145242011167	1,702.00	86.00
				linear grille	145242031167	1,702.00	86.00
		92	1427	roll-up grille	145300911167	1,498.00	100.00
				linear grille	145300931167	1,498.00	100.00
NK 300	300	120	1829	roll-up grille	145301211167	1,700.00	100.00
				linear grille	145301231167	1,700.00	100.00
		150	2494	roll-up grille	145301511167	1,817.00	100.00
				linear grille	145301531167	1,817.00	100.00
		200	2817	roll-up grille	145302011167	1,885.00	100.00
				linear grille	145302031167	1,885.00	100.00
NK 380	380	92	1904	roll-up grille	145380911167	1,783.00	120.00
				linear grille	145380931167	1,783.00	120.00
		120	2350	roll-up grille	145381211167	2,018.00	120.00
				linear grille	145381231167	2,018.00	120.00
		150	3070	roll-up grille	145381511167	2,155.00	120.00
				linear grille	145381531167	2,155.00	120.00
		200	3934	roll-up grille	145382011167	2,225.00	120.00
				linear grille	145382031167	2,225.00	120.00

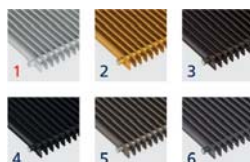
1.45 | Length 3800 mm

NK 137	137	92	723	roll-up grille	145140911171	880.00	57.00
				linear grille	145140931171	880.00	57.00
		120	774	roll-up grille	145141211171	903.00	57.00
				linear grille	145141231171	903.00	57.00
NK 182	182	92	963	roll-up grille	145190911171	1,063.00	67.00
				linear grille	145190931171	1,063.00	67.00
		120	1185	roll-up grille	145191211171	1,202.00	67.00
				linear grille	145191231171	1,202.00	67.00
		150	1385	roll-up grille	145191511171	1,299.00	67.00
				linear grille	145191531171	1,299.00	67.00
		200	1555	roll-up grille	145192011171	1,373.00	67.00
				linear grille	145192031171	1,373.00	67.00
NK 232	232	92	1138	roll-up grille	145240911171	1,404.00	90.00
				linear grille	145240931171	1,404.00	90.00
		120	1399	roll-up grille	145241211171	1,594.00	90.00
				linear grille	145241231171	1,594.00	90.00
		150	2073	roll-up grille	145241511171	1,709.00	90.00
				linear grille	145241531171	1,709.00	90.00
		200	2245	roll-up grille	145242011171	1,785.00	90.00
				linear grille	145242031171	1,785.00	90.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 300	300	92	1514	roll-up grille	145300911171	1,571.00	104.00
				linear grille	145300931171	1,571.00	104.00
		120	1940	roll-up grille	145301211171	1,781.00	104.00
				linear grille	145301231171	1,781.00	104.00
		150	2644	roll-up grille	145301511171	1,905.00	104.00
				linear grille	145301531171	1,905.00	104.00
		200	2986	roll-up grille	145302011171	1,978.00	104.00
				linear grille	145302031171	1,978.00	104.00
NK 380	380	92	2020	roll-up grille	145380911171	1,869.00	127.00
				linear grille	145380931171	1,869.00	127.00
		120	2493	roll-up grille	145381211171	2,116.00	127.00
				linear grille	145381231171	2,116.00	127.00
		150	3254	roll-up grille	145381511171	2,259.00	127.00
				linear grille	145381531171	2,259.00	127.00
		200	4171	roll-up grille	145382011171	2,334.00	127.00
				linear grille	145382031171	2,334.00	127.00

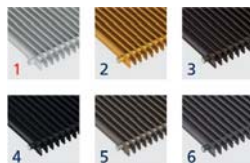
1.45 | Length 4000 mm

NK 137	137	92	766	roll-up grille	145140911175	918.00	59.00
				linear grille	145140931175	918.00	59.00
		120	820	roll-up grille	145141211175	942.00	59.00
				linear grille	145141231175	942.00	59.00
NK 182	182	92	1018	roll-up grille	145190911175	1,114.00	69.00
				linear grille	145190931175	1,114.00	69.00
		120	1253	roll-up grille	145191211175	1,259.00	69.00
				linear grille	145191231175	1,259.00	69.00
		150	1464	roll-up grille	145191511175	1,360.00	69.00
				linear grille	145191531175	1,360.00	69.00
		200	1643	roll-up grille	145192011175	1,440.00	69.00
				linear grille	145192031175	1,440.00	69.00
NK 232	232	92	1203	roll-up grille	145240911175	1,469.00	95.00
				linear grille	145240931175	1,469.00	95.00
		120	1479	roll-up grille	145241211175	1,667.00	95.00
				linear grille	145241231175	1,667.00	95.00
		150	2190	roll-up grille	145241511175	1,789.00	95.00
				linear grille	145241531175	1,789.00	95.00
		200	2373	roll-up grille	145242011175	1,868.00	95.00
				linear grille	145242031175	1,868.00	95.00
NK 300	300	92	1601	roll-up grille	145300911175	1,645.00	109.00
				linear grille	145300931175	1,645.00	109.00
		120	2052	roll-up grille	145301211175	1,861.00	109.00
				linear grille	145301231175	1,861.00	109.00
		150	2794	roll-up grille	145301511175	1,993.00	109.00
				linear grille	145301531175	1,993.00	109.00
		200	3156	roll-up grille	145302011175	2,067.00	109.00
				linear grille	145302031175	2,067.00	109.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111 ► natural anodised (standard)
 2 ► brass anodised
 3 ► bronze anodised
 4 ► black anodised
 5 ► bronze finish
 6 ► coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 380	380	92	2136	roll-up grille	145380911175	1,956.00	131.00
				linear grille	145380931175	1,956.00	131.00
		120	2637	roll-up grille	145381211175	2,212.00	131.00
				linear grille	145381231175	2,212.00	131.00
		150	3439	roll-up grille	145381511175	2,363.00	131.00
				linear grille	145381531175	2,363.00	131.00
		200	4407	roll-up grille	145382011175	2,441.00	131.00
				linear grille	145382031175	2,441.00	131.00

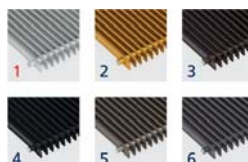
1.45 | Length 4200 mm

NK 137	137	92	809	roll-up grille	145140911179	958.00	60.00
				linear grille	145140931179	958.00	60.00
		120	866	roll-up grille	145141211179	982.00	60.00
				linear grille	145141231179	982.00	60.00
NK 182	182	92	1073	roll-up grille	145190911179	1,162.00	71.00
				linear grille	145190931179	1,162.00	71.00
		120	1321	roll-up grille	145191211179	1,315.00	71.00
				linear grille	145191231179	1,315.00	71.00
		150	1543	roll-up grille	145191511179	1,420.00	71.00
				linear grille	145191531179	1,420.00	71.00
		200	1731	roll-up grille	145192011179	1,504.00	71.00
				linear grille	145192031179	1,504.00	71.00
NK 232	232	92	1269	roll-up grille	145240911179	1,535.00	98.00
				linear grille	145240931179	1,535.00	98.00
		120	1560	roll-up grille	145241211179	1,741.00	98.00
				linear grille	145241231179	1,741.00	98.00
		150	2308	roll-up grille	145241511179	1,868.00	98.00
				linear grille	145241531179	1,868.00	98.00
		200	2500	roll-up grille	145242011179	1,951.00	98.00
				linear grille	145242031179	1,951.00	98.00
NK 300	300	92	1688	roll-up grille	145300911179	1,717.00	112.00
				linear grille	145300931179	1,717.00	112.00
		120	2163	roll-up grille	145301211179	1,945.00	112.00
				linear grille	145301231179	1,945.00	112.00
		150	2944	roll-up grille	145301511179	2,082.00	112.00
				linear grille	145301531179	2,082.00	112.00
		200	3325	roll-up grille	145302011179	2,159.00	112.00
				linear grille	145302031179	2,159.00	112.00
NK 380	380	92	2252	roll-up grille	145380911179	2,043.00	138.00
				linear grille	145380931179	2,043.00	138.00
		120	2780	roll-up grille	145381211179	2,309.00	138.00
				linear grille	145381231179	2,309.00	138.00
		150	3624	roll-up grille	145381511179	2,466.00	138.00
				linear grille	145381531179	2,466.00	138.00
		200	4644	roll-up grille	145382011179	2,548.00	138.00
				linear grille	145382031179	2,548.00	138.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm NK







Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
1.45 Length 4400 mm							
NK 137	137	92	852	roll-up grille	145140911183	998.00	62.00
				linear grille	145140931183	998.00	62.00
		120	912	roll-up grille	145141211183	1,022.00	62.00
				linear grille	145141231183	1,022.00	62.00
NK 182	182	92	1129	roll-up grille	145190911183	1,214.00	76.00
				linear grille	145190931183	1,214.00	76.00
		120	1390	roll-up grille	145191211183	1,369.00	76.00
				linear grille	145191231183	1,369.00	76.00
		150	1621	roll-up grille	145191511183	1,481.00	76.00
				linear grille	145191531183	1,481.00	76.00
		200	1819	roll-up grille	145192011183	1,569.00	76.00
				linear grille	145192031183	1,569.00	76.00
NK 232	232	92	1334	roll-up grille	145240911183	1,601.00	100.00
				linear grille	145240931183	1,601.00	100.00
		120	1640	roll-up grille	145241211183	1,814.00	100.00
				linear grille	145241231183	1,814.00	100.00
		150	2426	roll-up grille	145241511183	1,947.00	100.00
				linear grille	145241531183	1,947.00	100.00
		200	2628	roll-up grille	145242011183	2,035.00	100.00
				linear grille	145242031183	2,035.00	100.00
NK 300	300	92	1775	roll-up grille	145300911183	1,791.00	116.00
				linear grille	145300931183	1,791.00	116.00
		120	2275	roll-up grille	145301211183	2,025.00	116.00
				linear grille	145301231183	2,025.00	116.00
		150	3094	roll-up grille	145301511183	2,168.00	116.00
				linear grille	145301531183	2,168.00	116.00
		200	3494	roll-up grille	145302011183	2,251.00	116.00
				linear grille	145302031183	2,251.00	116.00
NK 380	380	92	2368	roll-up grille	145380911183	2,130.00	142.00
				linear grille	145380931183	2,130.00	142.00
		120	2923	roll-up grille	145381211183	2,408.00	142.00
				linear grille	145381231183	2,408.00	142.00
		150	3808	roll-up grille	145381511183	2,569.00	142.00
				linear grille	145381531183	2,569.00	142.00
		200	4881	roll-up grille	145382011183	2,655.00	142.00
				linear grille	145382031183	2,655.00	142.00
1.45 Length 4600 mm							
NK 137	137	92	895	roll-up grille	145140911187	1,036.00	65.00
				linear grille	145140931187	1,036.00	65.00
		120	958	roll-up grille	145141211187	1,062.00	65.00
				linear grille	145141231187	1,062.00	65.00

CONTINUED

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:

Matching grille




Article key

14514091111 → natural anodised (standard)
2 → brass anodised
3 → bronze anodised
4 → black anodised
5 → bronze finish
6 → coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 182	182	92	1184	roll-up grille	145190911187	1,263.00	79.00
				linear grille	145190931187	1,263.00	79.00
		120	1458	roll-up grille	145191211187	1,427.00	79.00
				linear grille	145191231187	1,427.00	79.00
		150	1700	roll-up grille	145191511187	1,541.00	79.00
				linear grille	145191531187	1,541.00	79.00
		200	1907	roll-up grille	145192011187	1,634.00	79.00
				linear grille	145192031187	1,634.00	79.00
		92	1400	roll-up grille	145240911187	1,667.00	104.00
				linear grille	145240931187	1,667.00	104.00
NK 232	232	120	1721	roll-up grille	145241211187	1,888.00	104.00
				linear grille	145241231187	1,888.00	104.00
		150	2543	roll-up grille	145241511187	2,028.00	104.00
				linear grille	145241531187	2,028.00	104.00
		200	2755	roll-up grille	145242011187	2,117.00	104.00
				linear grille	145242031187	2,117.00	104.00
		92	1862	roll-up grille	145300911187	1,863.00	119.00
				linear grille	145300931187	1,863.00	119.00
		120	2386	roll-up grille	145301211187	2,107.00	119.00
				linear grille	145301231187	2,107.00	119.00
NK 300	300	150	3244	roll-up grille	145301511187	2,256.00	119.00
				linear grille	145301531187	2,256.00	119.00
		200	3664	roll-up grille	145302011187	2,343.00	119.00
				linear grille	145302031187	2,343.00	119.00
		92	2484	roll-up grille	145380911187	2,217.00	146.00
				linear grille	145380931187	2,217.00	146.00
		120	3067	roll-up grille	145381211187	2,504.00	146.00
				linear grille	145381231187	2,504.00	146.00
		150	3993	roll-up grille	145381511187	2,674.00	146.00
				linear grille	145381531187	2,674.00	146.00
NK 380	380	200	5117	roll-up grille	145382011187	2,764.00	146.00
				linear grille	145382031187	2,764.00	146.00

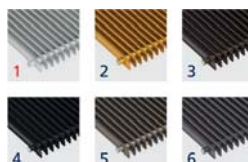
1.45 | Length 4800 mm

NK 137	137	92	938	roll-up grille	145140911191	1,074.00	67.00
				linear grille	145140931191	1,074.00	67.00
		120	1004	roll-up grille	145141211191	1,103.00	67.00
				linear grille	145141231191	1,103.00	67.00
NK 182	182	92	1240	roll-up grille	145190911191	1,316.00	81.00
				linear grille	145190931191	1,316.00	81.00
		120	1526	roll-up grille	145191211191	1,484.00	81.00
				linear grille	145191231191	1,484.00	81.00
		150	1778	roll-up grille	145191511191	1,602.00	81.00
				linear grille	145191531191	1,602.00	81.00
		200	1996	roll-up grille	145192011191	1,700.00	81.00
				linear grille	145192031191	1,700.00	81.00

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 232	232	92	1465	roll-up grille	145240911191	1,734.00	108.00
				linear grille	145240931191	1,734.00	108.00
		120	1801	roll-up grille	145241211191	1,961.00	108.00
				linear grille	145241231191	1,961.00	108.00
		150	2661	roll-up grille	145241511191	2,104.00	108.00
				linear grille	145241531191	2,104.00	108.00
		200	2882	roll-up grille	145242011191	2,201.00	108.00
				linear grille	145242031191	2,201.00	108.00
NK 300	300	92	1949	roll-up grille	145300911191	1,939.00	124.00
				linear grille	145300931191	1,939.00	124.00
		120	2498	roll-up grille	145301211191	2,189.00	124.00
				linear grille	145301231191	2,189.00	124.00
		150	3395	roll-up grille	145301511191	2,343.00	124.00
				linear grille	145301531191	2,343.00	124.00
		200	3833	roll-up grille	145302011191	2,436.00	124.00
				linear grille	145302031191	2,436.00	124.00
NK 380	380	92	2601	roll-up grille	145380911191	2,303.00	150.00
				linear grille	145380931191	2,303.00	150.00
		120	3210	roll-up grille	145381211191	2,602.00	150.00
				linear grille	145381231191	2,602.00	150.00
		150	4178	roll-up grille	145381511191	2,778.00	150.00
				linear grille	145381531191	2,778.00	150.00
		200	5354	roll-up grille	145382011191	2,870.00	150.00
				linear grille	145382031191	2,870.00	150.00

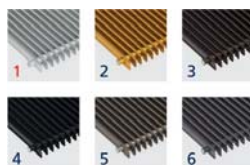
1.45 | Length 5000 mm

NK 137	137	92	981	roll-up grille	145140911195	1,114.00	69.00
				linear grille	145140931195	1,114.00	69.00
		120	1050	roll-up grille	145141211195	1,143.00	69.00
				linear grille	145141231195	1,143.00	69.00
NK 182	182	92	1295	roll-up grille	145190911195	1,364.00	84.00
				linear grille	145190931195	1,364.00	84.00
		120	1594	roll-up grille	145191211195	1,537.00	84.00
				linear grille	145191231195	1,537.00	84.00
		150	1857	roll-up grille	145191511195	1,663.00	84.00
				linear grille	145191531195	1,663.00	84.00
		200	2084	roll-up grille	145192011195	1,763.00	84.00
				linear grille	145192031195	1,763.00	84.00
NK 232	232	92	1530	roll-up grille	145240911195	1,799.00	111.00
				linear grille	145240931195	1,799.00	111.00
		120	1881	roll-up grille	145241211195	2,036.00	111.00
				linear grille	145241231195	2,036.00	111.00
		150	2778	roll-up grille	145241511195	2,185.00	111.00
				linear grille	145241531195	2,185.00	111.00
		200	3010	roll-up grille	145242011195	2,283.00	111.00
				linear grille	145242031195	2,283.00	111.00

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:




Article key

- 145140911111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

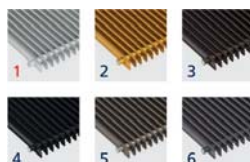
Katherm NK

Ordering information

Version	Width	Height	Heat output ¹⁾	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[mm]	[W]			[€/each]	[€/each]
NK 300	300	92	2036	roll-up grille	145300911195	2,012.00	129.00
				linear grille	145300931195	2,012.00	129.00
		120	2609	roll-up grille	145301211195	2,271.00	129.00
				linear grille	145301231195	2,271.00	129.00
		150	3545	roll-up grille	145301511195	2,432.00	129.00
				linear grille	145301531195	2,432.00	129.00
		200	4003	roll-up grille	145302011195	2,525.00	129.00
				linear grille	145302031195	2,525.00	129.00
NK 380	380	92	2717	roll-up grille	145380911195	2,392.00	154.00
				linear grille	145380931195	2,392.00	154.00
		120	3353	roll-up grille	145381211195	2,696.00	154.00
				linear grille	145381231195	2,696.00	154.00
		150	4362	roll-up grille	145381511195	2,882.00	154.00
				linear grille	145381531195	2,882.00	154.00
		200	5590	roll-up grille	145382011195	2,979.00	154.00
				linear grille	145382031195	2,979.00	154.00

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

14514091111  natural anodised (standard)
 2  brass anodised
 3  bronze anodised
 4  black anodised
 5  bronze finish
 6  coated DB 703

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm NK

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.94 Thermostats				
Room thermostat	with thermal feedback, IP30 protection class, 230 V AC, surface-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146904	54.00
	with thermal feedback, IP20 protection class, 230 V AC, flush-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146927	209.00
Clock thermostat	with day/night/week programme, white, 230 V, surface-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146910	302.00
	white, 230 V, flush-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146933	232.00
1.94 Valves and return shut-off valves				
Valve body	Axial, pre-settable, 1/2" connection	Katherm NK 137/182 (trench heights 92 mm and 120 mm), Katherm HK	194000346911	28.00
	straight, pre-settable, 1/2" connection	Katherm NK 182 (trench heights 150 mm and 200 mm), Katherm NK 232/300/380 (all trench heights), Katherm QK	194000346909	28.00
Pre-setting key	for pre-adjustable valves and valve kits	pre-settable valve bodies, valve kits and convector connection kit	194000346915	4.20
Return shut-off valve	straight, 1/2" connection	Katherm NK, Katherm QK, Katherm HK 290/ HK 320	194000145952	15.00
1.94 Valve actuators				
Thermoelectric actuator	230 V AC	Katherm NK, Katherm QK. With the Katherm HK only for room thermostat type 30155 and Climate controller type 148941 and type 148942!	194000146905	60.00
1.94 Surcharge for mitred corners				
Surcharge for mitred corner	Roll-up grille, 90°	Katherm NK 137, trench height 92 mm	194000145513	395.00
		Katherm NK 182, trench height 92 mm	194000145516	453.00
		Katherm NK 232, trench height 92 mm	194000145521	536.00
		Katherm NK 300, trench height 92 mm	194000145530	655.00
		Katherm NK 380, trench height 92 mm	194000145538	747.00
		Katherm NK 137, trench height 120 mm	194000145514	399.00
		Katherm NK 182, trench height 120 mm	194000145517	456.00
		Katherm NK 232, trench height 120 mm	194000145522	541.00
		Katherm NK 300, trench height 120 mm	194000145531	660.00
		Katherm NK 380, trench height 120 mm	194000145539	753.00
		Katherm NK 182, trench height 150 mm	194000145518	460.00
		Katherm NK 232, trench height 150 mm	194000145523	547.00
		Katherm NK 300, trench height 150 mm	194000145532	666.00
		Katherm NK 380, trench height 150 mm	194000145540	757.00
		Katherm NK 182, trench height 200 mm	194000145519	464.00
		Katherm NK 232, trench height 200 mm	194000145524	551.00
		Katherm NK 300, trench height 200 mm	194000145533	670.00
		Katherm NK 380, trench height 200 mm	194000145541	762.00
	Roll-up grille, other angles	Katherm NK 137, trench height 92 mm	194000145613	458.00
		Katherm NK 182, trench height 92 mm	194000145616	522.00
		Katherm NK 232, trench height 92 mm	194000145621	624.00
		Katherm NK 300, trench height 92 mm	194000145630	760.00
		Katherm NK 380, trench height 92 mm	194000145638	862.00
		Katherm NK 137, trench height 120 mm	194000145614	462.00
		Katherm NK 182, trench height 120 mm	194000145617	526.00
		Katherm NK 232, trench height 120 mm	194000145622	629.00
		Katherm NK 300, trench height 120 mm	194000145631	764.00
		Katherm NK 380, trench height 120 mm	194000145639	866.00
		Katherm NK 182, trench height 150 mm	194000145618	529.00
		Katherm NK 232, trench height 150 mm	194000145623	635.00
		Katherm NK 300, trench height 150 mm	194000145632	769.00
		Katherm NK 380, trench height 150 mm	194000145640	873.00
		Katherm NK 182, trench height 200 mm	194000145619	533.00
		Katherm NK 232, trench height 200 mm	194000145624	639.00
		Katherm NK 300, trench height 200 mm	194000145633	774.00
		Katherm NK 380, trench height 200 mm	194000145641	878.00

Katherm NK

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
Surcharge for mitre	90° linear grille	Katherm NK 137, trench height 92 mm	194000145713	267.00
		Katherm NK 182, trench height 92 mm	194000145716	311.00
		Katherm NK 232, trench height 92 mm	194000145721	362.00
		Katherm NK 300, trench height 92 mm	194000145730	444.00
		Katherm NK 380, trench height 92 mm	194000145738	511.00
		Katherm NK 137, trench height 120 mm	194000145714	270.00
		Katherm NK 182, trench height 120 mm	194000145717	314.00
		Katherm NK 232, trench height 120 mm	194000145722	368.00
		Katherm NK 300, trench height 120 mm	194000145731	449.00
		Katherm NK 380, trench height 120 mm	194000145739	517.00
		Katherm NK 182, trench height 150 mm	194000145718	317.00
		Katherm NK 232, trench height 150 mm	194000145723	373.00
		Katherm NK 300, trench height 150 mm	194000145732	454.00
		Katherm NK 380, trench height 150 mm	194000145740	522.00
		Katherm NK 182, trench height 200 mm	194000145719	322.00
		Katherm NK 232, trench height 200 mm	194000145724	379.00
		Katherm NK 300, trench height 200 mm	194000145733	459.00
		Katherm NK 380, trench height 200 mm	194000145741	527.00
	Linear grille, other angles	Katherm NK 137, trench height 92 mm	194000145813	307.00
		Katherm NK 182, trench height 92 mm	194000145816	356.00
		Katherm NK 232, trench height 92 mm	194000145821	425.00
		Katherm NK 300, trench height 92 mm	194000145830	517.00
		Katherm NK 380, trench height 92 mm	194000145838	593.00
		Katherm NK 137, trench height 120 mm	194000145814	311.00
		Katherm NK 182, trench height 120 mm	194000145817	360.00
		Katherm NK 232, trench height 120 mm	194000145822	431.00
		Katherm NK 300, trench height 120 mm	194000145831	522.00
		Katherm NK 380, trench height 120 mm	194000145839	597.00
		Katherm NK 182, trench height 150 mm	194000145818	366.00
		Katherm NK 232, trench height 150 mm	194000145823	437.00
		Katherm NK 300, trench height 150 mm	194000145832	527.00
		Katherm NK 380, trench height 150 mm	194000145840	602.00
		Katherm NK 182, trench height 200 mm	194000145819	372.00
		Katherm NK 232, trench height 200 mm	194000145824	441.00
		Katherm NK 300, trench height 200 mm	194000145833	532.00
		Katherm NK 380, trench height 200 mm	194000145841	608.00

1.94 | Installation covers

				[€/m]
Installation cover	to protect trench during installation, factory-fitted, grilles are packed separately	trench width 137 mm	194000100913	8.00
		trench width 182 mm	194000100918	10.00
		trench width 232 mm	194000100923	12.00
		trench width 300 mm	194000100930	15.00
		trench width 380 mm	194000100938	19.00

Katherm QK

EC tangential fan-assisted convection
with small dimensions.



Product benefits

- ▶ whisper-quiet EC technology
- ▶ optimised for low water temperature, heat outputs tested independently in accordance with DIN EN 16430
- ▶ shallow unit depths combined with high outputs
- ▶ matching frame for every roll-up grille for a perfect overall look
- ▶ fast installation with Eurokonus valve connection, adjustment feet and raised floor height adjustment feet
- ▶ project solutions for all geometries incorporating mitred corners, curved sections, column cut-outs or angles are possible
- ▶ KaControl system or electromechanical control as standard
- ▶ possible integration into KaControl networks or building automation systems, like KNX, Modbus or BACnet
- ▶ optionally available with supply air modules to feed in treated fresh air

Features

Convection	› EC tangential fan
Heating	› LPHW
Cooling	› ---
Ventilation	› optionally by supply-air modules
KaControl	› optional

References

German Football Museum, Dortmund | HanseMerkur Office Building, Hamburg | Worms Cultural Centre, Worms

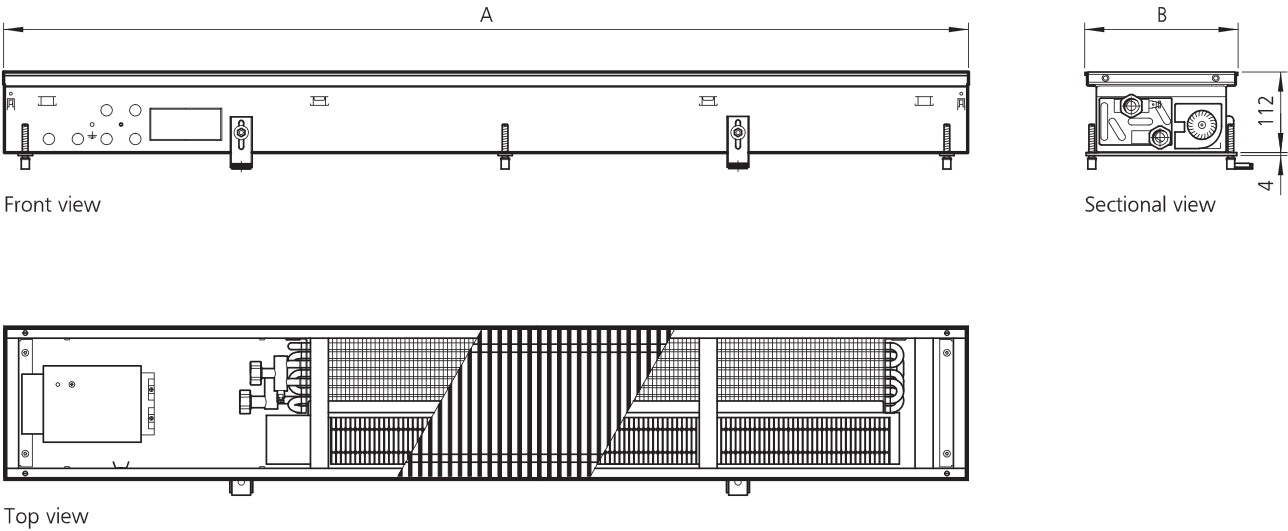
Technical data



Heat output [W] ¹⁾	> 71 – 6025
Sound pressure level [dB(A)] ²⁾	> 0 – 41
Sound power level [dB(A)]	> 0 – 49

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C, with 12 mm grille bar spacing, approx. 70% free area.
²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Technical drawing



Selection guide

Heat output ¹⁾	Width (B)	Length (A)	Height
[W]	[mm]	[mm]	[mm]
71 – 5781	190	1000 – 3200	112
87 – 6025	215		

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C, with 12 mm grille bar spacing, approx. 70% free area.

Katherm QK

Ordering information

Version	Width	Heat output ¹⁾	Sound pressure level ²⁾	Sound power level	Control option	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[W]	[dB(A)]	[dB(A)]				[€/each]	[€/each]

1.42 | Length 1000 mm

QK 190	190	71 – 917	< 20 – 26	< 28 – 34	electro-mechanical 24 V	roll-up grille	1424111111524	844.00	31.00
						linear grille	14241113111524	844.00	31.00
					electro-mechanical 230 V	roll-up grille	14241111111500	952.00	31.00
						linear grille	14241113111500	952.00	31.00
					KaControl	roll-up grille	142411111115C1	1,060.00	31.00
						linear grille	142411131115C1	1,060.00	31.00
QK 215	215	87 – 956	< 20 – 26	< 28 – 34	electro-mechanical 24 V	roll-up grille	14243111111524	1,110.00	39.00
						linear grille	14243113111524	1,110.00	39.00
					electro-mechanical 230 V	roll-up grille	14243111111500	1,218.00	39.00
						linear grille	14243113111500	1,218.00	39.00
					KaControl	roll-up grille	142431111115C1	1,326.00	39.00
						linear grille	142431131115C1	1,326.00	39.00

1.42 | Length 1200 mm

QK 190	190	109 – 1419	< 20 – 29	< 28 – 37	electro-mechanical 24 V	roll-up grille	14241111111924	901.00	34.00
						linear grille	14241113111924	901.00	34.00
					electro-mechanical 230 V	roll-up grille	14241111111900	1,009.00	34.00
						linear grille	14241113111900	1,009.00	34.00
					KaControl	roll-up grille	142411111119C1	1,117.00	34.00
						linear grille	142411131119C1	1,117.00	34.00
QK 215	215	134 – 1478	< 20 – 29	< 28 – 37	electro-mechanical 24 V	roll-up grille	14243111111924	1,161.00	41.00
						linear grille	14243113111924	1,161.00	41.00
					electro-mechanical 230 V	roll-up grille	14243111111900	1,269.00	41.00
						linear grille	14243113111900	1,269.00	41.00
					KaControl	roll-up grille	142431111119C1	1,377.00	41.00
						linear grille	142431131119C1	1,377.00	41.00

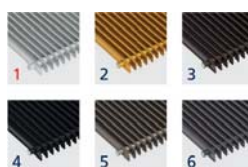
1.42 | Length 1400 mm

QK 190	190	142 – 1845	< 20 – 31	< 28 – 39	electro-mechanical 24 V	roll-up grille	14241111112324	971.00	36.00
						linear grille	14241113112324	971.00	36.00
					electro-mechanical 230 V	roll-up grille	14241111112300	1,079.00	36.00
						linear grille	14241113112300	1,079.00	36.00
					KaControl	roll-up grille	142411111123C1	1,187.00	36.00
						linear grille	142411131123C1	1,187.00	36.00
QK 215	215	175 – 1923	< 20 – 31	< 28 – 39	electro-mechanical 24 V	roll-up grille	14243111112324	1,254.00	43.00
						linear grille	14243113112324	1,254.00	43.00
					electro-mechanical 230 V	roll-up grille	14243111112300	1,362.00	43.00
						linear grille	14243113112300	1,362.00	43.00
					KaControl	roll-up grille	142431111123C1	1,470.00	43.00
						linear grille	142431131123C1	1,470.00	43.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

- 1424111111524 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{\text{r}} = 20$ °C, with 12 mm grille bar spacing, approx. 70% free area.

²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm QK

Ordering information

Version	Width	Heat output ¹⁾	Sound pressure level ²⁾	Sound power level	Control option	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[W]	[dB(A)]	[dB(A)]				[€/each]	[€/each]

1.42 | Length 1600 mm

QK 190	190	181 – 2347	< 20 – 33	< 28 – 41	electro-mechanical 24 V	roll-up grille	14241111112724	1,092.00	39.00
						linear grille	14241113112724	1,092.00	39.00
					electro-mechanical 230 V	roll-up grille	14241111112700	1,200.00	39.00
						linear grille	14241113112700	1,200.00	39.00
					KaControl	roll-up grille	142411111127C1	1,308.00	39.00
						linear grille	142411131127C1	1,308.00	39.00
QK 215	215	222 – 2445	< 20 – 33	< 28 – 41	electro-mechanical 24 V	roll-up grille	14243111112724	1,431.00	47.00
						linear grille	14243113112724	1,431.00	47.00
					electro-mechanical 230 V	roll-up grille	14243111112700	1,539.00	47.00
						linear grille	14243113112700	1,539.00	47.00
					KaControl	roll-up grille	142431111127C1	1,647.00	47.00
						linear grille	142431131127C1	1,647.00	47.00

1.42 | Length 1800 mm

QK 190	190	214 – 2773	< 20 – 35	< 28 – 43	electro-mechanical 24 V	roll-up grille	14241111113124	1,146.00	42.00
						linear grille	14241113113124	1,146.00	42.00
					electro-mechanical 230 V	roll-up grille	14241111113100	1,254.00	42.00
						linear grille	14241113113100	1,254.00	42.00
					KaControl	roll-up grille	142411111131C1	1,362.00	42.00
						linear grille	142411131131C1	1,362.00	42.00
QK 215	215	262 – 2890	< 20 – 35	< 28 – 43	electro-mechanical 24 V	roll-up grille	14243111113124	1,504.00	49.00
						linear grille	14243113113124	1,504.00	49.00
					electro-mechanical 230 V	roll-up grille	14243111113100	1,612.00	49.00
						linear grille	14243113113100	1,612.00	49.00
					KaControl	roll-up grille	142431111131C1	1,720.00	49.00
						linear grille	142431131131C1	1,720.00	49.00

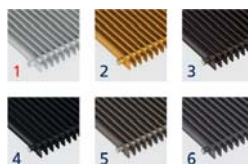
1.42 | Length 2000 mm

QK 190	190	214 – 2773	< 20 – 35	< 28 – 43	electro-mechanical 24 V	roll-up grille	14241111113524	1,175.00	44.00
						linear grille	14241113113524	1,175.00	44.00
					electro-mechanical 230 V	roll-up grille	14241111113500	1,283.00	44.00
						linear grille	14241113113500	1,283.00	44.00
					KaControl	roll-up grille	142411111135C1	1,391.00	44.00
						linear grille	142411131135C1	1,391.00	44.00
QK 215	215	262 – 2890	< 20 – 35	< 28 – 43	electro-mechanical 24 V	roll-up grille	14243111113524	1,547.00	53.00
						linear grille	14243113113524	1,547.00	53.00
					electro-mechanical 230 V	roll-up grille	14243111113500	1,655.00	53.00
						linear grille	14243113113500	1,655.00	53.00
					KaControl	roll-up grille	142431111135C1	1,763.00	53.00
						linear grille	142431131135C1	1,763.00	53.00

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

- 1424111111524 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{\text{r}} = 20$ °C, with 12 mm grille bar spacing, approx. 70% free area.

²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm QK

Ordering information

Version	Width	Heat output ¹⁾	Sound pressure level ²⁾	Sound power level	Control option	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[W]	[dB(A)]	[dB(A)]				[€/each]	[€/each]

1.42 | Length 2200 mm

QK 190	190	269 – 3498	< 20 – 36	< 28 – 44	electro-mechanical 24 V	roll-up grille	14241111113924	1,692.00	47.00
						linear grille	14241113113924	1,692.00	47.00
					electro-mechanical 230 V	roll-up grille	14241111113900	1,800.00	47.00
						linear grille	14241113113900	1,800.00	47.00
					KaControl	roll-up grille	142411111139C1	1,908.00	47.00
						linear grille	142411131139C1	1,908.00	47.00
QK 215	215	331 – 3646	< 20 – 36	< 28 – 44	electro-mechanical 24 V	roll-up grille	14243111113924	2,192.00	57.00
						linear grille	14243113113924	2,192.00	57.00
					electro-mechanical 230 V	roll-up grille	14243111113900	2,300.00	57.00
						linear grille	14243113113900	2,300.00	57.00
					KaControl	roll-up grille	142431111139C1	2,408.00	57.00
						linear grille	142431131139C1	2,408.00	57.00

1.42 | Length 2400 mm

QK 190	190	302 – 3925	< 20 – 37	< 28 – 45	electro-mechanical 24 V	roll-up grille	14241111114324	1,749.00	49.00
						linear grille	14241113114324	1,749.00	49.00
					electro-mechanical 230 V	roll-up grille	14241111114300	1,857.00	49.00
						linear grille	14241113114300	1,857.00	49.00
					KaControl	roll-up grille	142411111143C1	1,965.00	49.00
						linear grille	142411131143C1	1,965.00	49.00
QK 215	215	371 – 4091	< 20 – 37	< 28 – 45	electro-mechanical 24 V	roll-up grille	14243111114324	2,259.00	60.00
						linear grille	14243113114324	2,259.00	60.00
					electro-mechanical 230 V	roll-up grille	14243111114300	2,367.00	60.00
						linear grille	14243113114300	2,367.00	60.00
					KaControl	roll-up grille	142431111143C1	2,475.00	60.00
						linear grille	142431131143C1	2,475.00	60.00

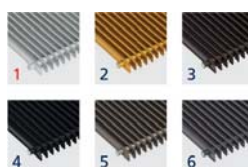
1.42 | Length 2600 mm

QK 190	190	341 – 4426	20 – 37	28 – 45	electro-mechanical 24 V	roll-up grille	14241111114724	1,820.00	52.00
						linear grille	14241113114724	1,820.00	52.00
					electro-mechanical 230 V	roll-up grille	14241111114700	1,928.00	52.00
						linear grille	14241113114700	1,928.00	52.00
					KaControl	roll-up grille	142411111147C1	2,036.00	52.00
						linear grille	142411131147C1	2,036.00	52.00
QK 215	215	419 – 4613	20 – 37	28 – 45	electro-mechanical 24 V	roll-up grille	14243111114724	2,344.00	62.00
						linear grille	14243113114724	2,344.00	62.00
					electro-mechanical 230 V	roll-up grille	14243111114700	2,452.00	62.00
						linear grille	14243113114700	2,452.00	62.00
					KaControl	roll-up grille	142431111147C1	2,560.00	62.00
						linear grille	142431131147C1	2,560.00	62.00

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

- 1424111111524 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{\text{r}} = 20$ °C, with 12 mm grille bar spacing, approx. 70% free area.

²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm QK

Ordering information

Version	Width	Heat output ¹⁾	Sound pressure level ²⁾	Sound power level	Control option	Grille design	Article no.	Price	Additional cost at colour change (grilles)
	[mm]	[W]	[dB(A)]	[dB(A)]				[€/each]	[€/each]

1.42 | Length 2800 mm

QK 190	190	374 – 4853	21 – 39	29 – 47	electro-mechanical 24 V	roll-up grille	14241111115124	1,848.00	56.00
						linear grille	14241113115124	1,848.00	56.00
					electro-mechanical 230 V	roll-up grille	14241111115100	1,956.00	56.00
						linear grille	14241113115100	1,956.00	56.00
					KaControl	roll-up grille	142411111151C1	2,064.00	56.00
						linear grille	142411131151C1	2,064.00	56.00
QK 215	215	459 – 5058	21 – 39	29 – 47	electro-mechanical 24 V	roll-up grille	14243111115124	2,378.00	65.00
						linear grille	14243113115124	2,378.00	65.00
					electro-mechanical 230 V	roll-up grille	14243111115100	2,486.00	65.00
						linear grille	14243113115100	2,486.00	65.00
					KaControl	roll-up grille	142431111151C1	2,594.00	65.00
						linear grille	142431131151C1	2,594.00	65.00

1.42 | Length 3000 mm

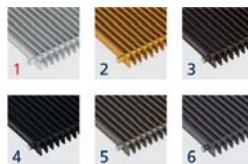
QK 190	190	412 – 5354	22 – 40	30 – 48	electro-mechanical 24 V	roll-up grille	14241111115524	2,003.00	58.00
						linear grille	14241113115524	2,003.00	58.00
					electro-mechanical 230 V	roll-up grille	14241111115500	2,111.00	58.00
						linear grille	14241113115500	2,111.00	58.00
					KaControl	roll-up grille	142411111155C1	2,219.00	58.00
						linear grille	142411131155C1	2,219.00	58.00
QK 215	215	506 – 5580	22 – 40	30 – 48	electro-mechanical 24 V	roll-up grille	14243111115524	2,580.00	68.00
						linear grille	14243113115524	2,580.00	68.00
					electro-mechanical 230 V	roll-up grille	14243111115500	2,688.00	68.00
						linear grille	14243113115500	2,688.00	68.00
					KaControl	roll-up grille	142431111155C1	2,796.00	68.00
						linear grille	142431131155C1	2,796.00	68.00

1.42 | Length 3200 mm

QK 190	190	445 – 5781	22 – 41	30 – 49	electro-mechanical 24 V	roll-up grille	14241111115924	2,032.00	60.00
						linear grille	14241113115924	2,032.00	60.00
					electro-mechanical 230 V	roll-up grille	14241111115900	2,140.00	60.00
						linear grille	14241113115900	2,140.00	60.00
					KaControl	roll-up grille	142411111159C1	2,248.00	60.00
						linear grille	142411131159C1	2,248.00	60.00
QK 215	215	547 – 6025	22 – 41	30 – 49	electro-mechanical 24 V	roll-up grille	14243111115924	2,614.00	70.00
						linear grille	14243113115924	2,614.00	70.00
					electro-mechanical 230 V	roll-up grille	14243111115900	2,722.00	70.00
						linear grille	14243113115900	2,722.00	70.00
					KaControl	roll-up grille	142431111159C1	2,830.00	70.00
						linear grille	142431131159C1	2,830.00	70.00

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

14241111115124 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, t₁ = 20 °C, with 12 mm grille bar spacing, approx. 70% free area.

²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm QK

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.94 | Control accessories electro-mechanical 230 V

Room thermostat	with fan speed adjustment, with thermal setback, in a flat surface-mounted housing, white, room temperature setting and speed pre-setting using dials, for the continuously variable parallel control of max. 10 Katherm QK and/or max. 10 Katherm QK nano	230 V electro-mechanical units	194000342924	85.00
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1.96 | Control accessories electro-mechanical 24 V

Power supply unit	230 V/24 V models, for external installation outside the trench heater Max. one Katherm QK, three Katherm QK nano or three PowerKon nano.	EC/24 V units, electro-mechanical	196901241593	44.00
	230 V/24 V models, for external installation outside the trench heater Max. two Katherm QK, five Katherm QK nano or seven PowerKon nano.	EC/24 V units, electro-mechanical	196901241595	59.00
	230 V/24 V models, for external installation outside the trench heater Max. four Katherm QK, eight Katherm QK nano or twelve PowerKon nano.	EC/24 V units, electro-mechanical	196901241596	84.00
Clock thermostat	24 V, heating/cooling with 2-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer program, heating/cooling changeover by means of external potential-free contact (low voltage) Only in conjunction with valves/valve kits with 24 V actuator Open/Close	EC units, electro-mechanical 24 V/230 V	196000030456	282.00

1.94 | Valve kits

Valve kit	includes 1 no. pre-settable valve body, straight, 1 no. thermoelectric actuator 24 V, 1 no. return shut-off valve, straight	all Katherm QK	194000142110	103.00
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1.94 | Valves and return shut-off valves

Valve body	straight, pre-settable, 1/2" connection	Katherm NK 182 (trench heights 150 mm and 200 mm), Katherm NK 232/300/380 (all trench heights), Katherm QK	194000346909	28.00
Pre-setting key	for pre-adjustable valves and valve kits	pre-settable valve bodies, valve kits and convector connection kit	194000346915	4.20
Return shut-off valve	straight, 1/2" connection	Katherm NK, Katherm QK, Katherm HK 290/HK 320	194000145952	15.00

1.94 | Valve actuators

Thermoelectric actuator	24 V AC/DC	For KaControl, room thermostat type 342924 and clock thermostat type 30456	194000146906	60.00
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1.94 | Surcharge for mitred corners

Surcharge for mitred corner	Roll-up grille, 90°	Trench width 190	194000142519	477.00
		Trench width 215	194000142522	519.00
	Roll-up grille, other angles	Trench width 190	194000142619	551.00
		Trench width 215	194000142622	603.00
	Linear grille, 90°	Trench width 190	194000142719	328.00
		Trench width 215	194000142722	354.00
	Linear grille, other angles	Trench width 190	194000142819	377.00
		Trench width 215	194000142822	413.00

1.94 | Installation covers

				[€/m]
Installation cover	to protect trench during installation, factory-fitted, grilles are packed separately	trench width 190 mm	194000100919	11.00
		trench width 215 mm	194000100922	12.00

Katherm QK nano

EC tangential fan-assisted convection with ultra-small dimensions.



Product benefits

- ▶ extremely low overall height
- ▶ usual quietness and high performance
- ▶ new FineLine grille
- ▶ ultra-small dimensions with a trench height of only 70 mm and a trench width of only 165 mm promise maximum use of the room volume
- ▶ matching frame for every FineLine grille for a perfect overall look
- ▶ 24 V electro-mechanical version, 230 V electro-mechanical version and KaControl are available
- ▶ Possible integration into KaControl networks or building automation systems, like KNX, Modbus or LON
- ▶ heat outputs tested independently in accordance with DIN EN 16430

Features

Convection	▶ EC tangential fan
Heating	▶ LPHW
Cooling	▶ ---
Ventilation	▶ ---
KaControl	▶ optional

References

German Football Museum, Dortmund | HanseMerkur Office Building, Hamburg

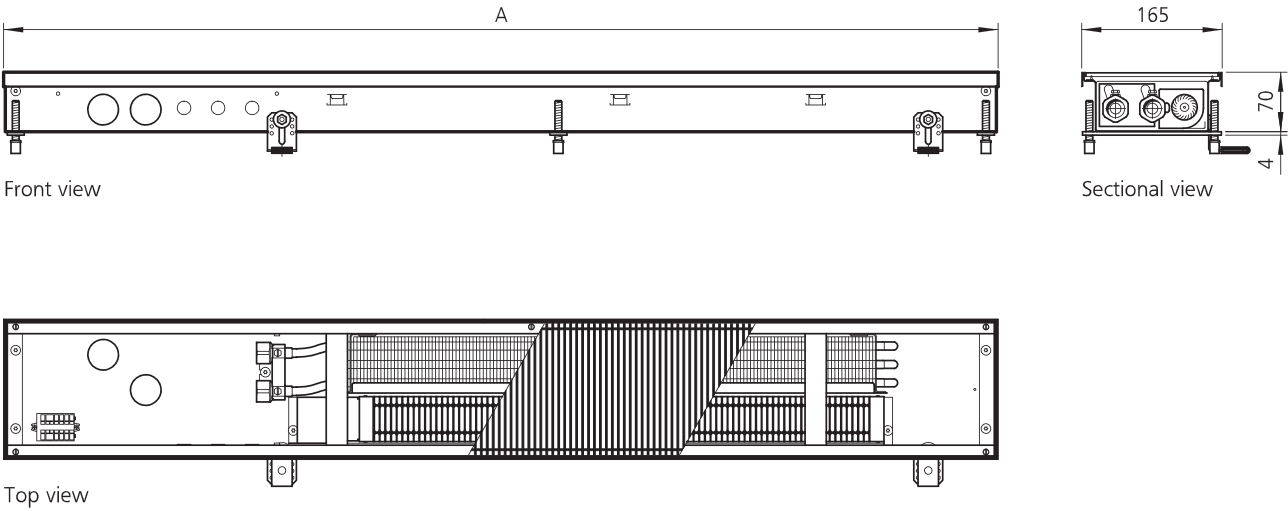
Technical data



Heat output [W] ¹⁾	> 52 – 3524
Sound pressure level [dB(A)] ²⁾	> 0 – 41
Sound power level [dB(A)]	> 0 – 49

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C
²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Technical drawing



Selection guide

			Control option	
			KaControl electro-mechanical 230 V	electro-mechanical 24 V
Heat output ¹⁾	Height	Width	Length (A)	Length (A)
[W]	[mm]	[mm]	[mm]	[mm]
52 – 772	70	165	1100	900
104 – 1545			1600	1400
156 – 2317			2000	1800
196 – 2912			2300	2100
238 – 3524			2700	2600

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Katherm QK nano

Ordering information

Length	Heat output ¹⁾	Sound pressure level ²⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]

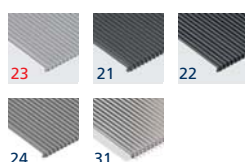
4.42 | Width 165 mm, Height 70 mm

900	52 – 772	< 20 – 34	< 28 – 42	electro-mechanical 24 V	Steel, coated RAL 9006	orthogonal grille	44217072331324	869.00	24.00
					Stainless steel	linear grille	44217074231324	869.00	24.00
						orthogonal grille	44217072311324	998.00	---
						linear grille	44217074311324	998.00	---
1100	52 – 772	< 20 – 34	< 28 – 42	electro-mechanical 230 V	Steel, coated RAL 9006	orthogonal grille	44217072331700	983.00	24.00
					Stainless steel	linear grille	44217074231700	983.00	24.00
						orthogonal grille	44217072311700	1,131.00	---
						linear grille	44217074311700	1,131.00	---
				KaControl	Steel, coated RAL 9006	orthogonal grille	442170723317C1	1,096.00	24.00
					Stainless steel	linear grille	442170742317C1	1,096.00	24.00
						orthogonal grille	442170723117C1	1,244.00	---
						linear grille	442170743117C1	1,244.00	---
1400	104 – 1545	< 20 – 37	< 28 – 45	electro-mechanical 24 V	Steel, coated RAL 9006	orthogonal grille	44217072332324	1,046.00	29.00
					Stainless steel	linear grille	44217074232324	1,046.00	29.00
						orthogonal grille	44217072312324	1,234.00	---
						linear grille	44217074312324	1,234.00	---
1600	104 – 1545	< 20 – 37	< 28 – 45	electro-mechanical 230 V	Steel, coated RAL 9006	orthogonal grille	44217072332700	1,159.00	29.00
					Stainless steel	linear grille	44217074232700	1,159.00	29.00
						orthogonal grille	44217072312700	1,373.00	---
						linear grille	44217074312700	1,373.00	---
				KaControl	Steel, coated RAL 9006	orthogonal grille	442170723327C1	1,273.00	29.00
					Stainless steel	linear grille	442170742327C1	1,273.00	29.00
						orthogonal grille	442170723127C1	1,487.00	---
						linear grille	442170743127C1	1,487.00	---
1800	156 – 2317	< 20 – 39	< 28 – 47	electro-mechanical 24 V	Steel, coated RAL 9006	orthogonal grille	44217072333124	1,138.00	35.00
					Stainless steel	linear grille	44217074233124	1,138.00	35.00
						orthogonal grille	44217072313124	1,380.00	---
						linear grille	44217074313124	1,380.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows, according to the following pattern:



Article key

 **44217074 2335C1** ► Steel, coated RAL 9006 (standard)
21 ► Steel, coated DB 703
22 ► Steel, coated RAL 9005
24 ► Steel, coated RAL 9007
31 ► Stainless steel

¹⁾ at LPHW 75/65 °C, $t_{L1} = 20$ °C

²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

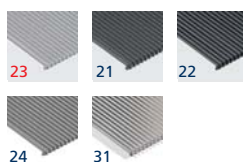
Katherm QK nano

Ordering information


Length	Heat output ¹⁾	Sound pressure level ²⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
2000	156 – 2317	< 20 – 39	< 28 – 47	electro-mechanical 230 V	Steel, coated RAL 9006	orthogonal grille	44217072233500	1,252.00	35.00
						linear grille	44217074233500	1,252.00	35.00
					Stainless steel	orthogonal grille	44217072313500	1,519.00	---
						linear grille	44217074313500	1,519.00	---
				KaControl	Steel, coated RAL 9006	orthogonal grille	442170722335C1	1,365.00	35.00
						linear grille	442170742335C1	1,365.00	35.00
					Stainless steel	orthogonal grille	442170723135C1	1,633.00	---
						linear grille	442170743135C1	1,633.00	---
2100	196 – 2912	20 – 40	28 – 48	electro-mechanical 24 V	Steel, coated RAL 9006	orthogonal grille	44217072233724	1,435.00	39.00
						linear grille	44217074233724	1,435.00	39.00
					Stainless steel	orthogonal grille	44217072313724	1,717.00	---
						linear grille	44217074313724	1,717.00	---
2300	196 – 2912	20 – 40	28 – 48	electro-mechanical 230 V	Steel, coated RAL 9006	orthogonal grille	44217072234100	1,549.00	39.00
						linear grille	44217074234100	1,549.00	39.00
					Stainless steel	orthogonal grille	44217072314100	1,843.00	---
						linear grille	44217074314100	1,843.00	---
				KaControl	Steel, coated RAL 9006	orthogonal grille	442170722341C1	1,662.00	39.00
						linear grille	442170742341C1	1,662.00	39.00
					Stainless steel	orthogonal grille	442170723141C1	1,956.00	---
						linear grille	442170743141C1	1,956.00	---
2600	238 – 3524	< 20 – 41	< 28 – 49	electro-mechanical 24 V	Steel, coated RAL 9006	orthogonal grille	44217072234724	1,809.00	46.00
						linear grille	44217074234724	1,809.00	46.00
					Stainless steel	orthogonal grille	44217072314724	2,157.00	---
						linear grille	44217074314724	2,157.00	---
2700	238 – 3524	< 20 – 41	29 – 49	electro-mechanical 230 V	Steel, coated RAL 9006	orthogonal grille	44217072234900	1,923.00	46.00
						linear grille	44217074234900	1,923.00	46.00
					Stainless steel	orthogonal grille	44217072314900	2,284.00	---
						linear grille	44217074314900	2,284.00	---
				KaControl	Steel, coated RAL 9006	orthogonal grille	442170722349C1	2,036.00	46.00
						linear grille	442170742349C1	2,036.00	46.00
					Stainless steel	orthogonal grille	442170723149C1	2,397.00	---
						linear grille	442170743149C1	2,397.00	---

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows, according to the following pattern:



Article key

 **44217074 23 35C1** ▶ Steel, coated RAL 9006 (standard)
21 —▶ Steel, coated DB 703
22 —▶ Steel, coated RAL 9005
24 —▶ Steel, coated RAL 9007
31 —▶ Stainless steel

¹⁾ at LPHW 75/65 °C, t₁ = 20 °C

²⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm QK nano

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.94 | Control accessories electro-mechanical 230 V

Room thermostat	with fan speed adjustment, with thermal setback, in a flat surface-mounted housing, white, room temperature setting and speed pre-setting using dials, for the continuously variable parallel control of max. 10 Katherm QK and/or max. 10 Katherm QK nano	230 V electro-mechanical units	194000342924	85.00
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1.96 | Control accessories electro-mechanical 24 V

KaControl control electronics	230 V AC/24 V model, for external installation outside the trench heater. Max. 2 units can be connected!	EC/24 V units, electro-mechanical	196003231131	375.00
	230 V AC/24 V model, for external installation outside the trench heater. Max. 6 units can be connected!	EC/24 V units, electro-mechanical	196003231132	1,646.00
Power supply unit	230 V/24 V models, for external installation outside the trench heater Max. one Katherm QK, three Katherm QK nano or three PowerKon nano.	EC/24 V units, electro-mechanical	196901241593	44.00
	230 V/24 V models, for external installation outside the trench heater Max. two Katherm QK, five Katherm QK nano or seven PowerKon nano.	EC/24 V units, electro-mechanical	196901241595	59.00
	230 V/24 V models, for external installation outside the trench heater Max. four Katherm QK, eight Katherm QK nano or twelve PowerKon nano.	EC/24 V units, electro-mechanical	196901241596	84.00
Clock thermostat	24 V, heating/cooling with 2-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer program, heating/cooling changeover by means of external potential-free contact (low voltage) Only in conjunction with valves/valve kits with 24 V actuator Open/Close	EC units, electro-mechanical 24 V/230 V	196000030456	282.00

1.94 | Valve kits

Valve kit	includes pre-settable valve body, 24 V actuator, 1 return shut-off valve and matching spacer	Katherm QK nano	194000442100	112.00
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1.94 | Connection accessories

Connection set	includes two return shut-off valves and matching adapter	Katherm QK nano	194000442101	38.00
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1.94 | Installation covers

				[€/m]
Installation cover	to protect trench during installation, factory-fitted, grilles are packed separately	trench width 165 mm	194000101916	10.00

Katherm HK

EC tangential fan-assisted convection
for heating or cooling.

Product benefits

- ▶ hygiene conforms to VDI 6022: simple cleaning
- ▶ heat outputs tested independently in accordance with DIN EN 16430
- ▶ EC fan - efficient in terms of noise and energy
- ▶ low-cost effective heating and cooling with low noise levels
- ▶ matching frame for every roll-up grille for a perfect overall look
- ▶ Eurokonus valve connection for fast installation
- ▶ KaControl system or electromechanical control as standard
- ▶ possible integration into KaControl networks or building automation systems, like KNX, Modbus or LON

Features

Convection	› EC tangential fan
Heating	› LPHW
Cooling	› CHW
Ventilation	› optionally by supply-air modules or air supply ducts
KaControl	› optional

References

ADAC Headquarters, Munich | Hotel RIU Plaza, Berlin | Hotel Roomers, Baden-Baden

Technical data



Heat output [W] ¹⁾ > 544 – 16884

Cooling output [W] ²⁾ > 72 – 3348

Sound pressure level [dB(A)] ³⁾ > < 20 – 55

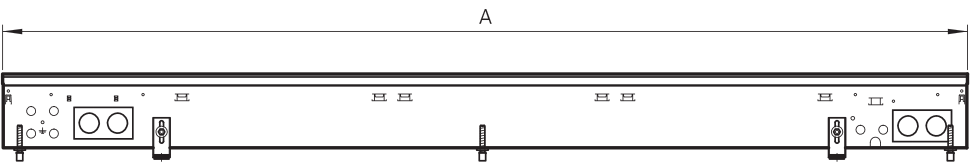
Sound power level [dB(A)] > < 28 – 63

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

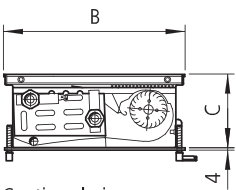
²⁾ at CHW 16/18, t_{L1} = 27 °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

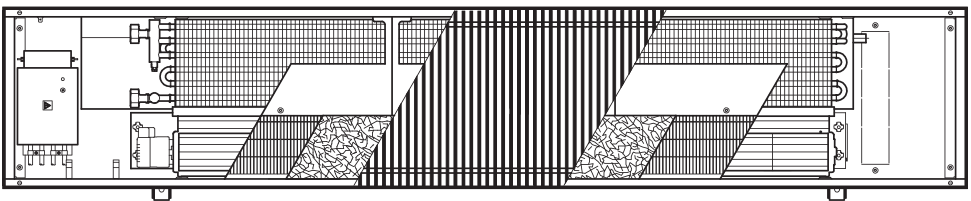
Technical drawing



Front view



Sectional view



Top view

Selection guide

System								
2-pipe		4-pipe						
Heat output ¹⁾	Cooling output ²⁾	Heat output ¹⁾	Cooling output ²⁾	Height (C)	Width (B)	Length (A)		
[W]	[W]	[W]	[W]	[mm]	[mm]	[mm]		
706 – 2101	87 – 356	544 – 1220	85 – 337	130	320	915		
1102 – 3627	160 – 630	954 – 2185	161 – 620			1200		
2149 – 6043	279 – 1043	1766 – 3785	280 – 1027			1700		
2321 – 7573	312 – 1326	2110 – 4884	314 – 1307			2000		
3336 – 10103	432 – 1749	2822 – 6415	433 – 1722			2500		
4266 – 12553	551 – 2159	3611 – 8004	552 – 2124			3000		
673 – 2811	75 – 534	564 – 1586	72 – 495			950		
1137 – 4752	127 – 903	954 – 2681	121 – 837			1200		
1810 – 7562	202 – 1437	1518 – 4268	193 – 1332			1700		
2370 – 9905	265 – 1882	1988 – 5590	253 – 1744			2000		
3027 – 12648	338 – 2404	2539 – 7138	323 – 2228	160	290	2500		
4036 – 16865	451 – 3205	3385 – 9517	431 – 2970			3000		
887 – 4113	92 – 816	643 – 2982	87 – 768			950		
1471 – 6819	152 – 1352	1066 – 4944	144 – 1273			1200		
1821 – 8442	189 – 1674	1320 – 6121	178 – 1576			1350		
2755 – 12771	286 – 2533	1998 – 9261	269 – 2385			1850		
3642 – 16884	378 – 3348	2641 – 12243	356 – 3153			2250		
						210	360	

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C, with fan coils

²⁾ with CHW 16/18 °C, t_{L1} = 27 °C, 48% rel. humidity, with fan coils

Katherm HK

Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]

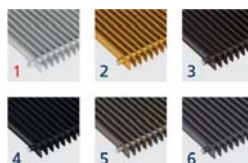
1.43 | Width 320 mm, Height 130 mm

915	2-pipe	706 – 2101	87 – 356	20 – 39	28 – 47	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332231111324	1,125.00	49.00
								linear grille	14332233111324	1,125.00	49.00
						Stainless steel		roll-up grille	14332231311324	1,318.00	---
								linear grille	14332233311324	1,318.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332231111300	1,233.00	49.00
								linear grille	14332233111300	1,233.00	49.00
							Stainless steel	roll-up grille	14332231311300	1,426.00	---
								linear grille	14332233311300	1,426.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143322311113C1	1,344.00	49.00
								linear grille	143322331113C1	1,344.00	49.00
							Stainless steel	roll-up grille	143322313113C1	1,537.00	---
								linear grille	143322333113C1	1,537.00	---
	4-pipe	544 – 1220	85 – 337	20 – 39	28 – 47	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332431111324	1,146.00	49.00
								linear grille	14332433111324	1,146.00	49.00
						Stainless steel		roll-up grille	14332431311324	1,339.00	---
								linear grille	14332433311324	1,339.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332431111300	1,254.00	49.00
								linear grille	14332433111300	1,254.00	49.00
							Stainless steel	roll-up grille	14332431311300	1,447.00	---
								linear grille	14332433311300	1,447.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143324311113C1	1,363.00	49.00
								linear grille	143324331113C1	1,363.00	49.00
							Stainless steel	roll-up grille	143324313113C1	1,558.00	---
								linear grille	143324333113C1	1,558.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

14332231111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

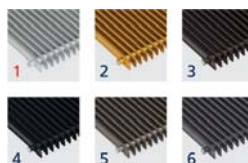
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
1200	2-pipe	1102 – 3627	160 – 630	20 – 41	28 – 49	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332231111924	1,183.00	55.00
								linear grille	14332233111924	1,183.00	55.00
							Stainless steel	roll-up grille	14332231311924	1,419.00	---
								linear grille	14332233311924	1,419.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332231111900	1,291.00	55.00
								linear grille	14332233111900	1,291.00	55.00
							Stainless steel	roll-up grille	14332231311900	1,527.00	---
								linear grille	14332233311900	1,527.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143322311119C1	1,403.00	55.00
								linear grille	143322331119C1	1,403.00	55.00
							Stainless steel	roll-up grille	143322313119C1	1,636.00	---
								linear grille	143322333119C1	1,636.00	---
	4-pipe	954 – 2185	161 – 620	20 – 41	28 – 49	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332431111924	1,205.00	55.00
								linear grille	14332433111924	1,205.00	55.00
							Stainless steel	roll-up grille	14332431311924	1,438.00	---
								linear grille	14332433311924	1,438.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332431111900	1,313.00	55.00
								linear grille	14332433111900	1,313.00	55.00
							Stainless steel	roll-up grille	14332431311900	1,546.00	---
								linear grille	14332433311900	1,546.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143324311119C1	1,422.00	55.00
								linear grille	143324331119C1	1,422.00	55.00
							Stainless steel	roll-up grille	143324313119C1	1,657.00	---
								linear grille	143324333119C1	1,657.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

14332231111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

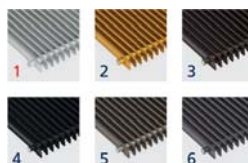
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
1700	2-pipe	2149 – 6043	279 – 1043	< 20 – 41	< 28 – 49	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332231112924	1,464.00	63.00
								linear grille	14332233112924	1,464.00	63.00
							Stainless steel	roll-up grille	14332231312924	1,756.00	---
								linear grille	14332233312924	1,756.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332231112900	1,572.00	63.00
								linear grille	14332233112900	1,572.00	63.00
							Stainless steel	roll-up grille	14332231312900	1,864.00	---
								linear grille	14332233312900	1,864.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143322311129C1	1,682.00	63.00
								linear grille	143322331129C1	1,682.00	63.00
							Stainless steel	roll-up grille	143322313129C1	1,975.00	---
								linear grille	143322333129C1	1,975.00	---
	4-pipe	1766 – 3785	280 – 1027	< 20 – 41	< 28 – 49	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332431112924	1,484.00	63.00
								linear grille	14332433112924	1,484.00	63.00
							Stainless steel	roll-up grille	14332431312924	1,776.00	---
								linear grille	14332433312924	1,776.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332431112900	1,592.00	63.00
								linear grille	14332433112900	1,592.00	63.00
							Stainless steel	roll-up grille	14332431312900	1,884.00	---
								linear grille	14332433312900	1,884.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143324311129C1	1,703.00	63.00
								linear grille	143324331129C1	1,703.00	63.00
							Stainless steel	roll-up grille	143324313129C1	1,994.00	---
								linear grille	143324333129C1	1,994.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

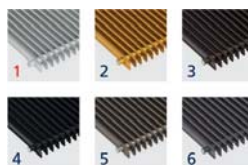
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
2000	2-pipe	2321 – 7573	312 – 1326	< 20 – 44	< 28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332231113524	1,976.00	70.00
								linear grille	14332233113524	1,976.00	70.00
							Stainless steel	roll-up grille	14332231313524	2,368.00	---
								linear grille	14332233313524	2,368.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332231113500	2,084.00	70.00
								linear grille	14332233113500	2,084.00	70.00
							Stainless steel	roll-up grille	14332231313500	2,476.00	---
								linear grille	14332233313500	2,476.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143322311135C1	2,196.00	70.00
								linear grille	143322331135C1	2,196.00	70.00
							Stainless steel	roll-up grille	143322313135C1	2,587.00	---
								linear grille	143322333135C1	2,587.00	---
	4-pipe	2110 – 4884	314 – 1307	< 20 – 44	< 28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332431113524	1,998.00	70.00
								linear grille	14332433113524	1,998.00	70.00
							Stainless steel	roll-up grille	14332431313524	2,389.00	---
								linear grille	14332433313524	2,389.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332431113500	2,106.00	70.00
								linear grille	14332433113500	2,106.00	70.00
							Stainless steel	roll-up grille	14332431313500	2,497.00	---
								linear grille	14332433313500	2,497.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143324311135C1	2,216.00	70.00
								linear grille	143324331135C1	2,216.00	70.00
							Stainless steel	roll-up grille	143324313135C1	2,609.00	---
								linear grille	143324333135C1	2,609.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

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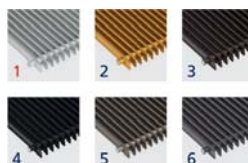
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
2500	2-pipe	3336 – 10103	432 – 1749	< 20 – 44	< 28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332231114524	2,392.00	80.00
								linear grille	14332233114524	2,392.00	80.00
						Stainless steel		roll-up grille	14332231314524	2,883.00	---
								linear grille	14332233314524	2,883.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332231114500	2,500.00	80.00
								linear grille	14332233114500	2,500.00	80.00
						Stainless steel		roll-up grille	14332231314500	2,991.00	---
								linear grille	14332233314500	2,991.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143322311145C1	2,611.00	80.00
								linear grille	143322331145C1	2,611.00	80.00
						Stainless steel		roll-up grille	143322313145C1	3,101.00	---
								linear grille	143322333145C1	3,101.00	---
	4-pipe	2822 – 6415	433 – 1722	< 20 – 44	< 28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332431114524	2,412.00	80.00
								linear grille	14332433114524	2,412.00	80.00
						Stainless steel		roll-up grille	14332431314524	2,902.00	---
								linear grille	14332433314524	2,902.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332431114500	2,520.00	80.00
								linear grille	14332433114500	2,520.00	80.00
						Stainless steel		roll-up grille	14332431314500	3,010.00	---
								linear grille	14332433314500	3,010.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143324311145C1	2,631.00	80.00
								linear grille	143324331145C1	2,631.00	80.00
						Stainless steel		roll-up grille	143324313145C1	3,121.00	---
								linear grille	143324333145C1	3,121.00	---

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

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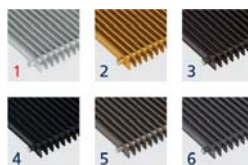
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
3000	2-pipe	4266 – 12553	551 – 2159	< 20 – 44	< 28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332231115524	2,596.00	91.00
								linear grille	14332233115524	2,596.00	91.00
							Stainless steel	roll-up grille	14332231315524	3,187.00	---
								linear grille	14332233315524	3,187.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332231115500	2,704.00	91.00
								linear grille	14332233115500	2,704.00	91.00
							Stainless steel	roll-up grille	14332231315500	3,295.00	---
								linear grille	14332233315500	3,295.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143322311155C1	2,859.00	91.00
								linear grille	143322331155C1	2,859.00	91.00
							Stainless steel	roll-up grille	143322313155C1	3,450.00	---
								linear grille	143322333155C1	3,450.00	---
	4-pipe	3611 – 8004	552 – 2124	< 20 – 44	< 28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14332431115524	2,617.00	91.00
								linear grille	14332433115524	2,617.00	91.00
							Stainless steel	roll-up grille	14332431315524	3,206.00	---
								linear grille	14332433315524	3,206.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14332431115500	2,725.00	91.00
								linear grille	14332433115500	2,725.00	91.00
							Stainless steel	roll-up grille	14332431315500	3,314.00	---
								linear grille	14332433315500	3,314.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143324311155C1	2,879.00	91.00
								linear grille	143324331155C1	2,879.00	91.00
							Stainless steel	roll-up grille	143324313155C1	3,469.00	---
								linear grille	143324333155C1	3,469.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

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Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]

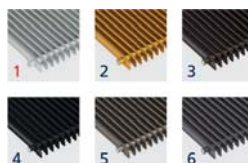
1.43 | Width 290 mm, Height 160 mm

950	2-pipe	673 – 2811	75 – 534	20 – 39	28 – 47	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329261111424	1,447.00	48.00
								linear grille	14329263111424	1,447.00	48.00
							Stainless steel	roll-up grille	14329261311424	1,637.00	---
								linear grille	14329263311424	1,637.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329261111400	1,548.00	48.00
								linear grille	14329263111400	1,548.00	48.00
							Stainless steel	roll-up grille	14329261311400	1,739.00	---
								linear grille	14329263311400	1,739.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143292611114C1	1,669.00	48.00
								linear grille	143292631114C1	1,669.00	48.00
							Stainless steel	roll-up grille	143292613114C1	1,860.00	---
								linear grille	143292633114C1	1,860.00	---
	4-pipe	564 – 1586	72 – 495	20 – 39	28 – 47	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329461111424	1,468.00	48.00
								linear grille	14329463111424	1,468.00	48.00
							Stainless steel	roll-up grille	14329461311424	1,659.00	---
								linear grille	14329463311424	1,659.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329461111400	1,570.00	48.00
								linear grille	14329463111400	1,570.00	48.00
							Stainless steel	roll-up grille	14329461311400	1,760.00	---
								linear grille	14329463311400	1,760.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143294611114C1	1,690.00	48.00
								linear grille	143294631114C1	1,690.00	48.00
							Stainless steel	roll-up grille	143294613114C1	1,880.00	---
								linear grille	143294633114C1	1,880.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{r1} = 20$ °C

²⁾ at CHW 16/18, $t_{r1} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

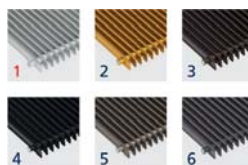
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
1200	2-pipe	1137 – 4752	127 – 903	20 – 42	28 – 50	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329261111924	1,663.00	54.00
								linear grille	14329263111924	1,663.00	54.00
							Stainless steel	roll-up grille	14329261311924	1,894.00	---
								linear grille	14329263311924	1,894.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329261111900	1,764.00	54.00
								linear grille	14329263111900	1,764.00	54.00
							Stainless steel	roll-up grille	14329261311900	1,996.00	---
								linear grille	14329263311900	1,996.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143292611119C1	1,884.00	54.00
								linear grille	143292631119C1	1,884.00	54.00
							Stainless steel	roll-up grille	143292613119C1	2,115.00	---
								linear grille	143292633119C1	2,115.00	---
	4-pipe	954 – 2681	121 – 837	20 – 42	28 – 50	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329461111924	1,684.00	54.00
								linear grille	14329463111924	1,684.00	54.00
							Stainless steel	roll-up grille	14329461311924	1,915.00	---
								linear grille	14329463311924	1,915.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329461111900	1,786.00	54.00
								linear grille	14329463111900	1,786.00	54.00
							Stainless steel	roll-up grille	14329461311900	2,017.00	---
								linear grille	14329463311900	2,017.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143294611119C1	1,906.00	54.00
								linear grille	143294631119C1	1,906.00	54.00
							Stainless steel	roll-up grille	143294613119C1	2,137.00	---
								linear grille	143294633119C1	2,137.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

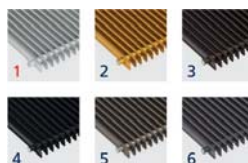
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
1700	2-pipe	1810 – 7562	202 – 1437	20 – 44	28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329261112924	2,094.00	62.00
								linear grille	14329263112924	2,094.00	62.00
							Stainless steel	roll-up grille	14329261312924	2,384.00	---
								linear grille	14329263312924	2,384.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329261112900	2,196.00	62.00
								linear grille	14329263112900	2,196.00	62.00
							Stainless steel	roll-up grille	14329261312900	2,486.00	---
								linear grille	14329263312900	2,486.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143292611129C1	2,315.00	62.00
								linear grille	143292631129C1	2,315.00	62.00
							Stainless steel	roll-up grille	143292613129C1	2,605.00	---
								linear grille	143292633129C1	2,605.00	---
	4-pipe	1518 – 4268	193 – 1332	20 – 44	28 – 52	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329461112924	2,114.00	62.00
								linear grille	14329463112924	2,114.00	62.00
							Stainless steel	roll-up grille	14329461312924	2,404.00	---
								linear grille	14329463312924	2,404.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329461112900	2,216.00	62.00
								linear grille	14329463112900	2,216.00	62.00
							Stainless steel	roll-up grille	14329461312900	2,507.00	---
								linear grille	14329463312900	2,507.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143294611129C1	2,337.00	62.00
								linear grille	143294631129C1	2,337.00	62.00
							Stainless steel	roll-up grille	143294613129C1	2,627.00	---
								linear grille	143294633129C1	2,627.00	---

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

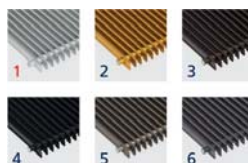
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
2000	2-pipe	2370 – 9905	265 – 1882	20 – 45	28 – 53	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329261113524	2,353.00	68.00
								linear grille	14329263113524	2,353.00	68.00
							Stainless steel	roll-up grille	14329261313524	2,742.00	---
								linear grille	14329263313524	2,742.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329261113500	2,455.00	68.00
								linear grille	14329263113500	2,455.00	68.00
							Stainless steel	roll-up grille	14329261313500	2,844.00	---
								linear grille	14329263313500	2,844.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143292611135C1	2,574.00	68.00
								linear grille	143292631135C1	2,574.00	68.00
							Stainless steel	roll-up grille	143292613135C1	2,964.00	---
								linear grille	143292633135C1	2,964.00	---
	4-pipe	1988 – 5590	253 – 1744	20 – 45	28 – 53	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329461113524	2,373.00	68.00
								linear grille	14329463113524	2,373.00	68.00
							Stainless steel	roll-up grille	14329461313524	2,763.00	---
								linear grille	14329463313524	2,763.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329461113500	2,475.00	68.00
								linear grille	14329463113500	2,475.00	68.00
							Stainless steel	roll-up grille	14329461313500	2,864.00	---
								linear grille	14329463313500	2,864.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143294611135C1	2,596.00	68.00
								linear grille	143294631135C1	2,596.00	68.00
							Stainless steel	roll-up grille	143294613135C1	2,985.00	---
								linear grille	143294633135C1	2,985.00	---

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

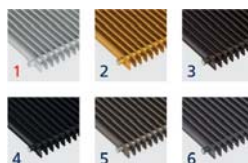
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
2500	2-pipe	3027 – 12648	338 – 2404	< 20 – 46	< 28 – 54	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329261114524	2,784.00	78.00
								linear grille	14329263114524	2,784.00	78.00
						Stainless steel		roll-up grille	14329261314524	3,271.00	---
								linear grille	14329263314524	3,271.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329261114500	2,886.00	78.00
								linear grille	14329263114500	2,886.00	78.00
						Stainless steel		roll-up grille	14329261314500	3,374.00	---
								linear grille	14329263314500	3,374.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143292611145C1	3,006.00	78.00
								linear grille	143292631145C1	3,006.00	78.00
						Stainless steel		roll-up grille	143292613145C1	3,494.00	---
								linear grille	143292633145C1	3,494.00	---
	4-pipe	2539 – 7138	323 – 2228	< 20 – 46	< 28 – 54	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329461114524	2,804.00	78.00
								linear grille	14329463114524	2,804.00	78.00
						Stainless steel		roll-up grille	14329461314524	3,292.00	---
								linear grille	14329463314524	3,292.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329461114500	2,906.00	78.00
								linear grille	14329463114500	2,906.00	78.00
						Stainless steel		roll-up grille	14329461314500	3,394.00	---
								linear grille	14329463314500	3,394.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143294611145C1	3,027.00	78.00
								linear grille	143294631145C1	3,027.00	78.00
						Stainless steel		roll-up grille	143294613145C1	3,514.00	---
								linear grille	143294633145C1	3,514.00	---

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

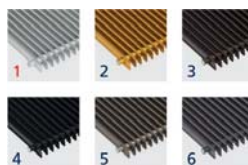
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
3000	2-pipe	4036 – 16865	451 – 3205	< 20 – 47	< 28 – 55	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329261115524	3,216.00	90.00
								linear grille	14329263115524	3,216.00	90.00
							Stainless steel	roll-up grille	14329261315524	3,804.00	---
								linear grille	14329263315524	3,804.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329261115500	3,318.00	90.00
								linear grille	14329263115500	3,318.00	90.00
							Stainless steel	roll-up grille	14329261315500	3,906.00	---
								linear grille	14329263315500	3,906.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143292611155C1	3,438.00	90.00
								linear grille	143292631155C1	3,438.00	90.00
							Stainless steel	roll-up grille	143292613155C1	4,026.00	---
								linear grille	143292633155C1	4,026.00	---
	4-pipe	3385 – 9517	431 – 2970	< 20 – 47	< 28 – 55	electro-mechanical 24 V	Aluminium, natural anodised	roll-up grille	14329461115524	3,237.00	90.00
								linear grille	14329463115524	3,237.00	90.00
							Stainless steel	roll-up grille	14329461315524	3,825.00	---
								linear grille	14329463315524	3,825.00	---
						electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14329461115500	3,338.00	90.00
								linear grille	14329463115500	3,338.00	90.00
							Stainless steel	roll-up grille	14329461315500	3,927.00	---
								linear grille	14329463315500	3,927.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143294611155C1	3,458.00	90.00
								linear grille	143294631155C1	3,458.00	90.00
							Stainless steel	roll-up grille	143294613155C1	4,047.00	---
								linear grille	143294633155C1	4,047.00	---

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]

1.43 | Width 360 mm, Height 210 mm

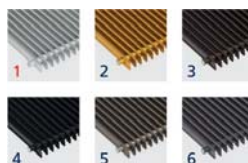
950	2-pipe	887 – 4113	92 – 816	< 20 – 51	< 28 – 59	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336221111400	1,913.00	53.00
								linear grille	14336223111400	1,913.00	53.00
							Stainless steel	roll-up grille	14336221311400	2,216.00	--
								linear grille	14336223311400	2,216.00	--
						KaControl	Aluminium, natural anodised	roll-up grille	143362211114C1	2,021.00	53.00
								linear grille	143362231114C1	2,021.00	53.00
	Stainless steel	roll-up grille	143362213114C1	2,324.00	--						
		linear grille	143362233114C1	2,324.00	--						
	4-pipe	643 – 2982	87 – 768	< 20 – 51	< 28 – 59	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336421111400	1,935.00	53.00
								linear grille	14336423111400	1,935.00	53.00
							Stainless steel	roll-up grille	14336421311400	2,238.00	--
								linear grille	14336423311400	2,238.00	--
KaControl						Aluminium, natural anodised	roll-up grille	143364211114C1	2,043.00	53.00	
							linear grille	143364231114C1	2,043.00	53.00	
	Stainless steel	roll-up grille	143364213114C1	2,346.00	--						
		linear grille	143364233114C1	2,346.00	--						

1200	2-pipe	1471 – 6819	152 – 1352	< 20 – 52	< 28 – 60	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336221111900	2,277.00	62.00
								linear grille	14336223111900	2,277.00	62.00
							Stainless steel	roll-up grille	14336221311900	2,635.00	--
								linear grille	14336223311900	2,635.00	--
						KaControl	Aluminium, natural anodised	roll-up grille	143362211119C1	2,385.00	62.00
								linear grille	143362231119C1	2,385.00	62.00
	Stainless steel	roll-up grille	143362213119C1	2,743.00	--						
		linear grille	143362233119C1	2,743.00	--						
	4-pipe	1066 – 4944	144 – 1273	< 20 – 52	< 28 – 60	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336421111900	2,299.00	62.00
								linear grille	14336423111900	2,299.00	62.00
							Stainless steel	roll-up grille	14336421311900	2,657.00	--
								linear grille	14336423311900	2,657.00	--
						KaControl	Aluminium, natural anodised	roll-up grille	143364211119C1	2,407.00	62.00
								linear grille	143364231119C1	2,407.00	62.00
							Stainless steel	roll-up grille	143364213119C1	2,765.00	--
								linear grille	143364233119C1	2,765.00	--

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Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

14332231111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ at CHW 16/18, $t_{11} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

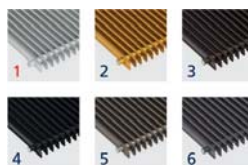
Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
1350	2-pipe	1821 – 8442	189 – 1674	< 20 – 52	< 28 – 60	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336221112200	2,462.00	65.00
								linear grille	14336223112200	2,462.00	65.00
							Stainless steel	roll-up grille	14336221312200	2,848.00	---
								linear grille	14336223312200	2,848.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143362211122C1	2,570.00	65.00
								linear grille	143362231122C1	2,570.00	65.00
	4-pipe	1320 – 6121	178 – 1576	< 20 – 52	< 28 – 60	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336421112200	2,484.00	65.00
								linear grille	14336423112200	2,484.00	65.00
							Stainless steel	roll-up grille	14336421312200	2,870.00	---
								linear grille	14336423312200	2,870.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143364211122C1	2,592.00	65.00
								linear grille	143364231122C1	2,592.00	65.00
1850	2-pipe	2755 – 12771	286 – 2533	< 20 – 53	< 28 – 61	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336221113200	3,006.00	72.00
								linear grille	14336223113200	3,006.00	72.00
							Stainless steel	roll-up grille	14336221313200	3,473.00	---
								linear grille	14336223313200	3,473.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143362211132C1	3,114.00	72.00
								linear grille	143362231132C1	3,114.00	72.00
	4-pipe	1998 – 9261	269 – 2385	< 20 – 53	< 28 – 61	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336421113200	3,028.00	72.00
								linear grille	14336423113200	3,028.00	72.00
							Stainless steel	roll-up grille	14336421313200	3,495.00	---
								linear grille	14336423313200	3,495.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143364211132C1	3,136.00	72.00
								linear grille	143364231132C1	3,136.00	72.00

CONTINUED ►

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703


¹⁾ at LPHW 75/65 °C, $t_{r1} = 20$ °C

²⁾ at CHW 16/18, $t_{r1} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

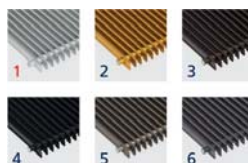
Katherm HK

Ordering information

Length	System	Heat output ¹⁾	Cooling output ²⁾	Sound pressure level ³⁾	Sound power level	Control option	Grille finish	Grille design	Article no.	Price	Additional cost at colour change (grilles)
[mm]		[W]	[W]	[dB(A)]	[dB(A)]					[€/each]	[€/each]
2250	2-pipe	3642 – 16884	378 – 3348	< 20 – 55	< 28 – 63	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336221114000	3,248.00	80.00
								linear grille	14336223114000	3,248.00	80.00
							Stainless steel	roll-up grille	14336221314000	3,751.00	---
								linear grille	14336223314000	3,751.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143362211140C1	3,356.00	80.00
								linear grille	143362231140C1	3,356.00	80.00
	4-pipe	2641 – 12243	356 – 3153	< 20 – 55	< 28 – 63	electro-mechanical 230 V	Aluminium, natural anodised	roll-up grille	14336421114000	3,270.00	80.00
								linear grille	14336423114000	3,270.00	80.00
							Stainless steel	roll-up grille	14336421314000	3,773.00	---
								linear grille	14336423314000	3,773.00	---
						KaControl	Aluminium, natural anodised	roll-up grille	143364211140C1	3,378.00	80.00
								linear grille	143364231140C1	3,378.00	80.00
							Stainless steel	roll-up grille	143364213140C1	3,881.00	---
								linear grille	143364233140C1	3,881.00	---

Matching grille

To order the product at a surcharge with a different grille, please change the highlighted product key as follows: according to the following pattern:



Article key

1433223111324 → natural anodised (standard)
 2 → brass anodised
 3 → bronze anodised
 4 → black anodised
 5 → bronze finish
 6 → coated DB 703

¹⁾ at LPHW 75/65 °C, $t_{r1} = 20$ °C

²⁾ at CHW 16/18, $t_{r1} = 27$ °C, 48% relative humidity

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s (in accordance with VDI 2081)

Katherm HK

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Clip-on pipe sensor	to detect the temperature of the medium, including strap, 3 m cable for heating/cooling changeover. CAUTION! Heating/cooling changeover function only combined with 3-way valve!	all units with control option KaControl -C1	196003250115	44.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.96 | Control accessories electro-mechanical 230 V

Room thermostat	230 V, EC, heating/cooling in a 2 and 4-pipe system, surface-mounted, 3-stage, with OFF/Manual/ Automatic fan changeover. Only in conjunction with valves/valve kits with 230V actuator Open/Close	EC units, electromechanical, maximum number of units than can be connected: five Katherm HK trench heaters, two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030155	175.00
Climate Controller	230 V, EC, heating/cooling in a 2- and 4-pipe system, surface-mounted, continuously variable control, with LCD operating menu and integrated timer programme. Only in conjunction with valves/valve kits with 230V actuator Open/Close Colour similar to RAL 9010 pure white.	EC units, electro-mechanical, maximum number of units than can be connected: four Katherm HK trench heaters, two KaCool D AF or two KaCool W fan coils	196000148941	362.00
	230 V, EC, heating/cooling in a 2- and 4-pipe system, surface-mounted, continuously variable control, with LCD operating menu and integrated timer programme. Only in conjunction with valves/valve kits with 230V actuator Open/Close Colour similar to RAL 9004 signal black.	EC units, electro-mechanical, maximum number of units than can be connected: four Katherm HK trench heaters, two KaCool D AF or two KaCool W fan coils	196000148942	362.00

1.96 | Control accessories electro-mechanical 24 V

Clock thermostat	24 V, heating/cooling with 2-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer program, heating/cooling changeover by means of external potential-free contact (low voltage) Only in conjunction with valves/ valve kits with 24 V actuator Open/Close	EC units, electro-mechanical 24 V/230 V	196000030456	282.00
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1.94 | Valve kits

Valve kit	Heating/cooling with 1 no. axial valve body, pre-settable, 1/2" connection, 1 no. angled return shut-off valve, 1 no. thermoelectric actuator 24 V supplied loose	Katherm HK 290/HK 320, 2-pipe system	194000143211	107.00
	Heating/cooling with 2 no. axial valve body, pre-settable, 1/2" connection, 1 no. angled return shut-off valve, 1 no. straight return shut-off valve, 2 no. thermoelectric actuator 24 V supplied loose	Katherm HK 290/HK 320, 4-pipe system	194000143411	209.00
	Heating/cooling with 1 no. axial valve body, pre-settable, for higher flows, 1/2" connection, 1 no. angled return shut-off valve, 1 no. thermoelectric actuator 24 V supplied loose	Katherm HK 290/HK 320, 2-pipe system, with higher flow and Katherm HK 360	194000143241	111.00
	Heating/cooling with 2 no. axial valve body, pre-settable, for higher flows, 1/2" connection, 1 no. angled return shut-off valve, 1 no. straight return shut-off valve, 2 no. thermoelectric actuator 24 V supplied loose	Katherm HK 290/HK 320, 4-pipe system, with higher flow and Katherm HK 360	194000143441	217.00

1.94 | Valves and return shut-off valves

Valve body	Axial, pre-settable, 1/2" connection	Katherm NK 137/182 (trench heights 92 mm and 120 mm), Katherm HK	194000346911	28.00
	Axial, pre-settable, for higher flow rates, kvs value = 2.6, 1/2" connection	Katherm HK	194000346914	30.00
Pre-setting key	for pre-adjustable valves and valve kits	pre-settable valve bodies, valve kits and convector connection kit	194000346915	4.20
Pre-setting set	for pre-settable valves and valve kits with higher flow	pre-settable valve bodies and valve kits with higher flow rate	194000346916	26.00

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Katherm HK

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
Return shut-off valve	straight, 1/2" connection	Katherm NK, Katherm QK, Katherm HK 290/HK 320	194000145952	15.00
	angled, 1/2" connection	Katherm HK 290/HK 320	194000145953	15.00
	straight, 1/2" connection, for higher flow	Katherm HK 360	194000145954	24.00
	angled, 1/2" connection, for higher flow	Katherm HK 360	194000145955	22.00

1.94 | Valve actuators

Thermoelectric actuator	230 V AC	Katherm NK, Katherm QK. With the Katherm HK only for room thermostat type 30155 and Climate controller type 148941 and type 148942!	194000146905	60.00
	24 V AC/DC	For KaControl, room thermostat type 342924 and clock thermostat type 30456	194000146906	60.00

1.43 | Filter

Filter for air inlet	for Katherm HK 290	HK 290, trench length 950 mm	143014316014	12.00
		HK 290, trench length 1200 mm	143014316019	17.00
		HK 290, trench length 1700 mm	143014316029	22.00
		HK 290, trench length 2000 mm	143014316035	26.00
		HK 290, trench length 2500 mm	143014316045	29.00
		HK 290, trench length 3000 mm	143014316055	31.00
	for Katherm HK 320	HK 320, trench length 915 mm	143014313013	12.00
		HK 320, trench length 1200 mm	143014313019	18.00
		HK 320, trench length 1700 mm	143014313029	24.00
		HK 320, trench length 2000 mm	143014313035	27.00
		HK 320, trench length 2500 mm	143014313045	30.00
		HK 320, trench length 3000 mm	143014313055	32.00
Filter for air intake	for Katherm HK 360	HK 360, trench length 950 mm	143014321014	13.00
		HK 360, trench length 1200 mm	143014321019	18.00
		HK 360, trench length 1350 mm	143014321022	22.00
		HK 360, trench length 1850 mm	143014321032	26.00
		HK 360, trench length 2250 mm	143014321040	29.00

1.94 | Condensate tray and pump

Connection kit for condensation pump	supplied separately	Katherm HK 290, trench height 160 mm	194000143815	228.00
		Katherm HK 320, trench height 130 mm, Katherm HK 360, trench height 210 mm	194000143813	215.00
	factory-fitted	Katherm HK 290, trench height 160 mm	194000143816	332.00
		Katherm HK 320, trench height 130 mm, Katherm HK 360, trench height 210 mm	194000143814	321.00

1.94 | Installation covers

				[€/m]
Installation cover	to protect trench during installation, factory-fitted, grilles are packed separately	trench width 290 mm	194000100290	15.00
		trench width 320 mm	194000100320	16.00
		trench width 360 mm	194000100360	18.00

Katherm NE

Natural convection electric trench heating



Product benefits

- ▶ 2-stage safety switch
- ▶ silent operation thanks to natural convection
- ▶ specially developed heating elements for optimised heating
- ▶ ideal alternative to convectors with LPHW
- ▶ natural convection for even dissipation of cold air in a space
- ▶ fast warm-up yet silent operation
- ▶ matching frame for every roll-up grille for a perfect overall look

Features

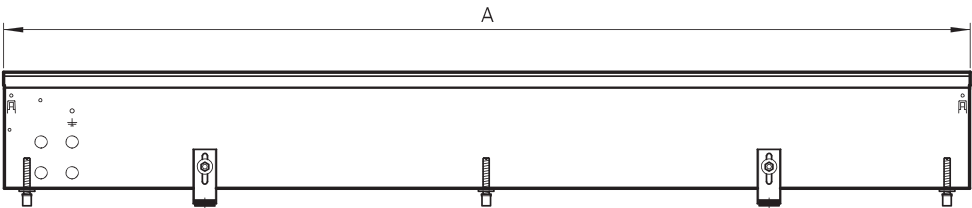
Convection	› natural
Heating	› electric heating element
Cooling	› ---
Ventilation	› ---
KaControl	› ---

Technical data

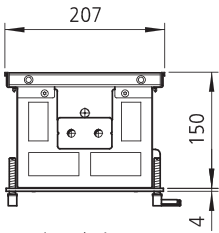


max. heating capacity [W] > 250 – 880

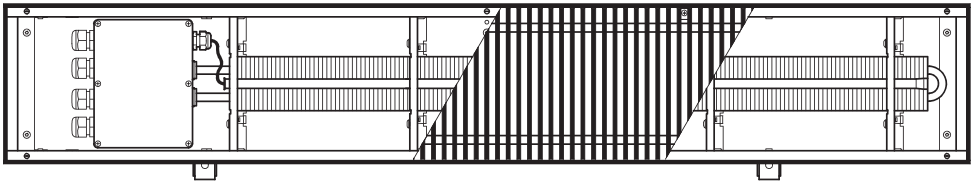
Technical drawing



Front view



Sectional view



Top view

Selection guide

max. heating capacity [W]	Width [mm]	Height [mm]	Length (A) [mm]
250	207	150	750
480			1150
680			1550
880			1950

Katherm NE

Ordering information

Width	Height	max. heating capacity	Grille finish	Article no.	Price
[mm]	[mm]	[W]			[€/each]

2.45 | Length 750 mm

207	150	250	Aluminium, natural anodised	245211511110	1,132.00
			Aluminium, brass anodised	245211511210	1,164.00
			Aluminium, bronze anodised	245211511310	1,164.00
			Aluminium, black anodised	245211511410	1,164.00
			Aluminium, light bronze	245211511510	1,164.00
			Aluminium, coated DB 703	245211511610	1,164.00
			Stainless steel	245211513110	1,244.00
			Stainless steel, polished	245211513210	1,414.00
			Brass, natural	245211513310	1,386.00

2.45 | Length 1150 mm

207	150	480	Aluminium, natural anodised	245211511118	1,261.00
			Aluminium, brass anodised	245211511218	1,299.00
			Aluminium, bronze anodised	245211511318	1,299.00
			Aluminium, black anodised	245211511418	1,299.00
			Aluminium, light bronze	245211511518	1,299.00
			Aluminium, coated DB 703	245211511618	1,299.00
			Stainless steel	245211513118	1,430.00
			Stainless steel, polished	245211513218	1,682.00
			Brass, natural	245211513318	1,640.00

2.45 | Length 1550 mm

207	150	680	Aluminium, natural anodised	245211511126	1,376.00
			Aluminium, brass anodised	245211511226	1,419.00
			Aluminium, bronze anodised	245211511326	1,419.00
			Aluminium, black anodised	245211511426	1,419.00
			Aluminium, light bronze	245211511526	1,419.00
			Aluminium, coated DB 703	245211511626	1,419.00
			Stainless steel	245211513126	1,601.00
			Stainless steel, polished	245211513226	1,938.00
			Brass, natural	245211513326	1,883.00

2.45 | Length 1950 mm

207	150	880	Aluminium, natural anodised	245211511134	1,514.00
			Aluminium, brass anodised	245211511234	1,562.00
			Aluminium, bronze anodised	245211511334	1,562.00
			Aluminium, black anodised	245211511434	1,562.00
			Aluminium, light bronze	245211511534	1,562.00
			Aluminium, coated DB 703	245211511634	1,562.00
			Stainless steel	245211513134	1,796.00
			Stainless steel, polished	245211513234	2,218.00
			Brass, natural	245211513334	2,146.00

Katherm NE

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.94 Thermostats				
Room temperature controller	24 V AC/DC, 0-10 V, surface-mounted/wall-mounted, pure white (similar to RAL 9010), protection class IP 30, control range 5-30 °C	Katherm NE, Katherm QE	194000146928	127.00
1.94 Installation covers				
				[€/m]
Installation cover	to protect trench during installation, factory-fitted, grilles are packed separately	trench width 207 mm	194000100920	11.00

Katherm QE

Fan-assisted trench heating with EC technology and electrical element.



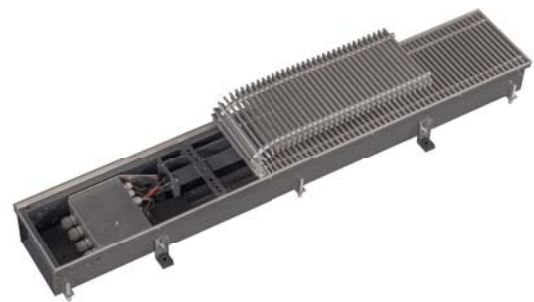
Product benefits

- ▶ fast heating-up of the room
- ▶ high heat output combined with low sound levels
- ▶ minimum trench width and trench height for unobtrusive integration within a room
- ▶ the ideal solution for high heat outputs without a hot water connection
- ▶ control box with integral infinitely variable power control
- ▶ ideal for installation in front of floor-to-ceiling glazing
- ▶ simple, convenient electrical control 0-10 V via room temperature controller or BMS
- ▶ matching frame for every roll-up grille for a perfect overall look

Features

Convection	▶ EC tangential fan
Heating	▶ electric heating element
Cooling	▶ ---
Ventilation	▶ ---
KaControl	▶ ---

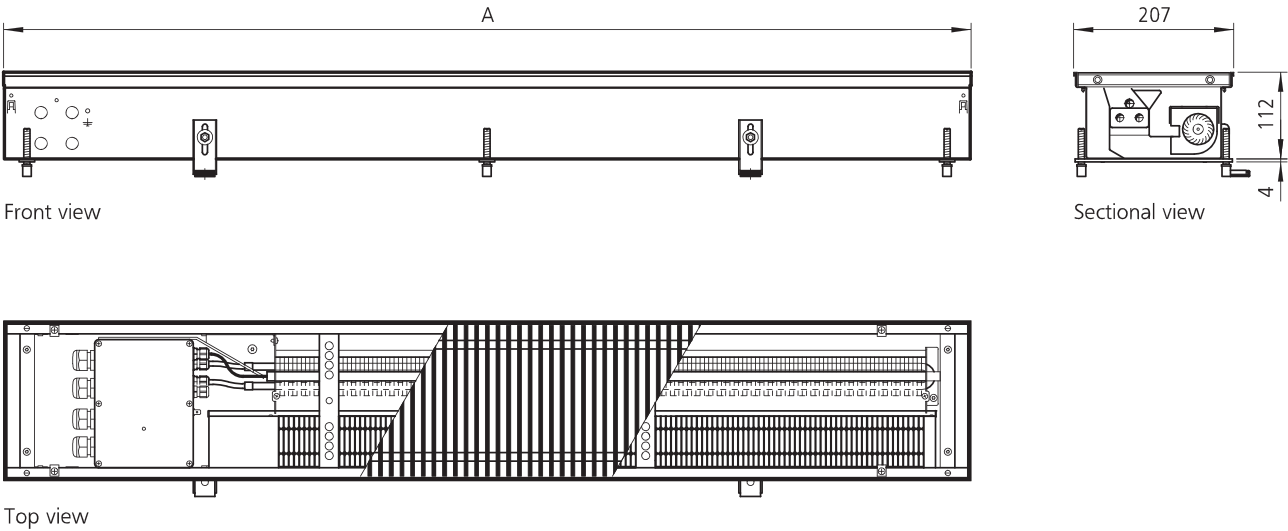
Technical data



max. heating capacity [W]	> 800 – 2400
Sound pressure level [dB(A)] ¹⁾	> < 20 – 33
Sound power level [dB(A)]	> < 28 – 41

¹⁾ Die Schalldruckpegel wurden berechnet mit einer angenommenen Raumdämpfung von 8 dB(A). Dies entspricht einem Abstand von 2 m, einem Raumvolumen von 100 m³ und einer Nachhallzeit von 0,5 s (gemäß VDI 2081).

Technical drawing



Selection guide

max. heating capacity [W]	Width [mm]	Height [mm]	Length (A) [mm]
160 – 800	207	112	825
320 – 1600			1250
480 – 2400			1700

Katherm QE

Ordering information

Width	Height	max. heating capacity	Sound pressure level ¹⁾	Sound power level	Grille finish	Article no.	Price
[mm]	[mm]	[W]	[dB(A)]	[dB(A)]			[€/each]

2.42 | Length 825 mm

207	112	800	< 20 – 28	< 28 – 36	Aluminium, natural anodised	242211111111	1,337.00
					Aluminium, brass anodised	242211111211	1,371.00
					Aluminium, bronze anodised	242211111311	1,371.00
					Aluminium, black anodised	242211111411	1,371.00
					Aluminium, light bronze	242211111511	1,371.00
					Aluminium, coated DB 703	242211111611	1,371.00
					Stainless steel	242211113111	1,451.00
					Stainless steel, polished	242211113211	1,622.00
					Brass, natural	242211113311	1,593.00

2.42 | Length 1250 mm

207	112	1600	< 20 – 31	< 28 – 39	Aluminium, natural anodised	242211111120	1,531.00
					Aluminium, brass anodised	242211111220	1,570.00
					Aluminium, bronze anodised	242211111320	1,570.00
					Aluminium, black anodised	242211111420	1,570.00
					Aluminium, light bronze	242211111520	1,570.00
					Aluminium, coated DB 703	242211111620	1,570.00
					Stainless steel	242211113120	1,702.00
					Stainless steel, polished	242211113220	1,953.00
					Brass, natural	242211113320	1,912.00

2.42 | Length 1700 mm

207	112	2400	< 20 – 33	< 28 – 41	Aluminium, natural anodised	242211111129	1,716.00
					Aluminium, brass anodised	242211111229	1,761.00
					Aluminium, bronze anodised	242211111329	1,761.00
					Aluminium, black anodised	242211111429	1,761.00
					Aluminium, light bronze	242211111529	1,761.00
					Aluminium, coated DB 703	242211111629	1,761.00
					Stainless steel	242211113129	1,948.00
					Stainless steel, polished	242211113229	2,295.00
					Brass, natural	242211113329	2,239.00

¹⁾ Die Schalldruckpegel wurden berechnet mit einer angenommenen Raumdämpfung von 8 dB(A). Dies entspricht einem Abstand von 2 m, einem Raumvolumen von 100 m³ und einer Nachhallzeit von 0,5 s (gemäß VDI 2081).

Katherm QE

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.94 Thermostats				
Room temperature controller	24 V AC/DC, 0-10 V, surface-mounted/wall-mounted, pure white (similar to RAL 9010), protection class IP 30, control range 5-30 °C	Katherm NE, Katherm QE	194000146928	127.00
1.94 Installation covers				
				[€/m]
Installation cover	to protect trench during installation, factory-fitted, grilles are packed separately	trench width 207 mm	194000100920	11.00

Perimeter Heating

Multi-functional, durable, highly responsive

Convectors for wall-mounting or free-standing installation, also suitable for use with low water temperatures. Available as cased or uncased models for ultra-responsive heating.





PowerKon + F



Free-standing convector for use with low water temperatures.

Convection

natural

Installation

free-standing

Heating

LPHW

page **86**

PowerKon + W



Wall-mounted convector for use with low water temperatures.

natural

wall-mounted

LPHW

page **92**

PowerKon + F

Free-standing convector for use with low water temperatures.



Product benefits

- ▶ convector optimised for use with low water temperatures
- ▶ responsive due to low water content
- ▶ low surface temperature
- ▶ functional, price-conscious version for the encased use of convectors
- ▶ fast installation system based on a single-section casing installed without screws
- ▶ shallow heights and slim depths for unobtrusive installation in front of building façades
- ▶ delivered ready to install

Features

Convection	› natural
Installation	› free-standing
Heating	› LPHW

References

ADAC Headquarters, Munich | Bolshevik Business Centre, Moscow

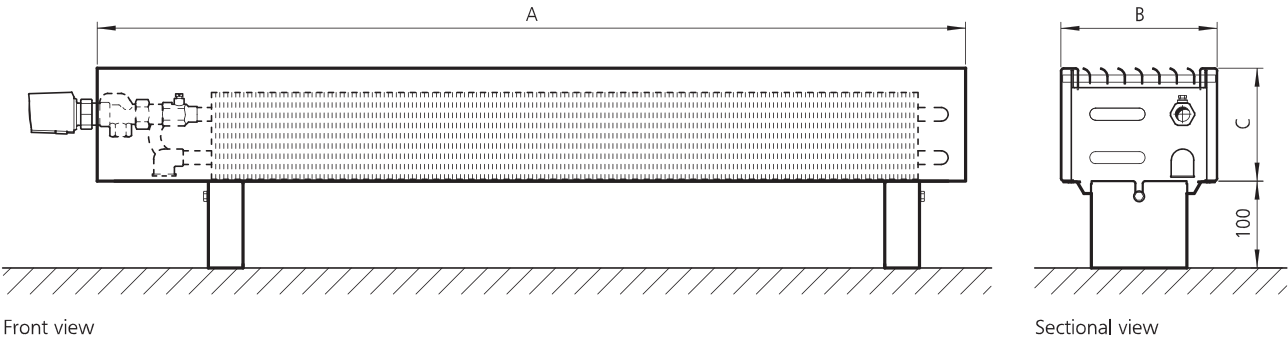
Technical data



Heat output [W] ¹⁾	› 222.025 – 3675.63
Air outlet	› linear grille with C-shaped profile
Connection	› 1/2" same end
Water content [l]	› 0.12 – 3.167
Heat exchanger	› copper/ aluminium

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

Technical drawing



Selection guide

Heat output ¹⁾ [W]	Height (C) [mm]	Depth (B) [mm]	Length (A) [mm]
222.025 – 1292.025	80	130	600 – 2600
309.59 – 1801.59		180	
466.045 – 2712.045		230	
312.91 – 1820.91		130	
461.48 – 2685.48		180	
631.63 – 3675.63	130	230	

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

PowerKon + F

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Installation site	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]

1.26 | Height 80 mm, Convactor height 50 mm

130	100	600	222	Finished floor	126090813106	195.40
				Unfinished floor	126090813206	236.40
		700	276	Finished floor	126090813107	208.30
				Unfinished floor	126090813207	249.30
		800	329	Finished floor	126090813108	221.20
				Unfinished floor	126090813208	262.20
		900	383	Finished floor	126090813109	234.10
				Unfinished floor	126090813209	275.10
		1000	436	Finished floor	126090813110	247.00
				Unfinished floor	126090813210	288.00
		1100	490	Finished floor	126090813111	259.90
				Unfinished floor	126090813211	300.90
		1200	543	Finished floor	126090813112	272.80
				Unfinished floor	126090813212	313.80
		1400	650	Finished floor	126090813114	298.60
				Unfinished floor	126090813214	339.60
		1600	757	Finished floor	126090813116	324.40
				Unfinished floor	126090813216	365.40
		1800	864	Finished floor	126090813118	350.20
				Unfinished floor	126090813218	391.20
		2000	971	Finished floor	126090813120	376.00
				Unfinished floor	126090813220	417.00
		2200	1078	Finished floor	126090813122	401.80
				Unfinished floor	126090813222	442.80
		2400	1185	Finished floor	126090813124	427.60
				Unfinished floor	126090813224	468.60
180	150	2600	1292	Finished floor	126090813126	453.40
				Unfinished floor	126090813226	494.40
		600	310	Finished floor	126090818106	255.60
				Unfinished floor	126090818206	288.60
		700	384	Finished floor	126090818107	271.20
				Unfinished floor	126090818207	304.20
		800	459	Finished floor	126090818108	286.80
				Unfinished floor	126090818208	319.80
		900	533	Finished floor	126090818109	302.40
				Unfinished floor	126090818209	335.40
		1000	608	Finished floor	126090818110	318.00
				Unfinished floor	126090818210	351.00
		1100	683	Finished floor	126090818111	333.60
				Unfinished floor	126090818211	366.60
		1200	757	Finished floor	126090818112	349.20
				Unfinished floor	126090818212	382.20
		1400	906	Finished floor	126090818114	380.40
				Unfinished floor	126090818214	413.40
		1600	1056	Finished floor	126090818116	411.60
				Unfinished floor	126090818216	444.60
		1800	1205	Finished floor	126090818118	442.80
				Unfinished floor	126090818218	475.80
		2000	1354	Finished floor	126090818120	474.00
				Unfinished floor	126090818220	507.00
		2200	1503	Finished floor	126090818122	505.20
				Unfinished floor	126090818222	538.20
		2400	1652	Finished floor	126090818124	536.40
				Unfinished floor	126090818224	569.40
		2600	1802	Finished floor	126090818126	567.60
				Unfinished floor	126090818226	600.60

CONTINUED ►

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

PowerKon + F

Ordering information

Depth	Convector depth	Length	Heat output ¹⁾	Installation site	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]
230	200	600	466	Finished floor	126090823106	260.20
				Unfinished floor	126090823206	299.20
		700	578	Finished floor	126090823107	279.90
				Unfinished floor	126090823207	318.90
		800	691	Finished floor	126090823108	299.60
				Unfinished floor	126090823208	338.60
		900	803	Finished floor	126090823109	319.30
				Unfinished floor	126090823209	358.30
		1000	915	Finished floor	126090823110	339.00
				Unfinished floor	126090823210	378.00
		1100	1028	Finished floor	126090823111	358.70
				Unfinished floor	126090823211	397.70
		1200	1140	Finished floor	126090823112	378.40
				Unfinished floor	126090823212	417.40
		1400	1364	Finished floor	126090823114	417.80
				Unfinished floor	126090823214	456.80
		1600	1589	Finished floor	126090823116	457.20
				Unfinished floor	126090823216	496.20
		1800	1814	Finished floor	126090823118	496.60
				Unfinished floor	126090823218	535.60
		2000	2038	Finished floor	126090823120	536.00
				Unfinished floor	126090823220	575.00
		2200	2263	Finished floor	126090823122	575.40
				Unfinished floor	126090823222	614.40
		2400	2487	Finished floor	126090823124	614.80
				Unfinished floor	126090823224	653.80
		2600	2712	Finished floor	126090823126	654.20
				Unfinished floor	126090823226	693.20

1.26 | Height 130 mm, Convector height 100 mm

130	130	600	313	Finished floor	126091313106	227.00
				Unfinished floor	126091313206	264.40
		700	388	Finished floor	126091313107	243.00
				Unfinished floor	126091313207	280.30
		800	464	Finished floor	126091313108	259.00
				Unfinished floor	126091313208	296.20
		900	539	Finished floor	126091313109	275.00
				Unfinished floor	126091313209	312.10
		1000	615	Finished floor	126091313110	291.00
				Unfinished floor	126091313210	328.00
		1100	690	Finished floor	126091313111	307.00
				Unfinished floor	126091313211	343.90
		1200	765	Finished floor	126091313112	323.00
				Unfinished floor	126091313212	359.80
		1400	916	Finished floor	126091313114	355.00
				Unfinished floor	126091313214	391.60
		1600	1067	Finished floor	126091313116	387.00
				Unfinished floor	126091313216	423.40
		1800	1218	Finished floor	126091313118	419.00
				Unfinished floor	126091313218	455.20
		2000	1369	Finished floor	126091313120	451.00
				Unfinished floor	126091313220	487.00
		2200	1519	Finished floor	126091313122	483.00
				Unfinished floor	126091313222	518.80
		2400	1670	Finished floor	126091313124	515.00
				Unfinished floor	126091313224	550.60
		2600	1821	Finished floor	126091313126	547.00
				Unfinished floor	126091313226	582.40

CONTINUED ►

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

PowerKon + F

Ordering information

Depth	Convector depth	Length	Heat output ¹⁾	Installation site	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]
180	180	600	461	Finished floor	126091318106	280.20
				Unfinished floor	126091318206	315.40
		700	573	Finished floor	126091318107	300.40
				Unfinished floor	126091318207	335.80
		800	684	Finished floor	126091318108	320.60
				Unfinished floor	126091318208	356.20
		900	795	Finished floor	126091318109	340.80
				Unfinished floor	126091318209	376.60
		1000	906	Finished floor	126091318110	361.00
				Unfinished floor	126091318210	397.00
		1100	1017	Finished floor	126091318111	381.20
				Unfinished floor	126091318211	417.40
		1200	1129	Finished floor	126091318112	401.40
				Unfinished floor	126091318212	437.80
		1400	1351	Finished floor	126091318114	441.80
				Unfinished floor	126091318214	478.60
		1600	1573	Finished floor	126091318116	482.20
				Unfinished floor	126091318216	519.40
		1800	1796	Finished floor	126091318118	522.60
				Unfinished floor	126091318218	560.20
		2000	2018	Finished floor	126091318120	563.00
				Unfinished floor	126091318220	601.00
		2200	2241	Finished floor	126091318122	603.40
				Unfinished floor	126091318222	641.80
		2400	2463	Finished floor	126091318124	643.80
				Unfinished floor	126091318224	682.60
		2600	2685	Finished floor	126091318126	684.20
				Unfinished floor	126091318226	723.40
230	230	600	632	Finished floor	126091323106	324.00
				Unfinished floor	126091323206	359.00
		700	784	Finished floor	126091323107	348.00
				Unfinished floor	126091323207	383.00
		800	936	Finished floor	126091323108	372.00
				Unfinished floor	126091323208	407.00
		900	1088	Finished floor	126091323109	396.00
				Unfinished floor	126091323209	431.00
		1000	1240	Finished floor	126091323110	420.00
				Unfinished floor	126091323210	455.00
		1100	1393	Finished floor	126091323111	444.00
				Unfinished floor	126091323211	479.00
		1200	1545	Finished floor	126091323112	468.00
				Unfinished floor	126091323212	503.00
		1400	1849	Finished floor	126091323114	516.00
				Unfinished floor	126091323214	551.00
		1600	2154	Finished floor	126091323116	564.00
				Unfinished floor	126091323216	599.00
		1800	2458	Finished floor	126091323118	612.00
				Unfinished floor	126091323218	647.00
		2000	2762	Finished floor	126091323120	660.00
				Unfinished floor	126091323220	695.00
		2200	3067	Finished floor	126091323122	708.00
				Unfinished floor	126091323222	743.00
		2400	3371	Finished floor	126091323124	756.00
				Unfinished floor	126091323224	791.00
		2600	3676	Finished floor	126091323126	804.00
				Unfinished floor	126091323226	839.00

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

PowerKon + F

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.94 | Thermostats

Room thermostat	with thermal feedback, IP30 protection class, 230 V AC, surface-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146904	54.00
	with thermal feedback, IP20 protection class, 230 V AC, flush-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146927	209.00
Clock thermostat	with day/night/week programme, white, 230 V, surface-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146910	302.00
	white, 230 V, flush-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146933	232.00

1.94 | Connection accessories

Thermostatic valve head	white	PowerKon + F/+ W and steel convectors	194000110210	30.00
	remote control, with 5 m capillary tube	PowerKon + F/+ W and steel convectors	194000146907	123.00
Connection set	1/2" connection, consisting of: thermostatic valve body, axial, and return shut-off valve, straight	PowerKon + F, PowerKon + W Convectors	194000126102	33.00
	1/2" connection, pre-settable, consisting of: thermostatic valve body, axial, and return shut-off valve, straight	PowerKon + F, PowerKon + W	194000126103	33.00

1.94 | Valves and return shut-off valves

Pre-setting key	for pre-adjustable valves and valve kits	pre-settable valve bodies, valve kits and convector connection kit	194000346915	4.20
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1.94 | Valve actuators

Thermoelectric actuator	230 V AC	Katherm NK, Katherm QK. With the Katherm HK only for room thermostat type 30155 and Climate controller type 148941 and type 148942!	194000146905	60.00
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PowerKon + W

Wall-mounted convector for use with low water temperatures.



Product benefits

- ▶ convector optimised for use with low water temperatures
- ▶ responsive due to low water content
- ▶ low surface temperature
- ▶ functional, price-conscious version for the encased use of convectors
- ▶ fast installation system based on a single-section casing installed without screws
- ▶ practical heights and minimal depths
- ▶ air outlet either as perforated profile or linear grille with C-profile
- ▶ delivered ready to install

Features

Convection	› natural
Installation	› wall-mounted
Heating	› LPHW

References

HanseMerkur Office Building, Hamburg

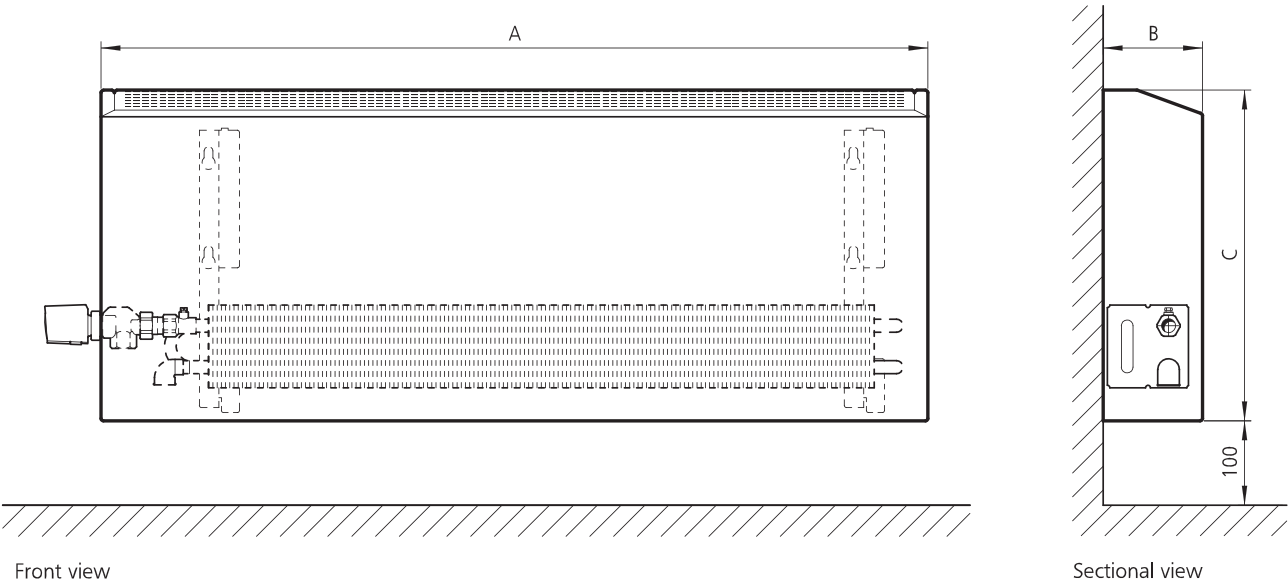
Technical data



Heat output [W] ¹⁾	> 176 – 6768
Air outlet	> linear grille
Connection	> 1/2" same end
Water content [l]	> 0 – 3.718
Heat exchanger	> copper/ aluminium

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

Technical drawing



Selection guide

Heat output ¹⁾ [W]	Height (C) [mm]	Depth (B) [mm]	Length (A) [mm]
176 – 1044	250	70	600 – 2600
354 – 2100		120	
529 – 3143		170	
711 – 4221		220	
197 – 1169		70	
417 – 2477	400	120	
637 – 3785		170	
891 – 5289		220	
216 – 1284		70	
482 – 2860		120	
752 – 4468	550	170	
1021 – 6065		220	
224 – 1330		70	
515 – 3057		120	
801 – 4755		170	
1140 – 6768	700	220	

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]

1.26 | Height 250 mm

70	50	600	176	C-shaped profile	126062507106	202.60
				perforated profile	126072507106	202.60
		700	219	C-shaped profile	126062507107	219.20
				perforated profile	126072507107	219.20
		800	263	C-shaped profile	126062507108	235.80
				perforated profile	126072507108	235.80
		900	306	C-shaped profile	126062507109	252.40
				perforated profile	126072507109	252.40
		1000	349	C-shaped profile	126062507110	269.00
				perforated profile	126072507110	269.00
		1100	393	C-shaped profile	126062507111	285.60
				perforated profile	126072507111	285.60
		1200	436	C-shaped profile	126062507112	302.20
				perforated profile	126072507112	302.20
		1400	523	C-shaped profile	126062507114	335.40
				perforated profile	126072507114	335.40
		1600	610	C-shaped profile	126062507116	368.60
				perforated profile	126072507116	368.60
		1800	697	C-shaped profile	126062507118	401.80
				perforated profile	126072507118	401.80
		2000	783	C-shaped profile	126062507120	435.00
				perforated profile	126072507120	435.00
		2200	870	C-shaped profile	126062507122	468.20
				perforated profile	126072507122	468.20
		2400	957	C-shaped profile	126062507124	501.40
				perforated profile	126072507124	501.40
		2600	1044	C-shaped profile	126062507126	534.60
				perforated profile	126072507126	534.60
120	100	600	354	C-shaped profile	126062512106	242.20
				perforated profile	126072512106	242.20
		700	441	C-shaped profile	126062512107	260.90
				perforated profile	126072512107	260.90
		800	528	C-shaped profile	126062512108	279.60
				perforated profile	126072512108	279.60
		900	615	C-shaped profile	126062512109	298.30
				perforated profile	126072512109	298.30
		1000	703	C-shaped profile	126062512110	317.00
				perforated profile	126072512110	317.00
		1100	790	C-shaped profile	126062512111	335.70
				perforated profile	126072512111	335.70
		1200	877	C-shaped profile	126062512112	354.40
				perforated profile	126072512112	354.40
		1400	1052	C-shaped profile	126062512114	391.80
				perforated profile	126072512114	391.80
		1600	1227	C-shaped profile	126062512116	429.20
				perforated profile	126072512116	429.20
		1800	1401	C-shaped profile	126062512118	466.60
				perforated profile	126072512118	466.60
		2000	1576	C-shaped profile	126062512120	504.00
				perforated profile	126072512120	504.00
		2200	1750	C-shaped profile	126062512122	541.40
				perforated profile	126072512122	541.40
		2400	1925	C-shaped profile	126062512124	578.80
				perforated profile	126072512124	578.80
		2600	2100	C-shaped profile	126062512126	616.20
				perforated profile	126072512126	616.20

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¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]
170	150	600	529	C-shaped profile	126062517106	283.80
				perforated profile	126072517106	283.80
		700	660	C-shaped profile	126062517107	305.60
				perforated profile	126072517107	305.60
		800	791	C-shaped profile	126062517108	327.40
				perforated profile	126072517108	327.40
		900	921	C-shaped profile	126062517109	349.20
				perforated profile	126072517109	349.20
		1000	1052	C-shaped profile	126062517110	371.00
				perforated profile	126072517110	371.00
		1100	1183	C-shaped profile	126062517111	392.80
				perforated profile	126072517111	392.80
		1200	1314	C-shaped profile	126062517112	414.60
				perforated profile	126072517112	414.60
		1400	1575	C-shaped profile	126062517114	458.20
				perforated profile	126072517114	458.20
		1600	1836	C-shaped profile	126062517116	501.80
				perforated profile	126072517116	501.80
		1800	2098	C-shaped profile	126062517118	545.40
				perforated profile	126072517118	545.40
		2000	2359	C-shaped profile	126062517120	589.00
				perforated profile	126072517120	589.00
		2200	2621	C-shaped profile	126062517122	632.60
				perforated profile	126072517122	632.60
		2400	2882	C-shaped profile	126062517124	676.20
				perforated profile	126072517124	676.20
		2600	3143	C-shaped profile	126062517126	719.80
				perforated profile	126072517126	719.80
220	200	600	711	C-shaped profile	126062522106	319.20
				perforated profile	126072522106	319.20
		700	886	C-shaped profile	126062522107	343.40
				perforated profile	126072522107	343.40
		800	1062	C-shaped profile	126062522108	367.60
				perforated profile	126072522108	367.60
		900	1237	C-shaped profile	126062522109	391.80
				perforated profile	126072522109	391.80
		1000	1413	C-shaped profile	126062522110	416.00
				perforated profile	126072522110	416.00
		1100	1588	C-shaped profile	126062522111	440.20
				perforated profile	126072522111	440.20
		1200	1764	C-shaped profile	126062522112	464.40
				perforated profile	126072522112	464.40
		1400	2115	C-shaped profile	126062522114	512.80
				perforated profile	126072522114	512.80
		1600	2466	C-shaped profile	126062522116	561.20
				perforated profile	126072522116	561.20
		1800	2817	C-shaped profile	126062522118	609.60
				perforated profile	126072522118	609.60
		2000	3168	C-shaped profile	126062522120	658.00
				perforated profile	126072522120	658.00
		2200	3519	C-shaped profile	126062522122	706.40
				perforated profile	126072522122	706.40
		2400	3870	C-shaped profile	126062522124	754.80
				perforated profile	126072522124	754.80
		2600	4221	C-shaped profile	126062522126	803.20
				perforated profile	126072522126	803.20

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¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]

1.26 | Height 400 mm

70	50	600	197	C-shaped profile	126064007106	206.80
				perforated profile	126074007106	206.80
		700	245	C-shaped profile	126064007107	224.10
				perforated profile	126074007107	224.10
		800	294	C-shaped profile	126064007108	241.40
				perforated profile	126074007108	241.40
		900	343	C-shaped profile	126064007109	258.70
				perforated profile	126074007109	258.70
		1000	391	C-shaped profile	126064007110	276.00
				perforated profile	126074007110	276.00
		1100	440	C-shaped profile	126064007111	293.30
				perforated profile	126074007111	293.30
		1200	488	C-shaped profile	126064007112	310.60
				perforated profile	126074007112	310.60
		1400	586	C-shaped profile	126064007114	345.20
				perforated profile	126074007114	345.20
		1600	683	C-shaped profile	126064007116	379.80
				perforated profile	126074007116	379.80
		1800	780	C-shaped profile	126064007118	414.40
				perforated profile	126074007118	414.40
120	100	600	417	C-shaped profile	126064012106	247.00
				perforated profile	126074012106	247.00
		700	520	C-shaped profile	126064012107	266.50
				perforated profile	126074012107	266.50
		800	623	C-shaped profile	126064012108	286.00
				perforated profile	126074012108	286.00
		900	726	C-shaped profile	126064012109	305.50
				perforated profile	126074012109	305.50
		1000	829	C-shaped profile	126064012110	325.00
				perforated profile	126074012110	325.00
		1100	932	C-shaped profile	126064012111	344.50
				perforated profile	126074012111	344.50
		1200	1035	C-shaped profile	126064012112	364.00
				perforated profile	126074012112	364.00
		1400	1241	C-shaped profile	126064012114	403.00
				perforated profile	126074012114	403.00
		1600	1447	C-shaped profile	126064012116	442.00
				perforated profile	126074012116	442.00
		1800	1653	C-shaped profile	126064012118	481.00
				perforated profile	126074012118	481.00
		2000	1859	C-shaped profile	126064012120	520.00
				perforated profile	126074012120	520.00
		2200	2065	C-shaped profile	126064012122	559.00
				perforated profile	126074012122	559.00
		2400	2271	C-shaped profile	126064012124	598.00
				perforated profile	126074012124	598.00
		2600	2477	C-shaped profile	126064012126	637.00
				perforated profile	126074012126	637.00

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¹⁾ at LPHW 75/65 °C, t_l = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]
170	150	600	637	C-shaped profile	126064017106	289.20
				perforated profile	126074017106	289.20
		700	795	C-shaped profile	126064017107	311.90
				perforated profile	126074017107	311.90
		800	952	C-shaped profile	126064017108	334.60
				perforated profile	126074017108	334.60
		900	1110	C-shaped profile	126064017109	357.30
				perforated profile	126074017109	357.30
		1000	1267	C-shaped profile	126064017110	380.00
				perforated profile	126074017110	380.00
		1100	1424	C-shaped profile	126064017111	402.70
				perforated profile	126074017111	402.70
		1200	1582	C-shaped profile	126064017112	425.40
				perforated profile	126074017112	425.40
		1400	1897	C-shaped profile	126064017114	470.80
				perforated profile	126074017114	470.80
		1600	2211	C-shaped profile	126064017116	516.20
				perforated profile	126074017116	516.20
		1800	2526	C-shaped profile	126064017118	561.60
				perforated profile	126074017118	561.60
		2000	2841	C-shaped profile	126064017120	607.00
				perforated profile	126074017120	607.00
		2200	3156	C-shaped profile	126064017122	652.40
				perforated profile	126074017122	652.40
		2400	3471	C-shaped profile	126064017124	697.80
				perforated profile	126074017124	697.80
		2600	3785	C-shaped profile	126064017126	743.20
				perforated profile	126074017126	743.20
220	200	600	891	C-shaped profile	126064022106	325.20
				perforated profile	126074022106	325.20
		700	1110	C-shaped profile	126064022107	350.40
				perforated profile	126074022107	350.40
		800	1330	C-shaped profile	126064022108	375.60
				perforated profile	126074022108	375.60
		900	1550	C-shaped profile	126064022109	400.80
				perforated profile	126074022109	400.80
		1000	1770	C-shaped profile	126064022110	426.00
				perforated profile	126074022110	426.00
		1100	1990	C-shaped profile	126064022111	451.20
				perforated profile	126074022111	451.20
		1200	2210	C-shaped profile	126064022112	476.40
				perforated profile	126074022112	476.40
		1400	2650	C-shaped profile	126064022114	526.80
				perforated profile	126074022114	526.80
		1600	3090	C-shaped profile	126064022116	577.20
				perforated profile	126074022116	577.20
		1800	3529	C-shaped profile	126064022118	627.60
				perforated profile	126074022118	627.60
		2000	3969	C-shaped profile	126064022120	678.00
				perforated profile	126074022120	678.00
		2200	4409	C-shaped profile	126064022122	728.40
				perforated profile	126074022122	728.40
		2400	4849	C-shaped profile	126064022124	778.80
				perforated profile	126074022124	778.80
		2600	5289	C-shaped profile	126064022126	829.20
				perforated profile	126074022126	829.20

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¹⁾ at LPHW 75/65 °C, t_U = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]

1.26 | Height 550 mm

70	50	600	216	C-shaped profile	126065507106	214.00
				perforated profile	126075507106	214.00
		700	270	C-shaped profile	126065507107	232.50
				perforated profile	126075507107	232.50
		800	323	C-shaped profile	126065507108	251.00
				perforated profile	126075507108	251.00
		900	376	C-shaped profile	126065507109	269.50
				perforated profile	126075507109	269.50
		1000	430	C-shaped profile	126065507110	288.00
				perforated profile	126075507110	288.00
		1100	483	C-shaped profile	126065507111	306.50
				perforated profile	126075507111	306.50
		1200	537	C-shaped profile	126065507112	325.00
				perforated profile	126075507112	325.00
		1400	643	C-shaped profile	126065507114	362.00
				perforated profile	126075507114	362.00
		1600	750	C-shaped profile	126065507116	399.00
				perforated profile	126075507116	399.00
		1800	857	C-shaped profile	126065507118	436.00
				perforated profile	126075507118	436.00
120	100	2000	964	C-shaped profile	126065507120	473.00
				perforated profile	126075507120	473.00
		2200	1071	C-shaped profile	126065507122	510.00
				perforated profile	126075507122	510.00
		2400	1177	C-shaped profile	126065507124	547.00
				perforated profile	126075507124	547.00
		2600	1284	C-shaped profile	126065507126	584.00
				perforated profile	126075507126	584.00
		600	482	C-shaped profile	126065512106	254.20
				perforated profile	126075512106	254.20
		700	600	C-shaped profile	126065512107	274.90
				perforated profile	126075512107	274.90
		800	719	C-shaped profile	126065512108	295.60
				perforated profile	126075512108	295.60
		900	838	C-shaped profile	126065512109	316.30
				perforated profile	126075512109	316.30
		1000	957	C-shaped profile	126065512110	337.00
				perforated profile	126075512110	337.00
		1100	1076	C-shaped profile	126065512111	357.70
				perforated profile	126075512111	357.70
		1200	1195	C-shaped profile	126065512112	378.40
				perforated profile	126075512112	378.40
		1400	1433	C-shaped profile	126065512114	419.80
				perforated profile	126075512114	419.80
		1600	1671	C-shaped profile	126065512116	461.20
				perforated profile	126075512116	461.20
		1800	1908	C-shaped profile	126065512118	502.60
				perforated profile	126075512118	502.60
		2000	2146	C-shaped profile	126065512120	544.00
				perforated profile	126075512120	544.00
		2200	2384	C-shaped profile	126065512122	585.40
				perforated profile	126075512122	585.40
		2400	2622	C-shaped profile	126065512124	626.80
				perforated profile	126075512124	626.80
		2600	2860	C-shaped profile	126065512126	668.20
				perforated profile	126075512126	668.20

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¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]
170	150	600	752	C-shaped profile	126065517106	294.60
				perforated profile	126075517106	294.60
		700	938	C-shaped profile	126065517107	318.20
				perforated profile	126075517107	318.20
		800	1124	C-shaped profile	126065517108	341.80
				perforated profile	126075517108	341.80
		900	1310	C-shaped profile	126065517109	365.40
				perforated profile	126075517109	365.40
		1000	1496	C-shaped profile	126065517110	389.00
				perforated profile	126075517110	389.00
		1100	1681	C-shaped profile	126065517111	412.60
				perforated profile	126075517111	412.60
		1200	1867	C-shaped profile	126065517112	436.20
				perforated profile	126075517112	436.20
		1400	2239	C-shaped profile	126065517114	483.40
				perforated profile	126075517114	483.40
		1600	2610	C-shaped profile	126065517116	530.60
				perforated profile	126075517116	530.60
		1800	2982	C-shaped profile	126065517118	577.80
				perforated profile	126075517118	577.80
		2000	3354	C-shaped profile	126065517120	625.00
				perforated profile	126075517120	625.00
		2200	3725	C-shaped profile	126065517122	672.20
				perforated profile	126075517122	672.20
		2400	4097	C-shaped profile	126065517124	719.40
				perforated profile	126075517124	719.40
		2600	4468	C-shaped profile	126065517126	766.60
				perforated profile	126075517126	766.60
220	200	600	1021	C-shaped profile	126065522106	329.40
				perforated profile	126075522106	329.40
		700	1274	C-shaped profile	126065522107	355.30
				perforated profile	126075522107	355.30
		800	1526	C-shaped profile	126065522108	381.20
				perforated profile	126075522108	381.20
		900	1778	C-shaped profile	126065522109	407.10
				perforated profile	126075522109	407.10
		1000	2030	C-shaped profile	126065522110	433.00
				perforated profile	126075522110	433.00
		1100	2282	C-shaped profile	126065522111	458.90
				perforated profile	126075522111	458.90
		1200	2535	C-shaped profile	126065522112	484.80
				perforated profile	126075522112	484.80
		1400	3039	C-shaped profile	126065522114	536.60
				perforated profile	126075522114	536.60
		1600	3543	C-shaped profile	126065522116	588.40
				perforated profile	126075522116	588.40
		1800	4048	C-shaped profile	126065522118	640.20
				perforated profile	126075522118	640.20
		2000	4552	C-shaped profile	126065522120	692.00
				perforated profile	126075522120	692.00
		2200	5057	C-shaped profile	126065522122	743.80
				perforated profile	126075522122	743.80
		2400	5561	C-shaped profile	126065522124	795.60
				perforated profile	126075522124	795.60
		2600	6065	C-shaped profile	126065522126	847.40
				perforated profile	126075522126	847.40

CONTINUED ►

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]

1.26 | Height 700 mm

70	50	600	224	C-shaped profile	126067007106	218.20
				perforated profile	126077007106	218.20
		700	279	C-shaped profile	126067007107	237.40
				perforated profile	126077007107	237.40
		800	335	C-shaped profile	126067007108	256.60
				perforated profile	126077007108	256.60
		900	390	C-shaped profile	126067007109	275.80
				perforated profile	126077007109	275.80
		1000	445	C-shaped profile	126067007110	295.00
				perforated profile	126077007110	295.00
		1100	500	C-shaped profile	126067007111	314.20
				perforated profile	126077007111	314.20
		1200	556	C-shaped profile	126067007112	333.40
				perforated profile	126077007112	333.40
		1400	666	C-shaped profile	126067007114	371.80
				perforated profile	126077007114	371.80
		1600	777	C-shaped profile	126067007116	410.20
				perforated profile	126077007116	410.20
		1800	888	C-shaped profile	126067007118	448.60
				perforated profile	126077007118	448.60
		2000	998	C-shaped profile	126067007120	487.00
				perforated profile	126077007120	487.00
		2200	1109	C-shaped profile	126067007122	525.40
				perforated profile	126077007122	525.40
		2400	1219	C-shaped profile	126067007124	563.80
				perforated profile	126077007124	563.80
		2600	1330	C-shaped profile	126067007126	602.20
				perforated profile	126077007126	602.20
120	100	600	515	C-shaped profile	126067012106	257.20
				perforated profile	126077012106	257.20
		700	642	C-shaped profile	126067012107	278.40
				perforated profile	126077012107	278.40
		800	769	C-shaped profile	126067012108	299.60
				perforated profile	126077012108	299.60
		900	896	C-shaped profile	126067012109	320.80
				perforated profile	126077012109	320.80
		1000	1023	C-shaped profile	126067012110	342.00
				perforated profile	126077012110	342.00
		1100	1150	C-shaped profile	126067012111	363.20
				perforated profile	126077012111	363.20
		1200	1277	C-shaped profile	126067012112	384.40
				perforated profile	126077012112	384.40
		1400	1532	C-shaped profile	126067012114	426.80
				perforated profile	126077012114	426.80
		1600	1786	C-shaped profile	126067012116	469.20
				perforated profile	126077012116	469.20
		1800	2040	C-shaped profile	126067012118	511.60
				perforated profile	126077012118	511.60
		2000	2294	C-shaped profile	126067012120	554.00
				perforated profile	126077012120	554.00
		2200	2548	C-shaped profile	126067012122	596.40
				perforated profile	126077012122	596.40
		2400	2803	C-shaped profile	126067012124	638.80
				perforated profile	126077012124	638.80
		2600	3057	C-shaped profile	126067012126	681.20
				perforated profile	126077012126	681.20

CONTINUED ►

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

PowerKon + W

Ordering information

Depth	Convactor depth	Length	Heat output ¹⁾	Profile design	Article no.	Price
[mm]	[mm]	[mm]	[W]			[€/each]
170	150	600	801	C-shaped profile	126067017106	300.00
				perforated profile	126077017106	300.00
		700	998	C-shaped profile	126067017107	324.50
				perforated profile	126077017107	324.50
		800	1196	C-shaped profile	126067017108	349.00
				perforated profile	126077017108	349.00
		900	1394	C-shaped profile	126067017109	373.50
				perforated profile	126077017109	373.50
		1000	1591	C-shaped profile	126067017110	398.00
				perforated profile	126077017110	398.00
		1100	1789	C-shaped profile	126067017111	422.50
				perforated profile	126077017111	422.50
		1200	1987	C-shaped profile	126067017112	447.00
				perforated profile	126077017112	447.00
		1400	2382	C-shaped profile	126067017114	496.00
				perforated profile	126077017114	496.00
		1600	2778	C-shaped profile	126067017116	545.00
				perforated profile	126077017116	545.00
		1800	3173	C-shaped profile	126067017118	594.00
				perforated profile	126077017118	594.00
		2000	3568	C-shaped profile	126067017120	643.00
				perforated profile	126077017120	643.00
		2200	3964	C-shaped profile	126067017122	692.00
				perforated profile	126077017122	692.00
		2400	4359	C-shaped profile	126067017124	741.00
				perforated profile	126077017124	741.00
		2600	4755	C-shaped profile	126067017126	876.00
				perforated profile	126077017126	876.00
220	200	600	1140	C-shaped profile	126067022106	336.00
				perforated profile	126077022106	336.00
		700	1421	C-shaped profile	126067022107	363.00
				perforated profile	126077022107	363.00
		800	1702	C-shaped profile	126067022108	390.00
				perforated profile	126077022108	390.00
		900	1984	C-shaped profile	126067022109	417.00
				perforated profile	126077022109	417.00
		1000	2265	C-shaped profile	126067022110	444.00
				perforated profile	126077022110	444.00
		1100	2547	C-shaped profile	126067022111	471.00
				perforated profile	126077022111	471.00
		1200	2828	C-shaped profile	126067022112	498.00
				perforated profile	126077022112	498.00
		1400	3391	C-shaped profile	126067022114	552.00
				perforated profile	126077022114	552.00
		1600	3954	C-shaped profile	126067022116	606.00
				perforated profile	126077022116	606.00
		1800	4516	C-shaped profile	126067022118	660.00
				perforated profile	126077022118	660.00
		2000	5079	C-shaped profile	126067022120	714.00
				perforated profile	126077022120	714.00
		2200	5642	C-shaped profile	126067022122	768.00
				perforated profile	126077022122	768.00
		2400	6205	C-shaped profile	126067022124	822.00
				perforated profile	126077022124	822.00
		2600	6768	C-shaped profile	126067022126	876.00
				perforated profile	126077022126	876.00

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

PowerKon + W

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.94 Thermostats				
Room thermostat	with thermal feedback, IP30 protection class, 230 V AC, surface-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146904	54.00
	with thermal feedback, IP20 protection class, 230 V AC, flush-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146927	209.00
Clock thermostat	with day/night/week programme, white, 230 V, surface-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146910	302.00
	white, 230 V, flush-mounted	Katherm NK, PowerKon + F/+ W and convectors	194000146933	232.00
1.94 Connection accessories				
Thermostatic valve head	white	PowerKon + F/+ W and steel convectors	194000110210	30.00
	remote control, with 5 m capillary tube	PowerKon + F/+ W and steel convectors	194000146907	123.00
Connection set	1/2" connection, consisting of: thermostatic valve body, axial, and return shut-off valve, straight	PowerKon + F, PowerKon + W Convectors	194000126102	33.00
	1/2" connection, pre-settable, consisting of: thermostatic valve body, axial, and return shut-off valve, straight	PowerKon + F, PowerKon + W	194000126103	33.00
1.94 Valves and return shut-off valves				
Pre-setting key	for pre-adjustable valves and valve kits	pre-settable valve bodies, valve kits and convector connection kit	194000346915	4.20
1.94 Valve actuators				
Thermoelectric actuator	230 V AC	Katherm NK, Katherm QK. With the Katherm HK only for room thermostat type 30155 and Climate controller type 148941 and type 148942!	194000146905	60.00

Design Grilles

Tasteful lines.

Decorative air outlets for trench systems!





Optiline



Ultra-elegant narrow-spaced air outlets

Material

Aluminium
Stainless steel
Brass

Profile

Double-T profile

page **106**

Wood grilles



Warm und homely, decorative wooden covers.

oak
beech
maple
merbau

solid wooden profile

page **112**

Optiline

Ultra-elegant narrow-spaced air outlets

Product benefits

- ▶ roll-up grille profile with narrower bar width that can be used on both sides
- ▶ colour-matched plastic spacers
- ▶ excellent free area
- ▶ special appearance with narrow bar spacing, with 65% free area
- ▶ available in many different materials and designs
- ▶ Optiline has the right grille for every application

Features

Material

- › Aluminium
- › Stainless steel
- › Brass

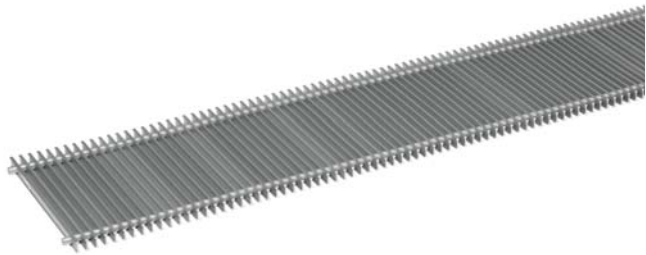
Profile

- › Double-T profile

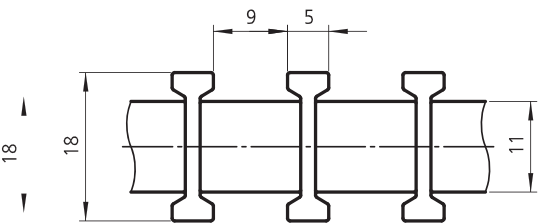
References

EmslandArena, Lingen (Ems) | Worms Cultural Centre, Worms

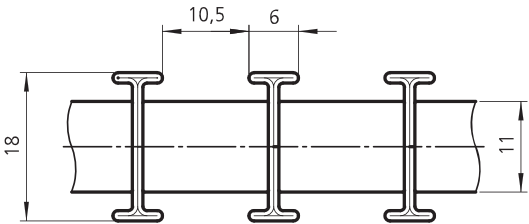
Technical data



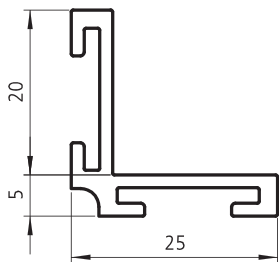
Technical drawing



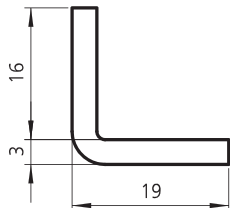
Grille, Front view



Grille, Front view



Frame, Sectional view



Frame, Sectional view

Selection guide

Aluminium

Natural anodised E6/EV1



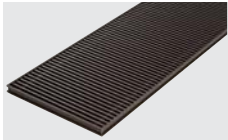
Aluminium

Brass anodised E6/EV3



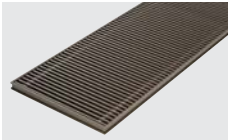
Aluminium

Bronze anodised E6/C34



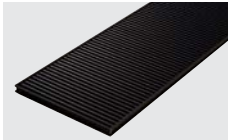
Aluminium

Bronze finish E6/C31



Aluminium

Black anodised



Aluminium

Painted DB703



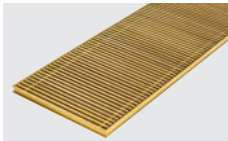
Aluminium

Painted white



Brass

Natural CuZn 44



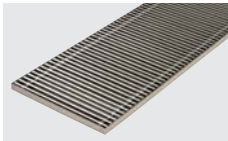
Stainless steel

Natural



Stainless steel

Polished



The colours of the grilles shown here can falsify in printing and are therefore not an exact reproduction of the original colours.

Optiline

Ordering information

Grille finish	Overall frame width	Roll-up bar width	Bar spacing	Grille		Matching frame	
				Article no.	Price ¹⁾	Article no.	Price
	[mm]	[mm]	[mm]		[€/m]		[€/m]
Aluminium, natural anodised	200	188	9	130000427000	274.00	130000622500	62.00
	250	238	9	130000427001	307.00	130000622501	62.00
	290	278	9	130000427002	307.00	130000622502	62.00
	300	288	9	130000427003	338.00	130000622503	63.00
	350	338	9	130000427004	384.00	130000622504	66.00
	370	358	9	130000427005	384.00	130000622505	66.00
	400	388	9	130000427006	428.00	130000622506	67.00
	450	438	9	130000427007	477.00	130000622507	68.00
	500	488	9	130000427008	538.00	130000622508	68.00
	530	518	9	130000427009	538.00	130000622509	68.00
	550	538	9	130000427010	602.00	130000622510	69.00
	600	588	9	130000427011	662.00	130000622511	69.00
Aluminium, brass anodised	610	598	9	130000427012	662.00	130000622512	69.00
	200	188	9	130000457000	307.00	130000652500	66.00
	250	238	9	130000457001	339.00	130000652501	66.00
	290	278	9	130000457002	339.00	130000652502	66.00
	300	288	9	130000457003	371.00	130000652503	67.00
	350	338	9	130000457004	423.00	130000652504	68.00
	370	358	9	130000457005	423.00	130000652505	68.00
	400	388	9	130000457006	469.00	130000652506	69.00
	450	438	9	130000457007	522.00	130000652507	70.00
	500	488	9	130000457008	587.00	130000652508	70.00
	530	518	9	130000457009	587.00	130000652509	70.00
	550	538	9	130000457010	656.00	130000652510	72.00
Aluminium, bronze anodised	600	588	9	130000457011	721.00	130000652511	72.00
	610	598	9	130000457012	721.00	130000652512	72.00
	200	188	9	130000407000	331.00	130000602500	76.00
	250	238	9	130000407001	370.00	130000602501	76.00
	290	278	9	130000407002	370.00	130000602502	76.00
	300	288	9	130000407003	410.00	130000602503	77.00
	350	338	9	130000407004	463.00	130000602504	79.00
	370	358	9	130000407005	463.00	130000602505	79.00
	400	388	9	130000407006	517.00	130000602506	80.00
	450	438	9	130000407007	570.00	130000602507	81.00
	500	488	9	130000407008	642.00	130000602508	81.00
	530	518	9	130000407009	642.00	130000602509	81.00
Aluminium, black anodised	550	538	9	130000407010	718.00	130000602510	82.00
	600	588	9	130000407011	789.00	130000602511	83.00
	610	598	9	130000407012	789.00	130000602512	83.00
	200	188	9	130000437500	331.00	130000632500	76.00
	250	238	9	130000437501	370.00	130000632501	76.00
	290	278	9	130000437502	370.00	130000632502	76.00
	300	288	9	130000437503	410.00	130000632503	77.00
	350	338	9	130000437504	463.00	130000632504	79.00
	370	358	9	130000437505	463.00	130000632505	79.00
	400	388	9	130000437506	517.00	130000632506	80.00
	450	438	9	130000437507	570.00	130000632507	81.00
	500	488	9	130000437508	642.00	130000632508	81.00
	530	518	9	130000437509	642.00	130000632509	81.00
	550	538	9	130000437510	718.00	130000632510	82.00
	600	588	9	130000437511	789.00	130000632511	83.00
	610	598	9	130000437512	789.00	130000632512	83.00

CONTINUED

¹⁾ Intermediate dimensions are charged at the price of the next standard width up plus a surcharge of 5%. Roll-up grilles and frames with lengths of less than 500 mm are charged at the minimum length of 500 mm.

Optiline

Ordering information

Grille finish	Overall frame width	Roll-up bar width	Bar spacing	Grille		Matching frame	
				Article no.	Price ¹⁾	Article no.	Price
	[mm]	[mm]	[mm]		[€/m]		[€/m]
Aluminium, light bronze	200	188	9	130000487000	307.00	130000682500	66.00
	250	238	9	130000487001	339.00	130000682501	66.00
	290	278	9	130000487002	339.00	130000682502	66.00
	300	288	9	130000487003	371.00	130000682503	67.00
	350	338	9	130000487004	423.00	130000682504	68.00
	370	358	9	130000487005	423.00	130000682505	68.00
	400	388	9	130000487006	469.00	130000682506	69.00
	450	438	9	130000487007	522.00	130000682507	70.00
	500	488	9	130000487008	587.00	130000682508	70.00
	530	518	9	130000487009	587.00	130000682509	70.00
	550	538	9	130000487010	656.00	130000682510	72.00
	600	588	9	130000487011	721.00	130000682511	72.00
Aluminium, coated DB 703	610	598	9	130000487012	721.00	130000682512	72.00
	200	188	9	130000437000	331.00	130000662500	76.00
	250	238	9	130000437001	370.00	130000662501	76.00
	290	278	9	130000437002	370.00	130000662502	76.00
	300	288	9	130000437003	410.00	130000662503	77.00
	350	338	9	130000437004	463.00	130000662504	79.00
	370	358	9	130000437005	463.00	130000662505	79.00
	400	388	9	130000437006	517.00	130000662506	80.00
	450	438	9	130000437007	570.00	130000662507	81.00
	500	488	9	130000437008	642.00	130000662508	81.00
	530	518	9	130000437009	642.00	130000662509	81.00
	550	538	9	130000437010	718.00	130000662510	82.00
Aluminium, coated white	600	588	9	130000437011	789.00	130000662511	83.00
	610	598	9	130000437012	789.00	130000662512	83.00
	200	188	9	130000447000	331.00	130000642500	76.00
	250	238	9	130000447001	370.00	130000642501	76.00
	290	278	9	130000447002	370.00	130000642502	76.00
	300	288	9	130000447003	410.00	130000642503	77.00
	350	338	9	130000447004	463.00	130000642504	79.00
	370	358	9	130000447005	463.00	130000642505	79.00
	400	388	9	130000447006	517.00	130000642506	80.00
	450	438	9	130000447007	570.00	130000642507	81.00
	500	488	9	130000447008	642.00	130000642508	81.00
	530	518	9	130000447009	642.00	130000642509	81.00
Stainless steel	550	538	9	130000447010	718.00	130000642510	82.00
	600	588	9	130000447011	789.00	130000642511	83.00
	610	598	9	130000447012	789.00	130000642512	83.00
	200	192	10.5	130000467500	378.00	130000522200	183.00
	250	242	10.5	130000467501	419.00	130000522201	188.00
	290	282	10.5	130000467502	419.00	130000522202	188.00
	300	292	10.5	130000467503	460.00	130000522203	190.00
	350	342	10.5	130000467504	523.00	130000522204	194.00
	370	362	10.5	130000467505	523.00	130000522205	194.00
	400	392	10.5	130000467506	589.00	130000522206	197.00
	450	442	10.5	130000467507	656.00	130000522207	203.00
	500	492	10.5	130000467508	737.00	130000522208	204.00
	530	522	10.5	130000467509	737.00	130000522209	204.00
	550	542	10.5	130000467510	823.00	130000522210	209.00
	600	592	10.5	130000467511	909.00	130000522211	211.00
	610	602	10.5	130000467512	909.00	130000522212	211.00

CONTINUED

¹⁾ Intermediate dimensions are charged at the price of the next standard width up plus a surcharge of 5%. Roll-up grilles and frames with lengths of less than 500 mm are charged at the minimum length of 500 mm.

Optiline

Ordering information

Grille finish	Overall frame width	Roll-up bar width	Bar spacing	Grille		Matching frame	
				Article no.	Price ¹⁾	Article no.	Price
	[mm]	[mm]	[mm]		[€/m]		[€/m]
Stainless steel, polished	200	192	10.5	130000477500	532.00	130000522200	183.00
	250	242	10.5	130000477501	566.00	130000522201	188.00
	290	282	10.5	130000477502	566.00	130000522202	188.00
	300	292	10.5	130000477503	595.00	130000522203	190.00
	350	342	10.5	130000477504	655.00	130000522204	194.00
	370	362	10.5	130000477505	655.00	130000522205	194.00
	400	392	10.5	130000477506	710.00	130000522206	197.00
	450	442	10.5	130000477507	818.00	130000522207	203.00
	500	492	10.5	130000477508	923.00	130000522208	204.00
	530	522	10.5	130000477509	923.00	130000522209	204.00
	550	542	10.5	130000477510	1,030.00	130000522210	209.00
	600	592	10.5	130000477511	1,137.00	130000522211	211.00
	610	602	10.5	130000477512	1,137.00	130000522212	211.00
Brass, natural	200	188	9	130000417000	393.00	130000812500	146.00
	250	238	9	130000417001	439.00	130000812501	148.00
	290	278	9	130000417002	439.00	130000812502	148.00
	300	288	9	130000417003	474.00	130000812503	151.00
	350	338	9	130000417004	551.00	130000812504	152.00
	370	358	9	130000417005	551.00	130000812505	152.00
	400	388	9	130000417006	620.00	130000812506	153.00
	450	438	9	130000417007	691.00	130000812507	154.00
	500	488	9	130000417008	779.00	130000812508	155.00
	530	518	9	130000417009	779.00	130000812509	155.00
	550	538	9	130000417010	873.00	130000812510	160.00
	600	588	9	130000417011	961.00	130000812511	162.00
	610	598	9	130000417012	961.00	130000812512	162.00

¹⁾ Intermediate dimensions are charged at the price of the next standard width up plus a surcharge of 5%. Roll-up grilles and frames with lengths of less than 500 mm are charged at the minimum length of 500 mm.

¹⁾ Intermediate dimensions are charged at the price of the next standard width up plus a surcharge of 5%. Roll-up grilles and frames with lengths of less than 500 mm are charged at the minimum length of 500 mm.

Wood grilles

Warm und homely, decorative wooden covers.

Product benefits

- warm and homely
- natural alternative for offices, homes and showrooms
- oak, beech, maple and merbau - either varnished or oiled
- our wooden roll-up grilles accentuate a warm and homely indoor environment
- solid profile
- in popular wood shades

Features

Material

- oak
- beech
- maple
- merbau

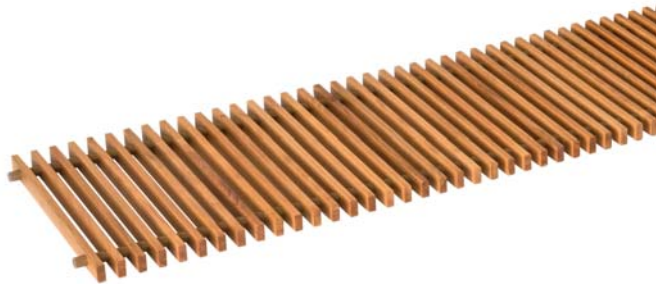
Profile

- solid wooden profile

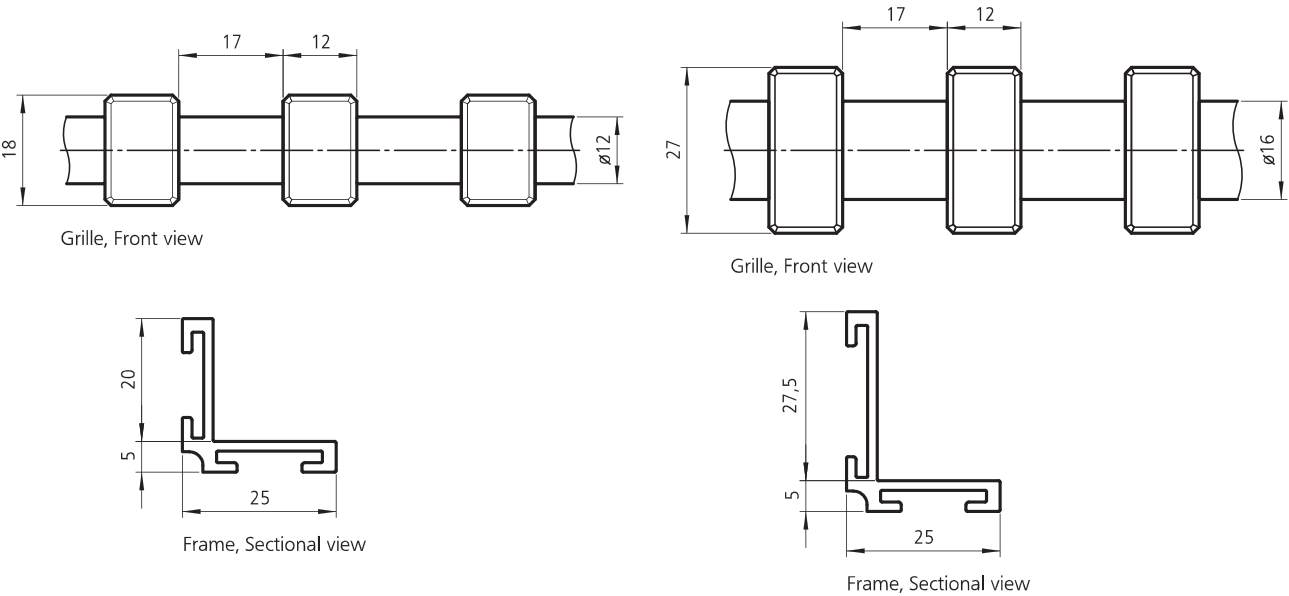
References

Schloss Elmau Retreat, Elmau-Klais

Technical data



Technical drawing



Selection guide

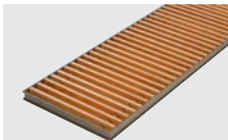
Oak
Natural finish



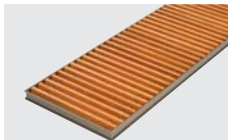
Oak
Oiled



Beech
Natural finish



Beech
Oiled



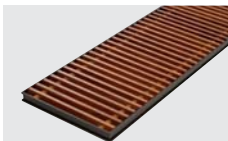
Maple
Natural finish



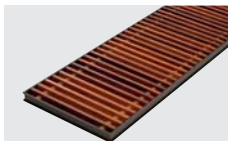
Maple
Oiled



Merbau
Natural finish



Merbau
Oiled



The colours of the grilles shown here can falsify in printing and are therefore not an exact reproduction of the original colours.

Door air curtains

The cold has to stay outside.

For controlled screening of air-conditioned premises with open doors and industrial doorways. Creates a comfortable indoor climate and minimises energy loss.

UniLine



Low investment, top performance.

Installation

Wall- or ceiling-mounted
free-hanging

Door air curtains

Warm air stream

Motors

AC an EC

Discharge height

2.3 - 3.0 m



Cassette UniLine



For specific use in ceiling grids.

Ceiling cassette unit

Warm air stream

AC an EC

2.3 - 3.0 m

page **120**

Tandem



patented, self-regulating generation of ambient and warm air stream (Tandem technology)

Wall- or ceiling-mounted

Ambient and warm air stream

EC fan

page **124**

Tandem ceiling cassette unit



patented, self-regulating generation of ambient and warm air stream (Tandem technology)

Ceiling cassette unit

Ambient and warm air stream

EC fan

2.7 - 3.2 m

page **128**

ProtecTor



Ambient and warm air stream acting as door screening across large doorways.

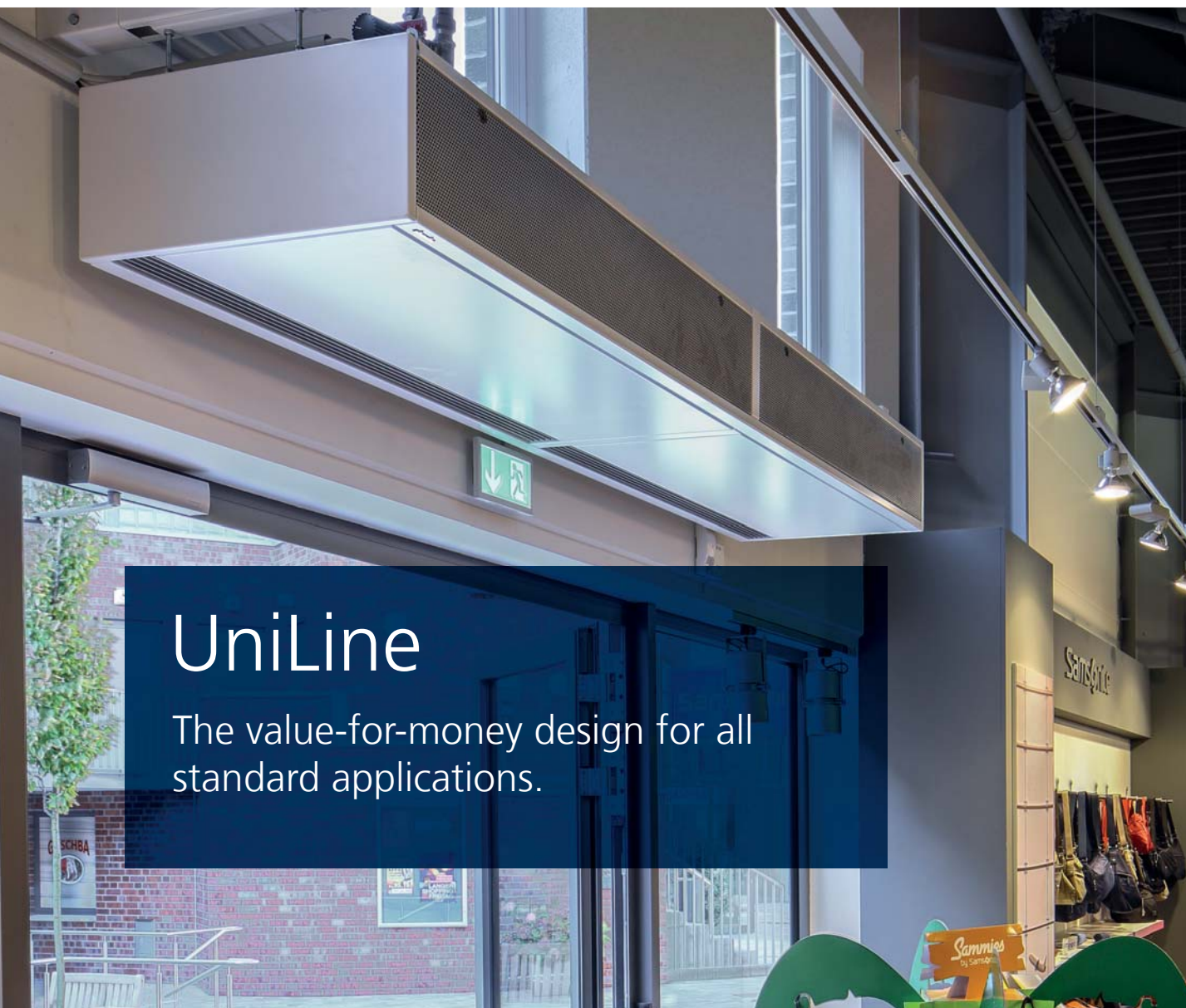
horizontal
Standing

Ambient and warm air stream

AC an EC

3.5 - 4.5 m

page **132**



UniLine

The value-for-money design for all standard applications.

Product benefits

- › for controlled screening of cold air across open doors
- › increased penetration depth of the air stream by Silent AutoMotion
- › air screening reduces energy losses and increases comfort in the entrance area
- › low investment, top performance
- › unit and casing form a compact unit
- › water and electrical connections protrude out of the top of the casing

Features

Installation	› Wall- or ceiling-mounted › free-hanging
Door air curtains	› Warm air stream
Motors	› AC an EC
Discharge height	› 2.3 - 3.0 m

References

Factory Outlet Centre, Ochtrup | Porsche Centre, Moskau

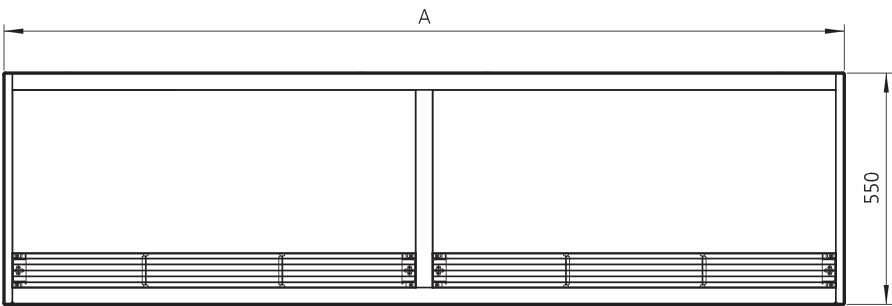
Technical data



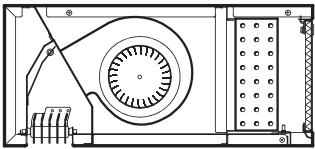
Heat output [kW] ¹⁾	> 3.4 – 44.196
Air flow [m³/h] ²⁾	> 290 – 5330
Sound pressure level [dB(A)] ³⁾	> 27 – 64

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C
²⁾ switches between 5 stages or continuously variable control
³⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

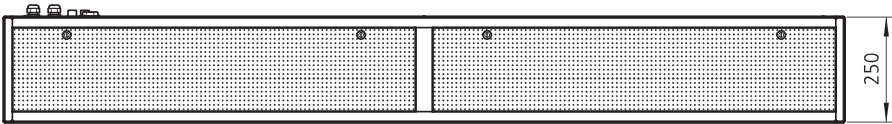
Technical drawing



Bottom view



Enlarged sectional view



Front view



Side view

Selection guide

Fan version	Max. Türbreite [m]	Length (A) [mm]	Dimensions		Heat output ¹⁾ [kW]	Model size
			Depth [mm]	Height [mm]		
EC fan	1.0	1000	550	250	3.4 – 10.3	10
	1.5	1500			5.3 – 19.5	15
	2.0	2000			7.6 – 24.1	20
	2.5	2500			9.6 – 33.7	25
	3.0	3000			11.1 – 42.8	30
AC fan	1.0	1000			6.653 – 10.195	10
	1.5	1500			9.633 – 17.36	15
	2.0	2000			13.132 – 24.199	20
	2.5	2500			17.976 – 33.853	25
	3.0	3000			24.094 – 44.196	30

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

UniLine

Ordering information

Model size	Model length (corresponds to max. door width)	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Weight	Control option	Article no.	Stock product ⁴⁾	Price
	[mm]	[kW]	[m³/h]	[dB(A)]	[kg]				[€/each]

2.53 | UniLine EC fan

10	1000	3.4 – 10.3	290 – 1410	27 – 56	37	electro-mechanical	253003510330	---	2,191.00
					38	electro-mechanical with fault signal monitoring	253003510330T	---	2,353.00
					37	KaControl	253003510330C1	---	2,549.00
15	1500	5.3 – 19.5	410 – 2540	31 – 57	55	electro-mechanical	253003515330	---	3,100.00
					54	electro-mechanical with fault signal monitoring	253003515330T	---	3,262.00
					55	KaControl	253003515330C1	---	3,459.00
20	2000	7.6 – 24.1	580 – 2820	30 – 59	69	electro-mechanical	253003520330	---	3,743.00
					68	electro-mechanical with fault signal monitoring	253003520330T	---	3,906.00
					69	KaControl	253003520330C1	---	4,101.00
25	2500	9.6 – 33.7	710 – 3980	33 – 60	88	electro-mechanical	253003525330	---	4,428.00
					87	electro-mechanical with fault signal monitoring	253003525330T	---	4,590.00
						KaControl	253003525330C1	---	4,786.00
30	3000	11.1 – 42.8	810 – 5080	34 – 60	106	electro-mechanical	253003530330	---	5,614.00
					105	electro-mechanical with fault signal monitoring	253003530330T	---	5,776.00
					106	KaControl	253003530330C1	---	5,972.00

2.53 | UniLine AC fan

10	1000	6.7 – 10.2	600 – 1390	38 – 59	42	electro-mechanical	253000510330	---	1,971.00
					44	KaControl	253000510330C1	---	2,444.00
15	1500	9.6 – 17.4	830 – 2130	39 – 60	59	electro-mechanical	253000515330	---	2,787.00
					61	KaControl	253000515330C1	---	3,262.00
20	2000	13.1 – 24.2	1210 – 2820	41 – 61	77	electro-mechanical	253000520330	---	3,432.00
					79	KaControl	253000520330C1	---	3,907.00
25	2500	18.0 – 33.9	1660 – 4000	42 – 62	101	electro-mechanical	253000525330	---	3,975.00
					103	KaControl	253000525330C1	---	4,451.00
30	3000	24.1 – 44.2	2210 – 5330	44 – 64	121	electro-mechanical	253000530330	---	4,981.00
					123	KaControl	253000530330C1	---	5,454.00

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

²⁾ switches between 5 stages or continuously variable control

³⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

⁴⁾ available in approximately 3 working days ex works

UniLine

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.96 Control accessories KaControl				
KaController	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00
1.96 Control accessories electro-mechanical 230 V				
Compact controller	230 V, EC, for speed control, rooms temperature control, door contact control, night heating mode, surface-mounted, maximum of five units can be connected in parallel	all EC unit heaters with electro-mechanical control and T, a max. of five units can be connected	196000030158	195.00
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00
1.96 Stage switch and controls for speed regulation				
5-stage switch	surface-mounted	all air curtains AC	196000100925	129.00
	flush-mounted	all air curtains AC	196000100926	105.00
5-stage summer/winter switch	surface-mounted, only for use in conjunction with thermoelectric shut-off valve!	all air curtains AC	196000100928	135.00
	flush-mounted, only for use in conjunction with thermoelectric shut-off valve!	all air curtains AC	196000100929	114.00
Cascade module	for the parallel operation of two electro-mechanical door air curtains by a stage switch	all air curtains AC	196000100906	248.00
1.96 Valves				
Thermoelectric shut-off valve	3/4" connection, 230 V AC	all UniLine doors air curtains	196000100912	87.00
Outlet air temperature limiting valve	3/4" connection, temperature setting range 20 - 50 °C	all UniLine door air curtains	196000100967	131.00
2.53 Brackets				
Wall brackets	1 set = 2 brackets	Models 10 – 25	253000500890	196.00
	1 set = 3 brackets	Model size 30	253000500892	222.00
Ceiling brackets	1 set = 2 brackets	Models 10 – 25	253000500895	70.00
	1 set = 3 brackets	Model size 30	253000500897	76.00
2.53 Filter				
Replacement filter mat	1 set = 5 brackets	Model 10	253000510820	35.00
		Model 15	253000515820	53.00
		Model 20	253000520820	61.00
		Model 25	253000525820	75.00
		Model 30	253000530820	81.00



Cassette UniLine

For specific use in ceiling grids.

Product benefits

- › for controlled screening of cold air across open doors
- › increased penetration depth of the air stream by Silent AutoMotion
- › air screening reduces energy losses and increases comfort in the entrance area
- › low investment, top performance
- › specifically designed for 625 mm or 600 mm acoustic ceiling grids
- › water and electrical connections protrude out of the top of the casing
- › prefabricated suspension options

Features

Installation	› Ceiling cassette unit
Door air curtains	› Warm air stream
Motors	› AC an EC
Discharge height	› 2.3 - 3.0 m

References

Ludgeri Pharmacy, Münster | Hotel Bielefelder Hof, Bielefeld

Technical data



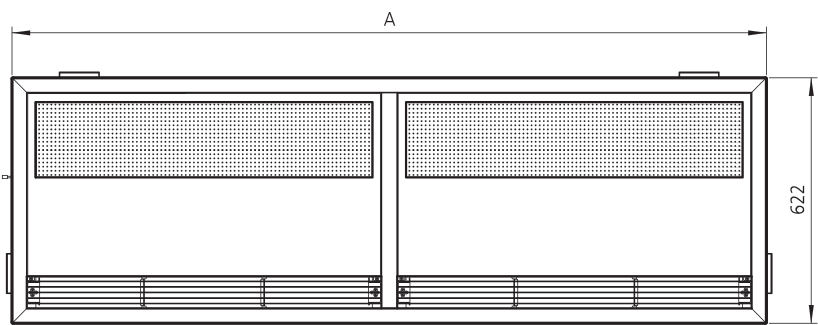
Heat output [kW] ¹⁾ > 3.4 – 33.853

Air flow [m³/h] ²⁾ > 290 – 4000

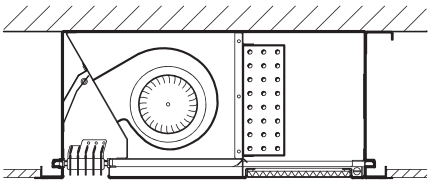
Sound pressure level [dB(A)] ³⁾ > 27 – 62

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C
²⁾ switches between 5 stages or continuously variable control
³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

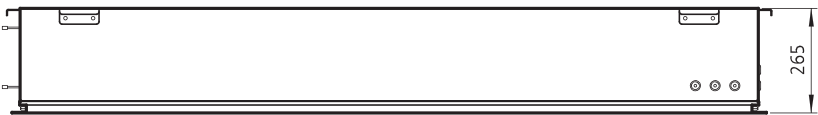
Technical drawing



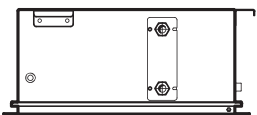
Bottom view



Enlarged sectional view



Front view



Side view

Selection guide

Fan version	Max. door width	Dimensions			Heat output ¹⁾	Model size
		Length (A)	Depth	Height		
	[m]	[mm]	[mm]	[mm]	[kW]	
EC fan	1.0	1000	600 625	265	3.4 – 10.3	10
	1.5	1500			5.3 – 19.5	15
	2.0	2000			7.6 – 24.1	20
	2.5	2500			9.6 – 33.7	25
AC fan	1.0	1000			6.653 – 10.195	10
	1.5	1500			9.633 – 17.36	15
	2.0	2000			13.132 – 24.199	20
	2.5	2500			17.976 – 33.853	25

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Cassette UniLine

Ordering information

Model size	Model length (corresponds to max. door width)	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Bautiefe	Weight	Control option	Article no.	Price
	[mm]	[kW]	[m³/h]	[dB(A)]	[mm]	[kg]			[€/each]

2.53 | Kassetten-UniLine EC fan

10	1000	3.4 – 10.3	290 – 1410	27 – 56	625	42	electro-mechanical	253003610330	2,241.00
							electro-mechanical with fault signal monitoring	253003610330T	2,403.00
							KaControl	253003610330C1	2,600.00
					600	41	electro-mechanical	253003710330	2,241.00
						42	electro-mechanical with fault signal monitoring	253003710330T	2,403.00
							KaControl	253003710330C1	2,600.00
15	1500	5.3 – 19.5	410 – 2540	31 – 57	625	62	electro-mechanical	253003615330	2,922.00
						63	electro-mechanical with fault signal monitoring	253003615330T	3,084.00
							KaControl	253003615330C1	3,280.00
					600	62	electro-mechanical	253003715330	2,922.00
							electro-mechanical with fault signal monitoring	253003715330T	3,084.00
							KaControl	253003715330C1	3,280.00
20	2000	7.6 – 24.1	580 – 2820	30 – 59	625	78	electro-mechanical	253003620330	3,612.00
							electro-mechanical with fault signal monitoring	253003620330T	3,773.00
							KaControl	253003620330C1	3,970.00
					600	77	electro-mechanical	253003720330	3,612.00
							electro-mechanical with fault signal monitoring	253003720330T	3,773.00
							KaControl	253003720330C1	3,970.00
25	2500	9.6 – 33.7	710 – 3980	33 – 60	625	99	electro-mechanical	253003625330	4,360.00
							electro-mechanical with fault signal monitoring	253003625330T	4,521.00
							KaControl	253003625330C1	4,718.00
					600	98	electro-mechanical	253003725330	4,360.00
							electro-mechanical with fault signal monitoring	253003725330T	4,521.00
							KaControl	253003725330C1	4,718.00

2.53 | Kassetten-UniLine AC fan

10	1000	6.7 – 10.2	600 – 1390	38 – 59	625	47	electro-mechanical	253000610330	2,075.00
						46	KaControl	253000610330C1	2,547.00
					600	46	electro-mechanical	253000710330	2,075.00
						47	KaControl	253000710330C1	2,547.00
15	1500	9.6 – 17.4	830 – 2130	39 – 60	625	66	electro-mechanical	253000615330	2,683.00
							KaControl	253000615330C1	3,156.00
					600	65	electro-mechanical	253000715330	2,683.00
							KaControl	253000715330C1	3,156.00
20	2000	13.1 – 24.2	1210 – 2820	41 – 61	625	66	electro-mechanical	253000620330	3,343.00
						85	KaControl	253000620330C1	3,818.00
					600	85	electro-mechanical	253000720330	3,343.00
							KaControl	253000720330C1	3,818.00
25	2500	18.0 – 33.9	1660 – 4000	42 – 62	625	112	electro-mechanical	253000625330	3,960.00
							KaControl	253000625330C1	4,434.00
					600	111	electro-mechanical	253000725330	3,960.00
							KaControl	253000725330C1	4,434.00

¹⁾ at LPHW 75/65 °C, t₁ = 20 °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

Cassette UniLine

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.96 Control accessories KaControl				
KaController	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00
1.96 Control accessories electro-mechanical 230 V				
Compact controller	230 V, EC, for speed control, rooms temperature control, door contact control, night heating mode, surface-mounted, maximum of five units can be connected in parallel	all EC unit heaters with electro-mechanical control and T, a max. of five units can be connected	196000030158	195.00
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00
1.96 Stage switch and controls for speed regulation				
5-stage switch	surface-mounted	all air curtains AC	196000100925	129.00
	flush-mounted	all air curtains AC	196000100926	105.00
5-stage summer/winter switch	surface-mounted, only for use in conjunction with thermoelectric shut-off valve!	all air curtains AC	196000100928	135.00
	flush-mounted, only for use in conjunction with thermoelectric shut-off valve!	all air curtains AC	196000100929	114.00
Cascade module	for the parallel operation of two electro-mechanical door air curtains by a stage switch	all air curtains AC	196000100906	248.00
1.96 Valves				
Thermoelectric shut-off valve	3/4" connection, 230 V AC	all UniLine doors air curtains	196000100912	87.00
Outlet air temperature limiting valve	3/4" connection, temperature setting range 20 - 50 °C	all UniLine door air curtains	196000100967	131.00
2.53 Filter				
Replacement filter mat	1 set = 5 brackets	Model 10	253000610820	35.00
		Model 15	253000615820	53.00
		Model 20	253000620820	61.00
		Model 25	253000625820	75.00



Tandem

Ambient and warm air stream for effective cold air screening.

Product benefits

- ▶ for controlled screening of cold air across open doors
- ▶ officially verified property right: European Patent EP 1462730
- ▶ up to 38% energy savings through the patented separation of ambient and warm air streams
- ▶ minimal heating requirement with the same penetration depth
- ▶ faster return on investment compared to conventional systems
- ▶ valves (optional) can be concealed behind the casing
- ▶ improved use of space: workplaces can be arranged more closely to the entrance

Features

Installation	▶ Wall- or ceiling-mounted
Door air curtains	▶ Ambient and warm air stream
Motors	▶ EC fan
Discharge height	

References

Edeka Supermarket, Haselünne | Factory Outlet Centre, Ochtrup | Grünwald Garden Centre, Baunatal

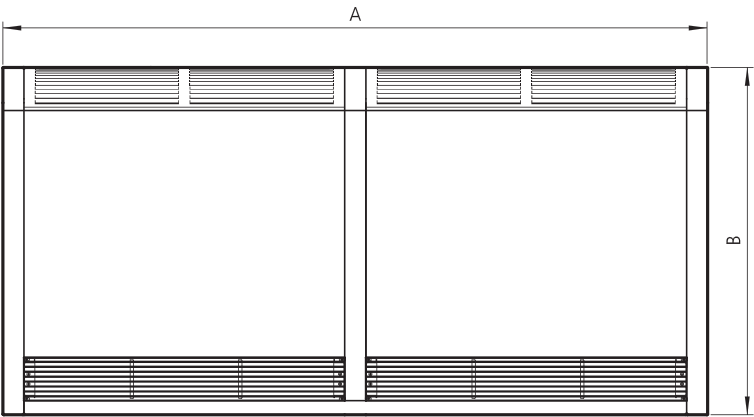
Technical data



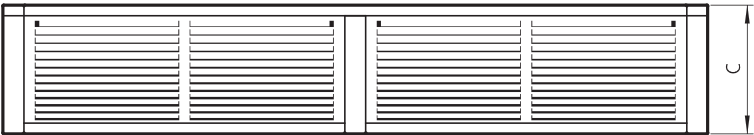
Heat output [kW] ¹⁾	> 4.6 – 41.3
Air flow [m³/h] ²⁾	> 700 – 8480
Sound pressure level [dB(A)] ³⁾	> 32 – 67

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C
²⁾ switches between 5 stages or continuously variable control
³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

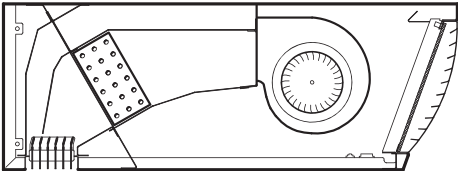
Technical drawing



Bottom view



Front view



Enlarged sectional view



Side view

Selection guide

Fan version	Version	Max. door width [m]	Abmessungen			Heat output ¹⁾ [kW]	Model size
			Length (A) [mm]	Depth [mm]	Height [mm]		
EC fan	Tandem 300	1.25	1250	820	300	4.6 – 9.6	12
		2.00	2000			8.3 – 18.5	20
		2.50	2500			10.8 – 26.5	25
		3.00	3000			13.5 – 30.1	30
	Tandem 365	1.25	1250	985	365	7.1 – 14.3	12
		2.00	2000			12.8 – 27.8	20
		2.75	2750			18.1 – 41.3	27

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Tandem

Ordering information

Version	Model size	Model length (corresponds to max. door width)	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Weight	Control option	Article no.	Price
		[mm]	[kW]	[m³/h]	[dB(A)]	[kg]			[€/each]

2.51 | Tandem EC fan

Tandem 300	12	1250	4.6 – 9.6	700 – 2030	32 – 61	79	electro-mechanical	251003112430	3,293.00
						80	electro-mechanical with fault signal monitoring	251003112430T	3,455.00
							KaControl	251003112430C1	3,651.00
	20	2000	8.3 – 18.5	1200 – 3830	35 – 63	125	electro-mechanical	251003120430	4,727.00
						126	electro-mechanical with fault signal monitoring	251003120430T	4,889.00
							KaControl	251003120430C1	5,085.00
	25	2500	10.8 – 26.5	1480 – 5410	37 – 63	154	electro-mechanical	251003125430	5,804.00
							electro-mechanical with fault signal monitoring	251003125430T	5,966.00
							KaControl	251003125430C1	6,162.00
	30	3000	13.5 – 30.1	1850 – 5810	37 – 65	180	electro-mechanical	251003130430	6,858.00
							electro-mechanical with fault signal monitoring	251003130430T	7,019.00
							KaControl	251003130430C1	7,216.00
Tandem 365	12	1250	7.1 – 14.3	1090 – 3090	33 – 64	94	electro-mechanical	252003212330	3,447.00
							electro-mechanical with fault signal monitoring	252003212330T	3,609.00
						95	KaControl	252003212330C1	3,805.00
	20	2000	12.8 – 27.8	1860 – 5830	37 – 66	151	electro-mechanical	252003220330	5,292.00
						152	electro-mechanical with fault signal monitoring	252003220330T	5,454.00
							KaControl	252003220330C1	5,650.00
	27	2750	18.1 – 41.3	2550 – 8480	38 – 67	200	electro-mechanical	252003227330	7,149.00
							electro-mechanical with fault signal monitoring	252003227330T	7,311.00
							KaControl	252003227330C1	7,507.00

¹⁾ at LPHW 75/65 °C, $t_{r1} = 20$ °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

Tandem

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.96 | Control accessories electro-mechanical 230 V

Compact controller	230 V, EC, for speed control, rooms temperature control, door contact control, night heating mode, surface-mounted, maximum of five units can be connected in parallel	all EC unit heaters with electro-mechanical control and T, a max. of five units can be connected	196000030158	195.00
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00

1.96 | Valves

Thermoelectric shut-off valve	3/4" connection, 230 V AC	all Tandem door air curtains	196000100913	121.00
Outlet air temperature limiting valve	3/4" connection, temperature setting range 20 - 50 °C	all Tandem door air curtains	196000103968	158.00

2.51 | Brackets

Wall brackets	1 set = 2 brackets	Tandem 365, model size 12 + 20	252000200890	231.00
		Tandem 300, Tandem ceiling cassette unit, model size 12 - 25	251000100990	221.00
	1 set = 3 brackets	Tandem 365, model size 27	252000200892	346.00
		Tandem 300, Tandem ceiling cassette unit, model size 30	251000100992	260.00
Ceiling brackets	1 set = 2 brackets	Tandem 365, model size 12 + 20	252000200895	161.00
		Tandem 300, Tandem ceiling cassette unit, model size 12 - 25	251000100995	150.00
	1 set = 3 brackets	Tandem 365, model size 27	252000200897	241.00
		Tandem 300, Tandem ceiling cassette unit, model size 30	251000100997	172.00

2.51 | Filter

Filter with frame	1 set = 1 brackets	Tandem 300, Tandem ceiling cassette unit, model size 12	251003112925	29.00
	1 set = 2 brackets	Tandem 300, Tandem ceiling cassette unit, model size 20	251003120925	55.00
		Tandem 300, Tandem ceiling cassette unit, model size 25	251003125925	65.00
		Tandem 300, Tandem ceiling cassette unit, model size 30	251003130925	76.00
	1 set = 1 brackets	Tandem 365, model size 12	252003212825	39.00
	1 set = 2 brackets	Tandem 365, model size 27	252003227825	79.00



Tandem ceiling cassette unit

Ambient and warm air stream for effective cold air screening.

Product benefits

- ▶ for controlled screening of cold air across open doors
- ▶ officially verified property right: European Patent EP 1462730
- ▶ up to 38% energy savings through the patented separation of ambient and warm air streams
- ▶ minimal heating requirement with the same penetration depth
- ▶ faster return on investment compared to conventional systems
- ▶ frame on all sides suitable for installation flush with the ceiling
- ▶ improved use of space: workplaces can be arranged more closely to the entrance

Features

Installation	▶ Ceiling cassette unit
Door air curtains	▶ Ambient and warm air stream
Motors	▶ EC fan
Discharge height	▶ 2.7 - 3.2 m

References

Factory Outlet Centre, Ochtrup

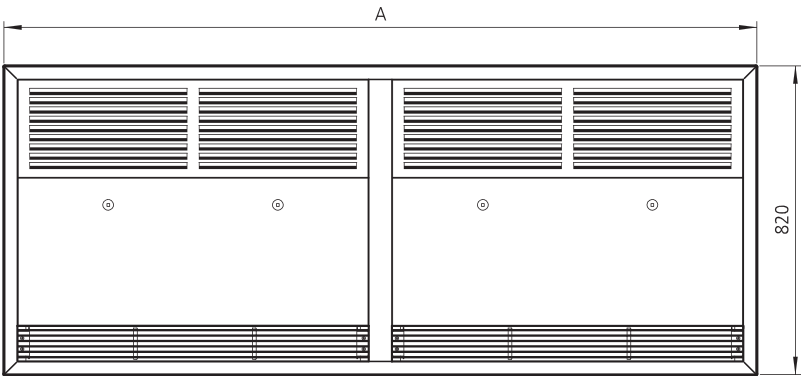
Technical data



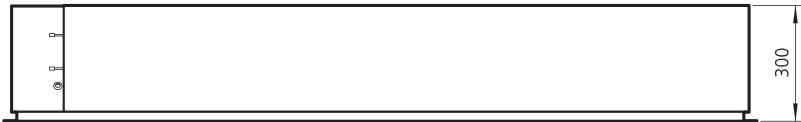
Heat output [kW] ¹⁾	> 4.6 – 30.1
Air flow [m³/h] ²⁾	> 700 – 5810
Sound pressure level [dB(A)] ³⁾	> 32 – 65

- ¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C
²⁾ switches between 5 stages or continuously variable control
³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

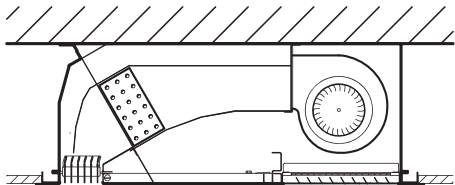
Technical drawing



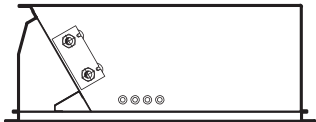
Bottom view



Front view



Enlarged sectional view



Side view

Selection guide

Fan version	Max. door width	Length (A)	Dimensions		Heat output ¹⁾	Model size
			Depth	Height		
	[m]	[mm]	[mm]	[mm]	[kW]	
EC fan	1.3	1200	800	300	4.6 – 9.6	12
	2.0	1950			8.3 – 18.5	20
	2.5	2450			10.8 – 26.5	25
	3.0	2950			13.5 – 30.1	30

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

Tandem ceiling cassette unit

Ordering information

Model size	Model length (corresponds to max. door width)	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Weight	Control option	Article no.	Price
	[mm]	[kW]	[m³/h]	[dB(A)]	[kg]			[€/each]

2.51 | Tandem ceiling cassette unit EC fan

12	1200	4.6 – 9.6	700 – 2030	32 – 61	61	electro-mechanical	251003312430	3,104.00
						electro-mechanical with fault signal monitoring	251003312430T	3,266.00
						KaControl	251003312430C1	3,462.00
20	1950	8.3 – 18.5	1200 – 3830	35 – 63	106	electro-mechanical	251003320430	4,561.00
						electro-mechanical with fault signal monitoring	251003320430T	4,723.00
						KaControl	251003320430C1	4,919.00
25	2450	10.8 – 26.5	1480 – 5410	37 – 63	132	electro-mechanical	251003325430	5,715.00
					133	electro-mechanical with fault signal monitoring	251003325430T	5,877.00
						KaControl	251003325430C1	6,073.00
30	2950	13.5 – 30.1	1850 – 5810	37 – 65	155	electro-mechanical	251003330430	6,753.00
					156	electro-mechanical with fault signal monitoring	251003330430T	6,914.00
						KaControl	251003330430C1	7,111.00

¹⁾ at LPHW 75/65 °C, t₁ = 20 °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

Tandem ceiling cassette unit

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.96 | Control accessories electro-mechanical 230 V

Compact controller	230 V, EC, for speed control, rooms temperature control, door contact control, night heating mode, surface-mounted, maximum of five units can be connected in parallel	all EC unit heaters with electro-mechanical control and T, a max. of five units can be connected	196000030158	195.00
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00

1.96 | Valves

Thermoelectric shut-off valve	3/4" connection, 230 V AC	all Tandem door air curtains	196000100913	121.00
Outlet air temperature limiting valve	3/4" connection, temperature setting range 20 - 50 °C	all Tandem door air curtains	196000103968	158.00

2.51 | Brackets

Wall brackets	1 set = 2 brackets	Tandem 300, Tandem ceiling cassette unit, model size 12 - 25	251000100990	221.00
	1 set = 3 brackets	Tandem 300, Tandem ceiling cassette unit, model size 30	251000100992	260.00
Ceiling brackets	1 set = 2 brackets	Tandem 300, Tandem ceiling cassette unit, model size 12 - 25	251000100995	150.00
	1 set = 3 brackets	Tandem 300, Tandem ceiling cassette unit, model size 30	251000100997	172.00

2.51 | Filter

Filter with frame	1 set = 1 brackets	Tandem 300, Tandem ceiling cassette unit, model size 12	251003112925	29.00
	1 set = 2 brackets	Tandem 300, Tandem ceiling cassette unit, model size 20	251003120925	55.00
		Tandem 300, Tandem ceiling cassette unit, model size 25	251003125925	65.00
		Tandem 300, Tandem ceiling cassette unit, model size 30	251003130925	76.00



ProtecTor

Ambient and warm air stream acting as door screening across large doorways.

Product benefits

- ▶ up to 38% energy savings through the patented separation of ambient and warm air streams
- ▶ Coanda effect between the ambient and warm air streams
- ▶ self-optimising back-up air stream when the fan speed changes
- ▶ effective cold air screening across open industrial doorways
- ▶ patented, self-regulating generation of ambient and warm air stream (Tandem technology)
- ▶ improved use of space close to the doorway
- ▶ fast return of investment with Kampmann door screening
- ▶ officially verified property right: European Patent EP 1462730

Features

Installation	<ul style="list-style-type: none"> ▶ horizontal ▶ Standing
Door air curtains	<ul style="list-style-type: none"> ▶ Ambient and warm air stream
Motors	<ul style="list-style-type: none"> ▶ AC an EC
Discharge height	<ul style="list-style-type: none"> ▶ 3.5 - 4.5 m

References

OBI Market, Hamburg-Bergedorf | Domodedovo Airport, Moscow | Volga Brewery ZAO, Nizhniy Novgorod

Technical data



Max. door width or height [m] > 2.25 – 5.25

Max. discharge height or width [m] > 3.5 – 4.5

Heat output [kW] ^{1) 2)} > 8.5 – 167.2

Air flow [m³/h] ³⁾ > 1700 – 40050

Sound pressure level [dB(A)] ⁴⁾ > 23 – 68

¹⁾ at LPHW 75/65 °C, $t_{L1} = 20$ °C

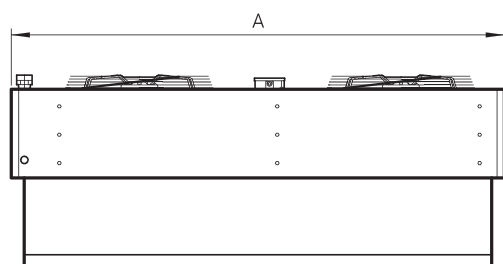
²⁾ at LPHW 80/40 °C, $t_{L1} = 20$ °C

³⁾ switches between 5 stages or continuously variable control

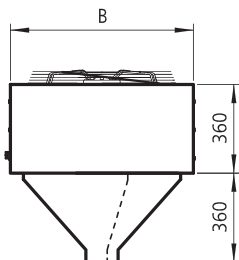
⁴⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

Technical drawing

Horizontal unit

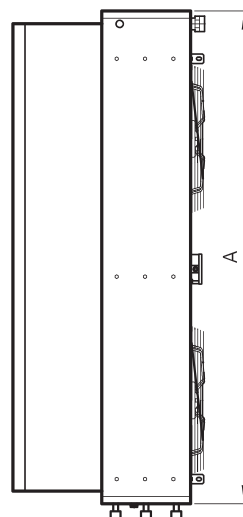


Front view

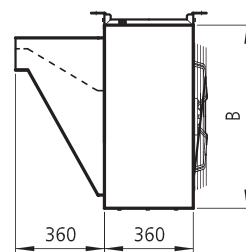


Side view

Standing unit



Front view



Top view

Selection guide

					Heat exchanger model			
		Dimensions			copper/aluminium	Galvanised steel	Steel, galvanised cross-counterflow	
Max. door width or height	Max. discharge height or width	Length (A)	Depth (B)	Height	Heat output ¹⁾	Heat output ¹⁾	Heat output ²⁾	Model size
[m]	[m]	[mm]	[mm]	[mm]	[kW]	[kW]	[kW]	
2.25	3.5	2000	740	360	13.5 – 47.4	13.5 – 47.4	8.5 – 29.8	20
3.25		3000			48.0 – 65.0	20.2 – 71.1	12.8 – 44.9	30
4.25		4000			27.0 – 94.9	27.0 – 94.9	17.0 – 59.8	40
5.25		5000			79.8 – 108.3	79.8 – 118.3	21.1 – 74.2	50
2.25	4.5	2000	840		26.7 – 66.7	26.7 – 66.7	19.5 – 48.6	20
3.25		3000			40.2 – 100.3	40.2 – 100.3	29.0 – 72.4	30
4.25		4000			53.7 – 133.8	53.7 – 133.8	38.9 – 96.8	40
5.25		5000			67.0 – 167.2	67.0 – 167.2	48.4 – 120.6	50

¹⁾ at LPHW 75/65 °C, $t_{L1} = 20$ °C

²⁾ at LPHW 80/40 °C, $t_{L1} = 20$ °C

ProtecTor

Ordering information

Heat exchanger	Design/ Installation site	Width (A)	Max. door width or height	Depth (B)	Max. discharge height or width	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Article no.	Price
		[mm]	[m]	[mm]	[m]	[kW]	[m³/h]	[dB(A)]		[€/each]

2.55 | ProtecTor EC fan

copper/ aluminium	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	13.5 – 47.4	1700 – 10540	23 – 63	255000202063	5,090.00
		3000	3.25	740	3.5	48.0 – 61.3	2560 – 15810	25 – 65	255000302063	7,040.00
		4000	4.25	740	3.5	27.0 – 94.9	3410 – 21080	26 – 66	255000402063	8,995.00
		5000	5.25	740	3.5	79.8 – 102.1	4260 – 26350	27 – 67	255000502063	11,704.00
		2000	2.25	840	4.5	26.7 – 64.6	3810 – 13710	36 – 64	255000202073	6,208.00
		3000	3.25	840	4.5	40.2 – 97.2	5710 – 20560	38 – 66	255000302073	8,093.00
		4000	4.25	840	4.5	53.7 – 130.0	7620 – 27420	39 – 67	255000402073	10,370.00
		5000	5.25	840	4.5	67.0 – 162.2	9520 – 34270	40 – 68	255000502073	13,269.00
	standing (to the right of the doorway)	2000	2.25	740	3.5	13.5 – 47.4	1700 – 10540	23 – 63	255002202063	5,446.00
		3000	3.25	740	3.5	48.0 – 61.3	2560 – 15810	25 – 65	255002302063	7,439.00
		4000	4.25	740	3.5	27.0 – 94.9	3410 – 21080	26 – 66	255002402063	9,505.00
		5000	5.25	740	3.5	79.8 – 102.1	4260 – 26350	27 – 67	255002502063	12,370.00
		2000	2.25	840	4.5	26.7 – 64.6	3810 – 13710	36 – 64	255002202073	6,255.00
		3000	3.25	840	4.5	40.2 – 97.2	5710 – 20560	38 – 66	255002302073	8,548.00
		4000	4.25	840	4.5	53.7 – 130.0	7620 – 27420	39 – 67	255002402073	10,946.00
		5000	5.25	840	4.5	67.0 – 162.2	9520 – 34270	40 – 68	255002502073	14,007.00
	standing (to the left of the doorway)	2000	2.25	740	3.5	13.5 – 47.4	1700 – 10540	23 – 63	255003202063	5,446.00
		3000	3.25	740	3.5	48.0 – 61.3	2560 – 15810	25 – 65	255003302063	7,439.00
		4000	4.25	740	3.5	27.0 – 94.9	3410 – 21080	26 – 66	255003402063	9,505.00
		5000	5.25	740	3.5	79.8 – 102.1	4260 – 26350	27 – 67	255003502063	12,370.00
		2000	2.25	840	4.5	26.7 – 64.6	3810 – 13710	36 – 64	255003202073	6,255.00
		3000	3.25	840	4.5	40.2 – 97.2	5710 – 20560	38 – 66	255003302073	8,548.00
		4000	4.25	840	4.5	53.7 – 130.0	7620 – 27420	39 – 67	255003402073	10,946.00
		5000	5.25	840	4.5	67.0 – 162.2	9520 – 34270	40 – 68	255003502073	14,007.00
Galvanised steel	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	13.5 – 47.4	1700 – 10540	23 – 63	255000203163	5,734.00
		3000	3.25	740	3.5	20.2 – 71.1	2560 – 15810	25 – 65	255000303163	7,929.00
		4000	4.25	740	3.5	27.0 – 94.9	3410 – 21080	26 – 66	255000403163	10,128.00
		5000	5.25	740	3.5	79.8 – 118.3	4260 – 26350	27 – 67	255000503163	13,188.00
		2000	2.25	840	4.5	26.7 – 64.6	3810 – 13710	36 – 64	255000203173	6,674.00
		3000	3.25	840	4.5	40.2 – 97.2	5710 – 20560	38 – 66	255000303173	9,101.00
		4000	4.25	840	4.5	53.7 – 130.0	7620 – 27420	39 – 67	255000403173	11,653.00
		5000	5.25	840	4.5	67.0 – 162.2	9520 – 34270	40 – 68	255000503173	14,913.00
	standing (to the right of the doorway)	2000	2.25	740	3.5	13.5 – 47.4	1700 – 10540	23 – 63	255002203163	5,931.00
		3000	3.25	740	3.5	20.2 – 71.1	2560 – 15810	25 – 65	255002303163	8,077.00
		4000	4.25	740	3.5	27.0 – 94.9	3410 – 21080	26 – 66	255002403163	10,318.00
		5000	5.25	740	3.5	79.8 – 118.3	4260 – 26350	27 – 67	255002503163	13,434.00
		2000	2.25	840	4.5	26.7 – 64.6	3810 – 13710	36 – 64	255002203173	6,804.00
		3000	3.25	840	4.5	40.2 – 97.2	5710 – 20560	38 – 66	255002303173	9,269.00
		4000	4.25	840	4.5	53.7 – 130.0	7620 – 27420	39 – 67	255002403173	11,864.00
		5000	5.25	840	4.5	67.0 – 162.2	9520 – 34270	40 – 68	255002503173	15,187.00
	standing (to the left of the doorway)	2000	2.25	740	3.5	13.5 – 47.4	1700 – 10540	23 – 63	255003203163	5,931.00
		3000	3.25	740	3.5	20.2 – 71.1	2560 – 15810	25 – 65	255003303163	8,077.00
		4000	4.25	740	3.5	27.0 – 94.9	3410 – 21080	26 – 66	255003403163	10,318.00
		5000	5.25	740	3.5	79.8 – 118.3	4260 – 26350	27 – 67	255003503163	13,434.00
		2000	2.25	840	4.5	26.7 – 64.6	3810 – 13710	36 – 64	255003203173	6,804.00
		3000	3.25	840	4.5	40.2 – 97.2	5710 – 20560	38 – 66	255003303173	9,269.00
		4000	4.25	840	4.5	53.7 – 130.0	7620 – 27420	39 – 67	255003403173	11,864.00
		5000	5.25	840	4.5	67.0 – 162.2	9520 – 34270	40 – 68	255003503173	15,187.00

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¹⁾ at LPHW 75/65 °C, $t_{11} = 20$ °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

ProtecTor

Ordering information

Heat exchanger	Design/ Installation site	Width (A)	Max. door width or height	Depth (B)	Max. discharge height or width	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Article no.	Price
		[mm]	[m]	[mm]	[m]	[kW]	[m³/h]	[dB(A)]		[€/each]
without heat exchanger	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	---	1900 – 11780	23 – 63	255000200063	3,369.00
		3000	3.25	740	3.5	---	2860 – 17670	25 – 65	255000300063	4,705.00
		4000	4.25	740	3.5	---	3810 – 23560	26 – 66	255000400063	5,983.00
		5000	5.25	740	3.5	---	4760 – 29460	27 – 67	255000500063	7,723.00
		2000	2.25	840	4.5	---	4260 – 15330	36 – 64	255000200073	3,904.00
		3000	3.25	840	4.5	---	6390 – 22990	38 – 66	255000300073	5,458.00
		4000	4.25	840	4.5	---	8510 – 30650	39 – 67	255000400073	7,011.00
		5000	5.25	840	4.5	---	10640 – 38310	40 – 68	255000500073	8,962.00
		2000	2.25	740	3.5	---	1900 – 11780	23 – 63	255002200063	3,508.00
	standing (to the right of the doorway)	3000	3.25	740	3.5	---	2860 – 17670	25 – 65	255002300063	4,889.00
		4000	4.25	740	3.5	---	3810 – 23560	26 – 66	255002400063	6,215.00
		5000	5.25	740	3.5	---	4760 – 29460	27 – 67	255002500063	8,026.00
		2000	2.25	840	4.5	---	4260 – 15330	36 – 64	255002200073	4,066.00
		3000	3.25	840	4.5	---	6390 – 22990	38 – 66	255002300073	5,665.00
		4000	4.25	840	4.5	---	8510 – 30650	39 – 67	255002400073	7,278.00
		5000	5.25	840	4.5	---	10640 – 38310	40 – 68	255002500073	9,301.00
		2000	2.25	740	3.5	---	1900 – 11780	23 – 63	255003200063	3,508.00
	standing (to the left of the doorway)	3000	3.25	740	3.5	---	2860 – 17670	25 – 65	255003300063	4,889.00
		4000	4.25	740	3.5	---	3810 – 23560	26 – 66	255003400063	6,215.00
		5000	5.25	740	3.5	---	4760 – 29460	27 – 67	255003500063	8,026.00
		2000	2.25	840	4.5	---	4260 – 15330	36 – 64	255003200073	4,066.00
		3000	3.25	840	4.5	---	6390 – 22990	38 – 66	255003300073	5,665.00
		4000	4.25	840	4.5	---	8510 – 30650	39 – 67	255003400073	7,278.00
		5000	5.25	840	4.5	---	10640 – 38310	40 – 68	255003500073	9,301.00

2.55 | ProtecTor AC fan

copper/ aluminium	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	33.3 – 43.3	7300 – 9250	54 – 61	255000202066	3,956.00
		3000	3.25	740	3.5	50.0 – 65.0	11000 – 13900	56 – 63	255000302066	5,274.00
		4000	4.25	740	3.5	66.6 – 86.7	14700 – 18500	57 – 64	255000402066	6,713.00
		5000	5.25	740	3.5	83.3 – 108.3	18300 – 23200	58 – 65	255000502066	8,791.00
		2000	2.25	840	4.5	53.0 – 66.7	11950 – 14350	60 – 64	255000202076	4,825.00
		3000	3.25	840	4.5	79.5 – 100.3	17900 – 21500	62 – 66	255000302076	5,958.00
		4000	4.25	840	4.5	106.0 – 133.8	23900 – 28600	63 – 67	255000402076	7,592.00
		5000	5.25	840	4.5	132.5 – 167.2	29800 – 35800	64 – 68	255000502076	9,737.00
	standing (to the right of the doorway)	2000	2.25	740	3.5	33.3 – 43.3	7300 – 9250	54 – 61	255002202066	4,311.00
		3000	3.25	740	3.5	50.0 – 65.0	11000 – 13900	56 – 63	255002302066	5,674.00
		4000	4.25	740	3.5	66.6 – 86.7	14700 – 18500	57 – 64	255002402066	7,222.00
		5000	5.25	740	3.5	83.3 – 108.3	18300 – 23200	58 – 65	255002502066	9,456.00
		2000	2.25	840	4.5	53.0 – 66.7	11950 – 14350	60 – 64	255002202076	4,873.00
		3000	3.25	840	4.5	79.5 – 100.3	17900 – 21500	62 – 66	255002302076	6,412.00
		4000	4.25	840	4.5	106.0 – 133.8	23900 – 28600	63 – 67	255002402076	8,168.00
		5000	5.25	840	4.5	132.5 – 167.2	29800 – 35800	64 – 68	255002502076	10,475.00
	standing (to the left of the doorway)	2000	2.25	740	3.5	33.3 – 43.3	7300 – 9250	54 – 61	255003202066	4,311.00
		3000	3.25	740	3.5	50.0 – 65.0	11000 – 13900	56 – 63	255003302066	5,674.00
		4000	4.25	740	3.5	66.6 – 86.7	14700 – 18500	57 – 64	255003402066	7,222.00
		5000	5.25	740	3.5	83.3 – 108.3	18300 – 23200	58 – 65	255003502066	9,456.00
		2000	2.25	840	4.5	53.0 – 66.7	11950 – 14350	60 – 64	255003202076	4,873.00
		3000	3.25	840	4.5	79.5 – 100.3	17900 – 21500	62 – 66	255003302076	6,412.00
		4000	4.25	840	4.5	106.0 – 133.8	23900 – 28600	63 – 67	255003402076	8,168.00
		5000	5.25	840	4.5	132.5 – 167.2	29800 – 35800	64 – 68	255003502076	10,475.00

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¹⁾ at LPHW 75/65 °C, t₁ = 20 °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

ProtecTor

Ordering information

Heat exchanger	Design/ Installation site	Width (A)	Max. door width or height	Depth (B)	Max. discharge height or width	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Article no.	Price
		[mm]	[m]	[mm]	[m]	[kW]	[m³/h]	[dB(A)]		[€/each]
Galvanised steel	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	33.3 – 43.3	7300 – 9250	54 – 61	255000203166	4,600.00
		3000	3.25	740	3.5	50.0 – 65.0	11000 – 13900	56 – 63	255000303166	6,164.00
		4000	4.25	740	3.5	66.6 – 86.7	14700 – 18500	57 – 64	255000403166	7,846.00
		5000	5.25	740	3.5	83.3 – 108.3	18300 – 23200	58 – 65	255000503166	10,274.00
		2000	2.25	840	4.5	53.0 – 66.7	11950 – 14350	60 – 64	255000203176	5,291.00
		3000	3.25	840	4.5	79.5 – 100.3	17900 – 21500	62 – 66	255000303176	6,965.00
		4000	4.25	840	4.5	106.0 – 133.8	23900 – 28600	63 – 67	255000403176	8,875.00
		5000	5.25	840	4.5	132.5 – 167.2	29800 – 35800	64 – 68	255000503176	11,381.00
		2000	2.25	740	3.5	33.3 – 43.3	7300 – 9250	54 – 61	255002203166	4,797.00
	standing (to the right of the doorway)	3000	3.25	740	3.5	50.0 – 65.0	11000 – 13900	56 – 63	255002303166	6,312.00
		4000	4.25	740	3.5	66.6 – 86.7	14700 – 18500	57 – 64	255002403166	8,036.00
		5000	5.25	740	3.5	83.3 – 108.3	18300 – 23200	58 – 65	255002503166	10,520.00
		2000	2.25	840	4.5	53.0 – 66.7	11950 – 14350	60 – 64	255002203176	5,421.00
		3000	3.25	840	4.5	79.5 – 100.3	17900 – 21500	62 – 66	255002303176	7,134.00
		4000	4.25	840	4.5	106.0 – 133.8	23900 – 28600	63 – 67	255002403176	9,086.00
		5000	5.25	840	4.5	132.5 – 167.2	29800 – 35800	64 – 68	255002503176	11,654.00
		2000	2.25	740	3.5	33.3 – 43.3	7300 – 9250	54 – 61	255003203166	4,797.00
	standing (to the left of the doorway)	3000	3.25	740	3.5	50.0 – 65.0	11000 – 13900	56 – 63	255003303166	6,312.00
		4000	4.25	740	3.5	66.6 – 86.7	14700 – 18500	57 – 64	255003403166	8,036.00
		5000	5.25	740	3.5	83.3 – 108.3	18300 – 23200	58 – 65	255003503166	10,520.00
		2000	2.25	840	4.5	53.0 – 66.7	11950 – 14350	60 – 64	255003203176	5,421.00
		3000	3.25	840	4.5	79.5 – 100.3	17900 – 21500	62 – 66	255003303176	7,134.00
		4000	4.25	840	4.5	106.0 – 133.8	23900 – 28600	63 – 67	255003403176	9,086.00
		5000	5.25	840	4.5	132.5 – 167.2	29800 – 35800	64 – 68	255003503176	11,654.00
without heat exchanger	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	---	8160 – 10400	54 – 61	255000200066	2,313.00
		3000	3.25	740	3.5	---	12250 – 15600	56 – 63	255000300066	3,042.00
		4000	4.25	740	3.5	---	16300 – 20800	57 – 64	255000400066	3,828.00
		5000	5.25	740	3.5	---	20400 – 26100	58 – 65	255000500066	4,977.00
		2000	2.25	840	4.5	---	13250 – 16050	60 – 64	255000200076	2,610.00
		3000	3.25	840	4.5	---	19900 – 24100	62 – 66	255000300076	3,438.00
		4000	4.25	840	4.5	---	26600 – 32100	63 – 67	255000400076	4,381.00
		5000	5.25	840	4.5	---	33090 – 40050	64 – 68	255000500076	5,620.00
		2000	2.25	740	3.5	---	8160 – 10400	54 – 61	255002200066	2,457.00
	standing (to the right of the doorway)	3000	3.25	740	3.5	---	12250 – 15600	56 – 63	255002300066	3,232.00
		4000	4.25	740	3.5	---	16300 – 20800	57 – 64	255002400066	4,070.00
		5000	5.25	740	3.5	---	20400 – 26100	58 – 65	255002500066	5,291.00
		2000	2.25	840	4.5	---	13250 – 16050	60 – 64	255002200076	2,777.00
		3000	3.25	840	4.5	---	19900 – 24100	62 – 66	255002300076	3,653.00
		4000	4.25	840	4.5	---	26600 – 32100	63 – 67	255002400076	4,658.00
		5000	5.25	840	4.5	---	33090 – 40050	64 – 68	255002500076	5,970.00
		2000	2.25	740	3.5	---	8160 – 10400	54 – 61	255003200066	2,457.00
	standing (to the left of the doorway)	3000	3.25	740	3.5	---	12250 – 15600	56 – 63	255003300066	3,232.00
		4000	4.25	740	3.5	---	16300 – 20800	57 – 64	255003400066	4,070.00
		5000	5.25	740	3.5	---	20400 – 26100	58 – 65	255003500066	5,291.00
		2000	2.25	840	4.5	---	13250 – 16050	60 – 64	255003200076	2,777.00
		3000	3.25	840	4.5	---	19900 – 24100	62 – 66	255003300076	3,653.00
		4000	4.25	840	4.5	---	26600 – 32100	63 – 67	255003400076	4,658.00
		5000	5.25	840	4.5	---	33090 – 40050	64 – 68	255003500076	5,970.00

¹⁾ at LPHW 75/65 °C, t₁ = 20 °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

ProtecTor

Ordering information

Heat exchanger	Design/ Installation site	Width (A)	Max. door width or height	Depth (B)	Max. discharge height or width	Heat output ¹⁾	Air flow ²⁾	Sound pressure level ³⁾	Article no.	Price
		[mm]	[m]	[mm]	[m]	[kW]	[m³/h]	[dB(A)]		[€/each]

2.55 | ProtecTor EC fan

Steel, galvanised cross-counterflow	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	8.5 – 29.8	1700 – 10540	23 – 63	255000203363	5,850.00
		3000	3.25	740	3.5	12.8 – 44.9	2560 – 15810	25 – 65	255000303363	7,971.00
		4000	4.25	740	3.5	17.0 – 59.8	3410 – 21080	26 – 66	255000403363	10,185.00
		5000	5.25	740	3.5	21.1 – 74.2	4260 – 26350	27 – 67	255000503363	13,256.00
		2000	2.25	840	4.5	19.5 – 47.1	3810 – 13710	36 – 64	255000203373	6,713.00
		3000	3.25	840	4.5	29.0 – 70.2	5710 – 20560	38 – 66	255000303373	9,148.00
		4000	4.25	840	4.5	38.9 – 94.0	7620 – 27420	39 – 67	255000403373	11,710.00
		5000	5.25	840	4.5	48.4 – 117.0	9520 – 34270	40 – 68	255000503373	14,991.00

2.55 | ProtecTor AC fan

Steel, galvanised cross-counterflow	horizontal (above the doorway), connection on left	2000	2.25	740	3.5	24.1 – 27.0	7300 – 9250	54 – 61	255000203366	4,716.00
		3000	3.25	740	3.5	36.7 – 41.1	11000 – 13900	56 – 63	255000303366	6,206.00
		4000	4.25	740	3.5	48.8 – 54.7	14700 – 18500	57 – 64	255000403366	7,902.00
		5000	5.25	740	3.5	61.0 – 68.0	18300 – 23200	58 – 65	255000503366	10,343.00
		2000	2.25	840	4.5	42.2 – 48.6	11950 – 14350	60 – 64	255000203376	5,330.00
		3000	3.25	840	4.5	65.8 – 72.4	17900 – 21500	62 – 66	255000303376	7,012.00
		4000	4.25	840	4.5	87.4 – 96.8	23900 – 28600	63 – 67	255000403376	8,932.00
		5000	5.25	840	4.5	109.8 – 120.6	29800 – 35800	64 – 68	255000503376	11,459.00

¹⁾ at LPHW 80/40 °C, $t_{11} = 20$ °C

²⁾ switches between 5 stages or continuously variable control

³⁾ Der Schalldruckpegel wurde mit einer angenommenen Raumdämpfung von 16 dB(A) berechnet. This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

ProtecTor

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.96 Control accessories KaControl				
KaController	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Industry KaController	with side operating keys, surface-mounted, IP65, industrial housing, with hinged transparent cover, lockable	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003214002	457.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
KaControl control electronics	Recirculating air AC, in a wall-mounted housing, three-phase 4 KW/8 A, degree of protection IP 54. A maximum of two ProtecTor air curtain can be connected in parallel!	all ProtecTor air curtains 400 V AC	196003231200	2,834.00
	Recirculating air EC, in a wall-mounted housing, 230 V, maximum two ProtecTor air curtains can be connected in parallel!	all ProtecTor air curtains 230 V EC	196003231160	466.00
1.96 Control accessories electro-mechanical 230 V				
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00
1.96 Stage switch and controls for speed regulation				
2-stage, 3-phase switch	10 A with connection for room thermostat, recirculating air only	Unit heater/door air curtain 400 V three-phase AC motor	196000030049	247.00
5-stage 3-phase controller	4 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030752	702.00
	8 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030754	789.00
1.96 Thermostats				
Industrial thermostat	with setpoint adjustment by tool	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling panels	196000030058	127.00
	with setpoint adjustment using a dial	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling panels	196000030059	127.00
1.96 Control accessories				
Door contact switch	solid mechanical design, potential-free NC and NO contact	all ProtecTor door air curtains	196000030763	98.00
1.96 Repair switch				
Repair switch	AC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all Unit heaters / Air curtains	196000030120	102.00
	EC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all unit heaters, air curtains 230 V with EC-motors	196000030160	60.00

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ProtecTor

Accessories

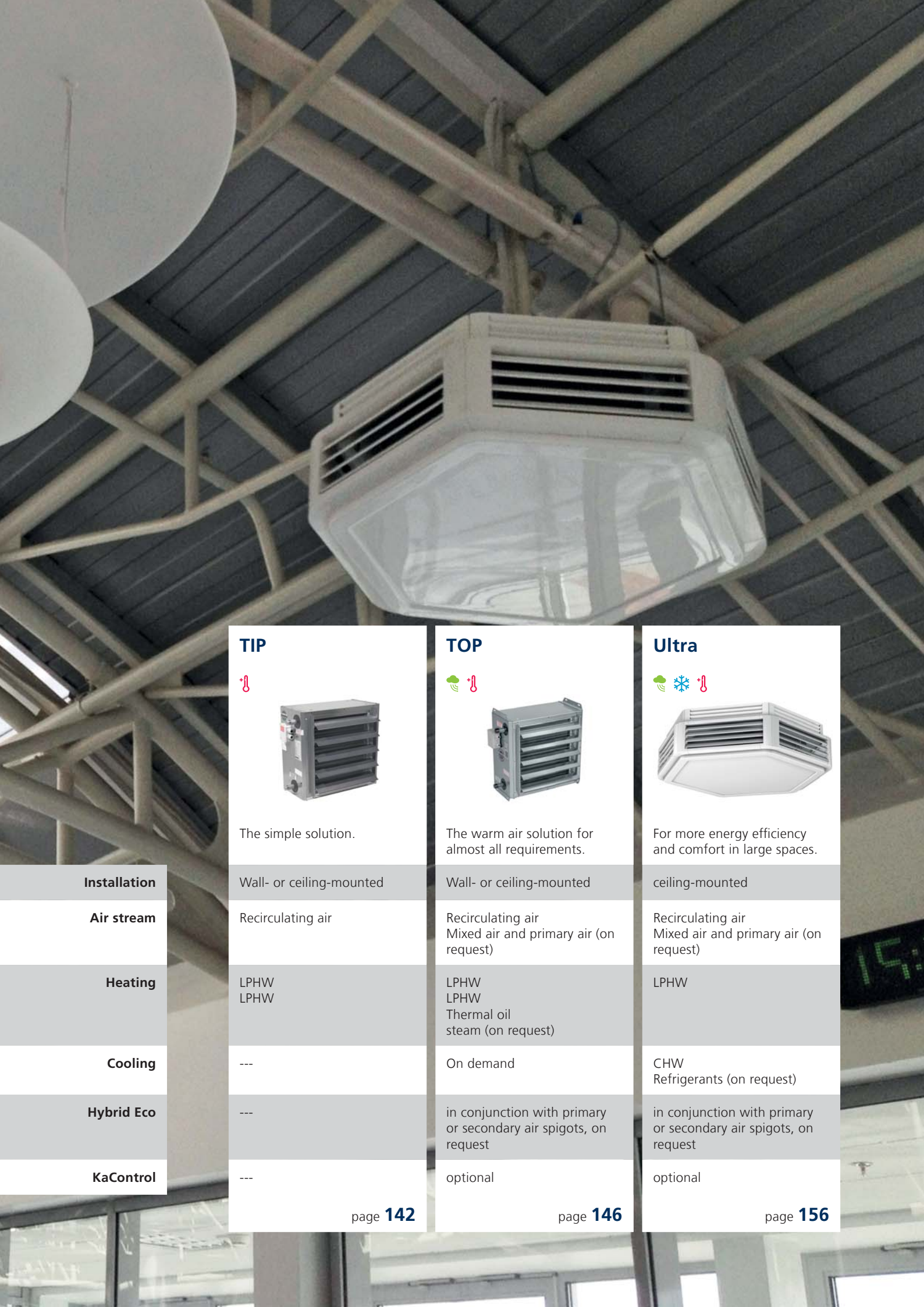
Article	Properties	Suitable for	Article no.	Price
				[€/each]
2.55 Louvres				
Discharge nozzle, sendzimir galvanized	Discharge central, H = 360 mm	ProtecTor Dimension: L 2000 x T 740 mm	255000200060	512.00
		ProtecTor Dimension: L 2000 x T 840 mm	255000200070	529.00
		ProtecTor Dimension: L 3000 x T 740 mm	255000300060	587.00
		ProtecTor Dimension: L 3000 x T 840 mm	255000300070	664.00
		ProtecTor Dimension: L 4000 x T 740 mm	255000400060	749.00
		ProtecTor Dimension: L 4000 x T 840 mm	255000400070	846.00
		ProtecTor Dimension: L 5000 x T 740 mm	255000500060	980.00
		ProtecTor Dimension: L 5000 x T 840 mm	255000500070	1,086.00
	monodirectional outlet, as monodirectional outlet nozzle on door side, with wide air stream, to direct air stream, H = 360 mm	ProtecTor Dimension: L 2000 x T 740 mm	255000201060	571.00
		ProtecTor Dimension: L 2000 x T 840 mm	255000201070	625.00
		ProtecTor Dimension: L 3000 x T 740 mm	255000301060	612.00
		ProtecTor Dimension: L 3000 x T 840 mm	255000301070	692.00
		ProtecTor Dimension: L 4000 x T 740 mm	255000401060	779.00
		ProtecTor Dimension: L 4000 x T 840 mm	255000401070	882.00
		ProtecTor Dimension: L 5000 x T 740 mm	255000501060	1,019.00
		ProtecTor Dimension: L 5000 x T 840 mm	255000501070	1,130.00

Unit heaters

Top-class performance.

Suitable for use as wall- or ceiling-mounted units for heating, cooling or ventilation in high-ceilinged buildings, industrial buildings, showrooms etc. – as recirculating air, mixed air or primary air units.





TIP



The simple solution.

Wall- or ceiling-mounted

Recirculating air

LPHW
LPHW

page **142**

TOP



The warm air solution for almost all requirements.

Wall- or ceiling-mounted

Recirculating air
Mixed air and primary air (on request)

LPHW
LPHW
Thermal oil
steam (on request)

On demand

in conjunction with primary or secondary air spigots, on request

optional

page **146**

Ultra



For more energy efficiency and comfort in large spaces.

ceiling-mounted

Recirculating air
Mixed air and primary air (on request)

LPHW

CHW
Refrigerants (on request)

in conjunction with primary or secondary air spigots, on request

optional

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Installation

Air stream

Heating

Cooling

Hybrid Eco

KaControl



TIP

Wall and ceiling-mounted units, the simple solution.

Product benefits

- ▶ unbeatable in terms of value for money
- ▶ sickle-blade, whisper-quiet fan with optimised full nozzle
- ▶ neutral in colour, hard-wearing and tough
- ▶ fully regulable and centrally controllable
- ▶ copper/aluminium heat exchanger, suitable for use with low water temperature systems
- ▶ single-row ceiling or wall louver and motor guard as standard

Features

Installation	› Wall- or ceiling-mounted
Air stream	› Recirculating air
Heating	› LPHW › LPHW
Cooling	› ---
Hybrid Eco	› ---
KaControl	› ---

References

Seyfarth Car Dealership, Gotha | Coppenrath Publishing House, Horstmar | Volga Brewery ZAO, Nizhniy Novgorod

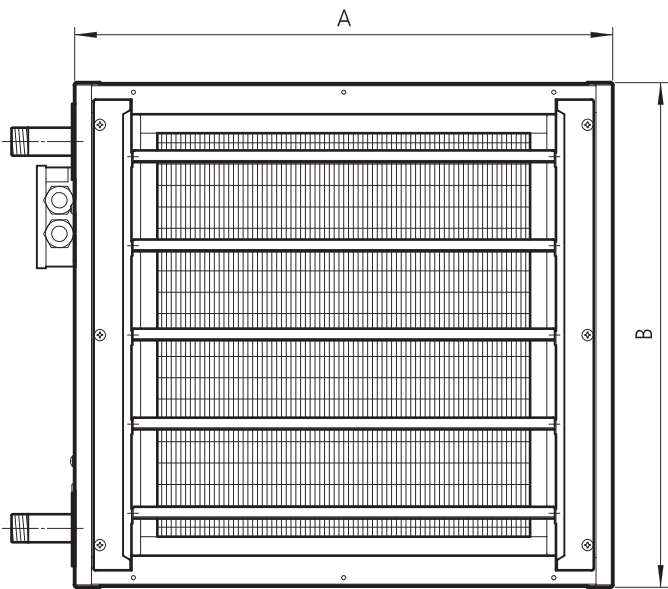
Technical data



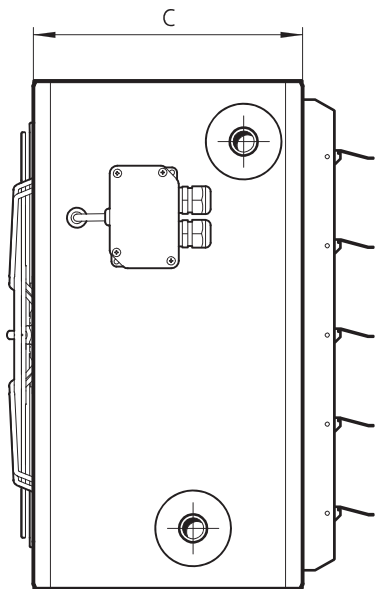
Heat output [kW] ¹⁾	> 11.1 – 77.2
Air flow [m³/h]	> 1480 – 8770
Sound pressure level [dB(A)] ²⁾	> 49 – 61
Sound power level [dB(A)]	> 65 – 77
Heat exchanger	> copper/ aluminium

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C
²⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 5 m, a room volume of 3000 m³ and a reverberation time of 2.0 s (in accordance with VDI 2081).

Technical drawing



Front view



Side view

Selection guide

Fan version	Heat output ¹⁾ [kW]	Series	Dimensions		
			Width (A) [mm]	Height (B) [mm]	Depth (C) [mm]
AC fan, 400 V	11.1 – 18.0	54	540	500	320
	17.7 – 30.9	55	640	600	
	27.3 – 47.9	56	740	700	360
	43.4 – 77.2	57	840	800	
AC fan, 230 V	12.5 – 18.0	54	540	500	320
	19.8 – 30.9	55	640	600	
	30.9 – 47.9	56	740	700	360
	47.7 – 77.2	57	840	800	

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

TIP

Ordering information

Series	Fan version	Heat output ¹⁾	Air flow	Article no.	Stock product ²⁾	Price
		[kW]	[m³/h]			[€/each]

1.57 | Heat exchanger copper/aluminium

5420	AC fan, 400 V	11.1 – 12.5	1870 – 2360	157000542036	---	757.00
	AC fan, 230 V	12.5	2360	157000542031	---	757.00
5430	AC fan, 400 V	13.8 – 15.9	1670 – 2140	157000543036	---	811.00
	AC fan, 230 V	15.9	2140	157000543031	---	811.00
5440	AC fan, 400 V	15.4 – 18	1480 – 1890	157000544036	---	884.00
	AC fan, 230 V	18	1890	157000544031	---	884.00
5520	AC fan, 400 V	17.7 – 19.8	3330 – 4140	157000552036	---	925.00
	AC fan, 230 V	19.8	4140	157000552031	---	925.00
5530	AC fan, 400 V	24.2 – 27.4	3060 – 3810	157000553036	---	1,065.00
	AC fan, 230 V	27.4	3810	157000553031	---	1,065.00
5540	AC fan, 400 V	26.6 – 30.9	2700 – 3430	157000554036	---	1,171.00
	AC fan, 230 V	30.9	3430	157000554031	---	1,171.00
5620	AC fan, 400 V	27.3 – 30.9	4490 – 5680	157000562036	---	1,269.00
	AC fan, 230 V	30.9	5680	157000562031	---	1,269.00
5630	AC fan, 400 V	36.2 – 41.9	4120 – 5260	157000563036	---	1,466.00
	AC fan, 230 V	41.9	5260	157000563031	---	1,466.00
5640	AC fan, 400 V	40.8 – 47.9	3720 – 4750	157000564036	---	1,549.00
	AC fan, 230 V	47.9	4750	157000564031	---	1,549.00
5720	AC fan, 400 V	43.4 – 47.7	7320 – 8770	157000572036	---	1,578.00
	AC fan, 230 V	47.7	8770	157000572031	---	1,578.00
5730	AC fan, 400 V	56.4 – 64.5	6730 – 8500	157000573036	---	1,767.00
	AC fan, 230 V	64.5	8500	157000573031	---	1,767.00
5740	AC fan, 400 V	65.5 – 77.2	6150 – 7960	157000574036	---	1,959.00
	AC fan, 230 V	77.2	7960	157000574031	---	1,959.00

¹⁾ at LPHW 75/65 °C, t_{LT} = 20 °C

²⁾ available in approximately 3 working days ex works

TIP

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Stage switch and controls for speed regulation

2-stage, 3-phase switch	10 A with connection for room thermostat, recirculating air only	Unit heater/door air curtain 400 V three-phase AC motor	196000030049	247.00
5-stage 3-phase controller	2 A	Unit heater 400V three-phase motors AC	196000030751	516.00
	4 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030752	702.00
	8 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030754	789.00
7-stage, single-phase switch	4 A, recirculating air function only!	Unit heater 230 V single-phase AC motor	196000030781	215.00
	7.5 A, recirculating air function only!	Unit heater 230 V single-phase AC motor	196000030782	315.00
Electronic 2-stage 3-phase controller	with integrated digital timer, 10 A, with room-temperature sensor in a separate housing	Unit heater 400V three-phase motors AC	196000030277	580.00
	without digital timer, 10 A, with room temperature sensor in a separate housing	Unit heater 400V three-phase motors AC	196000030177	448.00
Electronic continuously variable single-phase controller	Master unit, 4.5 A with integrated room temperature control, with integral digital timer	Unit heater 230 V single-phase AC motor	196000030543	626.00
	Slave unit, 4.5 A for use with master unit, without room temperature control without digital timer	Unit heater 230 V single-phase AC motor	196000030540	393.00

1.96 | Thermostats

Room thermostat	230 V AC, with thermal feedback	all unit heaters and Galaxis radiant ceiling panels	196000030055	51.00
Industrial thermostat	with setpoint adjustment by tool	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling panels	196000030058	127.00
	with setpoint adjustment using a dial	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling panels	196000030059	127.00
Clock thermostat	with integral digital timer	all unit heaters and Galaxis radiant ceiling panels	196000030056	286.00

1.96 | Valves

Thermoelectric shut-off valve	1" connection, 230 V AC	all unit heaters	196000030911	127.00
	1 1/4" connection, 230 V AC	all unit heaters	196000030912	169.00
	1 1/2" connection, 230 V AC	all unit heaters	196000030913	254.00

1.96 | Repair switch

Repair switch	AC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all Unit heaters / Air curtains	196000030120	102.00
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1.98 | Louvres

Louvre	two-row for wall- and ceiling-mounted units	Model size 4	198000034002	81.00
		Model size 5	198000035002	108.00
		Model size 6	198000036002	140.00
		Model size 7	198000037002	184.00
Diffuser	in four directions, for ceiling-mounted units	Model size 4	198000034004	180.00
		Model size 5	198000035004	202.00
		Model size 6	198000036004	237.00
		Model size 7	198000037004	267.00

1.98 | Brackets

Universal 4-point brackets		all models	198000030042	71.00
Wall brackets	Length 585 mm, recirculating air only	Model size 4	198000034044	84.00
		Model size 5	198000035044	84.00
	Length 635 mm, recirculating air only	Model size 6	198000036044	98.00
		Model size 7	198000037044	125.00
Ceiling-wall brackets		Model size 4	198000034049	103.00
		Model size 5	198000035049	112.00
		Model size 6	198000036049	122.00
		Model size 7	198000037049	132.00



TOP

Wall and ceiling-mounted units –
the warm air solution for almost all
requirements.

Product benefits

- ▶ A wide range of models to meet every design need - "TOP" in terms of price and performance
- ▶ whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements
- ▶ heat exchanger and fan options for the most diverse applications
- ▶ neutral in colour, hard-wearing and tough
- ▶ electro-mechanical control or KaControl system possible
- ▶ possible integration into KaControl networks or building automation systems, like BACnet, Modbus or LON
- ▶ single-row ceiling or wall louvre and motor guard as standard
- ▶ Hybrid ECO system module for decentralised temperature control
- ▶ recirculating air accessories are possible (mixed air and primary air accessories on request)

Features

Installation	› Wall- or ceiling-mounted
Air stream	› Recirculating air › Mixed air and primary air (on request)
Heating	› LPHW › LPHW › Thermal oil › steam (on request)
Cooling	› On demand
Hybrid Eco	› in conjunction with primary or secondary air spigots, on request
KaControl	› optional

References

Busch Car Dealership, Beverstedt-Lunestedt | Buderus Heating Technology, Munich | DEKRA House, Hamburg

Technical data

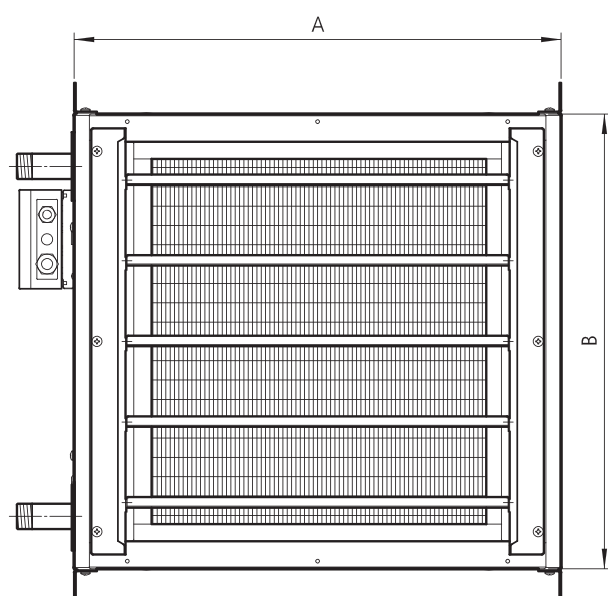


Heat output [kW] ¹⁾	› 4.1 – 77.2
Air flow [m³/h]	› 410 – 8770
Sound pressure level [dB(A)] ²⁾	› 13 – 64
Sound power level [dB(A)]	› 29 – 80
Heat exchanger	› Steel, galvanised cross-counterflow › Galvanised steel › copper/ aluminium

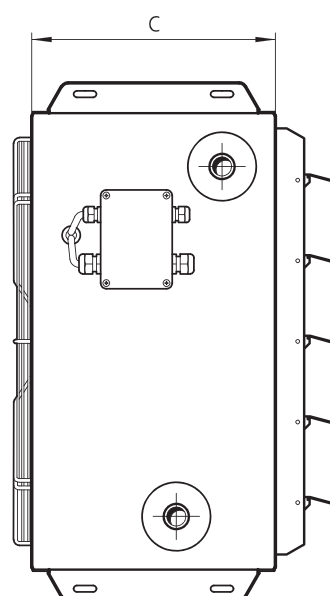
¹⁾ at LPHW 75/65 °C, $t_{l1} = 20$ °C

²⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 5 m, a room volume of 3000 m³ and a reverberation time of 2.0 s

Technical drawing



Front view



Side view

Selection guide

	Heat exchanger model			Series	Dimensions		
	copper/ aluminium	Galvanised steel	Steel, galvanised cross-counterflow		Width (A)	Height (B)	Depth (C)
Fan version	Heat output ¹⁾ [kW]	Heat output ¹⁾ [kW]	Heat output ²⁾ [kW]		[mm]	[mm]	[mm]
AC fan, 400 V	11.1 – 18.0	10.0 – 16.8	9.6 – 11.9	44	540	500	
	17.7 – 30.9	16.9 – 29.8	17.1 – 20.3	45	640	600	320
	27.3 – 47.9	25.5 – 43.1	23.8 – 30.7	46	740	700	
	43.4 – 77.2	44.5 – 76.3	42.7 – 54.6	47	840	800	360
AC fan, 230 V	12.5 – 18.0	11.7 – 16.8	10.7 – 11.9	44	540	500	
	19.8 – 30.9	19.6 – 29.8	19.0 – 20.3	45	640	600	320
	30.9 – 47.9	30.0 – 43.1	26.8 – 30.7	46	740	700	
	47.7 – 77.2	50.4 – 76.3	47.0 – 54.6	47	840	800	360
EC fan, 230 V, high speed	5.9 – 20.3	4.9 – 19.1	4.4 – 13.5	44	540	500	
	7.1 – 32.4	6.0 – 31.5	5.8 – 21.4	45	640	600	320
	8.5 – 48.9	7.3 – 44.0	6.5 – 31.4	46	740	700	
	18.9 – 69.5	17.4 – 63.6	16.2 – 48.6	47	840	800	360
EC fan, 230 V, reduced speed	5.1 – 16.3	4.1 – 15.0	3.8 – 10.7	44	540	500	
	9.7 – 27.5	8.2 – 26.2	7.9 – 17.8	45	640	600	320

¹⁾ at LPHW 75/65 °C, $t_{l1} = 20$ °C

²⁾ at LPHW 80/40 °C, $t_{l1} = 20$ °C

TOP

Ordering information

Series	Fan version	Heat output ¹⁾	Air flow	Control option	Article no.	Stock product ²⁾	Price
		[kW]	[m³/h]				[€/each]

1.53 | TOP, Heat exchanger copper/aluminium

4420	AC fan, 400 V	11.1 – 12.5	1870 – 2360	electro-mechanical	153000442036	---	993.00
	AC fan, 230 V	12.5	2360	electro-mechanical	153000442031	---	993.00
	EC fan, 230 V, high speed	5.9 – 13.7	660 – 2820	electro-mechanical	153000442033	---	1,218.00
				KaControl	153000442033C1	---	1,489.00
	EC fan, 230 V, reduced speed	5.1 – 11.5	520 – 2020	electro-mechanical	153000442034	---	1,113.00
				KaControl	153000442034C1	---	1,383.00
4430	AC fan, 400 V	13.8 – 15.9	1670 – 2140	electro-mechanical	153000443036	---	1,113.00
	AC fan, 230 V	15.9	2140	electro-mechanical	153000443031	---	1,113.00
	EC fan, 230 V, high speed	6.9 – 17.4	590 – 2520	electro-mechanical	153000443033	---	1,333.00
				KaControl	153000443033C1	---	1,604.00
	EC fan, 230 V, reduced speed	5.8 – 14.3	460 – 1790	electro-mechanical	153000443034	---	1,227.00
				KaControl	153000443034C1	---	1,499.00
4440	AC fan, 400 V	15.4 – 18.0	1480 – 1890	electro-mechanical	153000444036	---	1,219.00
	AC fan, 230 V	18.0	1890	electro-mechanical	153000444031	---	1,219.00
	EC fan, 230 V, high speed	7.3 – 20.3	530 – 2280	electro-mechanical	153000444033	---	1,435.00
				KaControl	153000444033C1	---	1,707.00
	EC fan, 230 V, reduced speed	6.0 – 16.3	410 – 1610	electro-mechanical	153000444034	---	1,329.00
				KaControl	153000444034C1	---	1,601.00
4520	AC fan, 400 V	17.7 – 19.8	3330 – 4140	electro-mechanical	153000452036	---	1,255.00
	AC fan, 230 V	19.8	4140	electro-mechanical	153000452031	---	1,255.00
	EC fan, 230 V, high speed	7.1 – 20.4	740 – 4390	electro-mechanical	153000452033	---	1,724.00
				KaControl	153000452033C1	---	1,996.00
	EC fan, 230 V, reduced speed	9.7 – 18.1	1170 – 3480	electro-mechanical	153000452034	---	1,513.00
				KaControl	153000452034C1	---	1,785.00
4530	AC fan, 400 V	24.2 – 27.4	3060 – 3810	electro-mechanical	153000453036	---	1,458.00
	AC fan, 230 V	27.4	3810	electro-mechanical	153000453031	---	1,458.00
	EC fan, 230 V, high speed	8.7 – 28.2	670 – 4020	electro-mechanical	153000453033	---	1,919.00
				KaControl	153000453033C1	---	2,190.00
	EC fan, 230 V, reduced speed	12.1 – 24.4	1050 – 3110	electro-mechanical	153000453034	---	1,709.00
				KaControl	153000453034C1	---	1,980.00
4540	AC fan, 400 V	26.6 – 30.9	2700 – 3430	electro-mechanical	153000454036	---	1,564.00
	AC fan, 230 V	30.9	3430	electro-mechanical	153000454031	---	1,564.00
	EC fan, 230 V, high speed	9.1 – 32.4	620 – 3710	electro-mechanical	153000454033	---	2,021.00
				KaControl	153000454033C1	---	2,292.00
	EC fan, 230 V, reduced speed	12.8 – 27.5	960 – 2840	electro-mechanical	153000454034	---	1,811.00
				KaControl	153000454034C1	---	2,081.00
4620	AC fan, 400 V	27.3 – 30.9	4490 – 5680	electro-mechanical	153000462036	---	1,682.00
	AC fan, 230 V	30.9	5680	electro-mechanical	153000462031	---	1,682.00
	EC fan, 230 V, high speed	8.5 – 33.0	730 – 6450	electro-mechanical	153000462033	---	2,211.00
				KaControl	153000462033C1	---	2,482.00
4630	AC fan, 400 V	36.2 – 41.9	4120 – 5260	electro-mechanical	153000463036	---	1,841.00
	AC fan, 230 V	41.9	5260	electro-mechanical	153000463031	---	1,841.00
	EC fan, 230 V, high speed	10.2 – 44.0	700 – 5730	electro-mechanical	153000463033	---	2,366.00
				KaControl	153000463033C1	---	2,637.00
4640	AC fan, 400 V	40.8 – 47.9	3720 – 4750	electro-mechanical	153000464036	---	2,046.00
	AC fan, 230 V	47.9	4750	electro-mechanical	153000464031	---	2,046.00
	EC fan, 230 V, high speed	9.8 – 48.9	600 – 4900	electro-mechanical	153000464033	---	2,564.00
				KaControl	153000464033C1	---	2,834.00
4720	AC fan, 400 V	43.4 – 47.7	7320 – 8770	electro-mechanical	153000472036	---	2,234.00
	AC fan, 230 V	47.7	8770	electro-mechanical	153000472031	---	2,234.00
	EC fan, 230 V, high speed	18.9 – 46.6	1870 – 8390	electro-mechanical	153000472033	---	2,908.00
				KaControl	153000472033C1	---	3,179.00

CONTINUED ►

¹⁾ at LPHW 75/65 °C, t₁ = 20 °C

²⁾ available in approximately 3 working days ex works

TOP

Ordering information

Series	Fan version	Heat output ¹⁾	Air flow	Control option	Article no.	Stock product ²⁾	Price
		[kW]	[m³/h]				[€/each]
4730	AC fan, 400 V	56.4 – 64.5	6730 – 8500	electro-mechanical	153000473036	---	2,518.00
	AC fan, 230 V	64.5	8500	electro-mechanical	153000473031	---	2,518.00
	EC fan, 230 V, high speed	22.0 – 60.2	1680 – 7520	electro-mechanical	153000473033	---	3,181.00
				KaControl	153000473033C1	---	3,453.00
4740	AC fan, 400 V	65.5 – 77.2	6150 – 7930	electro-mechanical	153000474036	---	2,759.00
	AC fan, 230 V	77.2	7930	electro-mechanical	153000474031	---	2,759.00
	EC fan, 230 V, high speed	22.9 – 69.5	1500 – 6730	electro-mechanical	153000474033	---	3,414.00
				KaControl	153000474033C1	---	3,686.00

1.53 | TOP, Heat exchanger Galvanised steel

4421	AC fan, 400 V	10.0 – 11.7	1870 – 2360	electro-mechanical	153000442136	---	1,329.00
	AC fan, 230 V	11.7	2360	electro-mechanical	153000442131	---	1,329.00
	EC fan, 230 V, high speed	4.9 – 13.2	660 – 2820	electro-mechanical	153000442133	---	1,542.00
				KaControl	153000442133C1	---	1,814.00
	EC fan, 230 V, reduced speed	4.1 – 10.5	520 – 2020	electro-mechanical	153000442134	---	1,436.00
				KaControl	153000442134C1	---	1,708.00
4431	AC fan, 400 V	13.3 – 15.6	1870 – 2360	electro-mechanical	153000443136	---	1,463.00
	AC fan, 230 V	15.6	2360	electro-mechanical	153000443131	---	1,463.00
	EC fan, 230 V, high speed	6.5 – 17.6	660 – 2820	electro-mechanical	153000443133	---	1,670.00
				electro-mechanical	153000443134	---	1,564.00
	EC fan, 230 V, reduced speed	5.5 – 14.0	520 – 2020	KaControl	153000443134C1	---	1,836.00
4441	AC fan, 400 V	14.2 – 16.8	1480 – 1890	electro-mechanical	153000444136	---	1,598.00
	AC fan, 230 V	16.8	1890	electro-mechanical	153000444131	---	1,598.00
	EC fan, 230 V, high speed	7.0 – 19.1	530 – 2280	electro-mechanical	153000444133	---	1,800.00
				KaControl	153000444133C1	---	2,072.00
	EC fan, 230 V, reduced speed	5.9 – 15.0	410 – 1610	electro-mechanical	153000444134	---	1,694.00
				KaControl	153000444134C1	---	1,966.00
4521	AC fan, 400 V	16.9 – 19.6	3330 – 4140	electro-mechanical	153000452136	---	1,741.00
	AC fan, 230 V	19.6	4140	electro-mechanical	153000452131	---	1,741.00
	EC fan, 230 V, high speed	6.0 – 20.4	740 – 4390	electro-mechanical	153000452133	---	2,190.00
				KaControl	153000452133C1	---	2,462.00
	EC fan, 230 V, reduced speed	8.2 – 17.4	1170 – 3480	electro-mechanical	153000452134	---	1,980.00
				KaControl	153000452134C1	---	2,252.00
4531	AC fan, 400 V	21.5 – 25.0	3330 – 4140	electro-mechanical	153000453136	---	1,961.00
	AC fan, 230 V	25.0	4140	electro-mechanical	153000453131	---	1,961.00
	EC fan, 230 V, high speed	7.6 – 26.0	740 – 4390	electro-mechanical	153000453133	---	2,403.00
				KaControl	153000453133C1	---	2,675.00
	EC fan, 230 V, reduced speed	10.5 – 22.2	1170 – 3480	electro-mechanical	153000453134	---	2,192.00
				KaControl	153000453134C1	---	2,464.00
4541	AC fan, 400 V	25.3 – 29.8	2700 – 3430	electro-mechanical	153000454136	---	2,087.00
	AC fan, 230 V	29.8	3430	electro-mechanical	153000454131	---	2,087.00
	EC fan, 230 V, high speed	9.2 – 31.5	620 – 3710	electro-mechanical	153000454133	---	2,523.00
				KaControl	153000454133C1	---	2,794.00
	EC fan, 230 V, reduced speed	12.4 – 26.2	960 – 2840	electro-mechanical	153000454134	---	2,313.00
				KaControl	153000454134C1	---	2,584.00
4621	AC fan, 400 V	25.5 – 30.0	4490 – 5680	electro-mechanical	153000462136	---	2,272.00
	AC fan, 230 V	30.0	5680	electro-mechanical	153000462131	---	2,272.00
	EC fan, 230 V, high speed	7.3 – 32.8	730 – 6450	electro-mechanical	153000462133	---	2,780.00
				KaControl	153000462133C1	---	3,051.00
4631	AC fan, 400 V	32.7 – 38.5	4490 – 5680	electro-mechanical	153000463136	---	2,707.00
	AC fan, 230 V	38.5	5680	electro-mechanical	153000463131	---	2,707.00
	EC fan, 230 V, high speed	9.3 – 42.0	730 – 6450	electro-mechanical	153000463133	---	3,199.00
				KaControl	153000463133C1	---	3,470.00

CONTINUED ►

¹⁾ at LPHW 75/65 °C, t_{LT} = 20 °C

²⁾ available in approximately 3 working days ex works

TOP

Ordering information

Series	Fan version	Heat output ¹⁾	Air flow	Control option	Article no.	Stock product ²⁾	Price
		[kW]	[m³/h]				[€/each]
4641	AC fan, 400 V	36.4 – 43.1	3720 – 4750	electro-mechanical	153000464136	---	3,017.00
	AC fan, 230 V	43.1	4750	electro-mechanical	153000464131	---	3,017.00
	EC fan, 230 V, high speed	10.3 – 44.0	600 – 4900	electro-mechanical	153000464133	---	3,496.00
				KaControl	153000464133C1	---	3,768.00
4721	AC fan, 400 V	44.5 – 50.4	7320 – 8770	electro-mechanical	153000472136	---	3,222.00
	AC fan, 230 V	50.4	8770	electro-mechanical	153000472131	---	3,222.00
	EC fan, 230 V, high speed	17.4 – 48.9	1870 – 8390	electro-mechanical	153000472133	---	3,859.00
				KaControl	153000472133C1	---	4,131.00
4731	AC fan, 400 V	57.6 – 65.3	7320 – 8770	electro-mechanical	153000473136	---	3,878.00
	AC fan, 230 V	65.3	8770	electro-mechanical	153000473131	---	3,878.00
	EC fan, 230 V, high speed	22.5 – 63.3	1870 – 8390	electro-mechanical	153000473133	---	4,490.00
				KaControl	153000473133C1	---	4,761.00
4741	AC fan, 400 V	63.9 – 76.3	6150 – 7930	electro-mechanical	153000474136	---	4,196.00
	AC fan, 230 V	76.3	7930	electro-mechanical	153000474131	---	4,196.00
	EC fan, 230 V, high speed	22.6 – 63.6	1500 – 6730	electro-mechanical	153000474133	---	4,796.00
				KaControl	153000474133C1	---	5,068.00

¹⁾ at LPHW 75/65 °C, t_{LT} = 20 °C

²⁾ available in approximately 3 working days ex works

TOP

Ordering information

Series	Fan version	Heat output ¹⁾	Air flow	Control option	Article no.	Price
		[kW]	[m³/h]			[€/each]

1.53 | TOP, Heat exchanger Steel, galvanised cross-counterflow

4433	AC fan, 400 V	9.6 – 10.7	1870 – 2360	electro-mechanical	153000443336	1,741.00
	AC fan, 230 V	10.7	2360	electro-mechanical	153000443331	1,741.00
	EC fan, 230 V, high speed	4.4 – 12.1	660 – 2820	electro-mechanical	153000443333	1,936.00
				KaControl	153000443333C1	2,208.00
	EC fan, 230 V, reduced speed	3.8 – 9.6	520 – 2020	electro-mechanical	153000443334	1,831.00
				KaControl	153000443334C1	2,102.00
4443	AC fan, 400 V	10.4 – 11.9	1480 – 1890	electro-mechanical	153000444336	1,864.00
	AC fan, 230 V	11.9	1890	electro-mechanical	153000444331	1,864.00
	EC fan, 230 V, high speed	4.9 – 13.5	530 – 2280	electro-mechanical	153000444333	2,056.00
				KaControl	153000444333C1	2,328.00
	EC fan, 230 V, reduced speed	4.1 – 10.7	410 – 1610	electro-mechanical	153000444334	1,950.00
				KaControl	153000444334C1	2,221.00
4533	AC fan, 400 V	17.1 – 19.0	3330 – 4140	electro-mechanical	153000453336	2,304.00
	AC fan, 230 V	19.0	4140	electro-mechanical	153000453331	2,304.00
	EC fan, 230 V, high speed	5.8 – 19.8	740 – 4390	electro-mechanical	153000453333	2,733.00
				KaControl	153000453333C1	3,005.00
	EC fan, 230 V, reduced speed	7.9 – 16.9	1170 – 3480	electro-mechanical	153000453334	2,522.00
				KaControl	153000453334C1	2,793.00
4543	AC fan, 400 V	17.9 – 20.3	2700 – 3430	electro-mechanical	153000454336	2,445.00
	AC fan, 230 V	20.3	3430	electro-mechanical	153000454331	2,445.00
	EC fan, 230 V, high speed	6.2 – 21.4	620 – 3710	electro-mechanical	153000454333	2,868.00
				KaControl	153000454333C1	3,140.00
	EC fan, 230 V, reduced speed	8.4 – 17.8	960 – 2840	electro-mechanical	153000454334	2,658.00
				KaControl	153000454334C1	2,929.00
4633	AC fan, 400 V	23.8 – 26.8	4490 – 5680	electro-mechanical	153000463336	3,144.00
	AC fan, 230 V	26.8	5680	electro-mechanical	153000463331	3,144.00
	EC fan, 230 V, high speed	6.5 – 29.3	730 – 6450	electro-mechanical	153000463333	3,618.00
				KaControl	153000463333C1	3,890.00
4643	AC fan, 400 V	26.7 – 30.7	3720 – 4750	electro-mechanical	153000464336	3,441.00
	AC fan, 230 V	30.7	4750	electro-mechanical	153000464331	3,441.00
	EC fan, 230 V, high speed	7.4 – 31.4	600 – 4900	electro-mechanical	153000464333	3,905.00
				KaControl	153000464333C1	4,165.00
4733	AC fan, 400 V	42.7 – 47.0	7320 – 8770	electro-mechanical	153000473336	4,472.00
	AC fan, 230 V	47.0	8770	electro-mechanical	153000473331	4,472.00
	EC fan, 230 V, high speed	16.2 – 45.6	1870 – 8390	electro-mechanical	153000473333	5,061.00
				KaControl	153000473333C1	5,332.00
4743	AC fan, 400 V	47.6 – 54.6	6150 – 7930	electro-mechanical	153000474336	4,807.00
	AC fan, 230 V	54.6	7930	electro-mechanical	153000474331	4,807.00
	EC fan, 230 V, high speed	17.3 – 48.6	1500 – 6730	electro-mechanical	153000474333	5,382.00
				KaControl	153000474333C1	5,653.00

¹⁾ at LPHW 80/40 °C, t_{LT} = 20 °C

TOP

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Industry KaController	with side operating keys, surface-mounted, IP65, industrial housing, with hinged transparent cover, lockable	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003214002	457.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
Clip-on pipe sensor	to detect the temperature of the medium, including strap, 3 m cable for heating/cooling changeover. CAUTION! Heating/cooling changeover function only combined with 3-way valve!	all units with control option KaControl -C1	196003250115	44.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.96 | Control accessories electro-mechanical 230 V

Room thermostat	230 V, EC, heating/cooling in a 2 and 4-pipe system, surface-mounted, 3-stage, with OFF/Manual/ Automatic fan changeover. Only in conjunction with valves/valve kits with 230V actuator Open/Close	EC units, electromechanical, maximum number of units than can be connected: five Katherm HK trench heaters, two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030155	175.00
Clock thermostat	230 V, EC, heating/cooling, 2 and 4-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer programme. Max. two units can be connected	EC units, electromechanical, maximum number of units than can be connected: two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030256	282.00
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00
Electronic speed controller	230 V, EC, with integral digital timer with day, night, week programme, continuously variable fan operation 0 to 100 %, optionally manual or automatic, 0-10 VDC, recirculating air, protection class IP40, including sensor	EC units, electro-mechanical, maximum number of units than can be connected: ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030515	338.00

1.96 | Switching and control units – Mixed air/fresh air, electro-mechanical

Servomotor	Open/Close louvre slats, 230 V AC, reversible, protection class IP 54	KaMAX	196000030262	221.00
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1.96 | Stage switch and controls for speed regulation

2-stage, 3-phase switch	10 A with connection for room thermostat, recirculating air only	Unit heater/door air curtain 400 V three-phase AC motor	196000030049	247.00
	10 A with connection for room thermostat, shut-off valve (recirculating air) and mixed air and outside air accessories	Unit heater 400V three-phase motors AC	196000030051	335.00
5-stage 3-phase controller	2 A	Unit heater 400V three-phase motors AC	196000030751	516.00
	4 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030752	702.00
	8 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030754	789.00
7-stage 1-phase controller	4:00 AM	Unit heater 230 V single-phase AC motor	196000030771	466.00
	7.5 A	Unit heater 230 V single-phase AC motor	196000030772	649.00
Electronic 2-stage 3-phase controller	with integrated digital timer, 10 A, with room-temperature sensor in a separate housing	Unit heater 400V three-phase motors AC	196000030277	580.00
	without digital timer, 10 A, with room temperature sensor in a separate housing	Unit heater 400V three-phase motors AC	196000030177	448.00
Electronic continuously variable single-phase controller	Master unit, 4.5 A with integrated room temperature control, with integral digital timer	Unit heater 230 V single-phase AC motor	196000030543	626.00
	Slave unit, 4.5 A for use with master unit, without room temperature control without digital timer	Unit heater 230 V single-phase AC motor	196000030540	393.00

CONTINUED ▶

TOP

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Time switches and room temperature controls

Timer	with electronic room temperature control and room temperature sensor in a separate housing, day, night, weekly program can be set using tripper pins, power reserve 150 hours, day-night setpoint encoder 0-40°C, degree of protection IP20, degree of protection of room sensor IP54	suitable for stage switch	196000030076	599.00
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1.96 | Thermostats

Room thermostat	230 V AC, with thermal feedback	all unit heaters and Galaxis radiant ceiling panels	196000030055	51.00
Industrial thermostat	with setpoint adjustment by tool	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling panels	196000030058	127.00
	with setpoint adjustment using a dial	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling panels	196000030059	127.00
Clock thermostat	with integral digital timer	all unit heaters and Galaxis radiant ceiling panels	196000030056	286.00

1.96 | Valves

Thermoelectric shut-off valve	1" connection, 230 V AC	all unit heaters	196000030911	127.00
	1 1/4" connection, 230 V AC	all unit heaters	196000030912	169.00
	1 1/2" connection, 230 V AC	all unit heaters	196000030913	254.00
	1" connection, 24 V AC/DC	Only to be used with KaControl!	196000030931	127.00
	1 1/4" connection, 24 V AC/DC	Only to be used with KaControl!	196000030932	169.00
	1 1/2" connection, 24 V AC/DC	Only to be used with KaControl!	196000030933	254.00

1.96 | Repair switch

Repair switch	AC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all Unit heaters / Air curtains	196000030120	102.00
	EC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all unit heaters, air curtains 230 V with EC-motors	196000030160	60.00

1.96 | Intermediate junction box

Intermediate junction box	as wall-mounted housing, protection class IP 54 For the connection of up to 3 unit heaters/extract air units.	Unit heater recirculating air	196000030101	131.00
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1.98 | Louvres

Louvre	two-row for wall- and ceiling-mounted units	Model size 4	198000034002	81.00
		Model size 5	198000035002	108.00
		Model size 6	198000036002	140.00
		Model size 7	198000037002	184.00
Induction air outlet louvre	mainly used for wall-mounted units, for ceiling-mounted units with ceiling heights of more than 4.0 m	Model size 4	198000034101	104.00
		Model size 5	198000035101	131.00
		Model size 6	198000036101	189.00
		Model size 7	198000037101	233.00
Diffuser	in four directions, for ceiling-mounted units	Model size 4	198000034004	180.00
		Model size 5	198000035004	202.00
		Model size 6	198000036004	237.00
		Model size 7	198000037004	267.00
Diffuser screen	for ceiling-mounted units and optimum air distribution, only suitable for ceiling heights below 3.5 m	Model size 4	198000034005	133.00
		Model size 5	198000035005	162.00
		Model size 6	198000036005	198.00
		Model size 7	198000037005	242.00
Outlet nozzle	for ceiling-mounted units, especially for high-ceilinged buildings	Model size 4	198000034006	88.00
		Model size 5	198000035006	113.00
		Model size 6	198000036006	138.00
		Model size 7	198000037006	155.00

CONTINUED ▶

TOP

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
Wide nozzle	recirculating air only, suitable for industrial door air curtains	Model size 4	198000034007	120.00
		Model size 5	198000035007	155.00
		Model size 6	198000036007	189.00
		Model size 7	198000037007	225.00
RaDeck ceiling outlet	for ceiling-mounted units, powder-coated RAL 9016	Model size 4	198000034087	442.00
		Model size 5	198000035087	508.00
		Model size 6	198000036087	573.00
		Model size 7	198000037087	636.00
KaMAX	Multi Air MiX for ceiling-mounted units, manual level adjustment	Model size 4	198000034111	511.00
		Model size 5	198000035111	576.00
		Model size 6	198000036111	648.00
		Model size 7	198000037111	727.00
OPEN-STOP-CLOSE switch for KaMAX	for electrically actuated continuously variable manual adjustment of the KaMAX louvre	KaMAX	196000030115	81.00

1.98 | Brackets

Universal 2-point brackets	recirculating air only	all models	198000030041	78.00
Universal 4-point brackets		all models	198000030042	71.00
Universal bracket extension		all models	198000030043	54.00
Universal 2-point T-support brackets	recirculating air only	all models	198000030047	204.00
Wall brackets	Length 585 mm, recirculating air only	Model size 4	198000034044	84.00
		Model size 5	198000035044	84.00
	Length 635 mm, recirculating air only	Model size 6	198000036044	98.00
	Length 685 mm, recirculating air only	Model size 7	198000037044	125.00

1.98 | Components

Unit heater shut-off set	angled, 1" connection	Model size 4	198000034976	166.00
		Model size 5	198000035976	166.00
	angled, 1 1/4" connection	Model size 6	198000036976	298.00
		Model size 7	198000037976	330.00
	straight, 1" connection	Model size 4	198000034977	145.00
		Model size 5	198000035977	145.00
	straight, 1 1/4" connection	Model size 6	198000036977	281.00
	straight, 1 1/2" connection	Model size 7	198000037977	289.00
Flange connection	PN 16, DN 25	Model size 4	198000034009	108.00
		Model size 5	198000035009	108.00
	PN 16, DN 32	Model size 6	198000036009	135.00
	PN 16, DN 40	Model size 7	198000037009	154.00

1.98 | Services

Surcharge for powder-coating	Unit heater housing, RAL 9016 or RAL 7035	Model size 4	198000034040	103.00
		Model size 5	198000035040	134.00
		Model size 6	198000036040	170.00
		Model size 7	198000037040	237.00
	Sheet steel accessories for unit heater, RAL 9016 or RAL 7035	Model size 4	198000034039	15 %
		Model size 5	198000035039	15 %
		Model size 6	198000036039	15 %
		Model size 7	198000037039	15 %



Ultra

Ceiling unit for heating, cooling, ventilation in large, high-end interiors.

Product benefits

- ▶ minimal height due to circular heat exchanger
- ▶ hexagonal housing design for optimum air distribution with heating and cooling
- ▶ whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements
- ▶ identical design of unit for recirculation air, mixed air or primary air mode, whether heating or cooling units
- ▶ all housing parts are plastic, therefore more lightweight, traffic white RAL 9016 (can be coated)
- ▶ Eurokonus valve connection - hygiene-certified to VDI 6022
- ▶ electro-mechanical control or KaControl system possible
- ▶ possible integration into KaControl networks or building automation systems, like BACnet, Modbus or LON
- ▶ Hybrid ECO system module for decentralised temperature control

Features

Installation	<ul style="list-style-type: none"> › ceiling-mounted
Air stream	<ul style="list-style-type: none"> › Recirculating air › Mixed air and primary air (on request)
Heating	<ul style="list-style-type: none"> › LPHW
Cooling	<ul style="list-style-type: none"> › CHW › Refrigerants (on request)
Hybrid Eco	<ul style="list-style-type: none"> › in conjunction with primary or secondary air spigots, on request
KaControl	<ul style="list-style-type: none"> › optional

References

Edeka Supermarket, Haselünne | Grünwald Garden Centre, Baunatal | Mall of Berlin, Berlin

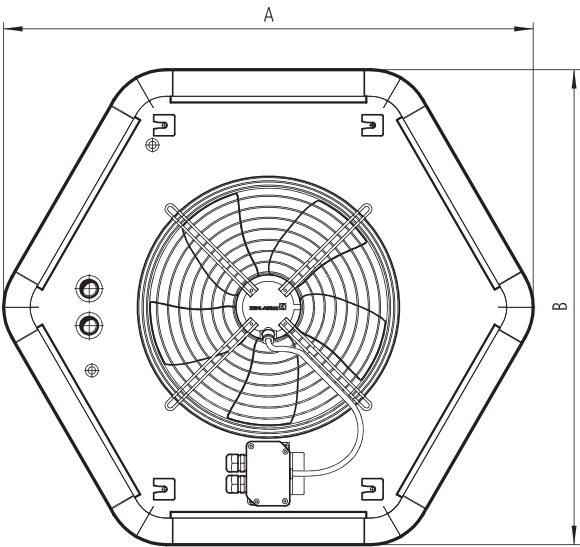
Technical data



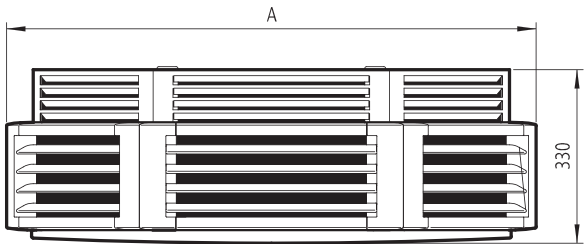
Heat output [kW] ¹⁾	› 5.0 – 49.5
Cooling output [kW] ²⁾	› 2.5 – 14.9
Sound pressure level [dB(A)] ³⁾	› 12 – 60
Sound power level [dB(A)]	› 28 – 76
Heat exchanger	› copper/ aluminium

- ¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C
²⁾ at CHW 7/12 °C, t_{L1} = 27 °C, 48% relative humidity
³⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

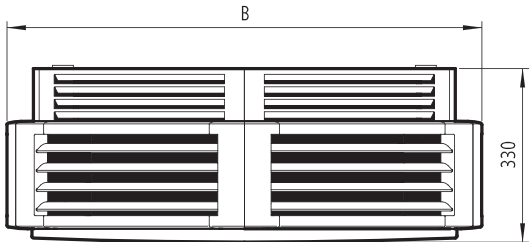
Technical drawing



Top view



Front view



Side view

Selection guide

	Heat exchanger model					
	copper/aluminium				Dimensions	
Fan version	Heat output ¹⁾	Cooling output ²⁾	Series	Width (A)	Depth (B)	Height
	[kW]			[mm]	[mm]	[mm]
AC fan, 400 V	7.4 – 11.5		73	870	750	330
	10.9 – 15.8	5.6 – 6.2	84	1004	900	
	15.4 – 30.4	7.7 – 12.4	85		1050	
	23.1 – 47.1	11.5 – 13.9	96	1177		
AC fan, 230 V	9.0 – 11.5		73	870	750	
	12.2 – 15.8		84	1004	900	
	19.0 – 30.4	9.4 – 12.4	85		1050	
	29.8 – 47.1		96	1177		
EC fan, 230 V, high speed	5.0 – 17.5	2.6 – 6.7	84	1004	900	
	7.6 – 31.2	3.9 – 12.6	85			
		9.0 – 49.5	4.9 – 13.3			
EC fan, 230 V, reduced speed	5.3 – 36.6	2.5 – 14.9	96	1177	1050	

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C
²⁾ at CHW 7/12 °C, t_{L1} = 27 °C, 48% relative humidity

Ultra

Ordering information

Series	Fan version	Heat output ¹⁾	Cooling output ²⁾	Air flow	Max. mounting height	Control option	Article no.	Stock product ³⁾	Price
		[kW]		[m³/h]	[m]				[€/each]

1.54 | Heat exchanger copper/aluminium

7320	AC fan, 400 V	7.4 – 9.0	---	890 – 1180	2.3 – 2.4	electro-mechanical	154000732036	---	1,274.00
	AC fan, 230 V	9.0	---	1180	2.4	electro-mechanical	154000732016	---	1,274.00
7330	AC fan, 400 V	9.4 – 11.5	---	880 – 1150	2.3 – 2.4	electro-mechanical	154000733036	---	1,376.00
	AC fan, 230 V	11.5	---	1150	2.4	electro-mechanical	154000733016	---	1,376.00
8420	AC fan, 400 V	10.9 – 12.2	---	1410 – 1650	2.6 – 2.8	electro-mechanical	154000842036	---	1,511.00
	AC fan, 230 V	12.2	---	1650	2.8	electro-mechanical	154000842016	---	1,511.00
	EC fan, 230 V, high speed	5.0 – 13.3	---	490 – 1880	2.0 – 3.0	electro-mechanical	154000842033	---	1,689.00
						KaControl	154000842033C1	---	1,992.00
8430	AC fan, 400 V	14.0 – 15.8	---	1350 – 1580	2.5 – 2.8	electro-mechanical	154000843036	---	1,576.00
	AC fan, 230 V	15.8	---	1580	2.8	electro-mechanical	154000843016	---	1,576.00
	EC fan, 230 V, high speed	6.1 – 17.5	---	470 – 1820	2.0 – 3.0	electro-mechanical	154000843033	---	1,752.00
						KaControl	154000843033C1	---	2,054.00
8520	AC fan, 400 V	15.4 – 19.0	---	2080 – 2860	3.0 – 3.4	electro-mechanical	154000852036	---	1,707.00
	AC fan, 230 V	19.0	---	2860	3.4	electro-mechanical	154000852016	---	1,707.00
	EC fan, 230 V, high speed	7.6 – 19.4	---	760 – 2950	2.0 – 3.0	electro-mechanical	154000852033	---	2,022.00
						KaControl	154000852033C1	---	2,323.00
8530	AC fan, 400 V	20.0 – 25.1	---	1990 – 2750	3.0 – 3.3	electro-mechanical	154000853036	---	1,835.00
	AC fan, 230 V	25.1	---	2750	3.3	electro-mechanical	154000853016	---	1,835.00
	EC fan, 230 V, high speed	9.3 – 25.6	---	730 – 2830	2.0 – 3.0	electro-mechanical	154000853033	---	2,147.00
						KaControl	154000853033C1	---	2,449.00
8540	AC fan, 400 V	22.6 – 29.0	---	1850 – 2560	3.0 – 3.2	electro-mechanical	154000854036	---	1,962.00
	AC fan, 230 V	29.0	---	2560	3.2	electro-mechanical	154000854016	---	1,962.00
	EC fan, 230 V, high speed	9.9 – 29.6	---	680 – 2630	2.0 – 3.0	electro-mechanical	154000854033	---	2,273.00
						KaControl	154000854033C1	---	2,575.00
9620	AC fan, 400 V	23.1 – 29.8	---	3410 – 5130	3.5 – 3.9	electro-mechanical	154000962036	---	2,149.00
	AC fan, 230 V	29.8	---	5130	3.9	electro-mechanical	154000962016	---	2,149.00
	EC fan, 230 V, high speed	9.6 – 31.3	---	950 – 5580	3.0 – 4.0	electro-mechanical	154000962033	---	2,693.00
						KaControl	154000962033C1	---	2,993.00
	EC fan, 230 V, reduced speed	6.4 – 24.9	---	560 – 3830	3.0 – 4.0	electro-mechanical	154000962034	---	2,693.00
						KaControl	154000962034C1	---	2,993.00
9630	AC fan, 400 V	30.4 – 40.0	---	3270 – 4920	3.4 – 3.9	electro-mechanical	154000963036	---	2,335.00
	AC fan, 230 V	40.0	---	4920	3.9	electro-mechanical	154000963016	---	2,335.00
	EC fan, 230 V, high speed	11.5 – 41.8	---	900 – 5260	3.0 – 4.0	electro-mechanical	154000963033	---	2,875.00
						KaControl	154000963033C1	---	3,176.00
	EC fan, 230 V, reduced speed	7.4 – 32.6	---	530 – 3610	3.0 – 4.0	electro-mechanical	154000963034	---	2,875.00
						KaControl	154000963034C1	---	3,176.00
9640	AC fan, 400 V	33.6 – 45.2	---	2960 – 4460	3.3 – 3.9	electro-mechanical	154000964036	---	2,522.00
	AC fan, 230 V	45.2	---	4460	3.9	electro-mechanical	154000964016	---	2,522.00
	EC fan, 230 V, high speed	11.1 – 47.4	---	760 – 4770	3.0 – 4.0	electro-mechanical	154000964033	---	3,059.00
						KaControl	154000964033C1	---	3,359.00
	EC fan, 230 V, reduced speed	7.8 – 35.9	---	510 – 3240	3.0 – 4.0	electro-mechanical	154000964034	---	3,059.00
						KaControl	154000964034C1	---	3,359.00
8431	AC fan, 400 V	14.0 – 15.8	5.6 – 6.2	1350 – 1580	2.5 – 2.8	electro-mechanical	154000843136	---	1,993.00
	AC fan, 230 V	15.8	6.2	1580	2.8	electro-mechanical	154000843116	---	1,993.00
	EC fan, 230 V, high speed	6.1 – 17.5	2.6 – 6.7	470 – 1820	2.0 – 3.0	electro-mechanical	154000843133	---	2,155.00
						KaControl	154000843133C1	---	2,444.00
8531	AC fan, 400 V	20.0 – 25.1	7.7 – 9.4	1990 – 2750	3.0 – 3.3	electro-mechanical	154000853136	---	2,338.00
	AC fan, 230 V	25.1	9.4	2750	3.3	electro-mechanical	154000853116	---	2,338.00
	EC fan, 230 V, high speed	9.3 – 25.6	3.9 – 9.5	730 – 2830	2.0 – 3.0	electro-mechanical	154000853133	---	2,628.00
						KaControl	154000853133C1	---	2,918.00

CONTINUED ▶

¹⁾ at LPHW 75/65 °C, $t_{L1} = 20$ °C

²⁾ at CHW 7/12 °C, $t_{L1} = 27$ °C, 48% relative humidity

³⁾ available in approximately 3 working days ex works

Ultra

Ordering information

Series	Fan version	Heat output ¹⁾	Cooling output ²⁾	Air flow	Max. mounting height	Control option	Article no.	Stock product ³⁾	Price
		[kW]		[m³/h]	[m]				[€/each]
8541	AC fan, 400 V	23.0 – 30.4	9.7 – 12.4	1600 – 2250	2.8 – 3.1	electro-mechanical	154000854136	---	2,462.00
	AC fan, 230 V	30.4	12.4	2560	3.2	electro-mechanical	154000854116	---	2,462.00
	EC fan, 230 V, high speed	8.6 – 31.2	3.9 – 12.6	530 – 2320	2.0 – 3.0	electro-mechanical	154000854133	---	2,750.00
						KaControl	154000854133C1	---	3,039.00
9631	AC fan, 400 V	30.4 – 40.0	11.5	3270 – 4920	3.4 – 3.9	electro-mechanical	154000963136	---	2,924.00
	AC fan, 230 V	40.0	---	4920	3.9	electro-mechanical	154000963116	---	2,924.00
	EC fan, 230 V, high speed	11.5 – 41.8	4.9 – 11	900 – 5260	3.0 – 4.0	electro-mechanical	154000963133	---	3,431.00
						KaControl	154000963133C1	---	3,721.00
	EC fan, 230 V, reduced speed	7.4 – 32.6	3.2 – 12.1	530 – 3610	3.0 – 4.0	electro-mechanical	154000963134	---	3,431.00
						KaControl	154000963134C1	---	3,721.00
9641	AC fan, 400 V	33.9 – 47.1	13.9	2580 – 3980	3.0 – 3.8	electro-mechanical	154000964136	---	3,103.00
	AC fan, 230 V	47.1	---	4460	3.9	electro-mechanical	154000964116	---	3,103.00
	EC fan, 230 V, high speed	9.0 – 49.5	0 – 13.3	560 – 4260	3.0 – 4.0	electro-mechanical	154000964133	---	3,606.00
						KaControl	154000964133C1	---	3,897.00
	EC fan, 230 V, reduced speed	5.3 – 36.6	2.5 – 14.9	320 – 2840	3.0	electro-mechanical	154000964134	---	3,606.00
						KaControl	154000964134C1	---	3,897.00

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

²⁾ at CHW 7/12 °C, t_{L1} = 27 °C, 48% relative humidity

³⁾ available in approximately 3 working days ex works

Ultra

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Industry KaController	with side operating keys, surface-mounted, IP65, industrial housing, with hinged transparent cover, lockable	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003214002	457.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Outside temperature sensor/industrial temperature sensor	Protection class IP 65, white, similar to RAL 9010	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003250112	46.00
Clip-on pipe sensor	to detect the temperature of the medium, including strap, 3 m cable for heating/cooling changeover. CAUTION! Heating/cooling changeover function only combined with 3-way valve!	all units with control option KaControl -C1	196003250115	44.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.96 | Control accessories electro-mechanical 230 V

Room thermostat	230 V, EC, heating/cooling in a 2 and 4-pipe system, surface-mounted, 3-stage, with OFF/Manual/ Automatic fan changeover. Only in conjunction with valves/valve kits with 230V actuator Open/Close	EC units, electromechanical, maximum number of units than can be connected: five Katherm HK trench heaters, two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030155	175.00
Clock thermostat	230 V, EC, heating/cooling, 2 and 4-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer programme. Max. two units can be connected	EC units, electromechanical, maximum number of units than can be connected: two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030256	282.00
Speed controller	230 V, EC, continuously variable fan operation 0 to 100 % pre-settable, On/Off via room thermostat, AC 230 V, DC 0-10 V, surface-mounted, protection class IP 54, flush-mounted, protection class IP 44.	EC units, electro-mechanical, maximum number of units than can be connected: two ProtecTor door air curtains, five UniLine or Tandem door air curtains, ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030510	169.00
Electronic speed controller	230 V, EC, with integral digital timer with day, night, week programme, continuously variable fan operation 0 to 100 %, optionally manual or automatic, 0-10 VDC, recirculating air, protection class IP40, including sensor	EC units, electro-mechanical, maximum number of units than can be connected: ten TOP or ten Ultra unit heaters, ten Venkon fan coils, two KaCool D AF or two KaCool W Fan Coils	196000030515	338.00

1.96 | Stage switch and controls for speed regulation

2-stage, 3-phase switch	10 A with connection for room thermostat, recirculating air only	Unit heater/door air curtain 400 V three-phase AC motor	196000030049	247.00
	10 A with connection for room thermostat, shut-off valve (recirculating air) and mixed air and outside air accessories	Unit heater 400V three-phase motors AC	196000030051	335.00
5-stage 3-phase controller	2 A	Unit heater 400V three-phase motors AC	196000030751	516.00
	4 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030752	702.00
	8 A	Unit heater/door air curtain 400 V three-phase AC motor	196000030754	789.00
7-stage 1-phase controller	4:00 AM	Unit heater 230 V single-phase AC motor	196000030771	466.00
	7.5 A	Unit heater 230 V single-phase AC motor	196000030772	649.00
Electronic 2-stage 3-phase controller	with integrated digital timer, 10 A, with room-temperature sensor in a separate housing	Unit heater 400V three-phase motors AC	196000030277	580.00
	without digital timer, 10 A, with room temperature sensor in a separate housing	Unit heater 400V three-phase motors AC	196000030177	448.00
Electronic continuously variable single-phase controller	Master unit, 4.5 A with integrated room temperature control, with integral digital timer	Unit heater 230 V single-phase AC motor	196000030543	626.00
	Slave unit, 4.5 A for use with master unit, without room temperature control without digital timer	Unit heater 230 V single-phase AC motor	196000030540	393.00

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Ultra

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Thermostats

Room thermostat	230 V AC, with thermal feedback	all unit heaters and Galaxis radiant ceiling panels	196000030055	51.00
Industrial thermostat	with setpoint adjustment by tool	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling paneels	196000030058	127.00
	with setpoint adjustment using a dial	all unit heaters, ProtecTor air curtains und Galaxis radiant ceiling paneels	196000030059	127.00
Clock thermostat	with integral digital timer	all unit heaters and Galaxis radiant ceiling panels	196000030056	286.00

1.96 | Valves

Thermoelectric shut-off valve	1" connection, 230 V AC	all unit heaters	196000030911	127.00
	1" connection, 24 V AC/DC	Only to be used with KaControl!	196000030931	127.00

1.96 | Repair switch

Repair switch	AC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all Unit heaters / Air curtains	196000030120	102.00
	EC, supplied loose, enables individual units in a switching group to be decommissioned by voltage disconnection. The thermal contacts are bridged in advance, and subsequently opened on the motor side so that the other units in the group can continue to operate without interruption. Degree of protection IP55	all unit heaters, air curtains 230 V with EC-motors	196000030160	60.00

1.54 | Filter

Recirculating air filter hood	with mounting kit, ISO Coarse 45% (G3) filter, specifically designed for under-ceiling installation (concrete slab or sealed suspended ceiling)	Series 73	154000073050	61.00
		Series 84	154000084050	61.00
		Series 85	154000085050	75.00
		Series 96	154000096050	83.00
Replacement filter hood	ISO Coarse 45% (G3) filter	Series 73	154000073051	32.00
		Series 84	154000084051	32.00
		Series 85	154000085051	37.00
		Series 96	154000096051	45.00

1.54 | Panel/grille

Recirculating air grille	Grid dimensions 625 x 625 mm, RAL 9016	all series	154000060988	233.00
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1.98 | Components for installation in acoustic grid suspended ceilings

Connection frame	square	Series 85	198000065002	56.00
		Series 96	198000066002	57.00
Reducing angle 90°	extended, square to rectangular	Series 85	198000065104	202.00
		Series 96	198000066104	222.00
Air inlet angled section, 90°	with inlet grille, retaining options for filter insert, ISO Coarse filter 45% (G3)	Series 85 and 96	198000060105	498.00
	with inlet grille, filter insert, ISO Coarse 45% (G3) filter and differential pressure switch for filter monitoring, factory-fitted	Series 85 and 96	198000060105D0	731.00
Filter insert	complete with ISO Coarse 45% (G3) filter	Series 85 and 96	198000060126	89.00
Replacement filter	for filter insert, ISO Coarse 45% (G3) filter, 1 set = 5 filters	Series 85 and 96	198000060127	54.00

Fan Coils (FCU)

Decentralised heating and cooling for almost all applications.

Environmentally-friendly air conditioning of buildings for today and tomorrow. We have the right solution for every project.



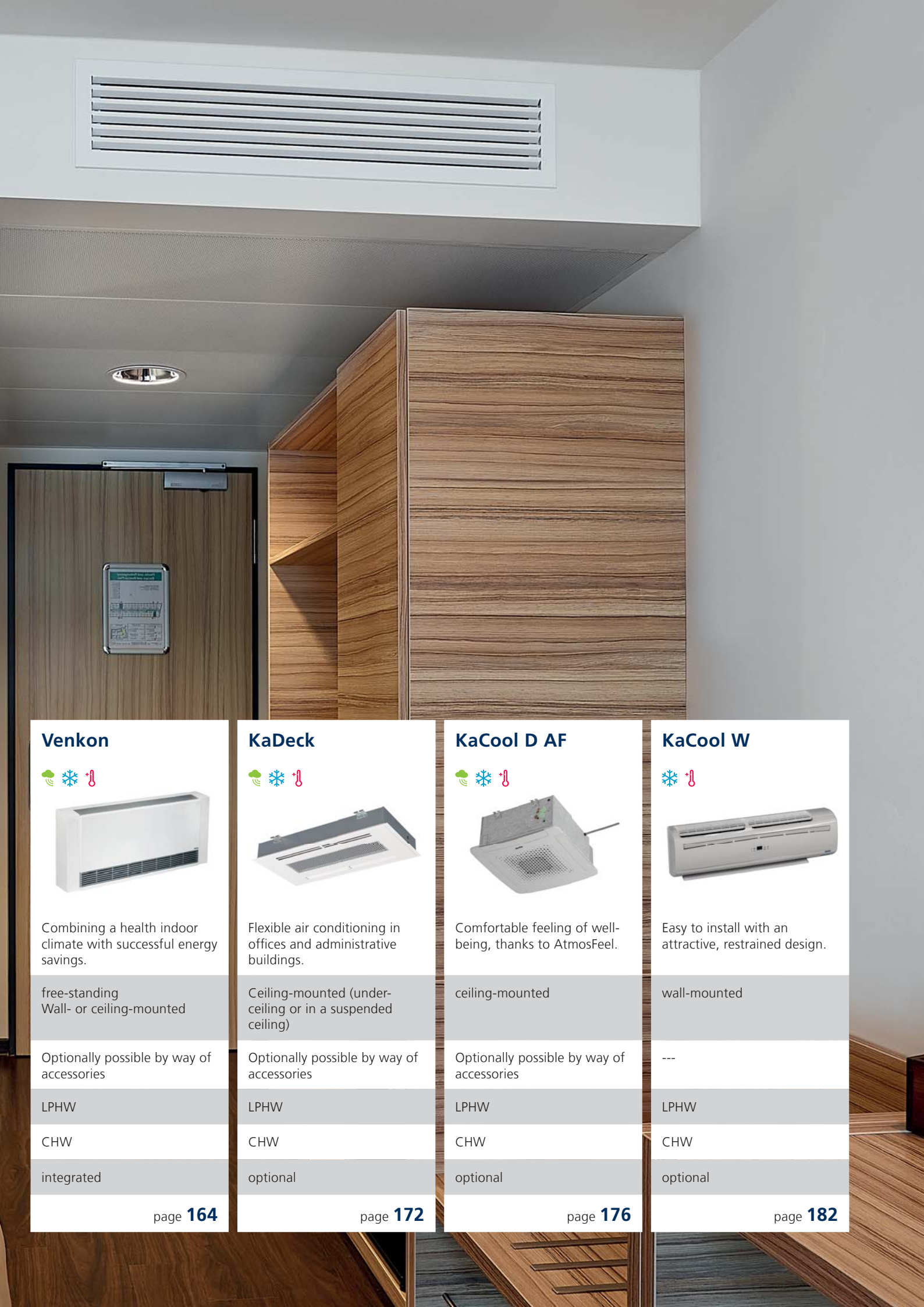
Installation

Primary air supply

Heating

Cooling

KaControl



Venkon



Combining a health indoor climate with successful energy savings.

free-standing
Wall- or ceiling-mounted

Optionally possible by way of accessories

LPHW

CHW

integrated

page **164**

KaDeck



Flexible air conditioning in offices and administrative buildings.

Ceiling-mounted (under-ceiling or in a suspended ceiling)

Optionally possible by way of accessories

LPHW

CHW

optional

page **172**

KaCool D AF



Comfortable feeling of well-being, thanks to AtmosFeel.

ceiling-mounted

Optionally possible by way of accessories

LPHW

CHW

optional

page **176**

KaCool W



Easy to install with an attractive, restrained design.

wall-mounted

LPHW

CHW

optional

page **182**



Venkon

Fan Coils, recirculation air. Heating, cooling and filtering: maximum comfort.

Product benefits

- ▶ ultra-versatile in terms of length and appearance
- ▶ hygiene conforms to VDI 6022: excellent filter qualities, simple cleaning
- ▶ versatile combination by the use of basic unit and casing
- ▶ fully automatic KaControl or connection to an existing, external building automation system
- ▶ staged fans or continuously variable EC fans
- ▶ whisper-quiet operating levels, like no other unit on the market
- ▶ Made in Germany quality

Features

Installation	<ul style="list-style-type: none"> › free-standing › Wall- or ceiling-mounted
Primary air supply	<ul style="list-style-type: none"> › Optionally possible by way of accessories
Heating	<ul style="list-style-type: none"> › LPHW
Cooling	<ul style="list-style-type: none"> › CHW
KaControl	<ul style="list-style-type: none"> › integrated

References

Hotel Bielefelder Hof, Bielefeld | Hotel Looken Inn, Lingen | Hotel Roomers, Baden-Baden

Technical data



Air flow [m³/h] > 125 – 1510

Sound pressure level [dB(A)] ¹⁾ > < 20 – 50

Heat output [W] ²⁾ > 1820 – 22122

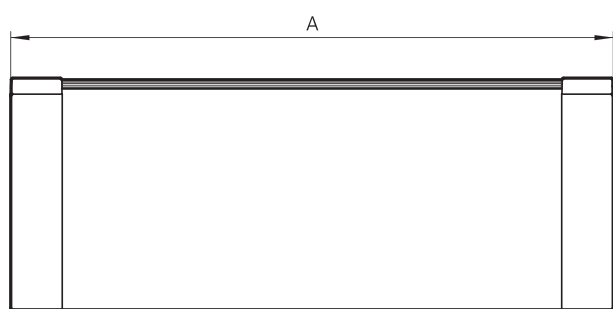
Cooling output [W] ³⁾ > 831 – 9048

¹⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

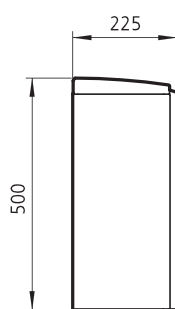
²⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

³⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

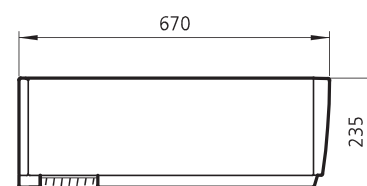
Technical drawing



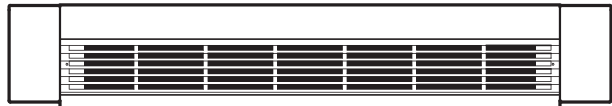
Front view



Side view
wall unit,
hanging



Side view ceiling unit



Top view

Selection guide

	System					
	2-pipe		4-pipe			
Fan version	Heat output ¹⁾	Cooling output ²⁾	Heat output ¹⁾	Cooling output ²⁾	Model size	Length (A)
	[W]	[W]	[W]	[W]		[mm]
EC fan	2250 – 5404	950 – 2048	1996 – 3928	912 – 1874	1	850
	2369 – 6330	1058 – 2574	2182 – 4827	1029 – 2393	2	1000
	3265 – 8430	1475 – 3503	2988 – 6365	1436 – 3259	3	1150
	3609 – 9185	1659 – 3933	3344 – 7152	1623 – 3694	4	1300
	3925 – 9910	1742 – 4022	3633 – 7777	1695 – 3760	5	1450
	6142 – 14653	2692 – 5867	5491 – 10778	2600 – 5409	6	1600
	7026 – 18510	3192 – 7740	6442 – 13936	3111 – 7202	7	2000
AC fan	2020 – 7313	862 – 2632	1820 – 4841	831 – 2350	1	850
	2290 – 7876	1025 – 3109	2117 – 5647	999 – 2847	2	1000
	3887 – 10297	1733 – 4170	3478 – 7340	1678 – 3824	3	1150
	4239 – 11189	1929 – 4686	3856 – 8254	1878 – 4345	4	1300
	4473 – 11910	1964 – 4717	4082 – 8904	1904 – 4358	5	1450
	5679 – 17647	2506 – 6878	5132 – 12281	2426 – 6252	6	1600
	7496 – 22122	3390 – 9048	6820 – 15819	3298 – 8311	7	2000

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

²⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

Venkon

Ordering information

Model size	Air flow	Sound pressure level ¹⁾	System	Heat output ²⁾	Cooling output ³⁾	Control option	Article no.	Price
	[m³/h]	[dB(A)]		[W]	[W]			[€/each]

1.48 | Venkon EC fan

1	140 – 370	< 20 – 41	2-pipe	2250 – 5404	950 – 2048	KaControl, external	14851UL0B124EC1	1,110.00
						KaControl, integrated	14851UL0B124EC2	1,237.00
			4-pipe	1996 – 3928	912 – 1874	KaControl, external	14851UL0B144EC1	1,180.00
						KaControl, integrated	14851UL0B144EC2	1,307.00
2	145 – 420	< 20 – 41	2-pipe	2369 – 6330	1058 – 2574	KaControl, external	14851UL0B224EC1	1,149.00
						KaControl, integrated	14851UL0B224EC2	1,274.00
			4-pipe	2182 – 4827	1029 – 2393	KaControl, external	14851UL0B244EC1	1,211.00
						KaControl, integrated	14851UL0B244EC2	1,336.00
3	200 – 560	20 – 39	2-pipe	3265 – 8430	1475 – 3503	KaControl, external	14851UL0B324EC1	1,312.00
						KaControl, integrated	14851UL0B324EC2	1,438.00
			4-pipe	2988 – 6365	1436 – 3259	KaControl, external	14851UL0B344EC1	1,323.00
						KaControl, integrated	14851UL0B344EC2	1,448.00
4	220 – 600	20 – 39	2-pipe	3609 – 9185	1659 – 3933	KaControl, external	14851UL0B424EC1	1,356.00
						KaControl, integrated	14851UL0B424EC2	1,481.00
			4-pipe	3344 – 7152	1623 – 3694	KaControl, external	14851UL0B444EC1	1,363.00
						KaControl, integrated	14851UL0B444EC2	1,489.00
5	240 – 650	20 – 39	2-pipe	3925 – 9910	1742 – 4022	KaControl, external	14851UL0B524EC1	1,409.00
						KaControl, integrated	14851UL0B524EC2	1,535.00
			4-pipe	3633 – 7777	1695 – 3760	KaControl, external	14851UL0B544EC1	1,453.00
						KaControl, integrated	14851UL0B544EC2	1,578.00
6	380 – 990	23 – 43	2-pipe	6142 – 14653	2692 – 5867	KaControl, external	14851UL0B624EC1	1,732.00
						KaControl, integrated	14851UL0B624EC2	1,858.00
			4-pipe	5491 – 10778	2600 – 5409	KaControl, external	14851UL0B644EC1	1,796.00
						KaControl, integrated	14851UL0B644EC2	1,922.00
7	430 – 1230	23 – 42	2-pipe	7026 – 18510	3192 – 7740	KaControl, external	14851UL0B724EC1	2,010.00
						KaControl, integrated	14851UL0B724EC2	2,136.00
			4-pipe	6442 – 13936	3111 – 7202	KaControl, external	14851UL0B744EC1	2,013.00
						KaControl, integrated	14851UL0B744EC2	2,138.00

1.48 | Venkon AC fan

1	125 – 530	< 20 – 49	2-pipe	2020 – 7313	862 – 2632	KaControl, external	14841UL0B124AC1	939.00
						KaControl, integrated	14841UL0B124AC2	1,059.00
			4-pipe	1820 – 4841	831 – 2350	KaControl, external	14841UL0B144AC1	1,015.00
						KaControl, integrated	14841UL0B144AC2	1,136.00
2	140 – 540	20 – 47	2-pipe	2290 – 7876	1025 – 3109	KaControl, external	14841UL0B224AC1	980.00
						KaControl, integrated	14841UL0B224AC2	1,100.00
			4-pipe	2117 – 5647	999 – 2847	KaControl, external	14841UL0B244AC1	1,049.00
						KaControl, integrated	14841UL0B244AC2	1,169.00
3	240 – 705	< 20 – 47	2-pipe	3887 – 10297	1733 – 4170	KaControl, external	14841UL0B324AC1	1,134.00
						KaControl, integrated	14841UL0B324AC2	1,252.00
			4-pipe	3478 – 7340	1678 – 3824	KaControl, external	14841UL0B344AC1	1,143.00
						KaControl, integrated	14841UL0B344AC2	1,264.00
4	260 – 750	< 20 – 46	2-pipe	4239 – 11189	1929 – 4686	KaControl, external	14841UL0B424AC1	1,178.00
						KaControl, integrated	14841UL0B424AC2	1,299.00
			4-pipe	3856 – 8254	1878 – 4345	KaControl, external	14841UL0B444AC1	1,189.00
						KaControl, integrated	14841UL0B444AC2	1,308.00
5	275 – 800	< 20 – 45	2-pipe	4473 – 11910	1964 – 4717	KaControl, external	14841UL0B524AC1	1,238.00
						KaControl, integrated	14841UL0B524AC2	1,358.00
			4-pipe	4082 – 8904	1904 – 4358	KaControl, external	14841UL0B544AC1	1,285.00
						KaControl, integrated	14841UL0B544AC2	1,406.00

CONTINUED ►

¹⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

²⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

³⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

Venkon

Ordering information

Model size	Air flow	Sound pressure level ¹⁾	System	Heat output ²⁾	Cooling output ³⁾	Control option	Article no.	Price
	[m³/h]	[dB(A)]		[W]	[W]			[€/each]
6	350 – 1230	25 – 50	2-pipe	5679 – 17647	2506 – 6878	KaControl, external	14841UL0B624AC1	1,337.00
						KaControl, integrated	14841UL0B624AC2	1,457.00
			4-pipe	5132 – 12281	2426 – 6252	KaControl, external	14841UL0B644AC1	1,364.00
						KaControl, integrated	14841UL0B644AC2	1,485.00
7	460 – 1510	26 – 50	2-pipe	7496 – 22122	3390 – 9048	KaControl, external	14841UL0B724AC1	1,692.00
						KaControl, integrated	14841UL0B724AC2	1,813.00
			4-pipe	6820 – 15819	3298 – 8311	KaControl, external	14841UL0B744AC1	1,722.00
						KaControl, integrated	14841UL0B744AC2	1,841.00

¹⁾ The sound pressure levels were calculated based on an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

²⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

³⁾ at CHW 7/12 °C, t_{L1} = 27 °C, 48% relative humidity

Venkon

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Clip-on pipe sensor	to detect the temperature of the medium, including strap, 3 m cable for heating/cooling changeover. CAUTION! Heating/cooling changeover function only combined with 3-way valve!	all units with control option KaControl -C1	196003250115	44.00
Air intake sensor	for temperature measurement in the air inlet	all units with control option KaControl -C1	196003250151	44.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.48 | Valve kits

Valve kit 222	Wall-mounted, 2-pipe model, pre-fitted, with pre-settable 2-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL2W1202	166.00
		Model 2, water connection on left (standard)	14833AL2W2202	166.00
		Model 3, water connection on left (standard)	14833AL2W3202	166.00
		Model 4, water connection on left (standard)	14833AL2W4202	166.00
		Model 5, water connection on left (standard)	14833AL2W5202	166.00
		Model 6, water connection on left (standard)	14833AL2W6202	166.00
		Model 7, water connection on left (standard)	14833AL2W7202	166.00
	Ceiling-mounted, 2-pipe model, pre-fitted, with pre-settable 2-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL2D1202	180.00
		Model 2, water connection on left (standard)	14833AL2D2202	180.00
		Model 3, water connection on left (standard)	14833AL2D3202	180.00
		Model 4, water connection on left (standard)	14833AL2D4202	180.00
		Model 5, water connection on left (standard)	14833AL2D5202	180.00
		Model 6, water connection on left (standard)	14833AL2D6202	180.00
		Model 7, water connection on left (standard)	14833AL2D7202	180.00
Valve kit 242	Wall-mounted, 4-pipe model, pre-fitted, with pre-settable 2-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL2W1402	260.00
		Model 2, water connection on left (standard)	14833AL2W2402	260.00
		Model 3, water connection on left (standard)	14833AL2W3402	260.00
		Model 4, water connection on left (standard)	14833AL2W4402	260.00
		Model 5, water connection on left (standard)	14833AL2W5402	260.00
		Model 6, water connection on left (standard)	14833AL2W6402	260.00
		Model 7, water connection on left (standard)	14833AL2W7402	260.00
	Ceiling-mounted, 4-pipe model, pre-fitted, with pre-settable 2-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL2D1402	306.00
		Model 2, water connection on left (standard)	14833AL2D2402	306.00
		Model 3, water connection on left (standard)	14833AL2D3402	306.00
		Model 4, water connection on left (standard)	14833AL2D4402	306.00
		Model 5, water connection on left (standard)	14833AL2D5402	306.00
		Model 6, water connection on left (standard)	14833AL2D6402	306.00
		Model 7, water connection on left (standard)	14833AL2D7402	306.00

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Venkon

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
Valve kit 422	Wall-mounted, 2-pipe model, pre-fitted, with 4-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL4W1202	330.00
		Model 2, water connection on left (standard)	14833AL4W2202	330.00
		Model 3, water connection on left (standard)	14833AL4W3202	330.00
		Model 4, water connection on left (standard)	14833AL4W4202	330.00
		Model 5, water connection on left (standard)	14833AL4W5202	330.00
		Model 6, water connection on left (standard)	14833AL4W6202	330.00
		Model 7, water connection on left (standard)	14833AL4W7202	330.00
	Ceiling-mounted, 2-pipe model, pre-fitted, with 4-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL4D1202	330.00
		Model 2, water connection on left (standard)	14833AL4D2202	330.00
		Model 3, water connection on left (standard)	14833AL4D3202	330.00
		Model 4, water connection on left (standard)	14833AL4D4202	330.00
		Model 5, water connection on left (standard)	14833AL4D5202	330.00
		Model 6, water connection on left (standard)	14833AL4D6202	330.00
		Model 7, water connection on left (standard)	14833AL4D7202	330.00
	Wall-mounted, 2-pipe model, pre-fitted, with 4-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL4W1402	548.00
		Model 2, water connection on left (standard)	14833AL4W2402	548.00
		Model 3, water connection on left (standard)	14833AL4W3402	548.00
		Model 4, water connection on left (standard)	14833AL4W4402	548.00
		Model 5, water connection on left (standard)	14833AL4W5402	548.00
		Model 6, water connection on left (standard)	14833AL4W6402	548.00
		Model 7, water connection on left (standard)	14833AL4W7402	548.00
	Ceiling-mounted, 2-pipe model, pre-fitted, with 4-way valve with 2-point actuator 24 V AC Open/Close	Model 1, water connection on left (standard)	14833AL4D1402	548.00
		Model 2, water connection on left (standard)	14833AL4D2402	548.00
		Model 3, water connection on left (standard)	14833AL4D3402	548.00
		Model 4, water connection on left (standard)	14833AL4D4402	548.00
		Model 5, water connection on left (standard)	14833AL4D5402	548.00
		Model 6, water connection on left (standard)	14833AL4D6402	548.00
		Model 7, water connection on left (standard)	14833AL4D7402	548.00

1.48 | Casings

Ceiling-mounted casing	with inlet grille and end cap, casing RAL 9016/9006	Model size 1	14832UB1D102	547.00
		Model size 2	14832UB1D202	562.00
		Model size 3	14832UB1D302	575.00
		Model size 4	14832UB1D402	662.00
		Model size 5	14832UB1D502	677.00
		Model size 6	14832UB1D602	757.00
		Model size 7	14832UB1D702	826.00
Free-standing casing	with rear wall, without inlet grille, casing RAL 9016/9006	Model size 1	14832UB0S102	511.00
		Model size 2	14832UB0S202	517.00
		Model size 3	14832UB0S302	527.00
		Model size 4	14832UB0S402	586.00
		Model size 5	14832UB0S502	618.00
		Model size 6	14832UB0S602	647.00
		Model size 7	14832UB0S702	729.00
Wall-hanging casing	without inlet grille, casing RAL 9016/9006	Model size 1	14832UB0W102	317.00
		Model size 2	14832UB0W202	339.00
		Model size 3	14832UB0W302	352.00
		Model size 4	14832UB0W402	379.00
		Model size 5	14832UB0W502	383.00
		Model size 6	14832UB0W602	422.00
		Model size 7	14832UB0W702	490.00
Wall-standing casing	with inlet grille, casing RAL 9016/9006	Model size 1	14832UB1W102	411.00
		Model size 2	14832UB1W202	443.00
		Model size 3	14832UB1W302	459.00
		Model size 4	14832UB1W402	484.00
		Model size 5	14832UB1W502	517.00
		Model size 6	14832UB1W602	567.00
		Model size 7	14832UB1W702	657.00



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Venkon

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.48 | Filter

Replacement filter	Dry layer filter, filter class G2, supplied separately	Model size 1	14839BB0B102	34.00
		Model size 2	14839BB0B202	35.00
		Model size 3	14839BB0B302	36.00
		Model size 4	14839BB0B402	38.00
		Model size 5	14839BB0B502	40.00
		Model size 6	14839BB0B602	48.00
		Model size 7	14839BB0B702	70.00

1.48 | Condensate tray and pump

Condensate pump	Installed condensation pump to drain the condensation if no natural gradient can be created.	all models	14834AB0B002	292.00
Condensate tray	Ceiling-mounted on the basic unit, to collect the condensation produced on the valve assembly	all models	14834AL0D001	35.00
	Wall-mounted on the basic unit, to collect the condensation produced on the valve assembly	all models	14834AL0W001	30.00

1.48 | Accessories for recirculation air basic unit, air-side

Intake box	with primary air outlet DN 100	Model size 1	14835BB0B107	112.00
		Model size 2	14835BB0B207	118.00
		Model size 3	14835BB0B307	125.00
		Model size 4	14835BB0B407	130.00
		Model size 5	14835BB0B507	138.00
		Model size 6	14835BB0B607	144.00
		Model size 7	14835BB0B707	160.00
Discharge box	with primary air outlet DN 100	Model size 1	14835BB0B108	132.00
		Model size 2	14835BB0B208	138.00
		Model size 3	14835BB0B308	146.00
		Model size 4	14835BB0B408	153.00
		Model size 5	14835BB0B508	160.00
		Model size 6	14835BB0B608	167.00
		Model size 7	14835BB0B708	184.00
Ceiling air diffuser	Round, painted white, diameter 350 mm, connection for DIN 180 flexible pipe	all models	14837BB0B001	262.00
Flexible connection	Frame on both sides with flexible canvas connection	Model size 1	14835BB0B104	48.00
		Model size 2	14835BB0B204	51.00
		Model size 3	14835BB0B304	53.00
		Model size 4	14835BB0B404	55.00
		Model size 5	14835BB0B504	75.00
		Model size 6	14835BB0B604	84.00
		Model size 7	14835BB0B704	90.00
Air grille for inside use	with mounting frame for air inlet and outlet, natural aluminium	Model size 1	14837BB0B102	180.00
		Model size 2	14837BB0B202	199.00
		Model size 3	14837BB0B302	208.00
		Model size 4	14837BB0B402	251.00
		Model size 5	14837BB0B502	272.00
		Model size 6	14837BB0B602	300.00
		Model size 7	14837BB0B702	329.00
Air duct	Standard length 1000 mm	Model size 1	14835BB0B101	162.00
		Model size 2	14835BB0B201	174.00
		Model size 3	14835BB0B301	229.00
		Model size 4	14835BB0B401	233.00
		Model size 5	14835BB0B501	245.00
		Model size 6	14835BB0B601	287.00
		Model size 7	14835BB0B701	370.00

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Venkon

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
Air duct, 90° angled	short bend	Model size 1	14835BB0B103	122.00
		Model size 2	14835BB0B203	135.00
		Model size 3	14835BB0B303	149.00
		Model size 4	14835BB0B403	154.00
		Model size 5	14835BB0B503	171.00
		Model size 6	14835BB0B603	191.00
		Model size 7	14835BB0B703	219.00
Circular duct connecting unit	DN 180 spigot, number depending on model	Model size 1	14835BB0B105	166.00
		Model size 2	14835BB0B205	180.00
		Model size 3	14835BB0B305	188.00
		Model size 4	14835BB0B405	209.00
		Model size 5	14835BB0B505	219.00
		Model size 6	14835BB0B605	227.00
		Model size 7	14835BB0B705	265.00
Sound attenuator	Curtain sound attenuator, standard length 500 mm	Model size 1	14835BB0B106	271.00
		Model size 2	14835BB0B206	302.00
		Model size 3	14835BB0B306	312.00
		Model size 4	14835BB0B406	326.00
		Model size 5	14835BB0B506	366.00
		Model size 6	14835BB0B606	380.00
		Model size 7	14835BB0B706	472.00



KaDeck

Versatile air conditioning for existing and new-build offices.

Product benefits

- › no need for additional service hatches
- › no need for inspection openings when installed within the suspended ceiling
- › suspended ceiling version with ceiling grid dimensions has a height of only 160 mm
- › outlet optimised to prevent draughts
- › positioning in the centre of the room or on the wall
- › outstanding versatility, either as suspended ceiling unit or under-ceiling version, single - or two-sided discharge
- › continuously variable EC fans
- › fully automatic KaControl or connection to an existing, external building automation system
- › optimised designs for dry or wet cooling

Features

Installation	› Ceiling-mounted (under-ceiling or in a suspended ceiling)
Primary air supply	› Optionally possible by way of accessories
Heating	› LPHW
Cooling	› CHW
KaControl	› optional

References

Eurotheum, Frankfurt am Main

Technical data



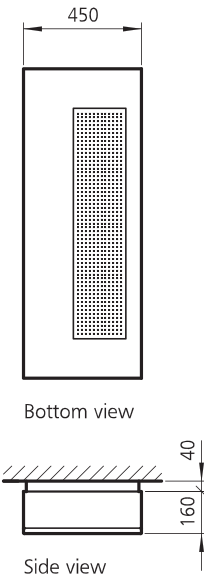
Cooling output (dry) [W] ¹⁾	> 275 – 1718
Cooling output (wet) [W] ²⁾	> 579 – 3114
Heat output [W] ³⁾	> 950 – 7185
Air flow [m³/h]	> 42 – 635
Sound pressure level [dB(A)] ⁴⁾	> < 20 – 40

¹⁾ at CHW 16/18, t_{l1} = 27 °C, 48% relative humidity
²⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity
³⁾ at LPHW 75/65 °C, t_{l1} = 20 °C
⁴⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A).

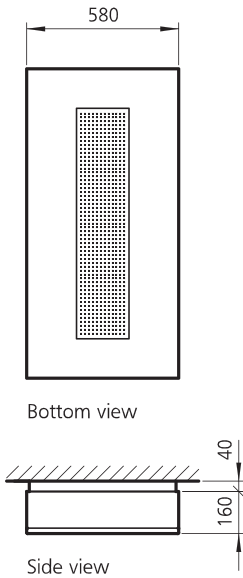
Technical drawing

Ceiling device

Example: one-sided air outlet

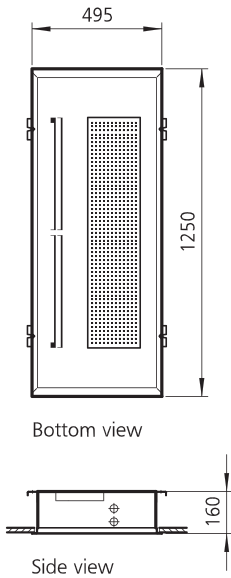


Example: two-sided air outlets

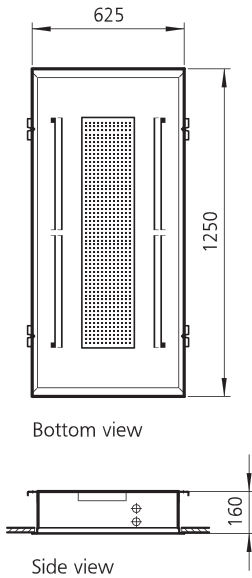


Suspended ceiling device

Example: one-sided air outlet



Example: two-sided air outlets



Selection guide

Installation	Air outlet	Cooling output (dry) ¹⁾ [W]	Cooling output (wet) ²⁾ [W]	Heat output ³⁾ [W]
Suspended ceiling	bidirectional discharge	540 – 1558	968 – 3050	1519 – 6514
	one-sided discharge	275 – 896	579 – 1570	950 – 3744
Under-ceiling	bidirectional discharge	607 – 1718	979 – 3114	1530 – 7185
	one-sided discharge	314 – 999	588 – 1609	961 – 4176

¹⁾ at CHW 16/18, t_{l1} = 27 °C, 48% relative humidity
²⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity
³⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

KaDeck

Ordering information

Version	Air outlet	Cooling output (dry) ¹⁾	Cooling output (wet) ²⁾	Heat output ³⁾	Air flow	Sound pressure level ⁴⁾	Control option	Article no.	Price
		[W]	[W]	[W]	[m³/h]	[dB(A)]			[€/each]

3.26 | KaDeck Suspended ceiling

Dry cooling	bidirectional discharge	540 – 1558	---	2253 – 6514	177 – 565	23 – 40	without built-in control	326026212111	1,847.00
							KaControl without dewpoint monitor sensor	326026212111C1	1,921.00
							KaControl with dewpoint monitor sensor	326026222111C1	2,248.00
	one-sided discharge	275 – 896	---	1146 – 3744	94 – 299	20 – 37	without built-in control	326026211111	1,500.00
							KaControl without dewpoint monitor sensor	326026211111C1	1,572.00
							KaControl with dewpoint monitor sensor	326026221111C1	1,912.00
Wet cooling	bidirectional discharge	---	968 – 3050	1519 – 5248	79 – 369	21 – 38	without built-in control, with condensate pump	326026262111	2,541.00
							KaControl with condensate pump	326026262111C1	2,614.00
	one-sided discharge	---	579 – 1570	950 – 2876	42 – 196	< 20 – 35	without built-in control, with condensate pump	326026261111	2,303.00
							KaControl with condensate pump	326026261111C1	2,377.00

3.26 | KaDeck Under-ceiling

Dry cooling	bidirectional discharge	607 – 1718	---	2533 – 7185	199 – 635	23 – 40	without built-in control	326026212211	1,889.00
							KaControl without dewpoint monitor sensor	326026212211C1	1,963.00
							KaControl with dewpoint monitor sensor	326026222111C1	2,302.00
	one-sided discharge	314 – 999	---	1308 – 4176	106 – 337	20 – 37	without built-in control	326026211211	1,526.00
							KaControl without dewpoint monitor sensor	326026211211C1	1,600.00
							KaControl with dewpoint monitor sensor	326026221111C1	1,940.00
Wet cooling	bidirectional discharge	---	979 – 3114	1530 – 5339	79 – 369	21 – 38	without built-in control, with condensate pump	326026262211	2,583.00
							KaControl with condensate pump	326026262211C1	2,656.00
	one-sided discharge	---	588 – 1609	961 – 2936	42 – 196	< 20 – 35	without built-in control, with condensate pump	326026261211	2,220.00
							KaControl with condensate pump	326026261211C1	2,293.00

¹⁾ at CHW 16/18, t_{l1} = 27 °C, 48% relative humidity

²⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

³⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

⁴⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A).

KaDeck

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.96 Control accessories KaControl				
KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00
1.96 Control accessories electro-mechanical 24 V				
Clock thermostat	24 V, heating/cooling with 2-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer program, heating/cooling changeover by means of external potential-free contact (low voltage) Only in conjunction with valves/ valve kits with 24 V actuator Open/Close	EC units, electro-mechanical 24 V/230 V	196000030456	282.00
3.26 Valve kits				
Valve kit	pre-settable 2-way valve, actuator, return shut-off valve and flexible corrugated stainless steel connection for flow and return	all KaDecks	326007110001	227.00
3.26 Filter				
Air filter	for fitting in air intake area	KaDeck, wet cooling	326007010003	60.00
		Kadeck, dry cooling	326007010002	60.00
3.26 Attachments				
Primary air connection spigot	for the connection of primary air	KaDeck, suspended ceiling units	326007010103	91.00



KaCool D AF

Comfortable feeling of well-being,
thanks to AtmosFeel.

Product benefits

- ▶ AtmosFeel for maximum comfort
- ▶ minimalist cassette design
- ▶ whisper-quiet with AC/EC fan
- ▶ Draught-free air supply into rooms through side air outlets
- ▶ fully automatic KaControl or connection to an existing, external building automation system
- ▶ RAL 9010 panel (pure white)
- ▶ Optionally available with "metal grille panel", which can be colour-matched to the customer's requirements
- ▶ optional primary air convection

Features

Installation	› ceiling-mounted
Primary air supply	› Optionally possible by way of accessories
Heating	› LPHW
Cooling	› CHW
KaControl	› optional

References

Hotel Looken Inn, Lingen

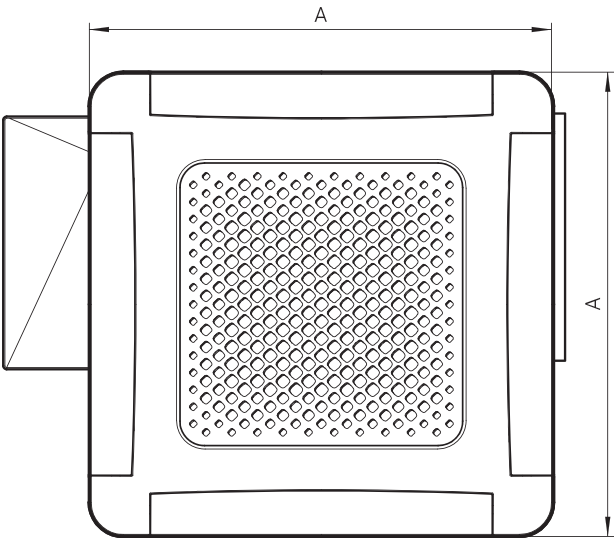
Technical data



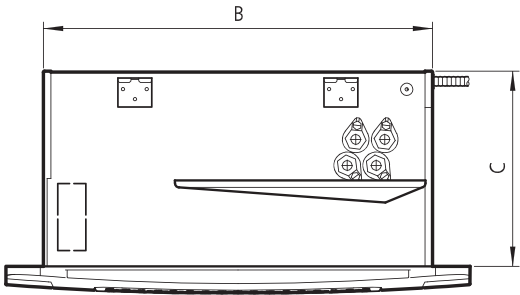
Cooling output [W] ¹⁾	› 1937 – 11774
Heat output [W] ²⁾	› 1910 – 22656
Air flow [m³/h]	› 269 – 1536
Sound pressure level [dB(A)] ³⁾	› 25 – 53

¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity
²⁾ at LPHW 70/60 °C, t_{l1} = 20 °C
³⁾ The sound pressure levels were calculated with an assumed room insulation of 9 dB(A).

Technical drawing



Bottom view



Side view

Selection guide

	System							
	2-pipe		4-pipe					
Fan version	Cooling output ¹⁾	Heat output ²⁾	Cooling output ¹⁾	Heat output ²⁾	Model size	Panel LxW (A)	Length body (B)	Height Body (C)
	[W]	[W]	[W]	[W]		[mm]	[mm]	[mm]
EC fan	2017 – 2776	3848 – 5268	1937 – 2818	2450 – 3500	1	680	572	286
	2217 – 4406	4189 – 8186	1958 – 3485	2450 – 4450	2			
	2913 – 5387	5171 – 9859	2139 – 4162	1910 – 3300	3			
	4308 – 5853	8212 – 10878	2847 – 4780	2390 – 3710	4			
	4460 – 6637	8460 – 12852	4385 – 6692	5800 – 9000	5	930	818	326
	5752 – 10202	9218 – 17298	4653 – 7771	6300 – 10500	6			
	5740 – 11774	10089 – 22656	4868 – 9499	6800 – 12500	7			

¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity
²⁾ at LPHW 70/60 °C, t_{l1} = 20 °C

KaCool D AF

Ordering information

Model size	Cooling output ¹⁾	Heat output ²⁾	Air flow	Sound pressure level ³⁾	Control option	Article no.	Price
	[W]	[W]	[m³/h]	[dB(A)]			[€/each]

3.25 | KaCool D AF EC fan, 2-pipe

1	2017 – 2776	3848 – 5268	269 – 398	25 – 35	without built-in control	32500821200100	1,495.00
					IR remote control	325008212001IR	1,844.00
					KaControl	325008212001C1	1,658.00
2	2217 – 4406	4189 – 8186	269 – 550	25 – 43	without built-in control	32500822200100	1,580.00
					IR remote control	325008222001IR	1,947.00
					KaControl	325008222001C1	1,745.00
3	2913 – 5387	5171 – 9859	328 – 660	30 – 49	without built-in control	32500823200100	1,617.00
					IR remote control	325008232001IR	2,223.00
					KaControl	325008232001C1	1,783.00
4	4308 – 5853	8212 – 10878	550 – 760	44 – 53	without built-in control	32500824200100	1,765.00
					IR remote control	325008242001IR	2,314.00
					KaControl	325008242001C1	1,930.00
5	4460 – 6637	8460 – 12852	623 – 1023	27 – 41	without built-in control	32500825200100	2,167.00
					IR remote control	325008252001IR	2,573.00
					KaControl	325008252001C1	2,333.00
6	5752 – 10202	9218 – 17298	662 – 1270	29 – 46	without built-in control	32500826200100	2,310.00
					IR remote control	325008262001IR	2,711.00
					KaControl	325008262001C1	2,479.00
7	5740 – 11774	10089 – 22656	669 – 1536	35 – 51	without built-in control	32500827200100	2,370.00
					IR remote control	325008272001IR	2,877.00
					KaControl	325008272001C1	2,536.00

3.25 | KaCool D AF EC fan, 4-pipe

1	1937 – 2818	2450 – 3500	269 – 398	25 – 35	without built-in control	32500821400100	1,653.00
					IR remote control	325008214001IR	2,009.00
					KaControl	325008214001C1	1,820.00
2	1958 – 3485	2450 – 4450	269 – 550	25 – 43	without built-in control	32500822400100	1,783.00
					IR remote control	325008224001IR	2,151.00
					KaControl	325008224001C1	1,948.00
3	2139 – 4162	1910 – 3300	328 – 660	25 – 43	without built-in control	32500823400100	1,820.00
					IR remote control	325008234001IR	2,237.00
					KaControl	325008234001C1	1,986.00
4	2847 – 4780	2390 – 3710	550 – 760	30 – 49	without built-in control	32500824400100	1,910.00
					IR remote control	325008244001IR	2,343.00
					KaControl	325008244001C1	2,146.00
5	4385 – 6692	5800 – 9000	623 – 1023	27 – 41	without built-in control	32500825400100	2,389.00
					IR remote control	325008254001IR	2,886.00
					KaControl	325008254001C1	2,555.00
6	4653 – 7771	6300 – 10500	662 – 1270	29 – 46	without built-in control	32500826400100	2,411.00
					IR remote control	325008264001IR	2,916.00
					KaControl	325008264001C1	2,796.00
7	4868 – 9499	6800 – 12500	669 – 1536	35 – 51	without built-in control	32500827400100	2,646.00
					IR remote control	325008274001IR	3,066.00
					KaControl	325008274001C1	2,812.00

¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity

²⁾ at LPHW 70/60 °C, t_{l1} = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 9 dB(A).

KaCool D AF

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]

1.96 | Control accessories KaControl

KaController	with single-button operation, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1	196003210001	174.00
	with single-button operation, 24 V, colour similar to RAL 9017 traffic black	all units with control option KaControl -C1	196003210006	174.00
	with side operating keys, 24 V, colour similar to RAL 9010 pure white	all units with control option KaControl -C1 and all ProtecTor door air curtain with KaControl electronics	196003210002	174.00
Room temperature sensor	Wall-mounted, surface mounted, protection class IP30, white RAL 9010	all units with control option KaControl -C1	196003250110	46.00
Clip-on pipe sensor	to detect the temperature of the medium, including strap, 3 m cable for heating/cooling changeover. CAUTION! Heating/cooling changeover function only combined with 3-way valve!	all units with control option KaControl -C1	196003250115	44.00
Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, 1 required per unit Extension of the cable length from the first to the last unit from 30 m to 500 m.	all units with control option KaControl -C1	196003260301	95.00

1.96 | Control accessories electro-mechanical 230 V

Room thermostat	230 V, EC, heating/cooling in a 2 and 4-pipe system, surface-mounted, 3-stage, with OFF/Manual/ Automatic fan changeover. Only in conjunction with valves/valve kits with 230V actuator Open/Close	EC units, electromechanical, maximum number of units than can be connected: five Katherm HK trench heaters, two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030155	175.00
Clock thermostat	230 V, EC, heating/cooling, 2 and 4-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer programme. Max. two units can be connected	EC units, electromechanical, maximum number of units than can be connected: two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030256	282.00
Climate Controller	230 V, EC, heating/cooling in a 2- and 4-pipe system, surface-mounted, continuously variable control, with LCD operating menu and integrated timer programme. Only in conjunction with valves/valve kits with 230V actuator Open/Close Colour similar to RAL 9010 pure white.	EC units, electro-mechanical, maximum number of units than can be connected: four Katherm HK trench heaters, two KaCool D AF or two KaCool W fan coils	196000148941	362.00
	230 V, EC, heating/cooling in a 2- and 4-pipe system, surface-mounted, continuously variable control, with LCD operating menu and integrated timer programme. Only in conjunction with valves/valve kits with 230V actuator Open/Close Colour similar to RAL 9004 signal black.	EC units, electro-mechanical, maximum number of units than can be connected: four Katherm HK trench heaters, two KaCool D AF or two KaCool W fan coils	196000148942	362.00

3.25 | Valve kits

2-way valve kit, open/close	2-pipe system with 230 V actuators	KaCool D AF without KaControl, model size 1	325009012110	117.00
		KaCool D AF without KaControl, model sizes 2-4	325009022110	132.00
		KaCool D AF without KaControl, model size 5	325009032110	160.00
		KaCool D AF without KaControl, model sizes 6-7	325009042110	224.00
	2-pipe system with 24 V actuators	KaCool D AF with KaControl, model size 1	325009012112	117.00
		KaCool D AF with KaControl, model sizes 2-4	325009022112	132.00
		KaCool D AF with KaControl, model size 5	325009032112	160.00
		KaCool D AF with KaControl, model sizes 6-7	325009042112	224.00
	4-pipe system with 230 V actuators	KaCool D AF without KaControl, model sizes 1-4	325009014110	231.00
		KaCool D AF without KaControl, model sizes 5-7	325009024110	318.00
	4-pipe system with 24 V actuators	KaCool D AF with KaControl, model sizes 1-4	325009014112	231.00
		KaCool D AF with KaControl, model sizes 5-7	325009024112	318.00

CONTINUED ►

KaCool D AF

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
3-way valve kit, open/ close	2-pipe system with 230 V actuators	KaCool D AF without KaControl, model size 1	325009012120	125.00
		KaCool D AF without KaControl, model sizes 2-4	325009022120	147.00
		KaCool D AF without KaControl, model size 5	325009032120	175.00
		KaCool D AF without KaControl, model sizes 6-7	325009042120	261.00
	2-pipe system with 24 V actuators	KaCool D AF with KaControl, model size 1	325009012122	125.00
		KaCool D AF with KaControl, model sizes 2-4	325009022122	147.00
		KaCool D AF with KaControl, model size 5	325009032122	175.00
		KaCool D AF with KaControl, model sizes 6-7	325009042122	261.00
	4-pipe system with 230 V actuators	KaCool D AF without KaControl, model sizes 1-4	325009014120	245.00
		KaCool D AF without KaControl, model sizes 5-7	325009024120	351.00
	4-pipe system with 24 V actuators	KaCool D AF with KaControl, model sizes 1-4	325009014122	245.00
		KaCool D AF with KaControl, model sizes 5-7	325009024122	351.00

3.25 | Attachments

Supply air connecting spigot	for the connection of external primary air	Model 1-4	325009010300	39.00
		Model 5-7	325009020300	39.00



KaCool W

Wall-mounted room heating and cooling unit.

Product benefits

- ▶ attractive with a discreet design
- ▶ whisper-quiet with EC fan
- ▶ easy to install
- ▶ Fan units as multi-stage fans or infinitely variable EC fans
- ▶ fully automatic KaControl or connection to an existing, external building automation system

Features

Installation	▶ wall-mounted
Primary air supply	▶ ---
Heating	▶ LPHW
Cooling	▶ CHW
KaControl	▶ optional

References

Buderus Heating Technology, Munich | Hotel Roomers, Baden-Baden | Mall of Berlin, Berlin

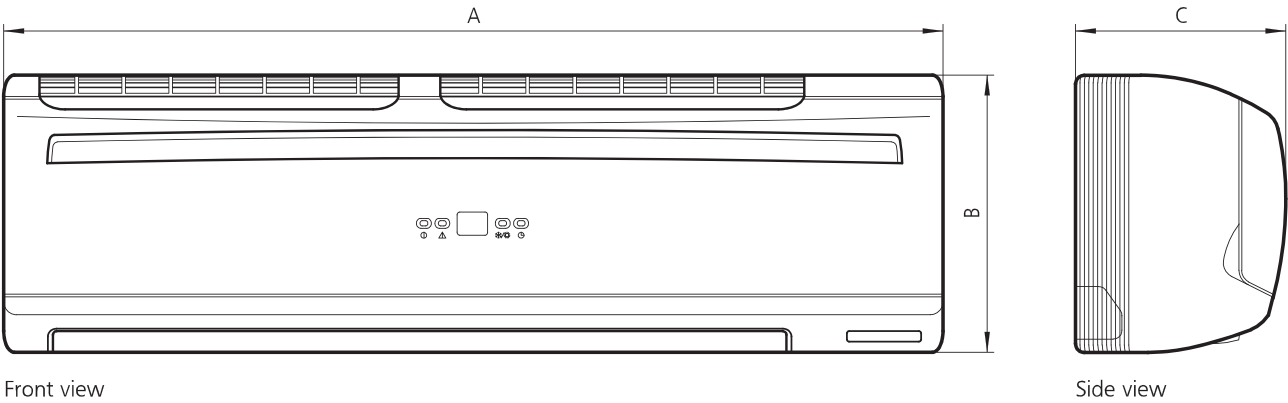
Technical data



Cooling output [W] ¹⁾	> 680 – 4810
Heat output [W] ²⁾	> 990 – 5970
Air flow [m³/h]	> 220 – 980
Sound pressure level [dB(A)] ³⁾	> 24 – 47

¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity
²⁾ at LPHW 65/45 °C, t_{l1} = 20 °C
³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A).

Technical drawing



Selection guide

Fan version	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]	Model size	Dimensions (AxCxB) [mm]
EC fan	680 – 1000	990 – 1480	1	875 x 220 x 300
	1610 – 2390	1690 – 2650	2	
	1860 – 3010	2070 – 3250	3	
	3350 – 4810	4120 – 5970	4	1050 x 235 x 310

¹⁾ at CHW 7/12 °C, t_{l1} = 27 °C, 48% relative humidity
²⁾ at LPHW 65/45 °C, t_{l1} = 20 °C

KaCool W

Ordering information

Model size	Cooling output ¹⁾	Heat output ²⁾	Air flow	Sound pressure level ³⁾	Control option	Article no.	Price
	[W]	[W]	[m³/h]	[dB(A)]			[€/each]

3.24 | KaCool W

1	680 – 1000	990 – 1480	220 – 370	24 – 34	without built-in control	32400821200200	796.00
					IR remote control	324008212002IR	815.00
2	1610 – 2390	1690 – 2650	290 – 500	28 – 40	without built-in control	32400822200200	812.00
					IR remote control	324008222002IR	850.00
3	1860 – 3010	2070 – 3250	370 – 645	31 – 45	without built-in control	32400823200200	879.00
					IR remote control	324008232002IR	907.00
4	3350 – 4810	4120 – 5970	600 – 980	36 – 47	without built-in control	32400824200200	1,343.00
					IR remote control	324008242002IR	1,372.00

¹⁾ at CHW 7/12 °C, $t_{r,i}$ = 27 °C, 48% relative humidity

²⁾ at LPHW 65/45 °C, $t_{r,i}$ = 20 °C

³⁾ The sound pressure levels were calculated with an assumed room insulation of 8 dB(A).

KaCool W

Accessories

Article	Properties	Suitable for	Article no.	Price
				[€/each]
1.96 Control accessories electro-mechanical 230 V				
Room thermostat	230 V, EC, heating/cooling in a 2 and 4-pipe system, surface-mounted, 3-stage, with OFF/Manual/ Automatic fan changeover. Only in conjunction with valves/valve kits with 230V actuator Open/Close	EC units, electromechanical, maximum number of units than can be connected: five Katherm HK trench heaters, two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030155	175.00
Clock thermostat	230 V, EC, heating/cooling, 2 and 4-pipe system, flush-mounted, continuously variable, with LCD operating menu and integrated timer programme. Max. two units can be connected	EC units, electromechanical, maximum number of units than can be connected: two TOP or two Ultra unit heaters, two Venkon fan coils or two KaCool D AF or two KaCool W fan coils	196000030256	282.00
Climate Controller	230 V, EC, heating/cooling in a 2- and 4-pipe system, surface-mounted, continuously variable control, with LCD operating menu and integrated timer programme. Only in conjunction with valves/valve kits with 230V actuator Open/Close Colour similar to RAL 9010 pure white.	EC units, electro-mechanical, maximum number of units than can be connected: four Katherm HK trench heaters, two KaCool D AF or two KaCool W fan coils	196000148941	362.00
	230 V, EC, heating/cooling in a 2- and 4-pipe system, surface-mounted, continuously variable control, with LCD operating menu and integrated timer programme. Only in conjunction with valves/valve kits with 230V actuator Open/Close Colour similar to RAL 9004 signal black.	EC units, electro-mechanical, maximum number of units than can be connected: four Katherm HK trench heaters, two KaCool D AF or two KaCool W fan coils	196000148942	362.00
3.24 Condensate tray and pump				
Condensate pump	supplied separately	all KaCool W	324008000410	192.00

General Terms and Conditions

Dated 02/2017

1. Scope of application

The following General Terms and Conditions will, in the respective version valid at the time the contract is concluded, apply to all our current and future business relationships with business entities as defined in Article 14 Bürgerliches Gesetzbuch (BGB – German Civil Code) ("Customer" hereinafter). The current version of our General Terms and Conditions is available under the legal-information section on our website at www.kampmann.de or will be sent to the Customer on request.

The Customer's different, opposing or supplemental General Terms and Conditions will not become constituent to the contract if they are not expressly confirmed in writing.

2. Quotations and the conclusion of contracts

All our quotations are subject to change and are not binding. All contracts that are concluded with us will only come into effect on the basis of our General Terms and Conditions. Oral secondary agreements will only become binding if they have been confirmed in writing.

The Customer will be bound to orders for two weeks. The contract will only come into effect if we accept the order through a confirmation of order or if delivery is made within this period. Objections regarding confirmations of order must be made in writing immediately, at the latest within one week. We will be entitled to correct mistakes or errors in quotations, order confirmations, catalogues and invoices. The Customer will not be able to make any claims based on any apparent inaccuracies that were made in error.

3. Prices and Payment

3.1. The prices are net prices to which the statutory value added tax, freight, packaging and shipping costs must be added. The sales prices valid on the day of delivery will be applied in the event of ongoing delivery-, call- and successiveshipment

contracts. If shipments are made after the originally scheduled date for reasons for which the customer is responsible and if the wage and material costs or prices charged by upstream suppliers increase from this time on, we will be entitled to raise our prices accordingly. Confirmed prices will only apply to the respective order and will not be binding for follow-up orders.

3.2. If not otherwise agreed, the invoiced amount will become due without deduction within 10 days of the invoice date. Receipt of payment will be the relevant factor in determining whether a payment has been made on time or not. Any agreed cash discounts will not be granted if the Customer has fallen behind with payments for previous deliveries. In the event of payment arrears, we will charge interest to the amount of nine percentage points above the base lending rate. We reserve the right to make claims for greater damages. We will be entitled to charge € 40.00 for each payment reminder issued. In the event of payment arrears or if an insolvency application has

been made against the Customer, all invoices will immediately become due for payment.

3.3. The Customer will only be entitled to offset or withhold payments if its counter claims have been determined in a legally effective manner, are ready for a decision or if we do not dispute them. In the event of defects, and with the same provisos, the Customer may only withhold payment to an amount that is proportionate when the defect is taken into account.

4. Delivery

4.1. Insofar as not otherwise agreed, we ship ex works.

It is agreed that the stated delivery dates are approximate dates only. Fixed delivery dates require our express written confirmation as a fixed date. If we are obliged to deliver an item, we will have fulfilled this obligation with the handover to the freight carrier. The time limit for deliveries will be appropriately extended in the event of delays resulting from labour disputes and unforeseen events (e.g. lack of raw materials, operational malfunctions, natural catastrophes) that are beyond our sphere of influence. This will also apply in the event that upstream suppliers experience such circumstances and in the event that supplies do not reach us on time or in the event that supplies have not been correctly made.

4.2. In the event of delayed delivery, the Customer may within the scope of legal provisions only withdraw from the contract if we are responsible for the delay and if we were given a subsequent time limit of 14 days in writing. This does not shift the burden of proof to the Customer's detriment.

4.3. We are entitled to make part deliveries if and to the extent such are reasonable for the Customer. The risk of the goods perishing or worsening will pass to the Customer when they are handed over to the freight carrier. If we are obliged to carry out assembly or installation work, the risk will pass to the Customer with the acceptance of such work or when usage commences. We are entitled to demand acceptance of parts of the delivery.

4.4. If, subsequent to the conclusion of the contract, circumstances arise (e.g. out-of-court settlements, negative credit checks) that have a considerable negative effect on the Customer's creditworthiness, we may refuse to perform until the counter-performance has been effected or the Customer has provided collateral. If the Customer does not meet this demand within a suitable time limit, we will be entitled to withdraw from the contract.

4.5. Should an agreement to take back goods that have been supplied in accordance with the contract have been reached, written information of the handling costs will be provided. In no event will the Customer be entitled to return goods that

General Terms and Conditions

Dated 02/2017

were manufactured specifically for the Customer. Where call orders are concerned, we will, after a period of two months from the confirmation of order, be entitled to set a subsequent time limit of 14 days within which the goods must be accepted.

Should this time limit expire without success, we will at our discretion be able to demand payment or withdraw from the contract. We reserve the right to make claims for further damages.

5. Reservation of title

5.1. We are reserving title in the supplied goods until all our claims (including all receivable balances from current accounts) to which we are entitled now or in future as a result of the business relationship with the Customer have been satisfied (goods in which title has been reserved).

5.2. The Customer will – on assignment of the claims resulting from the above – be entitled to sell the goods in which title has been reserved within the course of proper business as long as it has not fallen into arrears with payments. Pledging as collateral or transfer by way of security is not permitted. The Customer is already assigning in full any claims arising out of the onward sale or as a result of other legal reasons (e.g. insurance case, unauthorised action) pertaining to the goods in which title has been reserved by way of security. If the goods in which title has been reserved are sold with other goods not belonging to us without or subsequent to further processing or combination, the claim from the sale will only be deemed to have been assigned to the amount that equals the value of the goods in which title has been reserved. We accept this assignment.

5.3. The Customer will on request be obliged to provide us with the names of its debtors and inform us of the total amount of the invoice claim. The Customer will be obliged to insure the goods in which title has been reserved against loss and damage. If we exercise our rights pertaining to the goods in which title has been reserved as a result of the Customer being in breach of contract, we will be entitled to enter the Customer's premises to enable us to retrieve the goods in which title has been reserved.

5.4. We undertake to release the collateral to which the above provisions entitle us at our discretion and on the Customer's request to the extent that the in the event of recovery realisable value of this collateral exceeds that of the claims being secured by at least 10 %.

6. Warranty and liability

6.1. The Customer will be obliged to immediately check goods – even if the goods are packaged – for apparent defects on receipt and to report any such defects in a manner that is verifiable in writing within 10 calendar days of receipt of the goods. Defects that could not be determined by careful

checking must be reported in writing in the same way and within the same time limit starting with the time they were discovered, at most, however, within six months of receipt of the goods. Apparent transport damage must be reported in writing to the freight carrier immediately on receipt of the goods by the Customer.

6.2. In the event of a defect obtaining, we will at our discretion be entitled to improve or replace the goods or issue a credit note free of charge. Subsequent fulfilment will have only failed if an existing defect has not been eliminated even after a second attempt at subsequent performance has been made. The Customer's rights in the event of such failure, refusal or unreasonableness of subsequent performance will remain unaffected.

6.3. The Customer's claims due to defects will lapse after 12 months. This will not apply if the law set out in Articles 438, Section 1, No. 2, 479, Section 1, 634a, Section 1 BGB specifies longer time limits or in the event of injury to life, limb and health, wilful or grossly negligent breach of duties or in the event of fraudulent concealment. The legal provisions regarding suspensions of the statute of limitations and the resumption of time limits will remain unaffected.

6.4. Warranty claims cannot be made for minor deviations from the agreed composition, particularly where colour and execution is concerned, in the event of natural wear or damage caused after the passage of risk as a result of incorrect or negligent treatment or maintenance or as a result of special outside influences.

6.5. We will always be liable in accordance with the mandatory provisions of the product-liability law, in the event of harm caused by injury to life, limb or health for which we, our legal representatives or vicarious agents are responsible and for all wilful or grossly negligent damage caused by us, our legal representatives or vicarious agents.

6.6. In the event of minor negligence, we will, except for cases set out in Section 6.5, only be liable if material contractual duties have been breached. In the event of damage to property and economic loss, our liability will in such cases be limited to the contract-typical and foreseeable damages. We will in the event of late and/or incorrect deliveries not be liable for consequential damage except in the cases set out in Section 6.5.

6.7. In the event that we are obliged to bear the cost of removal and installation within our statutory duty of fulfilment from a purchase contract, any claim on the part of the ordering part for reimbursement of costs for removal and installation, where our delivery is the sole type of fulfilment, is restricted to an amount appropriate for the value of the defective goods

General Terms and Conditions

Dated 02/2017

and the importance of the infringement of the contract, providing this does not undermine the right of the ordering part for reimbursement of removal and installation costs.

7. Assembly and works contracts

The General Terms and Conditions for Works Contracts will also apply to the execution of assembly and works contracts.

8. Place of fulfilment, place of jurisdiction and final provisions

8.1. The place of fulfilment for shipments is the place of dispatch, for payments it is our place of business.

8.2. If the Customer is a business entity, an entity incorporated under public law or a special entity under public law, the place of jurisdiction for all disputes arising out of this contract – including actions on bills of exchange and cheques – will be our place of business or the Customer's place of business. The same will apply if the Customer doesn't have a general place of jurisdiction in Germany or the place or residence or the habitual abode is not known at the time an action is brought.

8.3. German law will apply on exclusion of the United Nations Convention on Contracts for the International Sale of Goods to all contracts between the Customer and us.

Delivery is made in accordance with the Kampmann terms and conditions known and accepted at the time of ordering. The prices in this catalogue are valid as from 1st January 2019. They apply only to trade resellers. They are recommended prices only and non-binding, VAT is not included, and they are subject to alterations without special notice. All previous price catalogues are no longer valid and are superseded by this edition.

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