

Products

for future-proof system
solutions in your building

Genau
mein
Klima.

KAMPMANN

Our main issue:

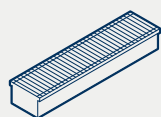
Thoughtful ventilation and air conditioning concept

Concept Laser, part of GE Additive, prints with metal. Alongside the massive production building, a state-of-the-art administration building of 20,000 square metres has also been created, which is home to a restaurant, auditorium, laboratories and showroom, in addition to open-plan offices. Concept Laser procured the air conditioning units for the building from Kampmann.

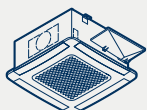
Unobtrusive, high-output air conditioning solutions are essential in the open and largely glazed administrative building. With their quiet EC fans, the special widths of Katherm QK trench systems deliver pleasant warmth precisely where it is needed. All units can be customised as required incorporating mitred corners, curved units, column cut-outs – all shapes are possible.

The sophisticated air conditioning concept is supplemented by visibly installed KaCool D AF ceiling cassettes for ultra-comfortable air distribution, thanks to the Coanda effect. Tubular pipe and swirl diffusers provide fresh air right up to the ceiling of the building, while ProtecTor door air curtains effectively screen cold air entering through the doorways.

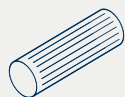




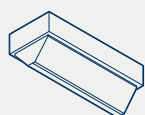
730 metre
Katherm QK



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KaCool D AF



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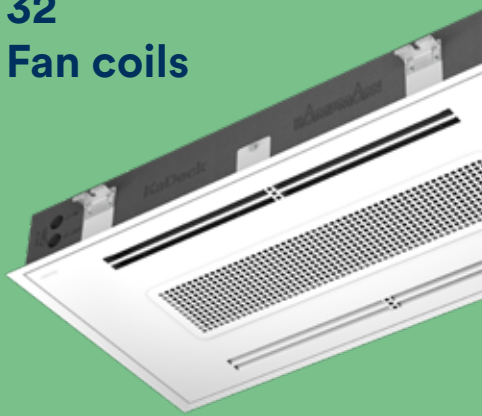
Local ventilation units



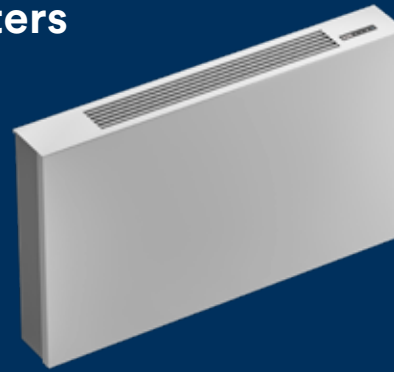
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Unit heaters



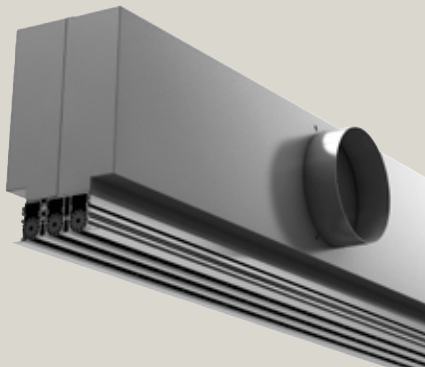
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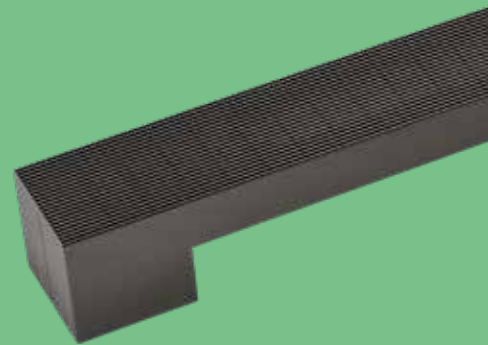
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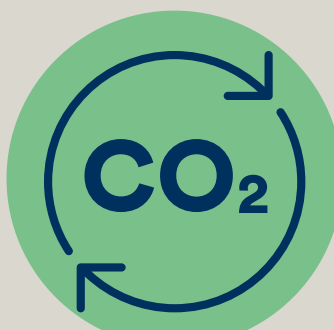
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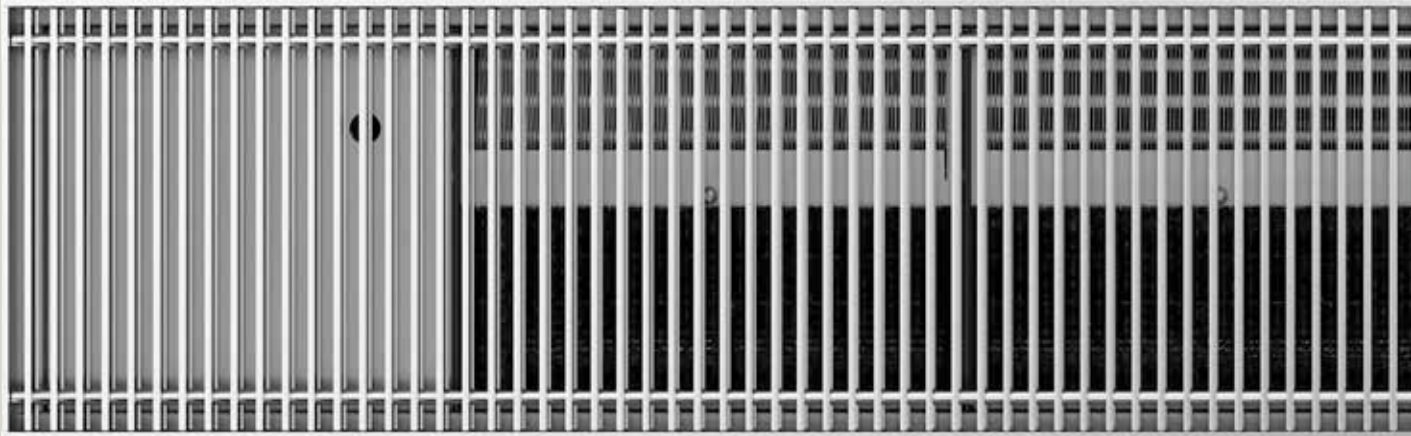
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Sustainability



Trench technology

The trend for large glazed façades and floor-to-ceiling windows continues unabated. Trench technology is the right choice for comfortable air conditioning that does not impede the view outside and effectively screens cold air.

- + large range from simple natural convection models to high-end units that provide heating, cooling and ventilation
- + low-temperature systems with EC fan assistance
- + fast-responsive heating and cooling with optimised air flow for comfortable air conditioning
- + future-proof cooling systems created in conjunction with chillers that use minimal refrigerant
- + primary air supply with models for displacement ventilation, with supply air modules for mixed ventilation or as induction units
- + end-to-end project support from the initial idea, site measurement, unit design and mouldings, to floor-based delivery and installation

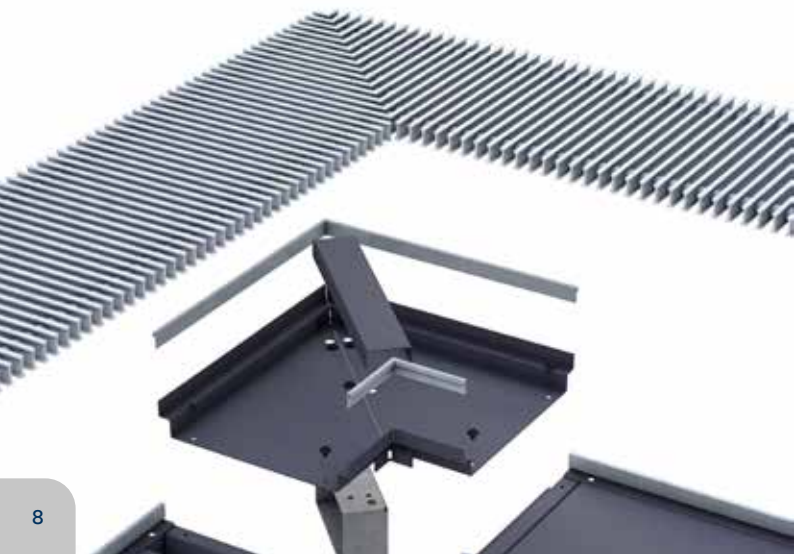


10,941 Katherm versions: technology leader, thanks to infinite possibilities.

How did we become one of the market leaders in trench technology? It is due to our **wide range of standard versions and also our willingness to deviate from them.** This provides our partners with the perfect combination of tried-and-test design and custom project solutions. Resulting in success for everyone. For you too?

Modular system

Individual **connecting modules between the Kampmann trench systems** create an overall aesthetic look without disruptive interruptions. Don't let architectural challenges hold you back.

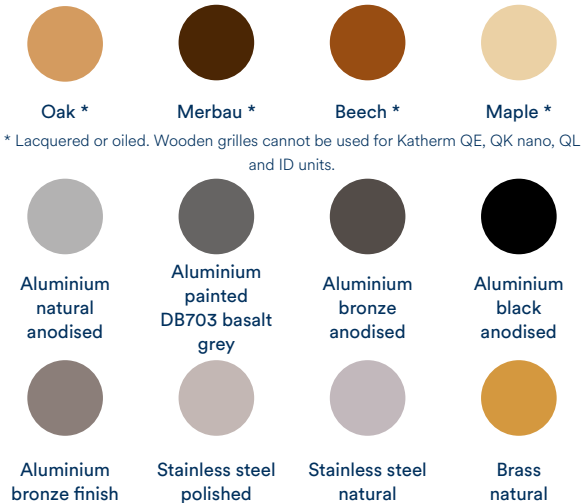


2-pipe with 4-pipe comfort

Katherm HK E

Either all-heating or all-cooling. That's 2-pipe systems for you. Or is it? **Katherm HK E units enable individual rooms to use an electric heating function when the rest of the building is being cooled.** Massively enhancing comfort. And the material and installation savings are huge compared to 4-pipe systems. You can now reduce CO₂ emissions along the value chain that will have a positive impact on the carbon footprint of the building. And even more so if you use more green power.

Materials and colours



Opt for aluminium grilles in a range of different anodised finishes. Or for different finishes of wooden grilles. Or maybe even polished stainless steel grilles?

Outlook

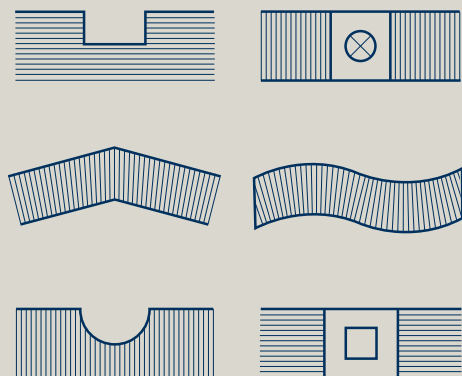
The new generation

As part of the continuous development of our products, we are gradually optimising all sizes of Katherm HK units to offer even greater performance and efficiency. Thanks to innovative components and a modular design principle, the new versions will achieve up to 84% more output in future, setting new standards in trench technology.

Low temperature

Trench technology has traditionally been used under floor-to-ceiling glazing. **High-quality convectors and fan assistance have advanced them into the low-temperature era.** They are also very efficient thanks to EC tangential fans.

Diverse shapes



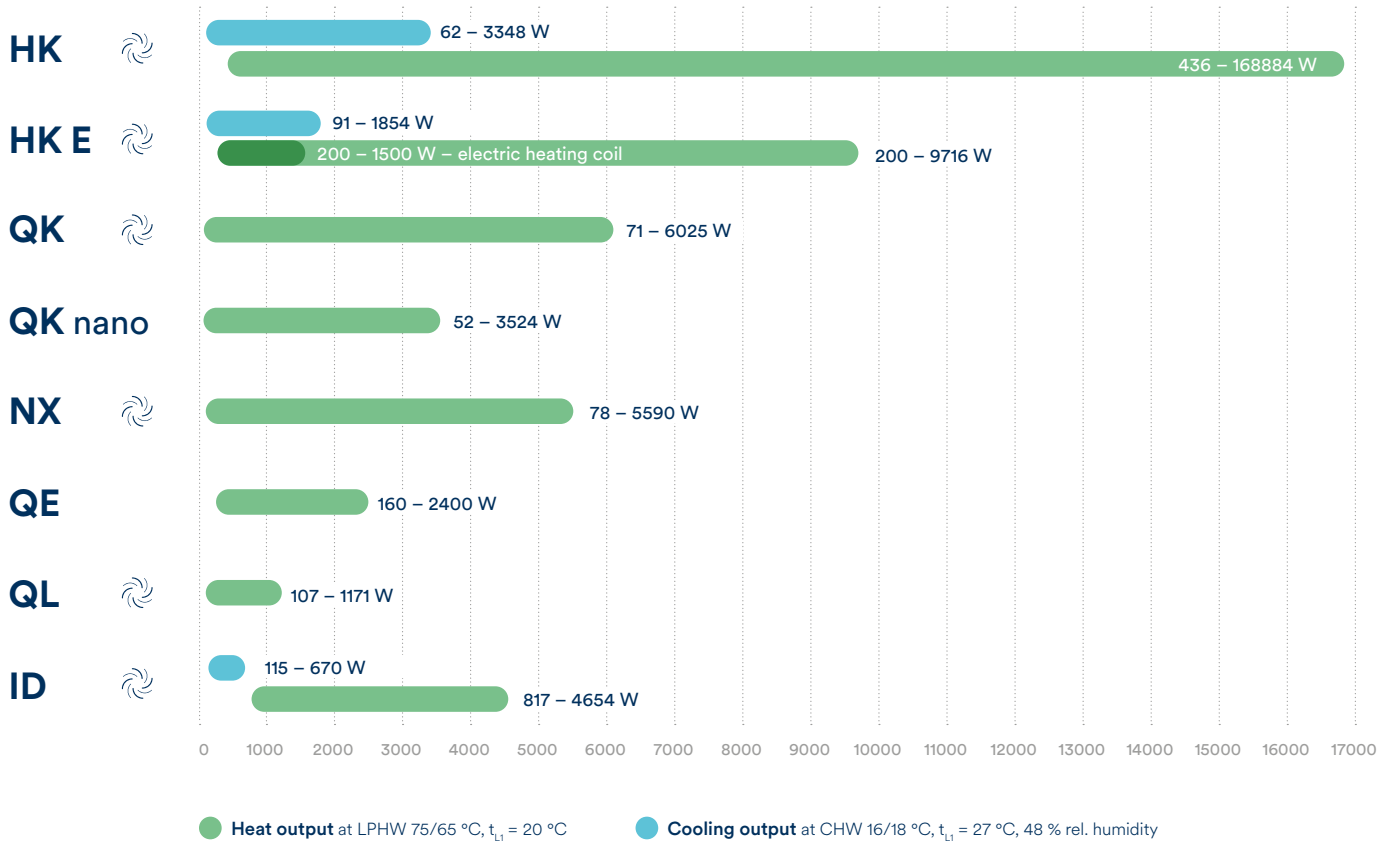
Adaptations and special designs are normal in projects. Katherm trench heaters can therefore be supplied for all geometries, **incorporating mitred corners, curved sections, column cut-outs or angles.**











Our trench technology at a glance

		Heating 🌡️	Supply air 🌀	Cooling ❄️	Heat Pump ready 🌀	Water-based coil	EC tangential fan	Electric heating coil
	Katherm HK > simple to clean in accordance with VDI 6022 > heat outputs tested independently in accordance with DIN EN 16430 > EC fan - efficient in terms of noise and energy	✓	✓	✓	✓	✓	✓	✗
	Katherm HK E > additional electric heating coil > variable heating and cooling in a 2-pipe system > sustainable material savings compared to 4-pipe systems	✓	✓	✓	✓	✓	✓	✓
	Katherm QK > 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	✓	✓	✗	✓	✓	✓	✗
	Katherm QK nano > extremely low overall height > usual quietness and high performance > delicate FineLine grille	✓	✗	✗	✓	✓	✓	✗
	Katherm NK > compact, performance-optimised > heat outputs tested independently in accordance with DIN EN 16430 > shallow unit depths combined with high outputs	✓	✓	✗	✗	✓	✗	✗
	Katherm QE > 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	✓	✗	✗	✗	✗	✓	✓
	Katherm QL > evenly supplies rooms with prepared fresh air and heat > low-turbulence room ventilation for a pleasant indoor climate without draughts	✓	✓	✗	✗	✓	✗	✗
	Katherm ID > extremely silent by means of flow-optimised nozzles > nozzles can be replaced in operation to adjust output > supply air with post-cooling/heating by induction	✓	✓	✓	✗	✓	✗	✗

Heat and cooling outputs



Always fits.

		Widths	Lengths
HK		245	915 1200 1700 2000 2500 3000
		290	950 1200 1700 2000 2500 3000
		320	915 1200 1700 2000 2500 3000
		360	950 1200 1350 1850 2250
HK E		290 320	915 1200 1700 2000 2500 3000
QK		190 215	min. 1000 max. 3200
QK nano		165	min. 900 max. 2700
NX		137 182 232 300 380	min. 800 max. 5000
QE		207	825 1250 1700
QL		300 350	700 1200 1700 2200 2700
ID		340	800 1000 1200 1400 1600

Dimensions in mm



Your extended workbench

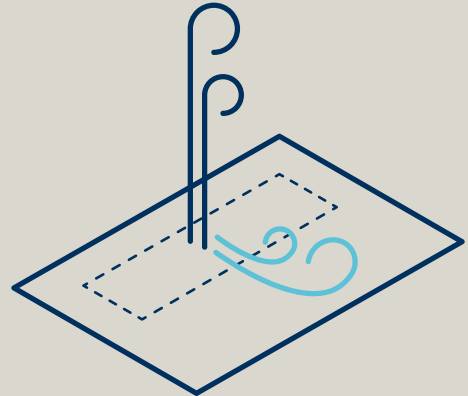
Our project department will work tirelessly for you.

When using trench technology, you also want to make the most of all the benefits of these systems. This can be a complex matter but is worth doing. All the more so as our project department is there for you. That way we'll get the most out of the units. **Often this means using a range of different Katherm models to provide different functions.** Let us design a system for your project, incorporating modules with mitred corners, recesses for cladding components or columns.

We'll also perfectly manage the logistics to get the systems to site and on site. The precise planned position of each unit is clearly printed on all packages. And it goes without saying that we also pack all units floor by floor. All cleverly worked out to let you concentrate on your job.

From a reliable source

Katherm QL



Two air flows emanate from this source. **Heated air rises up the glazed façade; fresh displacement air then enters the room at a low pulse to ensure complete comfort in the room.**



Room automation

Why not offer it?

Are you designing the air conditioning units but handing over their automation to someone else? Why? Three very good reasons why you need to change that.

1. Offer our simple **KaControl MC** system together with the units. This will allow the operator to intuitively operate all the parameters that affect the room climate.
2. We can handle it. Your KaControl MC-system will be **configured precisely to your individual project.**
3. Do you plan to outsource the provision of a complex building automation system? Now you can extend your offering by equipping the Katherm units with our interface cards. The bottom line is that you will be saving your customer money.



Hygienic

Katherm HK



It's unique! **Katherm HK** is one of the few trench technologies on the market to include a **well-thought-out cleaning concept**. The Katherm HK is hygienically flawless, thanks to its improved condensate discharge in cooling mode, coupled with the ease of cleaning of the condensate tray.

BIM data

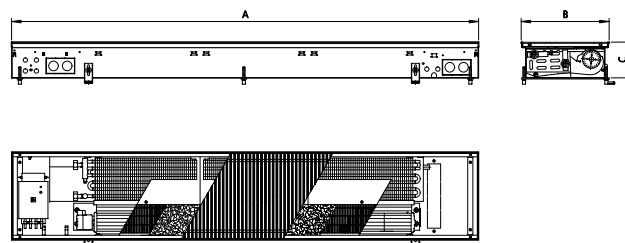
Use the BIM data sets for Kampmann Katherm trench technology for seamless planning processes. They include **all unit dimensions, technical water and electrical connection dimensions and performance data**.

Site measurement

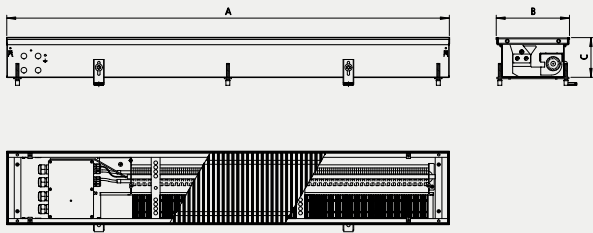
The **site measurements** are taken by our own **Kampmann technicians using 2D or 3D lasers** to avoid inaccuracies. This ensures a precise and efficient site measurement process. The dimensions will then be automatically handed over to our project department.

It's your choice

Katherm HK | Katherm HK E

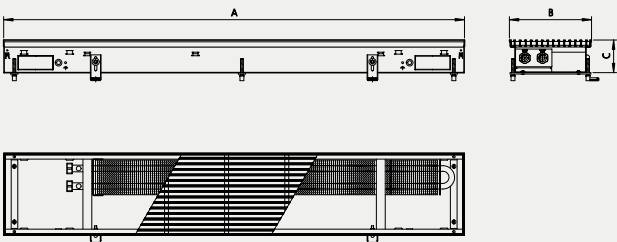


Katherm QE



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

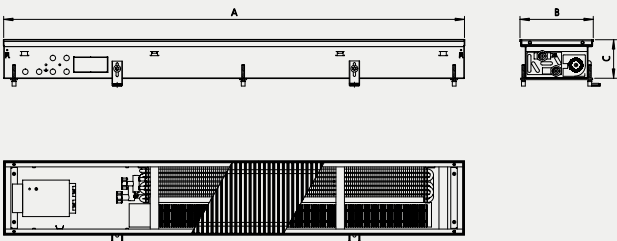
Katherm NK



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

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

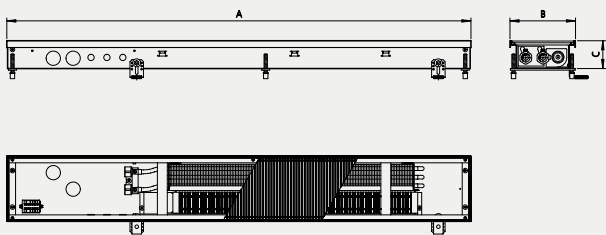
Katherm QK



Heat output ¹⁾ [W]	Width (B) [mm]	Length (A) [mm]	Height (C) [mm]
437 – 5781	190	1000 – 3200	112
522 – 6025	215		

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

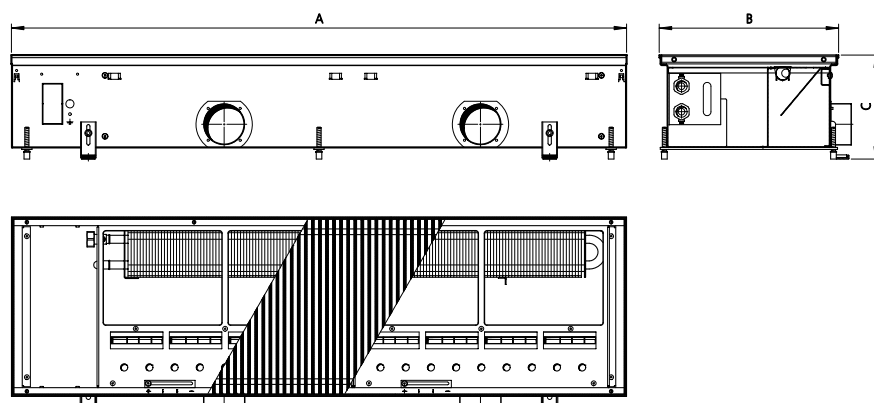
Katherm QK nano



Heat output [W]	Height (C) [mm]	Width (B) [mm]	Control option	
			KaControl	electromechanical 24 V
			Length (A) [mm]	Length (A) [mm]
249 – 774	70	165	1100	900
497 – 1549			1600	1400
746 – 2323			2000	1800
937 – 2920			2300	2100
1134 – 3534			2700	2600

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Katherm QL



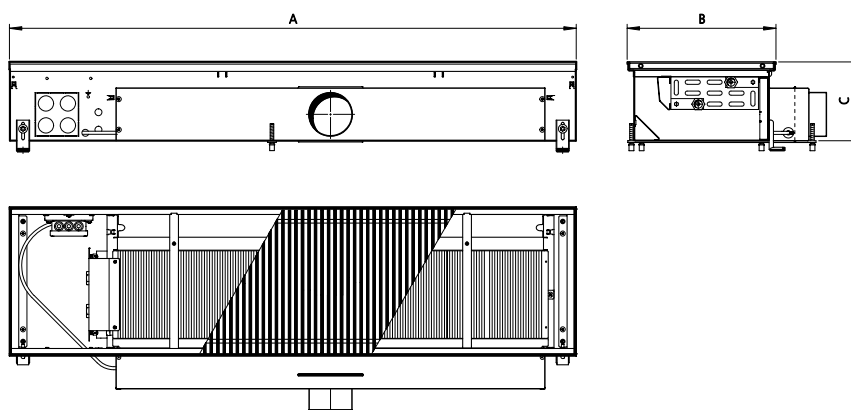
Heat output without primary air flow volume ¹⁾	Heat output with primary air flow volume ²⁾	Width (B)	Height (C)	Length (A)	Number of displacement air modules ³⁾
[W]	[W]	[mm]	[mm]	[mm]	[St.]
131	107	300	150	700	1
294	247			1200	2
457	387			1700	3
620	526			2200	4
783	666			2700	5
166	143		180	700	1
374	327			1200	2
581	511			1700	3
789	695			2200	4
996	879			2700	5
156	133	350	150	700	1
351	304			1200	2
546	476			1700	3
741	647			2200	4
936	819			2700	5
195	172		180	700	1
439	392			1200	2
683	613			1700	3
927	833			2200	4
1171	1054			2700	5

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

²⁾ at LPHW 75/65 °C, $t_{li} = 20$ °C, with max. primary air flow volume per trench length and primary air temperature of 18 °C

³⁾ Number of displacement air modules dependent on the trench length

Katherm ID



System				Width (B) [mm]	Height (C) [mm]	Length (A) [mm]
2-pipe		4-pipe				
Heat output ¹⁾ [W]	Cooling output ²⁾ [W]	Heat output ¹⁾ [W]	Cooling output ²⁾ [W]			
990 – 1684	115 – 227	817 – 1184	115 – 227	340	180	800
1620 – 2213	196 – 292	1280 – 1592	196 – 292			1000
1961 – 2890	233 – 382	1580 – 2073	233 – 382			1200
2590 – 3567	314 – 472	2042 – 2554	314 – 472			1400
2931 – 4244	351 – 562	2343 – 3036	351 – 562			1600
1069 – 1850	135 – 270	817 – 1184	135 – 265		205	800
1758 – 2425	231 – 347	1280 – 1592	229 – 341			1000
2123 – 3168	274 – 455	1580 – 2073	272 – 446			1200
2811 – 3911	370 – 562	2042 – 2554	367 – 552			1400
3176 – 4654	413 – 670	2343 – 3036	410 – 657			1600

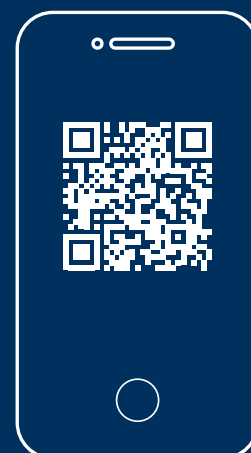
¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

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

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Unit heaters

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.

- + proven classics, always up to date. Kampmann unit heaters set the standard and are continuously being further developed
- + future-proof EC technology for energy-efficient and ERP-compliant operation
- + from industrial uses to occupied zones. Sturdy steel housings to design units
- + on-board control: EC technology includes control electronics for simple and convenient control
- + heating and cooling with one unit – whether in simple industrial applications or as a comfort system in retail stores and high-end large spaces
- + unit heaters as a component of hybrid ventilation systems: central ventilation, local temperature control



Our number one The TOP

Our unit heater with the simple name – “TOP” – has been at the forefront of the market for over 30 years. How do we do it? We don’t rest on our laurels! Simply the ongoing development of our Number One and all other unit heaters ensures that we always remain TOP in terms of output, energy efficiency and control comfort. And our design and trade partners do too.

Gas-free: heat pumps for existing and new industrial sheds

Are you looking for an energy-efficient heating system for your industrial shed but without gas? Our solution: **low water temperature systems**.

Save costs at the same time lower CO₂ emissions compared to gas-fired systems by combining **unit heaters** with **heat pumps** to heat large spaces, industrial sheds and retail spaces.

Heat pumps supply the unit heaters with low-temperature low pressure hot water LPHW for maximum efficiency. The system also produces pleasant temperatures and a comfortable indoor environment without the risk of draughts in the occupied zone.

When the summer warmth arrives

TOP C



Introduce cool air into your hall on hot days with the TOP C. **When your client asks for hall heating, offer cooling as an option.** Up to now only supplied as a project solution, this heating and cooling all-rounder is set to become a standard product.

Simple, efficient, cost-effective

TIP

The little brother of the TOP unit heater is ideal for heating halls and workshops on simpler projects. **Unbeatable in terms of value for money**, it controls efficiently, coupled with space-saving installation.



Industry

Our TOP is the unit of choice when you are faced with tough conditions. Ideal when you have to deal with oil in the air, thanks to its sturdy housing, extensive accessories and custom designs. And, with EC technology, you can now simply design **convenient control systems with our KaControl MC system** or via an interface, such as linked to KNX, BACnet or Modbus.

Retail outlets

The Ultra unit heater is synonymous with efficient and fast-response air conditioning in retail outlets, recognisable by its hexagonal housing design. **Unit heaters for heating and cooling really come into their own during the shoulder months in spring and autumn.** And it also makes sense to use water as the carrier medium: energy-efficient, safe and low-maintenance.



Heating and cooling in low temperature mode

Ultra Allround

Developed as a high-quality design unit, the Ultra Allround is ideal for use with open ceiling concepts in public and industrial areas where it can be operated up to a ceiling height of 7 m. The circular encased housing is designed to discharge warm or cold air into the occupied zone, as required, creating a comfortable climate at all times.



As the unit is designed for operation with low water temperatures, it can be operated in new buildings as well as in refurbished buildings equipped with a heat pump.

Perfectly fitting EPP components enable the operator to maximise the benefits of the material: accurate air flow in the unit with a high level of air-tightness for maximum efficiency.

System control in the building



The **KaControl MC System Controller** is installed in an IP54 wall-mounted housing with integrated TP 5 touch panel. It significantly expands functionalities. Its Modbus TCP protocol enables up to 25 rooms or groups, each with up to 10 units, to be connected, which makes it possible to centrally specify time programs and setpoints. Heat generators and various hydraulic circuits can also be controlled.

Minimal noise levels

We only notice how much high noise levels affect us when they are abruptly interrupted. **Our continuously variably controlled unit heaters generate less stress, as they only operate within the power range actually required.** Not one revolution too many or too few. Generating only the noise emissions that are absolutely necessary. At the same time using whisper-quiet sickle-blade fans.

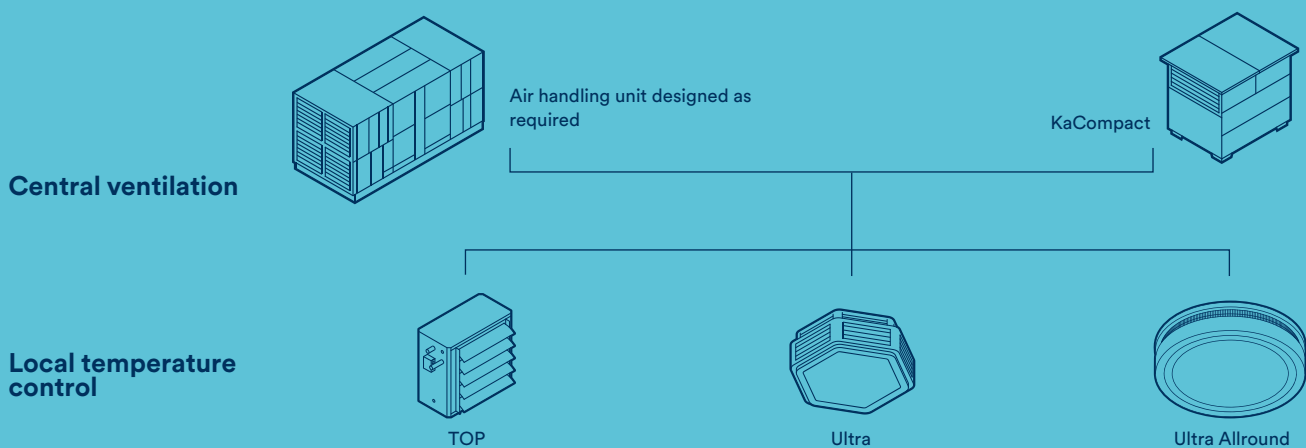
It's lonely at the top

Our size 8 TOP unit heater really stands out, as it is unrivalled in terms of installation height. It copes with **ceiling heights of up to 20 m** with our KaMax air outlet.



Real team players

Hybrid ventilation concept



Hybrid ventilation systems are **bidirectional ventilation systems with efficient heat recovery.**

Temperature control is provided by local units inside the room and not by the central ventilation unit (air handling unit). Primary air is only fed in if required. A CO₂ sensor monitors this specific requirement. Otherwise, the local units are operated with secondary air.

Hybrid ventilation systems make sense, as the use of water as a carrier medium is more efficient than air.

Our unit heaters are ideal for this in conjunction with our Kompakt ventilation unit or individually configured air handling units.

Our unit heaters at a glance



Unit heaters for factories and workshops



TIP

- > unbeatable in terms of value for money
- > sickle-blade, whisper-quiet fan with optimised full nozzle
- > neutral in colour, hard-wearing and tough



TOP

- > design-based range of equipment, "TOP" value for money
- > whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements
- > heat exchanger and fan options for the most diverse applications



TOP Ex

- > approved for T4/T3 temperature ranges in zone 1 and 2 areas at risk of explosion according to ATEX II 2G Ex h IIB T4...T3 Gb X
- > certified to the latest legislation
- > whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements



TOP C

- > heating or cooling in a 2-pipe system with one unit
- > whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements
- > two capacity levels of copper/aluminium heat exchanger

Unit heaters for large
high-end spaces



Ultra

- > 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



Ultra Allround

- > installation heights of up to seven metres are possible
- > efficient climate due to minimal temperature stratification
- > comfortable due to intelligent air routing

Mobile unit heaters for
construction sites



Site heaters

- > all site heaters are available on short delivery times
- > no need to stop working on site because of the cold
- > heated, dried and ice-free sites

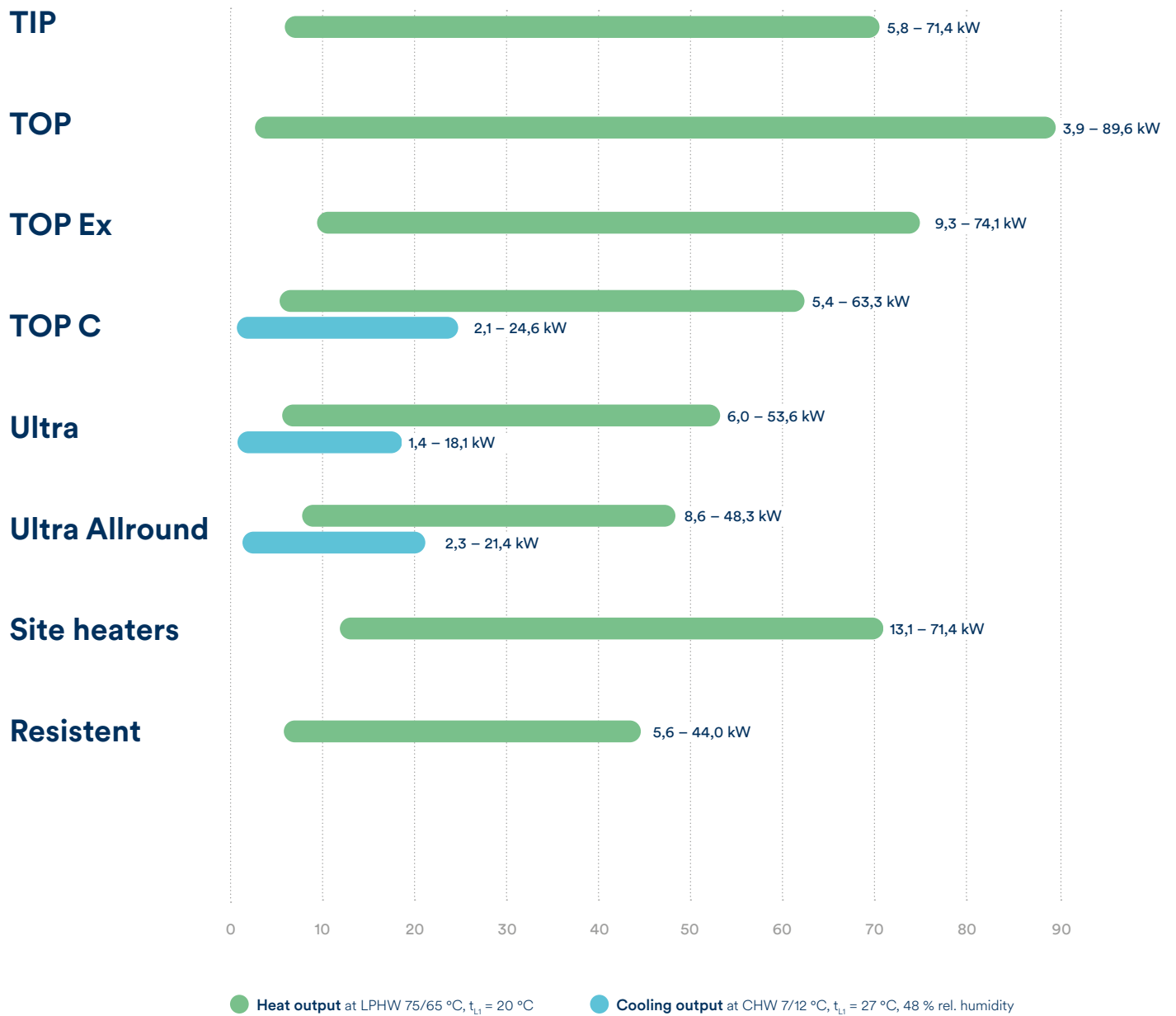
Corrosion-resistant unit
heater for extreme areas
of application



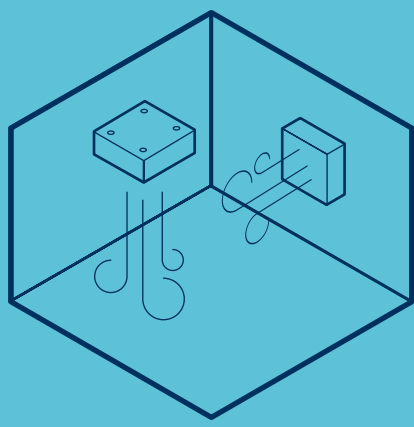
Resistent

- > used where aggressive air is to be moved
- > all parts of the housing are manufactured in V4A stainless steel as standard
- > for universal wall or ceiling mounting

Heat and cooling outputs



Fits every time



Wall-mounted	Ceiling-mounted
TIP	TIP
TOP I TOP Ex	TOP I TOP Ex
TOP C ❄	TOP C (horizontal air outlet) ❄
Site heaters	Ultra
Resistent	Ultra Allround ❄
	Site heaters
	Resistent

TIP

Size 4 540 × 500 × 320 mm

Size 5 640 × 600 × 320 mm

Size 6 740 × 700 × 320 mm

TOP I TOP C

Size 4 540 × 500 × 360 mm

Size 5 640 × 600 × 360 mm

Size 6 740 × 700 × 320 mm

Size 7 840 × 800 × 360 mm

Size 8 940 × 900 × 670 mm

TOP Ex

Size 4 540 × 500 × 360 mm

Size 5 640 × 600 × 360 mm

Size 6 740 × 700 × 320 mm

Size 7 840 × 800 × 360 mm

Site heaters

Size 4 540 × 500 × 320 mm

Size 5 640 × 600 × 320 mm

Size 6 740 × 700 × 320 mm

Resistent

Size 4 540 × 540 × 320 mm

Size 5 640 × 640 × 320 mm

Size 6 740 × 740 × 320 mm

Ultra

Size 7 840 × 750 × 330 mm

Size 8 1.004 × 900 × 330 mm

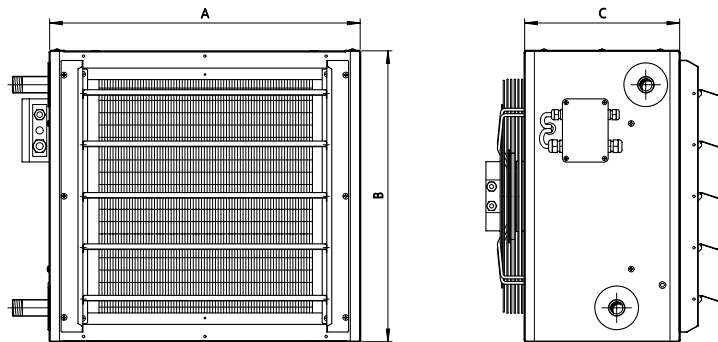
Size 9 1.177 × 1.050 × 330 mm

Ultra Allround

1300 × 1300 × 516 mm

It's your choice

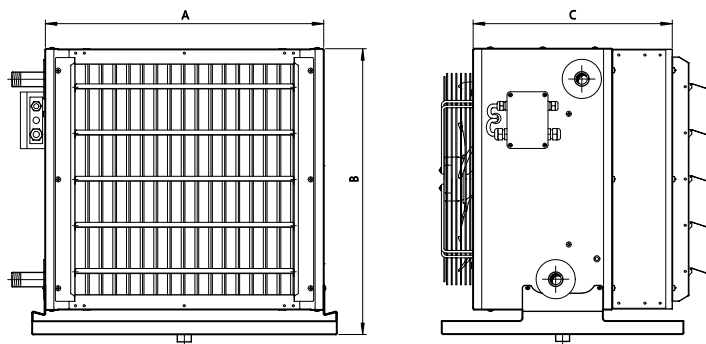
TOP



					Heat exchanger model ¹⁾			
					copper/aluminium		steel galvanised	
Fan version	Model size	Width (A)	Dimensions Height (B)	Depth (C)	Heat output	Air flow	Heat output	Air flow
		[mm]	[mm]	[mm]	[kW]	[m³/h]	[kW]	[m³/h]
EC fan, 230 V, high speed	4	540	500	320	6.6 – 18.3	550 – 2680	6.4 – 18.0	590 – 2730
	5	640	600		6.3 – 37.6	460 – 4880	7.1 – 34.1	610 – 4800
		740	700					
	6	740	700		7.5 – 48.4	490 – 6840	7.4 – 43.7	550 – 5810
		700	675					
	900	875						
	7	840	800	670	15.1 – 71.4	1220 – 9900	14.3 – 58.8	1260 – 8980
		600	575					
	8	940	900		20.0 – 89.5	1580 – 11790	19.6 – 89.6	1900 – 12220
EC fan, 200- 240 V, reduced speed	4	540	500	320	6.5 – 15.1	530 – 2140	6.2 – 14.7	580 – 2150
	5	640	600		7.6 – 26.5	590 – 3420	8.1 – 25.0	730 – 3440
	7	740	700		11.3 – 55.5	660 – 7830	10.9 – 46.3	760 – 7070

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

TOP C



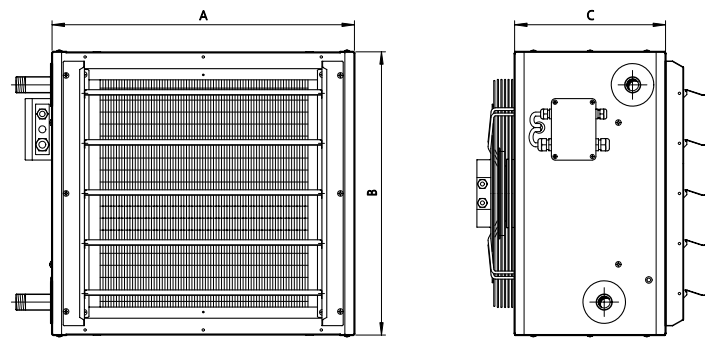
Fan version	Model size	Dimensions		Depth (C) [mm]	Heat exchanger model copper/aluminium			
		Width (A) [mm]	Height (B) [mm]		Heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Cooling output ³⁾ [kW]	Air flow [m³/h]
EC fan, 230 V, high speed	4	600	575	570	5.6 – 15.4	2.1 – 5.1	1.1 – 2.6	430 – 1880
	5	700	675		4.4 – 31.6	2.3 – 9.5	1.2 – 4.7	270 – 3520
	6	800	775		6.4 – 42.3	3.2 – 15.5	1.6 – 7.3	370 – 4600
	7	900	875		12.4 – 63.3	6.1 – 24.6	3.0 – 11.4	770 – 7270
EC fan, 200-240 V, reduced speed	4	600	575		5.1 – 13.0	2.0 – 4.4	1.0 – 2.3	370 – 1510
	5	700	675		6.1 – 22.2	2.8 – 7.1	1.4 – 3.6	440 – 2410
	7	900	875		10.4 – 48.6	5.3 – 19.4	2.6 – 9.1	560 – 5440

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

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

³⁾ at CHW 16/18, t_{L1} = 27 °C, 48% relative humidity

TIP

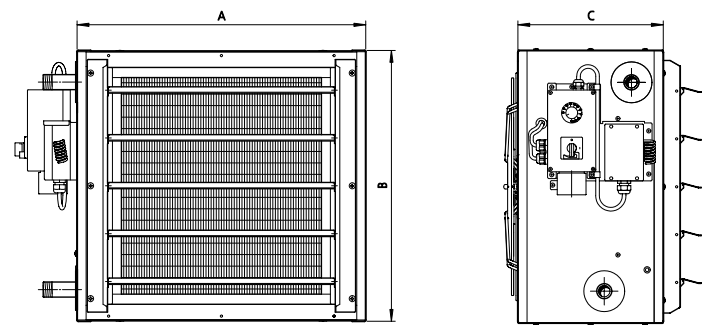


Heat exchanger model¹⁾
copper/aluminium

Fan version	Model size	Dimensions		Depth (C) [mm]	Heat output [kW]	Air flow [m³/h]
		Width (A) [mm]	Height (B) [mm]			
EC fan	4	540	500	320	5.1 – 18.1	370 – 2710
	5	640	600		10.0 – 39.0	890 – 4940
	6	740	700		12.8 – 50.0	1240 – 5830

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

Site heater

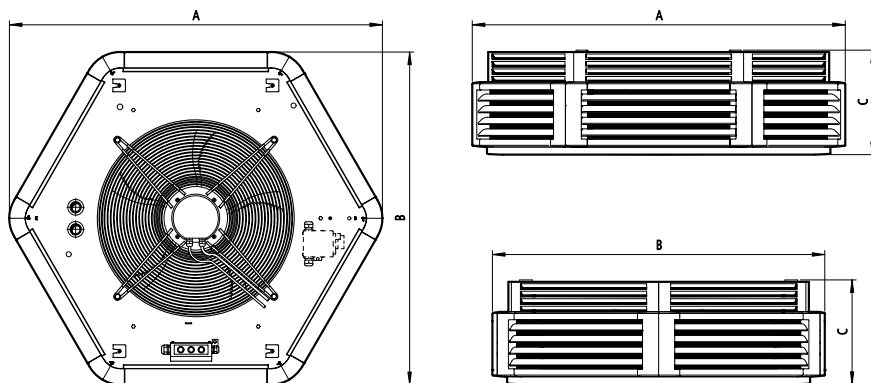


Heat exchanger model¹⁾
copper/aluminium

Fan version	Model size	Dimensions		Depth (C) [mm]	Heat output [kW]	Air flow [m³/h]
		Width (A) [mm]	Height (B) [mm]			
EC fan	4	540	500	320	5.1 – 18.1	366 – 2436
	5	640	600		10.4 – 39.0	892 – 4623
	6	740	700		14.5 – 50.0	1236 – 5451

¹⁾ at LPHW 75/65 °C, t_l = 20 °C

Ultra



Heat exchanger model
copper/aluminium

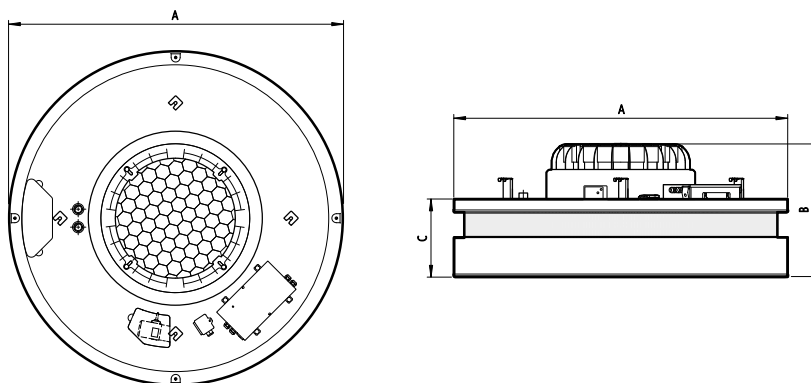
Fan version	Model size	Dimensions			Heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Cooling output ³⁾ [kW]	Air flow [m³/h]
		Width (A) [mm]	Depth (B) [mm]	Height (C) [mm]				
EC fan, 230 V, high speed	73	1177 840	1050 750	330	6.5 – 15.7	---	---	580 – 1470
	84	1004	900		5.9 – 20.3	3.0 – 7.5	1.4 – 3.7	490 – 1850
	85				7.3 – 33.3	3.7 – 12.0	1.7 – 5.7	530 – 2980
					10.2 – 53.7	5.1 – 12.3	2.2 – 8.7	660 – 5640
EC fan, 200-240 V, reduced speed	96	1177	1050		8.2 – 40.1	4.3 – 13.9	1.6 – 6.7	420 – 3940

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

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

³⁾ at CHW 16/18, t_{L1} = 27 °C, 48% relative humidity

Ultra Allround



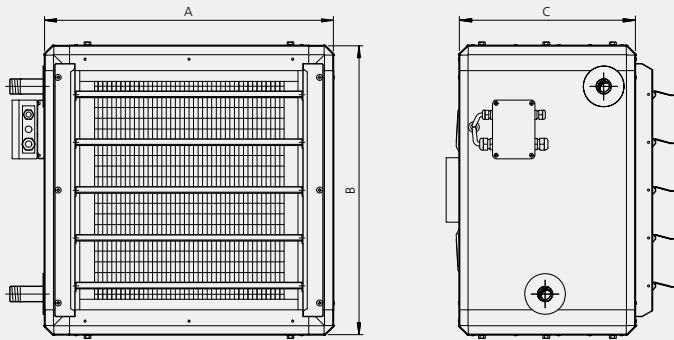
Heat exchanger model
copper/aluminium

Fan version	Model size	Diameter (A) [mm]	Dimensions Height (B) [mm]	Height (C) [mm]	Heat output ¹⁾ [kW]	Sound power level, heating [dB(A)]	Cooling output ²⁾ [kW]	Sound power level, cooling [dB(A)]
EC fan, 230 V, high speed	1	1300	516	300	9.1 – 42.2	22 – 71	4.0 – 18.2	28 – 71
	2			350	10.3 – 51.8	27 – 72	4.5 – 22.9	27 – 73

¹⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

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

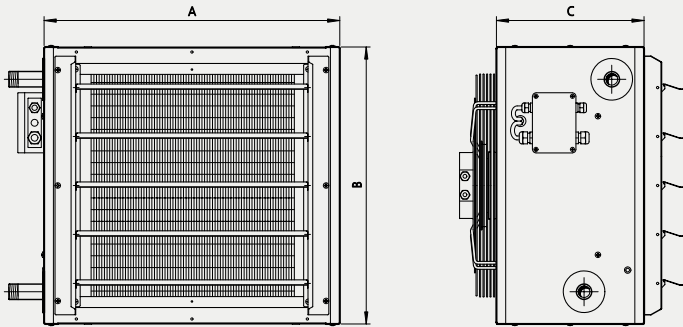
Resistent



		Heat exchanger model ¹⁾						
		Steel dip-galvanised			Stainless steel V4A			
Fan version	Model size	Width (A) [mm]	Height (B) [mm]	Depth (C) [mm]	Heat output [kW]	Air flow [m³/h]	Heat output [kW]	Air flow [m³/h]
EC fan, 230 V, high speed	4	540	540	320	5.7 – 18.0	510 – 2730	5.0 – 12.1	430 – 1620
	5	640	640		4.8 – 34.1	350 – 4800	7.1 – 23.9	320 – 3060
	6	740	740		9.5 – 43.7	790 – 5810	11.3 – 28.1	550 – 3290

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

TOP Ex



		Heat exchanger model ¹⁾						
		copper/aluminium			steel galvanised			
Fan version	Model size	Width (A) [mm]	Height (B) [mm]	Depth (C) [mm]	Heat output [kW]	Air flow [m³/h]	Heat output [kW]	Air flow [m³/h]
AC fan, 400 V Ex	4	540	500	320	10.3 – 17.3	1480 – 2360	9.9 – 15.6	1480 – 2360
	5	640	600		18.2 – 33.7	2700 – 4140	17.4 – 30.3	2700 – 4140
	6	740	700		23.5 – 47.4	3720 – 5680	22.5 – 42.2	3720 – 5680
	7	840	800	360	34.7 – 74.1	6150 – 8770	33.2 – 67.0	6150 – 8770

¹⁾ at LPHW 75/65 °C, t_{Li} = 20 °C

Your digital product finder at
www.kampmanngroup.com

Calculate your product online:
kampmanngroup.com > Products > Unit heaters



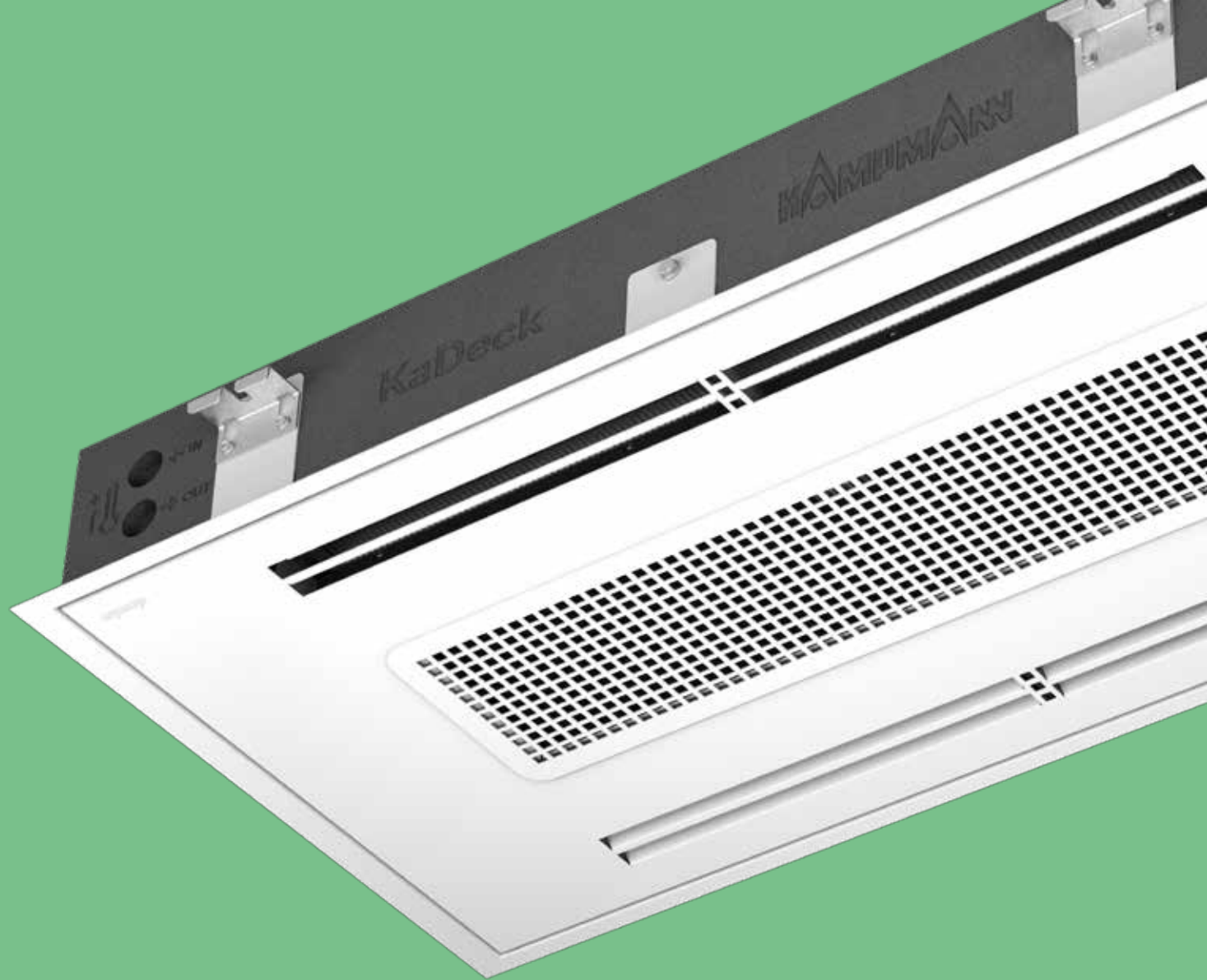
Fan coils

The cooling of buildings is becoming increasingly relevant.

The typical products employed here include fan coils, which, as water-based systems, are as current and useful as never before. No wonder with all their benefits and versatile uses.

Kampmann is at the forefront in different sectors.

- + cooling and heating in conjunction with heat pumps chillers
- + no refrigerant circulating in the building and only small quantities used in the chiller
- + fast response times thanks to powerful and efficient EC fans
- + for every requirement for installation in and under the ceiling, suspended on the wall or free-standing
- + in hybrid systems to supply primary air and control the temperature of the recirculating air
- + for air conditioning in addition to surface temperature control

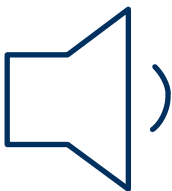


Calling all sensible people

Admittedly “sensible” does not come across as a catchy advertising message. But what if it’s the truth? Sensible designers use fan coils when users ask for a good indoor climate. That’s what fan coils provide. **In the middle of summer, as in winter, and in the shoulder months as well when other systems sometimes struggle. Water-based fan coil systems are also subject to minimal safety requirements and can be adapted to developments on the refrigerant market – so sensible after all?**

Market-leading in low-noise

Venkon



Venkon fan coils fulfil all expectations for a quiet environment, thanks to their energy-saving EC technology. Peace and quiet so that you can focus on important matters. **Market-leading quiet and nonetheless outstanding outputs at higher fan speed ranges.**





Hygiene experts

Venkon, KaCool D HC and KaCool D HY provide VDI 6022-compliant air conditioning with their sealed surfaces, ideal cleaning options and ePM10 > 50% filters for totally hygienic room air in offices or hotel bedrooms.

And, thanks to their motorised **H14 filter for Venkon units**, **HEPA filters** now form an integral part of sustainable air conditioning systems.

Create space

Venkon

Only Kampmann provides you with fan coils that blend into the room but do not dominate it. In **suspended ceilings**, **hotel casings** or **sill-line casings**. Attractive, **free-standing casings** are of course also available.



Our fan coils at a glance



Venkon

- > ultra-versatile in terms of length and appearance
- > hygiene-compliant in accordance with VDI 6022 in conjunction with optional ePM10>50% filter, easy-clean
- > versatile combination by the use of basic unit and casing



PowerKon LT

- > high heat outputs with low system temperatures
- > up to 25% improved efficiency with a heat pump compared to high-temperature systems
- > eligible for government funding with the installation of a heat pump



Venkon XL

- > XL performance guaranteed
- > for higher external pressure requirements
- > highly optimised, large heat exchanger



KaDius

- > Flexible unit design: the outer shell can be individually encased
- > Various installation options: installation below the ceiling or suspended freely in the room
- > Innovative connection technology: all components, such as valves or accessories, are housed within the unit



KaDeck

- > ideal for shallow suspended ceiling heights, installation height of only 165 mm
- > all components (including valves) can be accessed without tools, no inspection openings needed on site
- > thermally and acoustically insulated housing made of EPP (expanded polypropylene)



KaCool D AF

- > AtmosFeel for maximum comfort
- > minimalist cassette design
- > whisper-quiet with EC fan



KaCool W

- > design wall-mounted unit for heating and cooling
- > whisper-quiet with EC fan
- > optional condensate pump can be fitted within the housing



KaCool D HC

- > certified compliant with the Hygiene Directive DIN 1946-4 and VDI 6022
- > all components can be accessed and cleaned without tools
- > suspended ceiling models fit ceiling grid dimensions (625 x 625 mm)
- > ePM1>50%/F7 filter in the air intake; Hepa/H13 or ePM1>80%/F9 filter in the air outlet



KaCool D HY

- > ceiling cassette for heating and cooling
- > ideal in rooms with stringent hygiene requirements
- > VDI 6022-compliant
- > including attractive and low-maintenance metal trim



Ultra Allround

- > installation heights of up to seven metres are possible
- > efficient climate due to minimal temperature stratification
- > comfortable due to intelligent air routing

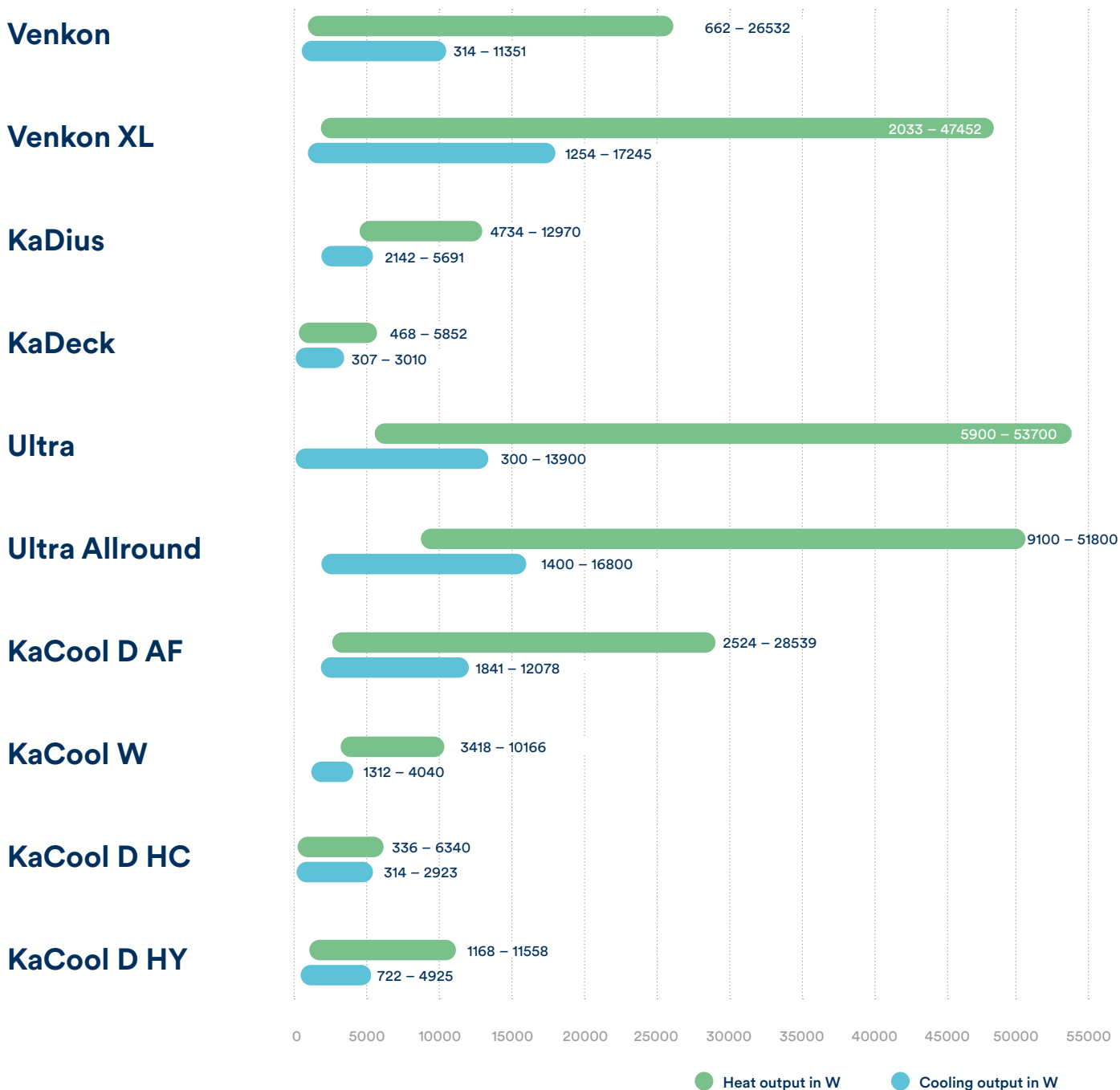


Ultra

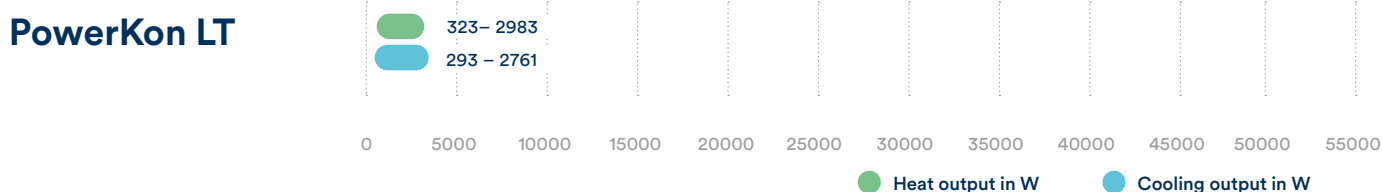
- > minimal height due to circular heat exchanger
- > hexagonal housing design for optimum air distribution with heating and cooling
- > whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements

Heat and cooling outputs

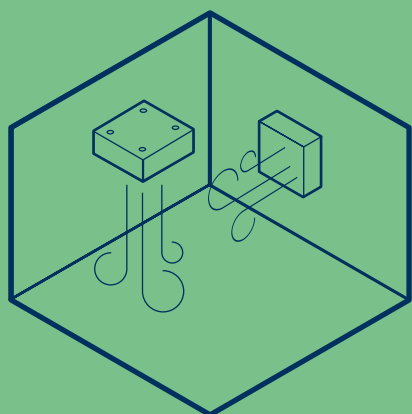
Flow / return temperature of 75/65 °C



Flow / return temperature of 45/40 °C (low-temperature operation)



Installation options



Wall-mounted

Venkon

KaCool W

PowerKon LT

Ceiling-mounted

Ultra

Ultra Allround

Venkon

Venkon XL

KaDius

KaDeck

KaCool D AF

KaCool D HC

KaCool D HY

Matching accessories

KaControl MC



This innovative KaControl MC climate control opens up new possibilities in the control and networking of Kampmann products with building automation systems.

From single-room control to group control, the management of several rooms or zones, to the integration of complex systems with ventilation units, heat generators, chillers, and heat pumps.

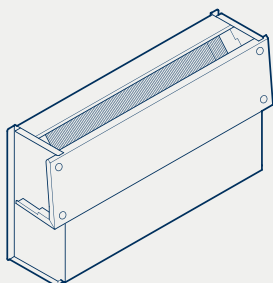




Diverse shapes and sizes

Venkon

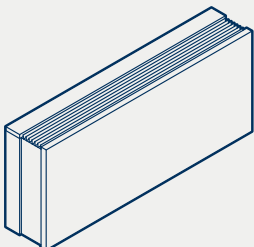
Four sizes



Basic units

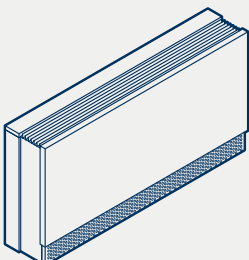
Size	Length	Height
61	625	494
63	925	494
66	1375	494
67	1725	494

Models



Wall-hanging
Intake on the underside

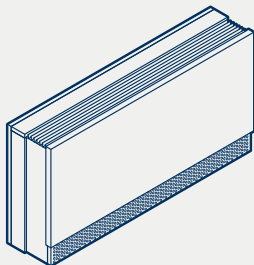
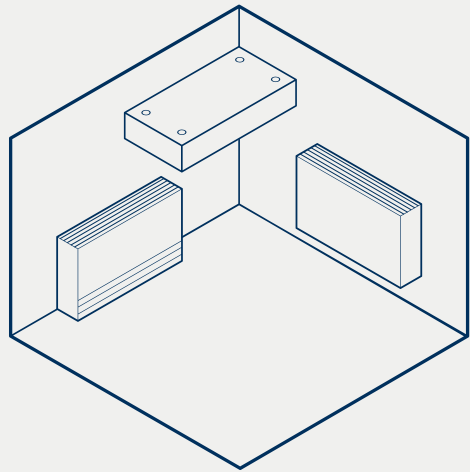
Length	Height	Depth
900	505	235
1200	505	235
1650	505	235
2000	505	235



Wall-mounted
Front intake

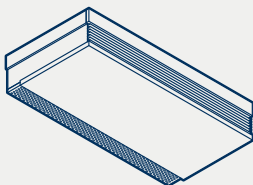
Length	Height	Depth
900	605	235
1200	605	235
1650	605	235
2000	605	235

Installation options



Free-standing
Front intake, with rear panel

Length	Height	Depth
900	605	255
1200	605	255
1650	605	255
2000	605	255



Ceiling
Intake on the underside

Length	Height	Depth
900	605	235
1200	605	235
1650	605	235
2000	605	235

All dimensions in mm

Everything under control

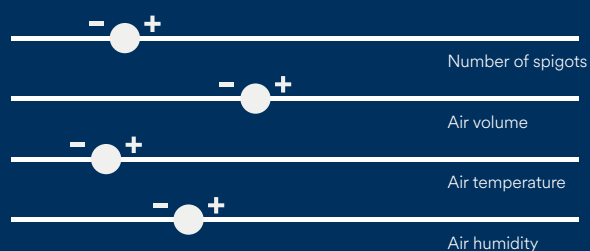
KaDeck

Extremely easy to install and maintenance-friendly: the KaDeck can be simply opened by concealed locks, while the waterside and electric connection areas are arranged in such a way that no further inspection openings are required on site.

All components are easily accessible and maintenance could not be simpler. The KaDeck remains hygienically clean throughout its entire service life.



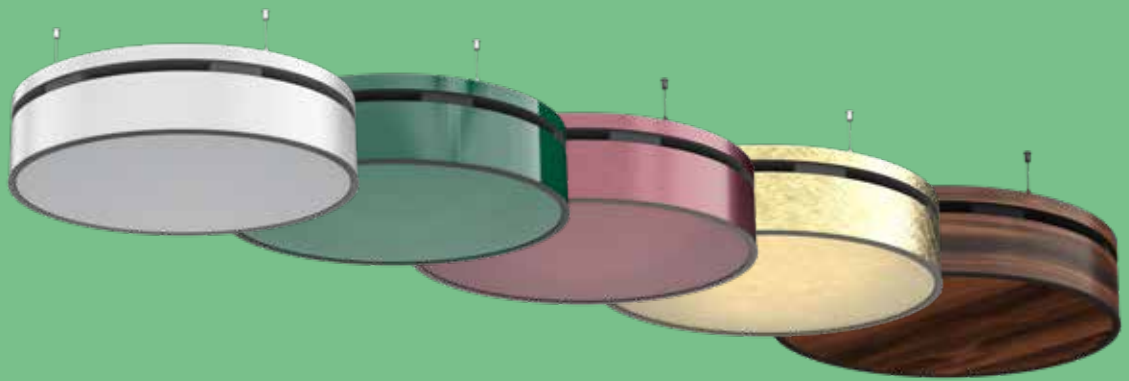
Primary air calculation



KaDeck introduces primary air into a space, with no additional supply air openings needed in the ceiling. **Conveniently calculate the primary air volume for your project on our website.** You'll find all you need to know there: primary air, heating and cooling outputs, as well as extensive technical data on sound levels and pipework in accordance with your selected control voltage. Then simply download your individual data sheet, bookmark the calculation or immediately send an enquiry about the product.



World's most versatile ceiling unit



As the **KaDius** draws in room air on the top of the unit, its outer shell can be individually configured with trims, materials or lights. Whether they opt for films, metal or LEDs – once delivered, interior architects can configure the unit to match the interior design. All units can be factory-powder-coated in all RAL colours.

Thanks to their unique unit design, KaDius units can be positioned directly below the ceiling, but also integrated freely suspended into the interior architecture of the space where they can also be used as a design element. The patent-pending 360° air outlet with its special air inlet concept on the top of the unit guarantees the even and comfortable distribution of warm or cool air.



At your convenience

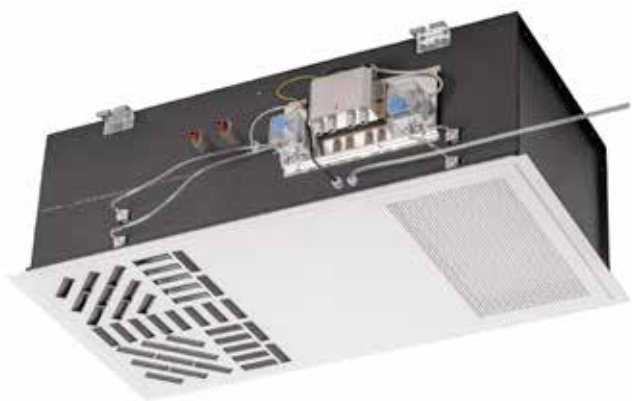
KaCool D AF

Ceiling cassettes are the traditional method of air conditioning office buildings, hotels, showrooms and shop floors. And Kampmann KaCool D AF units have long been some of the leading products in this sector. The unit heats and cools rooms with its high output. Draught-free air flows are all the more important. The KaCool D AF is designed specifically for this. **The air discharge makes maximum use of the Coanda effect. It produces an air stream from the ceiling that falls into the room at a seriously reduced speed. That's what we call AtmosFeel (AF).** This technology is incorporated in all variants of the KaCool D AF. You can select either a model with a plastic or metal trim. If required, the valves can also be concealed within the housing, fully factory-fitted.



Clinically clean

KaCool D HC



First-class filter quality and a top cleaning concept make the KaCool D HC the perfect equipment to fit in doctors' surgeries and clinics. It therefore complies with DIN 1946-4 for air handling units in healthcare buildings and premises, and thus features ePM1>50%/F7 filter in the air intake and Hepa/H13 or ePM1>80%/F9 filter outlet. Certified - but of course!

The entire interior space is fully and simply accessible. The complete underside of the ceiling-mounted device acts as a revision flap with snap-in closures. The coating on the interior space prevents corrosion and at the same time is also **resistant to cleaning with disinfectants.**

And to ensure that everything remains safe even between maintenance, the **built-in differential pressure sensor** signals the need to change the filter at an early stage. A Class H14 HEPA filter can also be used, for instance intermittently during the flu season.

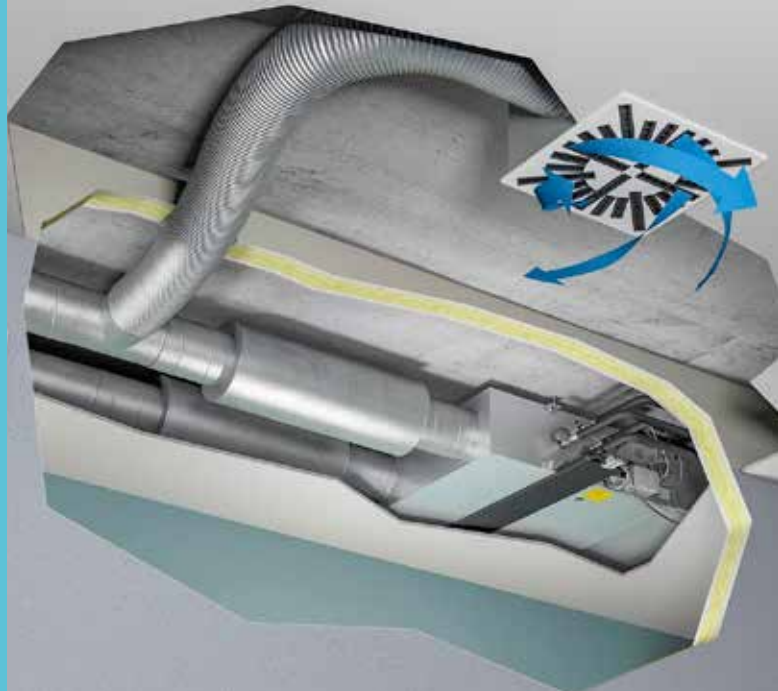
Perfect duo

Venkon XL and DAL358

For high output with high external pressure

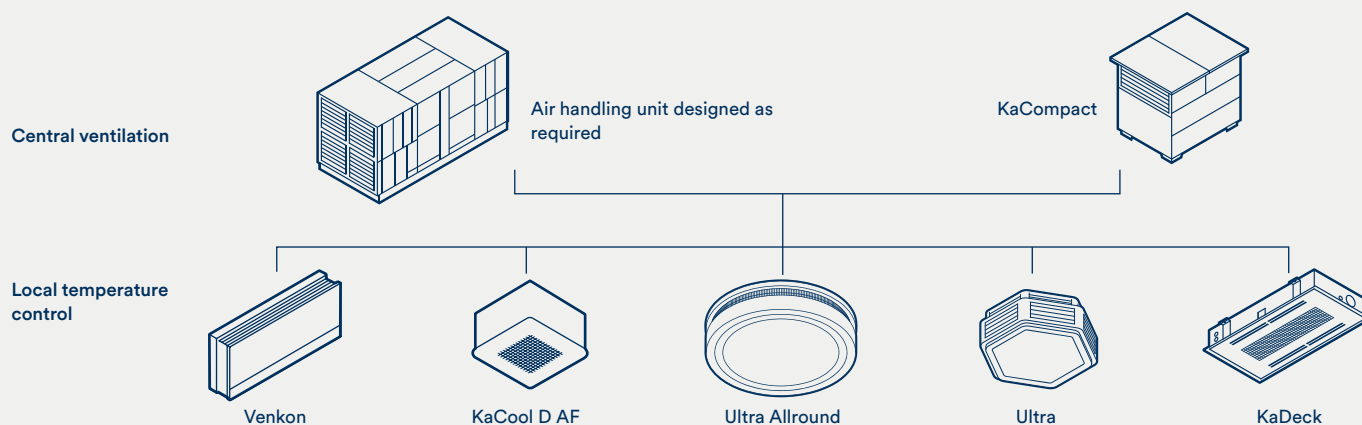
Have you come across office projects like this? High cooling and heating requirement but a need to be quick to respond and quiet. So ban the fan coils to the corridor.

The Venkon XL supplies connected swirl diffusers with the required conditioned air from the suspended ceiling.



Real team players

Hybrid ventilation concept

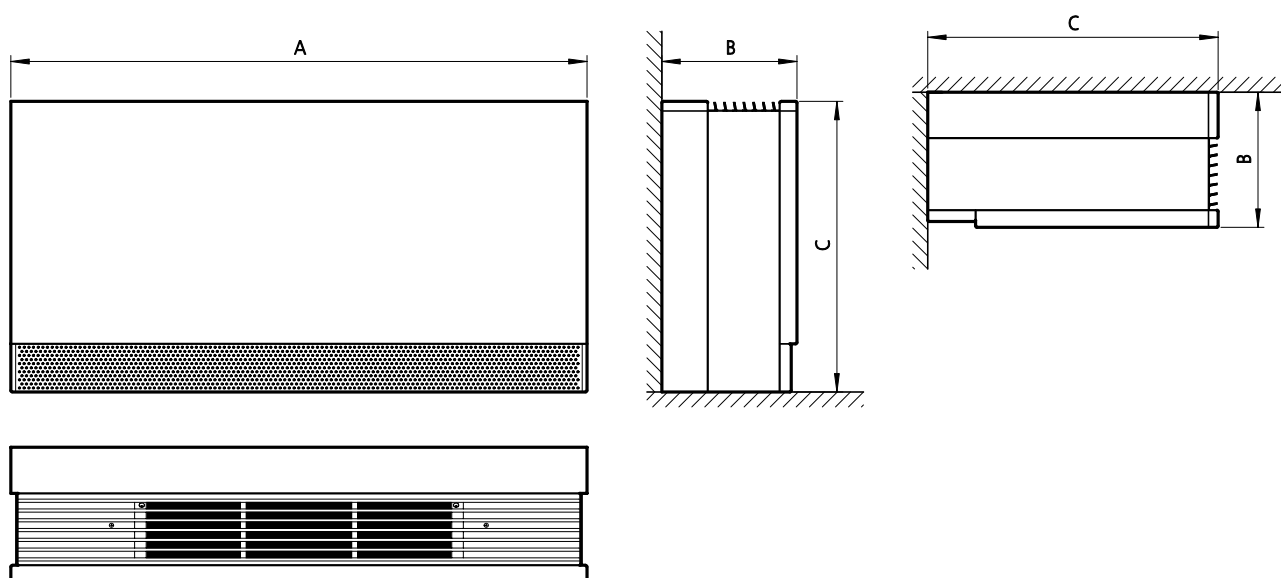


Hybrid ventilation systems are **bidirectional ventilation systems with efficient heat recovery**.

Temperature control is provided by local units inside the room and not by the central ventilation unit (air handling unit). Primary air is only fed in if required. A CO₂ sensor monitors this specific requirement. Otherwise, the local units are operated with secondary air. **Hybrid ventilation systems make sense, as the use of water as a carrier medium is more efficient than air.** Our fan coils are ideal for this in conjunction with our Kompakt ventilation unit or individually configured air handling units.

It's your choice

Venkon

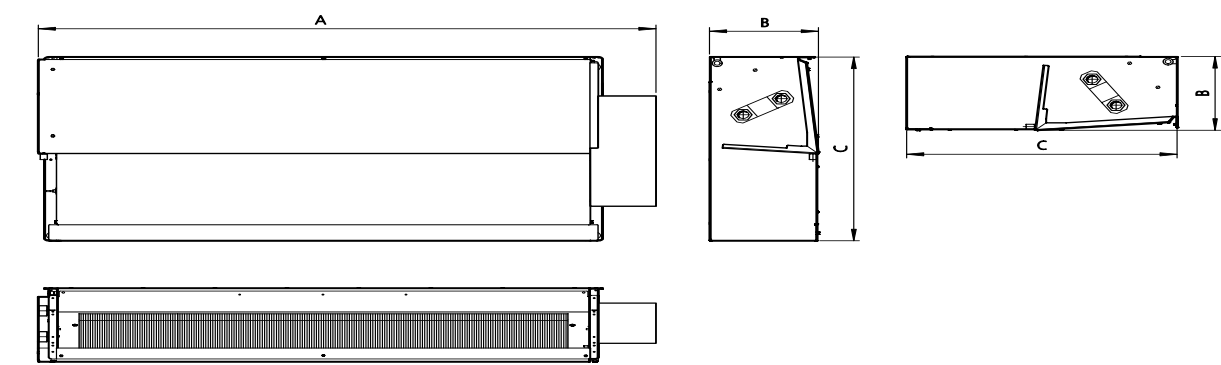


System												
2-pipe			4-pipe			Dimensions including casing						
Filter class	Heat output ¹⁾ [W]	Cooling output ²⁾ [W]	Heat output ¹⁾ [W]	Cooling output ²⁾ [W]	Model size	Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]				
ISO Coarse filter	2100 – 8332	885 – 3567	1646 – 5179	849 – 3355	61	900	235	605				
	3042 – 12885	1232 – 5206	2455 – 8244	1152 – 4722	63	1200						
	5003 – 20520	2096 – 8692	3893 – 12565	1848 – 7257	66	1650						
	5891 – 26532	2466 – 11351	4610 – 16113	2271 – 9967	67	2000						
Filter ePM10>50% (M5)	1372 – 7171	574 – 3065	1121 – 4589	555 – 2889	61	900			235	605		
	1757 – 10526	710 – 4253	1492 – 6994	676 – 3873	63	1200						
	3038 – 16815	1259 – 7112	2475 – 10705	1141 – 5978	66	1650						
	3520 – 21423	1454 – 9137	2902 – 13563	1371 – 8074	67	2000						
Filter ePM1>50% (F7)	783 – 5740	321 – 2447	662 – 3830	314 – 2313	61	900					235	605
	978 – 8094	390 – 3271	855 – 5636	378 – 2994	63	1200						
	1690 – 13002	683 – 5487	1426 – 8688	638 – 4653	66	1650						
	1908 – 16317	769 – 6932	1639 – 10868	745 – 6175	67	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 XL



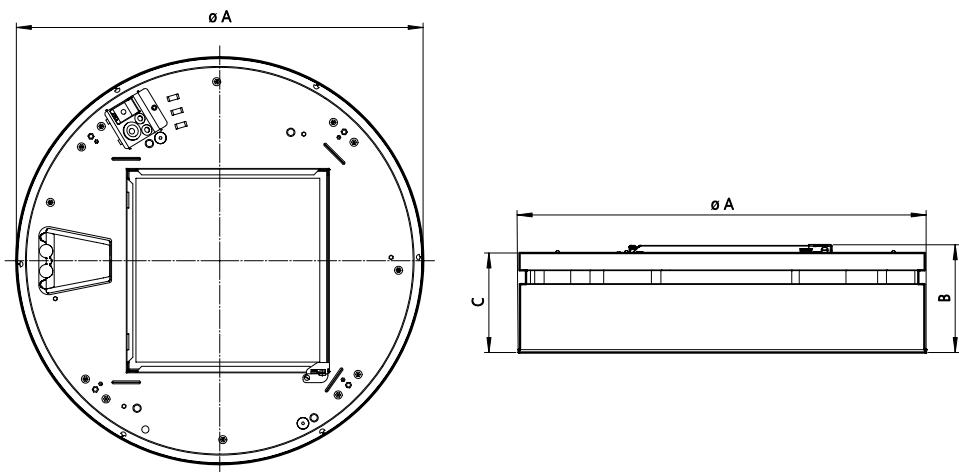
		System							
		2-pipe				4-pipe			
Filter class	Model size	Length (A) ¹⁾ [mm]	Depth (B) [mm]	Bauhöhe (C) [mm]	Air flow [m³/h]	Heat output ²⁾ [W]	Cooling output ³⁾ [W]	Heat output ²⁾ [W]	Cooling output ³⁾ [W]
Filter ePM10>50% (M5)	1	616 / 736	262	650	294 – 914	4230 – 13534	1861 – 5594	2743 – 8997	1625 – 4824
	2	916 / 1036			341 – 1577	5035 – 23429	2346 – 9701	3899 – 18433	2087 – 8401
	3	1366 / 1486			606 – 2460	8884 – 36590	4080 – 15176	6867 – 28801	3637 – 13200
	4	1716 / 1836			695 – 3161	10329 – 47452	4886 – 19702	7981 – 37166	4292 – 16967
Filter ePM1>50% (F7)	1	616 / 736			211 – 838	3101 – 12488	1421 – 5188	2033 – 8339	1254 – 4482
	2	916 / 1036			215 – 1373	3325 – 20587	1631 – 8599	2604 – 16277	1477 – 7469
	3	1366 / 1486			403 – 2171	6138 – 32567	2957 – 13614	4784 – 25748	2676 – 11874
	4	1716 / 1836			425 – 2710	6617 – 41091	3325 – 17245	5198 – 32368	2974 – 14895

1) For control options: electromechanical without fault signalling contact / KaControl

2) at LPHW 75/65 °C, t_{l1} = 20 °C

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

KaDius

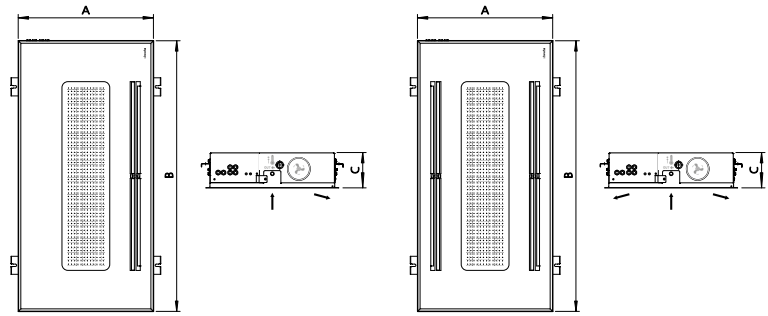


Model size	Dimensions		Height (B) [mm]	Air flow [m³/h]	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]	Sound pressure level [dB(A)]
	Diameter (A) [mm]	Height (C) [mm]					
1	852	208	224	282 – 896	2142 – 5691	4734 – 12970	25 – 55

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

2) at LPHW 75/65 °C, t_{l1} = 20 °C

KaDeck



Dimensions

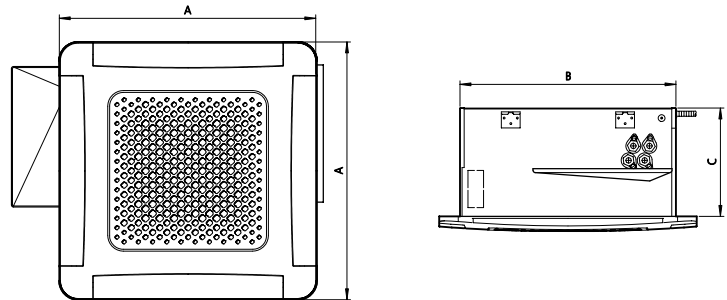
Version	Air outlet	System	Cooling output (dry) ¹⁾ [W]	Cooling output (wet) ²⁾ [W]	Heat output ³⁾ [W]	Grid dimensions	Width (A) [mm]	Length (B) [mm]	Height (C) [mm]
wet cooling	one-sided air outlet	2-pipe	134 – 752	346 – 1666	610 – 3247	600 x 600 mm 625 x 625 mm	598 620	1198 1240	165
		4-pipe	132 – 646	307 – 1348	468 – 1664				
	two-sided air outlet	2-pipe	244 – 1364	641 – 3010	1113 – 5852				
		4-pipe	243 – 1173	573 – 2442	868 – 3091				
dry cooling	one-sided air outlet	2-pipe	134 – 752	---	610 – 3247				
		4-pipe	132 – 646		468 – 1664				
	two-sided air outlet	2-pipe	244 – 1364		1113 – 5852				
		4-pipe	243 – 1173		868 – 3091				

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

KaCool DAF



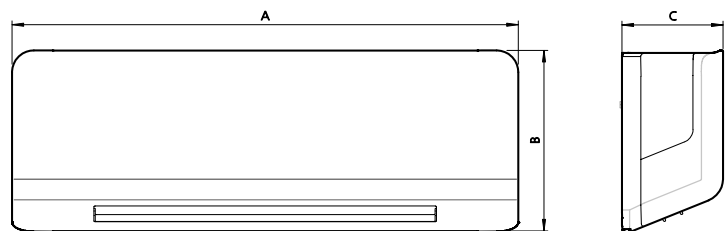
System

2-pipe		4-pipe		Model size	Panel (A) [mm]	Body (B) [mm]	Height (C) [mm]
Cooling output ¹⁾ [W]	Heat output ²⁾ [W]	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]				
1841 – 2829	4417 – 6614	1843 – 2623	3265 – 4554	1	680	572	286
2324 – 4495	5251 – 9854	2014 – 3366	3606 – 6144	2			
2602 – 4972	5901 – 11307	1998 – 3964	2524 – 4331	3			
3947 – 5377	9549 – 12468	2523 – 4409	3014 – 4731	4			
3627 – 7039	8483 – 16511	3429 – 6186	6029 – 11224	5	930	818	326
4328 – 9393	8966 – 20108	3915 – 7487	7256 – 13563	6			
5514 – 12078	12411 – 28539	4963 – 8454	9071 – 14602	7			

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

²⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

KaCool W

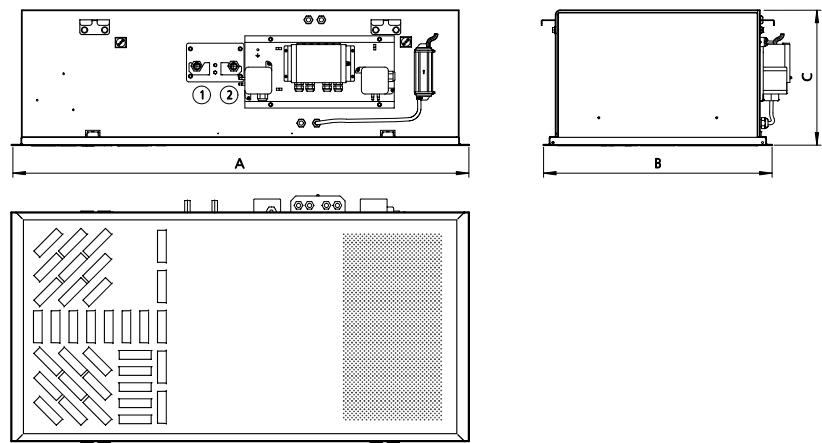


Fan version	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]	Model size	Dimensions (Cx B x A) [mm]
EC fan	1312 – 2288	3418 – 6612	1	185 x 333 x 930
	1523 – 2611	3951 – 6887	2	
	1715 – 3527	4424 – 9944	3	185 x 333 x 1235
	1964 – 4040	4917 – 10166	4	

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

²⁾ at LPHW 75/65 °C, t_{L1} = 20 °C

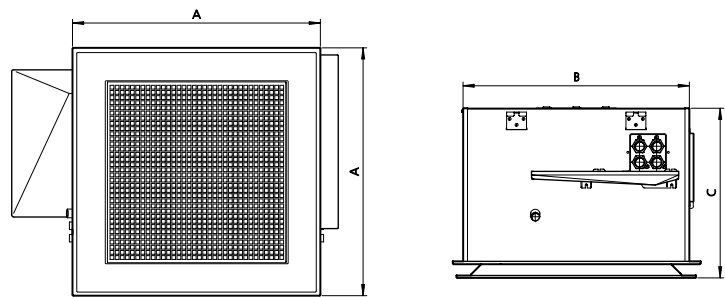
KaCool D HC



Filter class	Water connections	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]
Filter ePM1>85% (F9)	left right	580 – 4270	1140 – 9200
filter class H13		270 – 3500	510 – 7360

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

KaCool D HY



System											
Filter class	2-pipe		4-pipe		Model size	Panel (A) [mm]	Body (B) [mm]	Height (C) [mm]			
	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]	Cooling output ¹⁾ [W]	Heat output ²⁾ [W]							
Filter ePM10>50% (M5)	1154 – 2627	2848 – 6170	1103 – 2418	2012 – 4218	1	600	575	385			
	1352 – 4126	3132 – 9080	1293 – 3138	2276 – 5712	2						
	1565 – 4588	3542 – 10429	1169 – 3642	1654 – 4051	3						
	2266 – 4925	5917 – 11558	1643 – 4120	2131 – 4478	4						
Filter ePM1>50% (F7)	785 – 1997	1983 – 4768	722 – 1788	1349 – 3173	1						
	865 – 3002	2045 – 6704	897 – 2419	1557 – 4360	2						
	1029 – 3404	2325 – 7729	751 – 2659	1168 – 3161	3						
	1433 – 3555	3986 – 8726	1154 – 3203	1601 – 3654	4						

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

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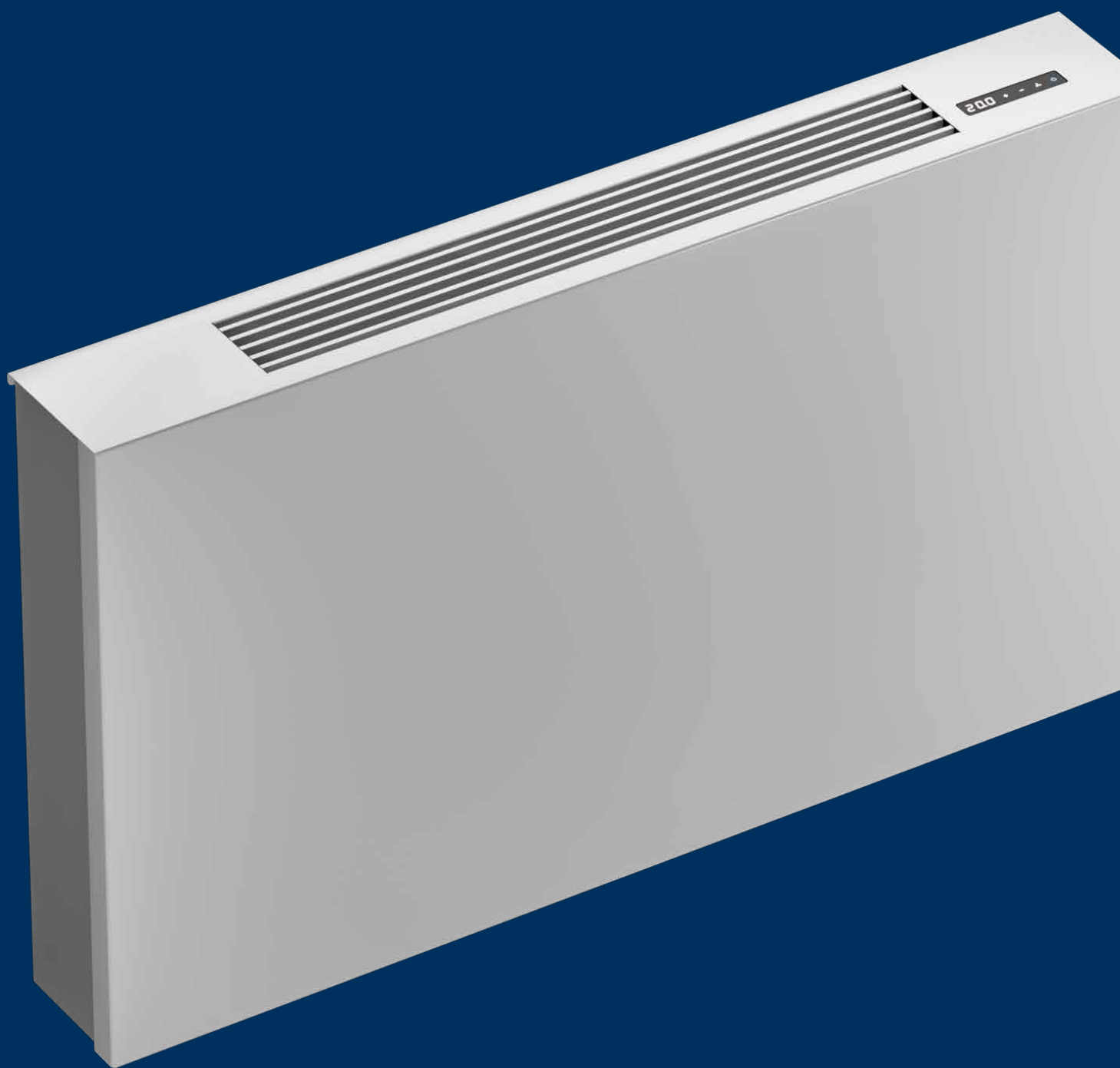
Calculate your product online:
kampmanngroup.com > Products > Fan Coils



Heat pump-based heaters

The cooling of buildings is becoming increasingly relevant. The typical products employed here include fan coils, which, as water-based systems, are as current and useful as never before. No wonder with all their benefits and versatile uses. Kampmann is at the forefront in different sectors.

- + cooling and heating in conjunction with heat pumps/chillers
- + no refrigerant circulating in the building and only small quantities used in the chiller
- + fast response times thanks to powerful and efficient EC fans
- + for every requirement for installation in and under the ceiling, suspended on the wall or free-standing
- + in hybrid systems to supply primary air and control the temperature of the recirculating air
- + for air conditioning in addition to surface temperature control



The low-temperature heat pump system



In almost all heating systems, the temperature of the heating water is crucial for their efficient operation. The exact temperature of this water depends on the combination of heat generator and heat consumer selected. For instance, if a gas heating system is replaced by a heat pump the supply temperature can be lowered. Adding a heat pump-based heater enables ultra-low supply temperatures to simultaneously generate high outputs.

- + improved efficiency
- + energy requirement
- + lower heating costs
- + reduced greenhouse gas emissions

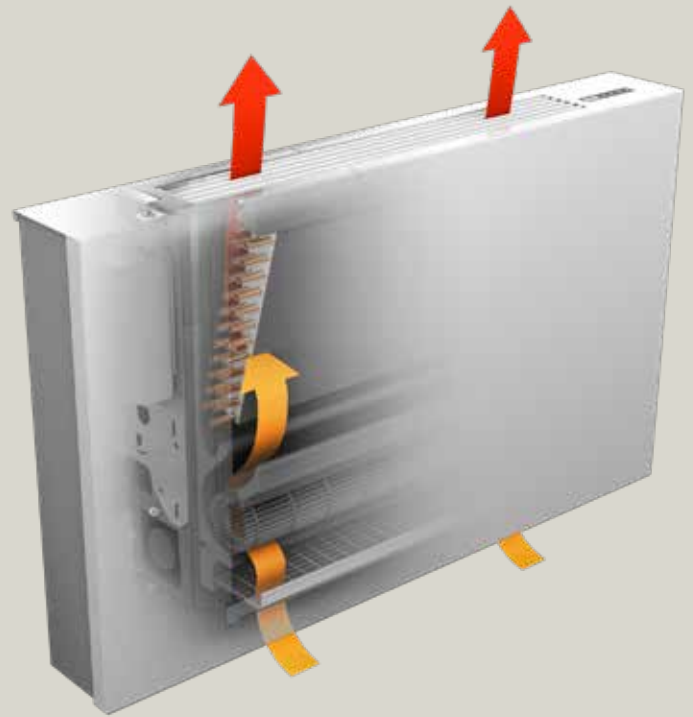
The heat pump-based heater for the home

PowerKon LT

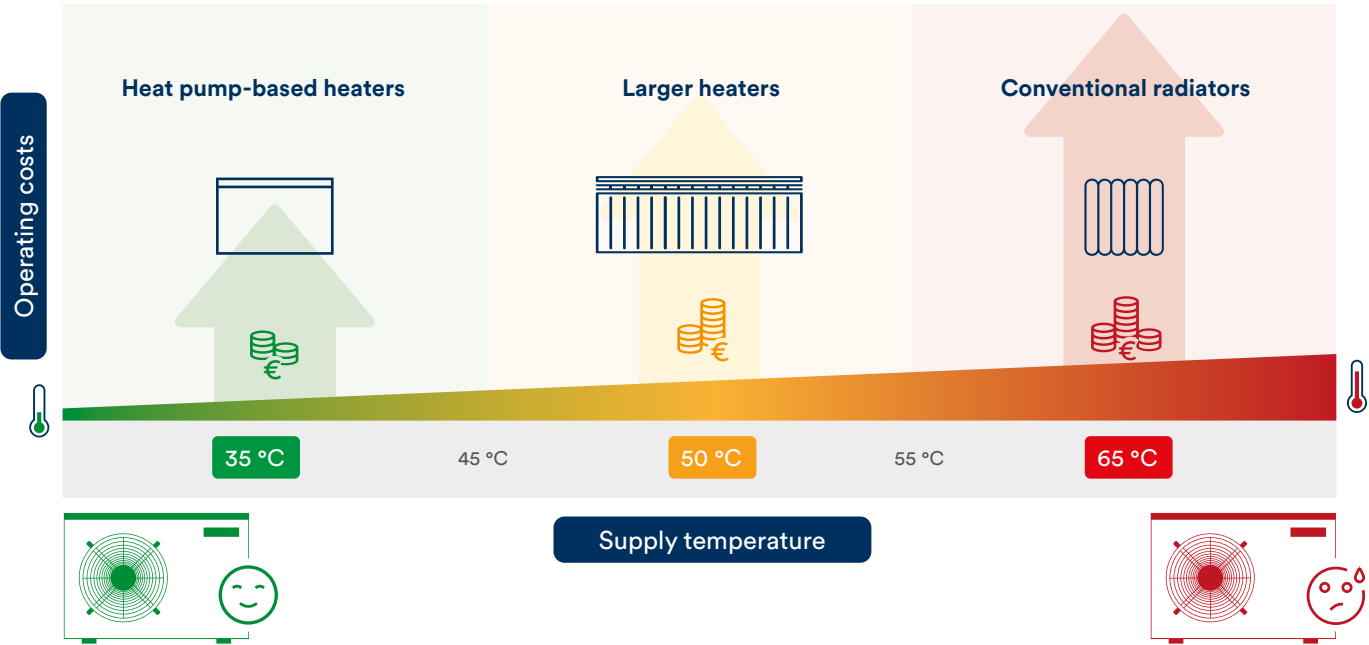
Fan-assisted heaters, also known as heat pump-based heaters or low-temperature heaters are ideal for use in new buildings to fully benefit from the cooling function of the heat pump. However, they are also very popular, especially in existing homes. The PowerKon LT makes it easy to switch from an oil or gas heating system to a heat pump.

And they can even have a cooling function, depending on the pipework and individual comfort requirements.

The myth that a heat pump in your own home only works with underfloor heating is long out of date. PowerKon LT units represent a convenient solution for use in the home.

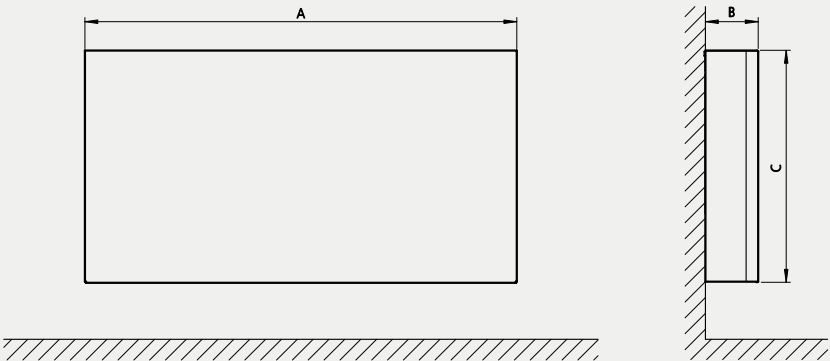


Benefits of heat pump-based heaters



PowerKon LT units fully exploit the benefits of heat pumps: low supply temperatures of 35 °C. Admittedly, heat pumps are frequently capable of delivering higher temperatures, but this is inefficient! A 35 °C low temperature system with a PowerKon LT works around 25 – 35% more efficiently than a high-temperature system operating at 55 °C.

PowerKon LT



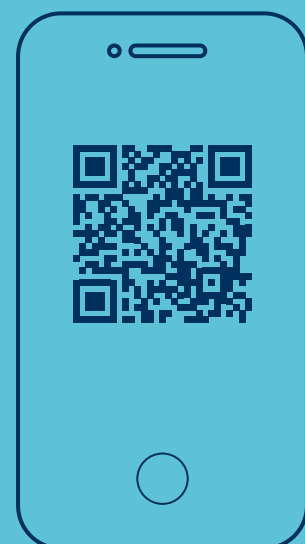
Model size	Dimensions (BxCxA) [mm]	Control option	Heat output ¹⁾ [W]	Cooling output ²⁾ [W]	Sound power level [dB(A)]
1	141 x 618 x 780	thermostat	720 – 1342	---	28 – 45
		Display			
		electromechanical 230 V	323 – 1342	293 – 1241	21 – 45
2	141 x 618 x 1030	thermostat	1125 – 2308	---	28 – 46
		Display			
		electromechanical 230 V	427 – 2308	394 – 2104	21 – 46
3	141 x 618 x 1220	thermostat	1353 – 2724	---	28 – 46
		Display			
		electromechanical 230 V	608 – 2983	555 – 2761	21 – 49

¹⁾ at LPHW 45/40 °C, t_{Li} = 20 °C
²⁾ at CHW 7/12 °C, t_{Li} = 27 °C, 48% relative humidity



Your digital product finder at www.kampmanngroup.com

Calculate your product online:
kampmanngroup.com > Products > Heat pump-based heater



Air handling units

The benefits that we offer you as a system provider are particularly evident with our air handling units.

Starting with simple combinations of our air handling units with swirl diffusers, compact units either stand-alone or together with local units, such as unit heaters, to our sophisticated individualised solution incorporating all the rules of air handling artistry.

- + standard compact and shallow air handling units
- + freely planned air handling units individually configured
- + large selection of heat recovery systems
- + innovative Ka2O technology for indirect evaporation cooling
- + expertise in offices, retail, hotels, swimming pools, hospitals ...
- + hybrid systems consisting of a central air handling unit for ventilation and heat recovery combined with local units for temperature control



KaCompact KG

Compact and versatile

The efficient heat recovery of the KaCompact KG ventilation unit is what sets it apart. It is achieved by integrated counterflow heat recovery and energy-efficient EC fans. Standard units guarantee fast delivery times and minimal need for training in terms of design, thanks to the freely available design tool, as well as installation and commissioning on site.

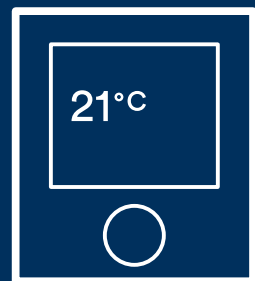


ICA

Control from A to Z

Our in-house control options offer a user-friendly interface for simple compact solutions through to complex special solutions. Their ease of use ensures the fast commissioning of the module.

Any other requirements? Remote system monitoring? Functional testing and instruction by Kampmann? Happy to help!



Design tool

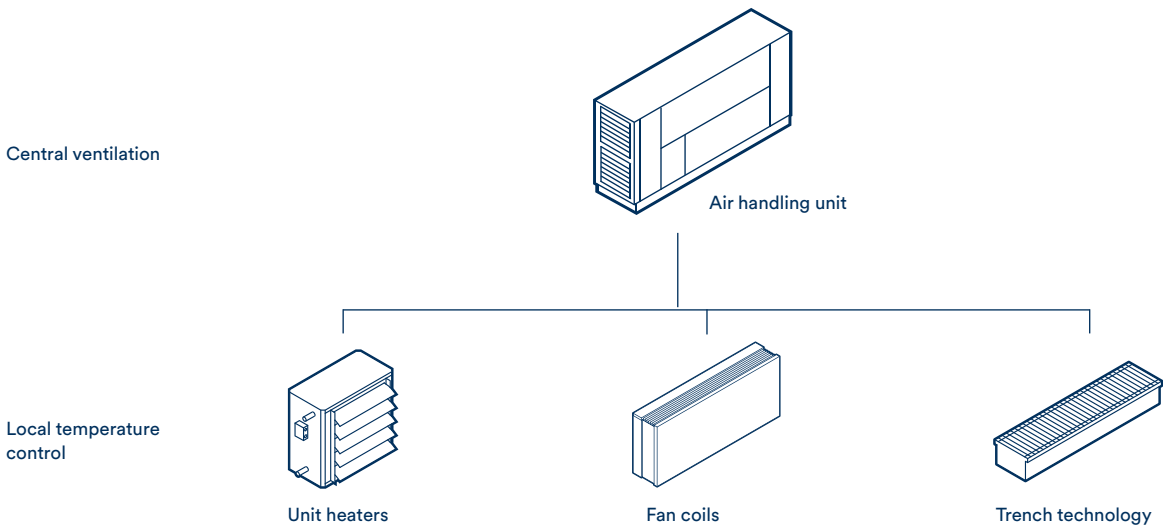
Kampmann offers comprehensive and intuitive design tools and project configuration aids for all products. All are freely available without the need to log in or register.

KaCompact KG units can be quickly and individually designed, thanks to their user-friendly and simple configuration.



Real team players

Hybrid ventilation concept

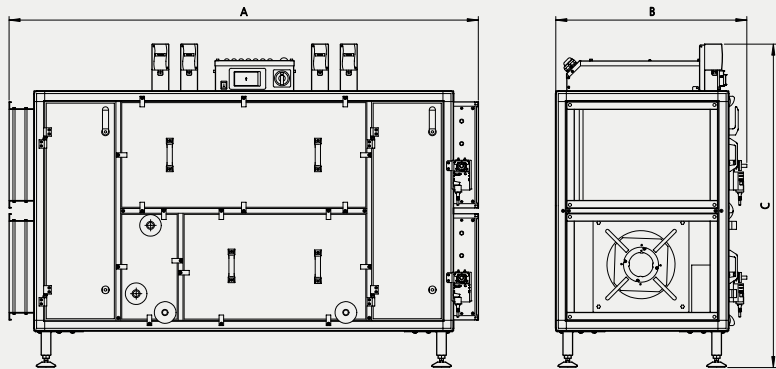


Hybrid ventilation systems are **bidirectional ventilation systems with efficient heat recovery**. **Temperature control is provided by local units** inside the room and not by the central ventilation unit (air handling unit). Primary air is only fed in if required. A CO₂ sensor monitors this specific requirement. Otherwise, the local units are operated with secondary air.

Hybrid ventilation systems make sense, as the use of water as a carrier medium is more efficient than air.

Our unit heaters are ideal for this in conjunction with our KaCompact range of units or individually configured air handling units.

KaCompact KG



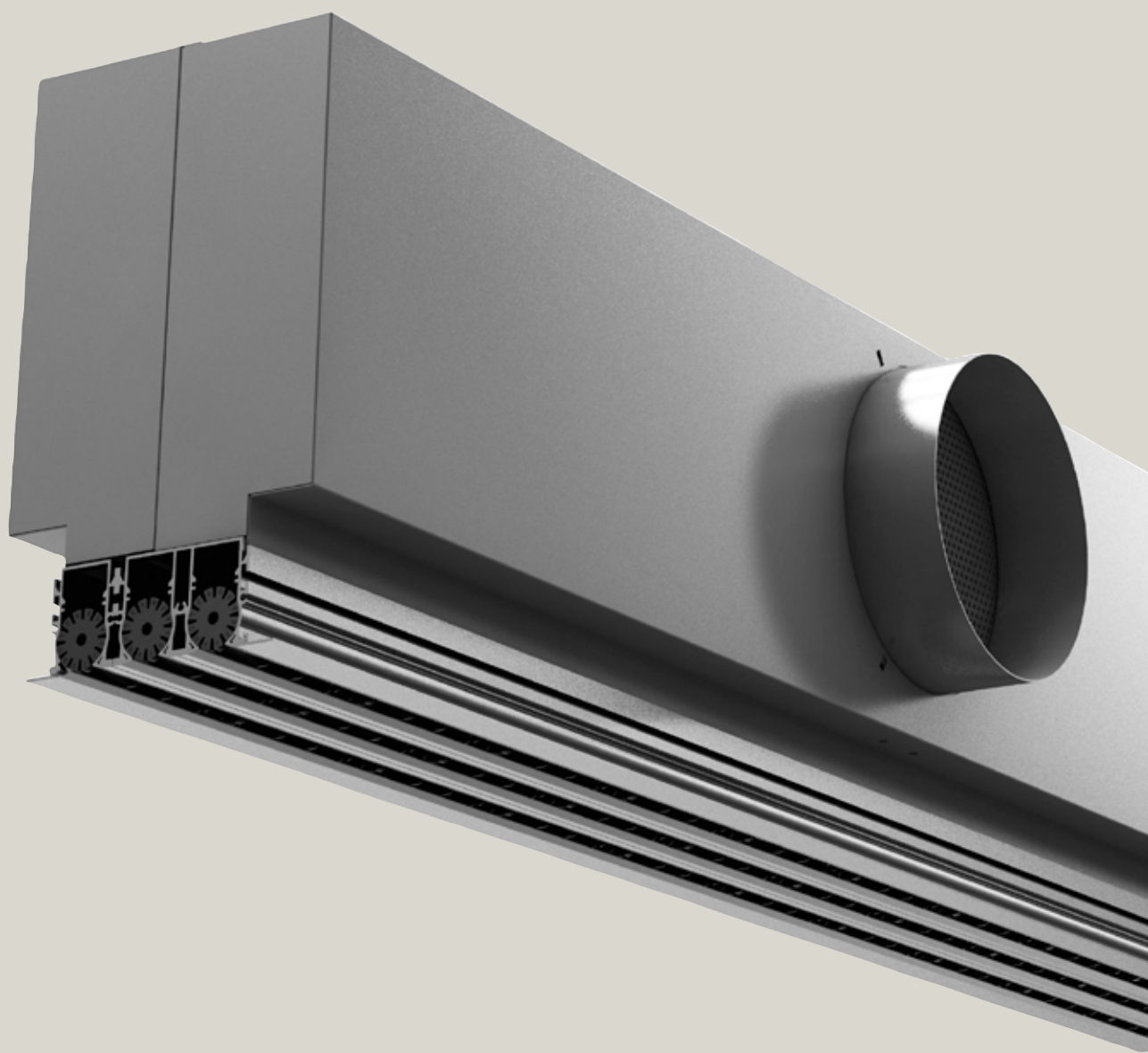
Model size	Dimensions (BxCxA) [mm]	Heat exchanger model	Version	Air flow [m³/h]	heat recovery output [W]
15	797 x 1348 x 1958	with heating register	horizontal	750 – 1500	7236 – 13889
	797 x 1445 x 1800		vertical		
	797 x 1348 x 1958	without register	horizontal		
	797 x 1445 x 1800		vertical		
25	797 x 1722 x 2507	with heating register	horizontal	1000 – 2500	9615 – 22810
	797 x 1870 x 2300		vertical		
	797 x 1722 x 2507	without register	horizontal		
	797 x 1870 x 2300		vertical		
40	944 x 2095 x 2908	with heating register	horizontal	1000 – 4000	10316 – 38417
	944 x 2095 x 2700		vertical		
	944 x 2095 x 2908	without register	horizontal		
	944 x 2095 x 2700		vertical		
60	1291 x 2095 x 3008	with heating register	horizontal	1500 – 6000	15426 – 57626
	1291 x 2095 x 2800		vertical		
	1291 x 2095 x 3008	without register	horizontal		
	1291 x 2095 x 2800		vertical		

Diffusers

Discreetly integrated into walls and ceilings or installed prominently as a statement feature. The possibilities are manifold with our wide range of diffusers for the comfort and industrial sector.

We will swirl, displace and mix until we find the perfect system for your project.

- + It's got character. Diffusers with the patented eccentric roller for project-based air outlet characteristics.
- + No compromise between large air volumes and comfort with swirl and slot diffusers.
- + Enjoy the benefits of dry walling with combined diffusers.
And supply air, extract air and sound insulation in one.
- + Call it a loft feature or industrial charm – tubular diffusers are truly eye-catching.
And hydraulic balancing? That's our job!



At your convenience

The required air volumes need to be fed into rooms with no draughts. **Benefit from our planning and design expertise alongside our market-leading products.** Together with you, we will take into account key influencing factors and physical principles to obtain a comfortable air intake: temperature and induction ratios, Coanda effect, and the critical air stream path. We are always there to help.

Displacement air

Fresh and unobtrusive

Displacement ventilation is the art of cooling a room by introducing primary air at a low pulse rate with only minimal undertemperature. When it's done well, it's as simple as it is brilliant.

It produces a pleasant pool of fresh air. Heat sources, such as human bodies or machines, cause the air to rise from this pool and dissipate heat loads. Up to 50 W/m². Our displacement air units can also be combined wonderfully with other systems, such as chilled ceilings.

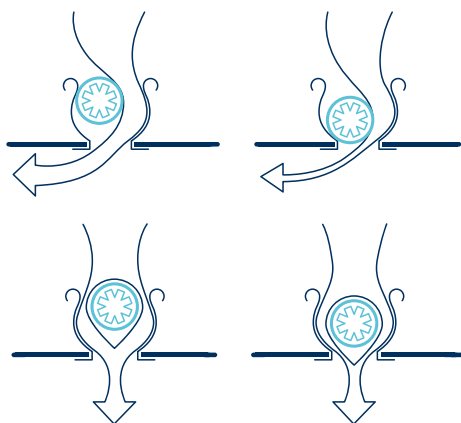
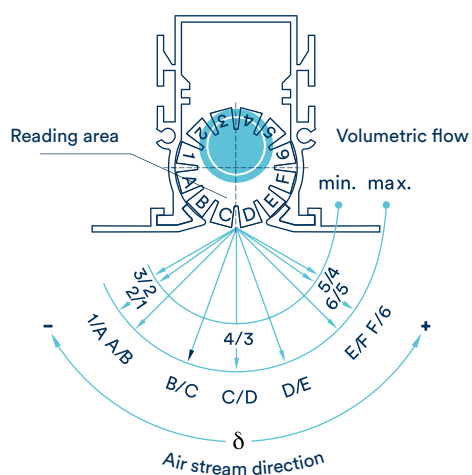
Tubular pipe system

To be honest: not everyone can do this.

Tubular pipe systems are totally on-trend and we are complete fans of them. Architects and users love their unique industrial charm in occupied zones. We look after the hydraulics. After all, it's not straightforward. **Over longer sections, the air from each section of pipe needs to be fed into the room evenly. Each outlet is set appropriately for this purpose.** It's a good thing that we don't leave anything to chance with our calculation software.

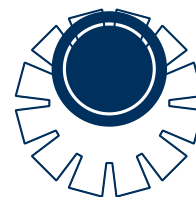


Control of the air flow direction



Our patented heart

Eccentric roller

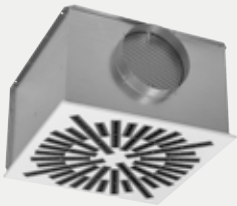


Many of our diffusers feature an eccentrically-borne roller, which **determines the air discharge characteristics depending on its position**. In summary, it makes our products very versatile for all requirements by influencing the air flow direction, the volumetric flow and the induction percentage. **At the design stage, the optimum calculated roller position is determined for each air outlet.** Have there been structural changes? All good! The eccentric roller can be adjusted at any time in situ.

Our diffusers at a glance

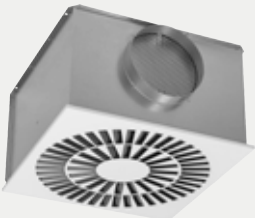
Swirl diffusers

Swirl diffusers are the undisputed champions when it comes to feeding high volumetric flows into occupied zones of all kinds. They are the only products capable of meeting the most exacting comfort standards at the same time as dissipating high thermal loads. This is made possible by the highly inductive Coanda ceiling air stream that rapidly mixes with the room air.



DAL358

- > eccentric roller for optimum factory air flow setting, adjustable in situ
- > monodirectional, bidirectional or rotating ceiling air stream
- > square ceiling grid dimensions or round front plate



DAL359

- > integral air guidance elements for individual air stream patterns
- > square ceiling grid or round front plate
- > with built-in eccentric roller



DRS

- > rigid fins, 45° position
- > with built-in eccentric roller

Tubular diffusers

With high-grade industrial-quality charm, tubular diffusers provide thermal comfort in occupied zones by means of clearly defined discharged air volumes.



RRA

- > total system features hydraulic volumetric flow compensation
- > precise air outlet positioning
- > also available as an oval diffuser (ORA)

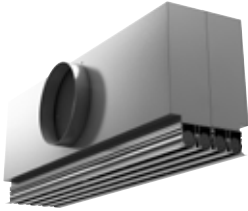
Slot diffusers

Precise air flow paths for the comfortable supply of air. For applications with temporarily cooled or heated air, and also featuring motorised adjustment of the discharge characteristics.



SAL 35

- > ceiling diffuser
- > 35 mm profile width
- > eccentric roller



SAL 50

- > ceiling diffuser
- > 50 mm profile width
- > eccentric roller

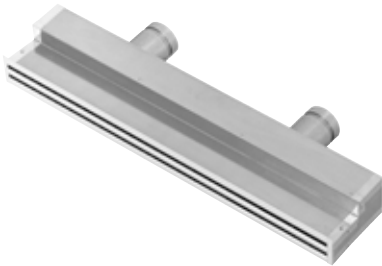


SDA

- > floor diffuser
- > load-bearing
- > visible width 38/59 mm (one-/two-row)

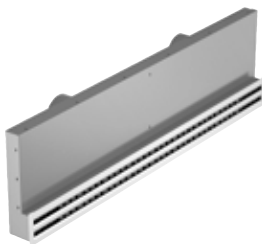
Combined diffusers

The continuous slot appearance of supply air and extract air units is just as popular as its maintenance and cleaning concept. All combined diffusers are fitted with sound insulation backing. Despite being connected to the corridor ceiling, discussions within the office remain confidential.



KSH

- > installation in dry walls at the height of a suspended ceiling



KSW

- > installation in dry walls below a suspended ceiling

Industrial diffusers

Any heat produced in halls is dissipated by stratification ventilation. And large penetration depths are needed for heating. The requirements are diverse. So is our product range.



IVA

- > displacement air diffuser in the shape of a column
- > air stream direction can be varied depending on whether heating or cooling



LDI

- > swirl diffuser
- > swirl blades for variable penetration depths of 3 to 32 m
- > large air volumes of up to 12,000 m³/h

Floor diffuser

The LBQ displacement air diffuser creates a lake of fresh air, which is perceived as very pleasant and comfortable by the occupants of the room. The integrated perforated plates below the grille create a low-pulse and even inflow of supply air into the occupied zone.

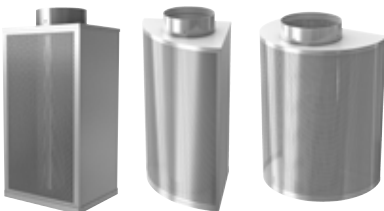


LBQ

- > for raised floors
- > perforated panel, roll-up or linear grille cover
- > round or oval spigots

Displacement diffusers

Fed in at very low speed, displacement air diffusers produce silent air conditioning that cannot be felt and efficiently uses natural thermal processes.



QAL

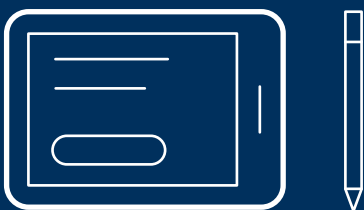
- > displacement air diffusers with plenum box
- > linear version
- > round version (180°, 90°)





Project support

Venkon + diffuser



Many of our partners appreciate the wide range of options we offer as a system provider. Our **fan coil and diffuser combinations** are becoming increasingly popular. **Venkon or Venkon XL** units provide convenient solutions with **SAL slot diffusers**. We will gladly take on the individual design of your project. You can rely on the optimum combination of all factors, such as air volumes and pressure losses.

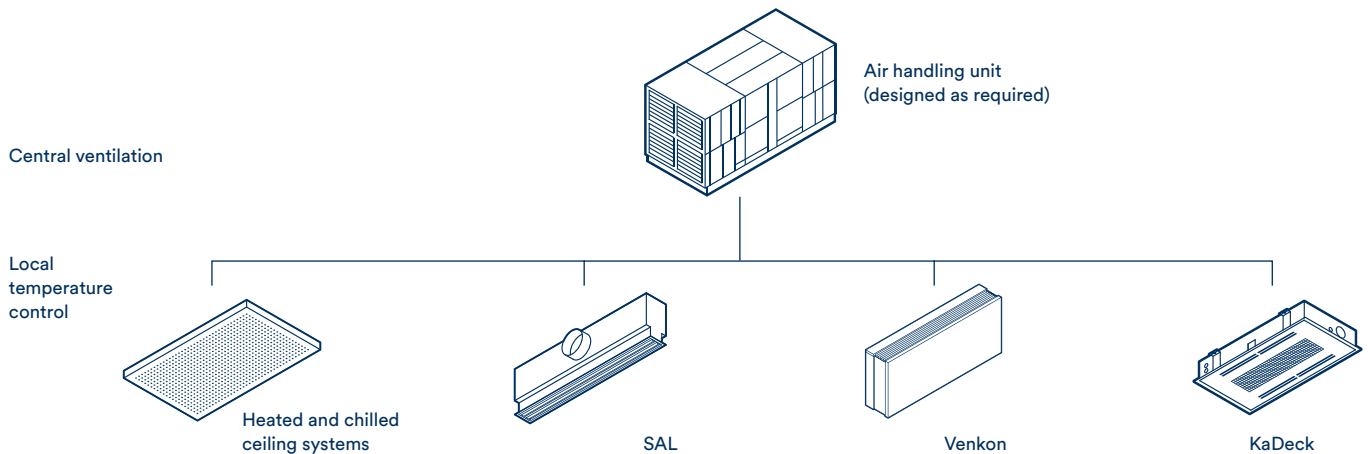
Structural acoustics

We measure and optimise our products in a **laboratory covering 2,000 m²** to achieve the best solutions for you. **That applies to our standard product range and also to your customised product solution.** Let's consider the issue of structural acoustics. We analyse the acoustic properties of wall-mounted units in our reverberation laboratory with transmitter and receiver room. Get in touch with us about your next project. Whether you are looking for ventilation units, overflow elements or combined diffusers.



Real team players

Hybrid ventilation concept



Individually designed air conditioning systems are realised by our ventilation specialists, without the use of refrigerant and with adiabatic evaporation cooling. Of course, the combination with our diffusers is obvious. But you get so much more from this one-stop shop. **A system in which the primary air from the air handling unit is fed in through slot diffusers precisely incorporated in a chilled ceiling is ideal for occupied zones.** The extract air is discharged with overflow elements into adjacent corridor ceilings and is extracted centrally. In the room, fan coils, such as Venkon or KaDeck units, meet the residual heat requirements. Just one example of our countless system solutions. Let's discuss your project.

Your digital product finder at www.kampmanngroup.com

Calculate your product online:
kampmanngroup.com > Products > Diffusers



Door air curtains

Kampmann door air curtains provide optimum screening of air conditioned doorways. They reliably perform wherever the indoor and outdoor climate meet directly.

- + minimal energy losses by screening cold outside air in winter
- + use of accumulated heat from the ceiling area to screen air
- + versatile use in retail outlets of all kinds, malls and public buildings
- + in summer they aid air conditioning systems when operated without heat, reducing the ingress of warm outside air, saving on cooling output and energy costs
- + fewer draughts: workstations can be arranged closer to the entrance area, maximising the use of the floor space



Comfortable indoor climate with open doors

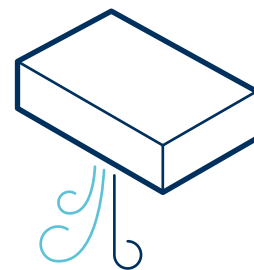
Open doorways are often simply necessary in the industrial sector. They aid the successful presentation of products in DIY stores and builder's merchants as well as shopping centres. Door air curtains are the product of choice to achieve this.

Visibly invisible



Opt for either our UniLine or Tandem door air curtains. **Visible below the ceiling or subtly recessed.** The air outlet and inlet are located on the underside of cassette UniLine or Tandem ceiling-mounted units.

Patented ambient and warm air curtain



Tandem and ProtecTor each produce two air curtains. **An unheated air curtain on the door side and a warm air curtain on the room side.** The ambient air curtain with its greater penetration depth pulls the warm air curtain down with it. **Air turbulence with the cold outside air occurs primarily with the ambient air curtain.**

Step this way

One small step and your customers will find themselves in a pleasant sales environment. Open doors lower customers' inhibition to enter a shop. And **the air screening effect enhances comfort in the entrance area**. Air curtains can also be used in malls and public buildings in a variety of ways.



Space gain at the doorway

Door air curtains contribute to improved comfort in doorways and loading areas. **Therefore, even with a shed-like layout, workplaces can be located closer to the doorway.** The same applies, of course, to the till area of retail stores.



Basic stage with the door closed

In applications where the doors are only closed for short periods of time, continuous operation at a basic load state makes sense even with closed doors. For comfort and efficiency. This is the only way to produce an adequate curtain of air as soon as the doors open. And, of course, we'll provide intelligent control as well.

Our door air curtains at a glance



Under-ceiling units



UniLine

- > for the controlled screening of cold air with open doors
- > Silent AutoMotion: the self-regulating discharge flap increases the penetration depth of the air stream, particularly at lower fan stages
- > air screening reduces energy losses and increases comfort in the entrance area



Tandem

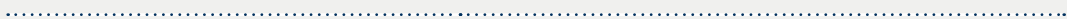
- > for the controlled screening of cold air with open doors
- > officially verified property right: European Patent EP 1462730
- > up to 38% energy savings through the patented separation of ambient and warm air streams (Tandem technology)

Ceiling cassette units



Cassette UniLine

- > for the controlled screening of cold air with open doors
- > Silent AutoMotion: the self-regulating discharge flap increases the penetration depth of the air stream, particularly at lower fan stages
- > air screening reduces energy losses and increases comfort in the entrance area



Tandem ceiling-mounted device



- > for the controlled screening of cold air with 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 (Tandem technology)



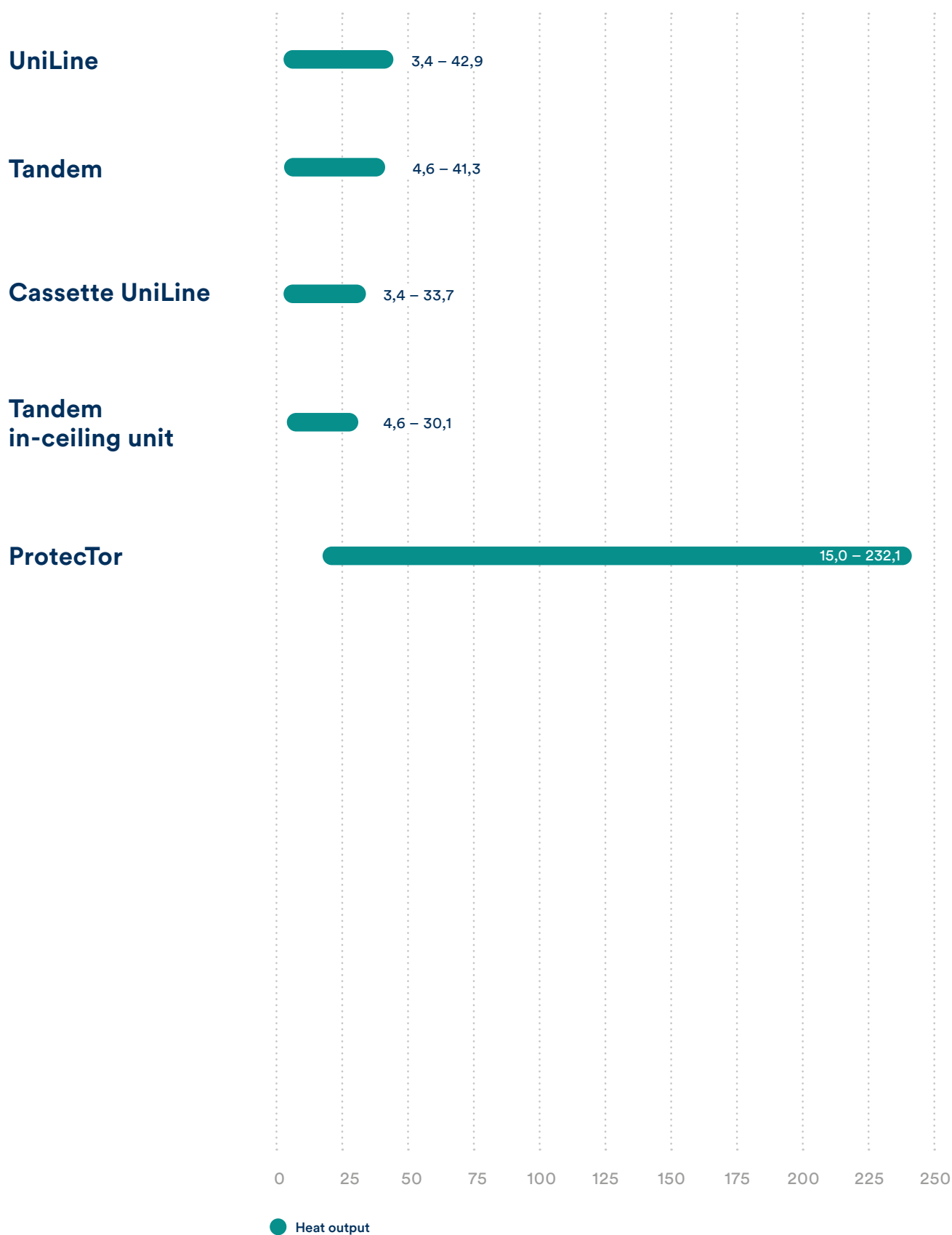
Door screening



ProtecTor

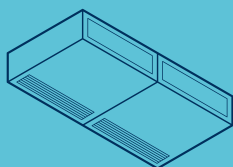
- > up to 38% energy savings through the patented separation of ambient and warm air streams
- > Coanda effect between the ambient and warm air streams
- > self-optimising back-up air stream when the fan speed changes

Heat output



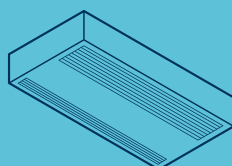


Fits every time



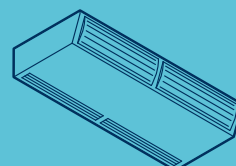
UniLine

Height	250
Depth	550
Length	1000 1500 2000 2500 3000



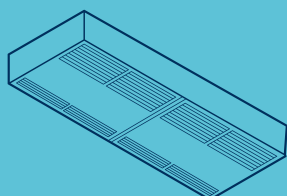
Cassette UniLine

Height	265
Depth	600 625
Length	1000 1500 2000 2500



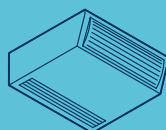
Tandem 300

Height	300
Depth	820
Length	1250 2000 2500 3000



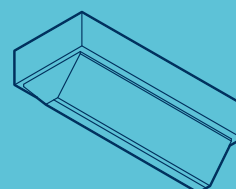
Tandem in-ceiling unit

Height	300
Depth	800
Length	1200 1950 2450 2950



Tandem 365

Height	365
Depth	985
Length	1250 2000 2750

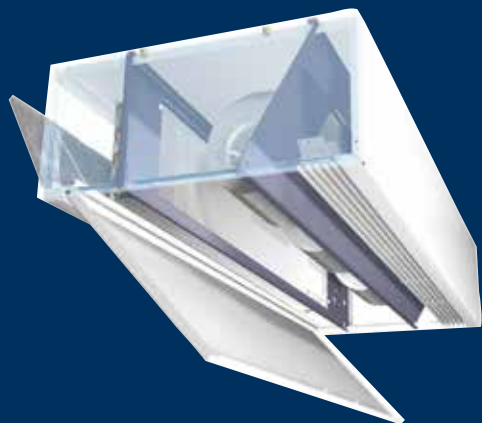


ProtecTor

Height	360 600
Depth	740 840 940
Length	2000 3000 4000 5000

Dimensions in mm

The in-house technician's friend

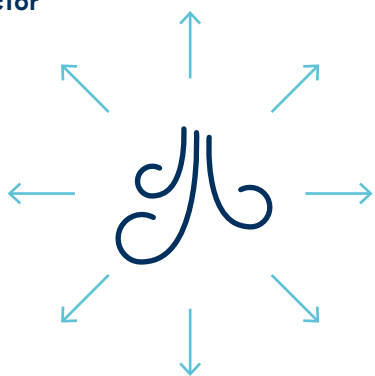


The maintenance concept for our UniLine is unrivalled. Make your in-house technician your friend: the large filter, including frame and intake grille, can be removed with ease. And what's more, **the entire base of the unit doubles as an inspection flap**. Naturally, perfectly secured.



Whichever way you look at it

ProtecTor



Depending on the type of doorway (roller gate, vertical sectional gate, horizontal sectional gate) and the arrangement of workstations, **ProtecTor door air curtains can be designed with horizontal or vertical units with different nozzle geometries**. The aim is to position the air discharge opening as close as possible to the doorway for efficient screening.

Continuously variable control

EC technology

Of course, our built-in EC fans can be continuously variably controlled. **For efficient operation and only the noise emissions that are really necessary.** Perfectly controlled by our compact controller or in the Kampmann KaControl MC system. **Or integrated into the building management system?** But of course. We'll take care of the interface.

SAM

UniLine

SAM stands for Silent AutoMotion. In our UniLine EC door air curtains, the technology ensures an even air discharge speed even at low operating stages.

This means that UniLine door air curtains can usually be operated in the partial load range. How come? A self-regulating flap in front of the air outlet varies the cross-section of the outlet. The air route is narrowed at low operating stages, and the air speed remains high.



Discharge height

UniLine

2.3 – 3.0 m



Tandem

2.7 – 4 m



ProtecTor

3.5 – 4.5 m



The payback argument

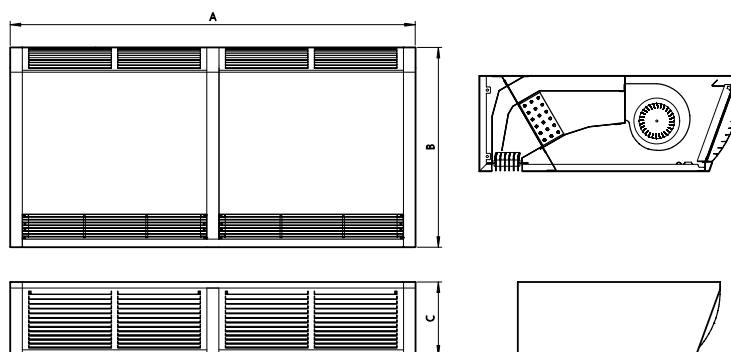
Our air curtains justify the investment in them after just a short time. Certainly the **UniLine stands out here with its outstanding value for money.** It is the right choice for simple applications and therefore provides you with a convincing argument to persuade your customers.

Fast delivery

Short delivery times give you flexibility and speed. After all, your customers rely on you. **We deliver all standard units in the shortest possible time.** Put your trust in Kampmann.

It's your choice

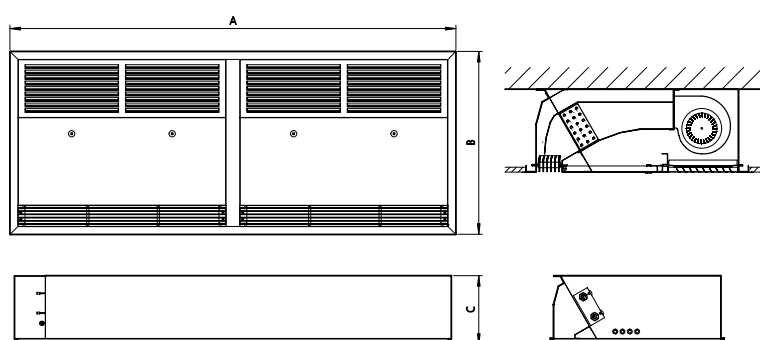
Tandem



Fan version	Version	Max. door width [m]	Length (A) [mm]	Dimensions		Heat output [kW]	Model size
				Depth (B) [mm]	Height (C) [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

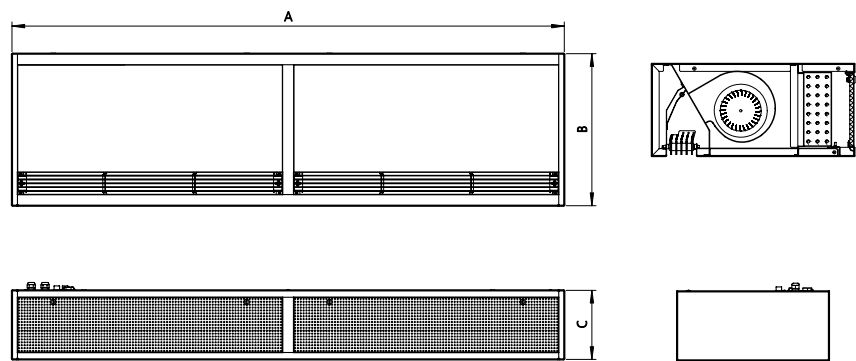
Tandem in-ceiling unit



Fan version	Max. door width [m]	Length (A) [mm]	Dimensions		Heat output [kW]	Model size
			Depth (B) [mm]	Height (C) [mm]		
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

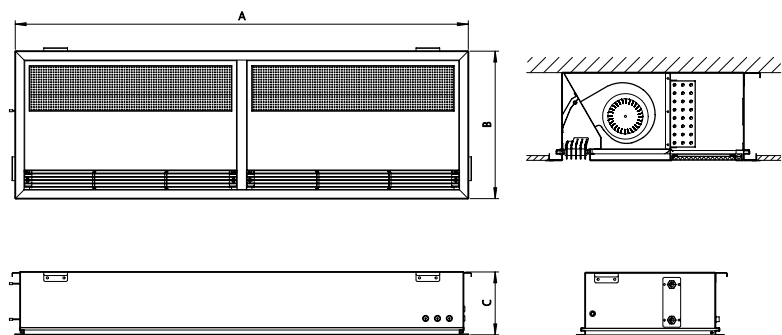
Uniline



Fan version	Max. door width [m]	Length (A) [mm]	Dimensions		Heat output [kW]	Model size
			Depth (B) [mm]	Height (C) [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			11.2 – 42.9	30

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

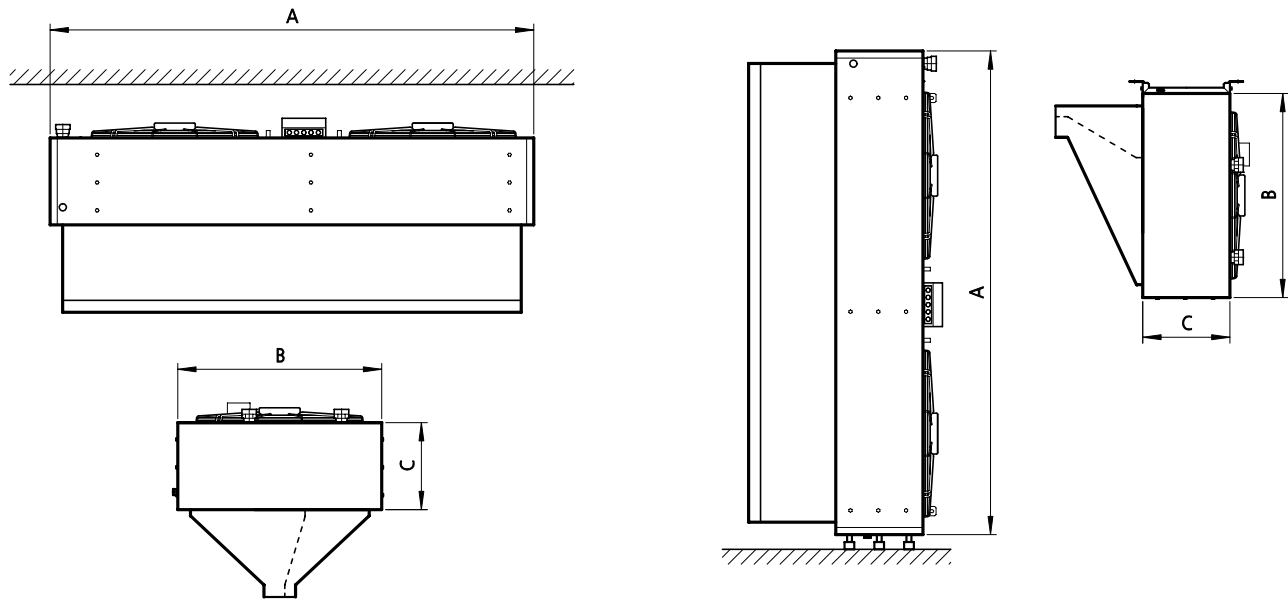
Cassette UniLine



Fan version	Max. door width [m]	Length (A) [mm]	Dimensions		Heat output [kW]	Model size
			Depth (B) [mm]	Height (C) [mm]		
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

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

ProtecTor



Model size	Dimensions			Max. discharge height or width	Max. door width or height	Heat exchanger model ¹⁾	
	Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]			copper/aluminium Heat output [kW]	steel galvanised Heat output [kW]
20	2000	740	360	3,5 m	2	15.0 – 49.6	15.0 – 49.6
30	3000				3	22.4 – 74.4	22.4 – 74.4
40	4000				4	30.0 – 99.3	30.0 – 99.3
50	5000				5	37.3 – 123.8	37.3 – 123.8
20	2000	840	360	4,5 m	2	22.4 – 71.2	22.4 – 71.2
30	3000				3	33.7 – 107.2	33.7 – 107.2
40	4000				4	45.0 – 143.3	45.0 – 143.3
50	5000				5	56.1 – 178.8	56.1 – 178.8
30	3000	940	600	6,0 m	3	34.4 – 130.0	31.5 – 117.3
40	4000				4	47.4 – 180.4	43.6 – 163.2
50	5000				5	60.7 – 232.1	55.9 – 210.3

¹⁾ at LPHW 75/65 °C, t_{LT} = 20 °C

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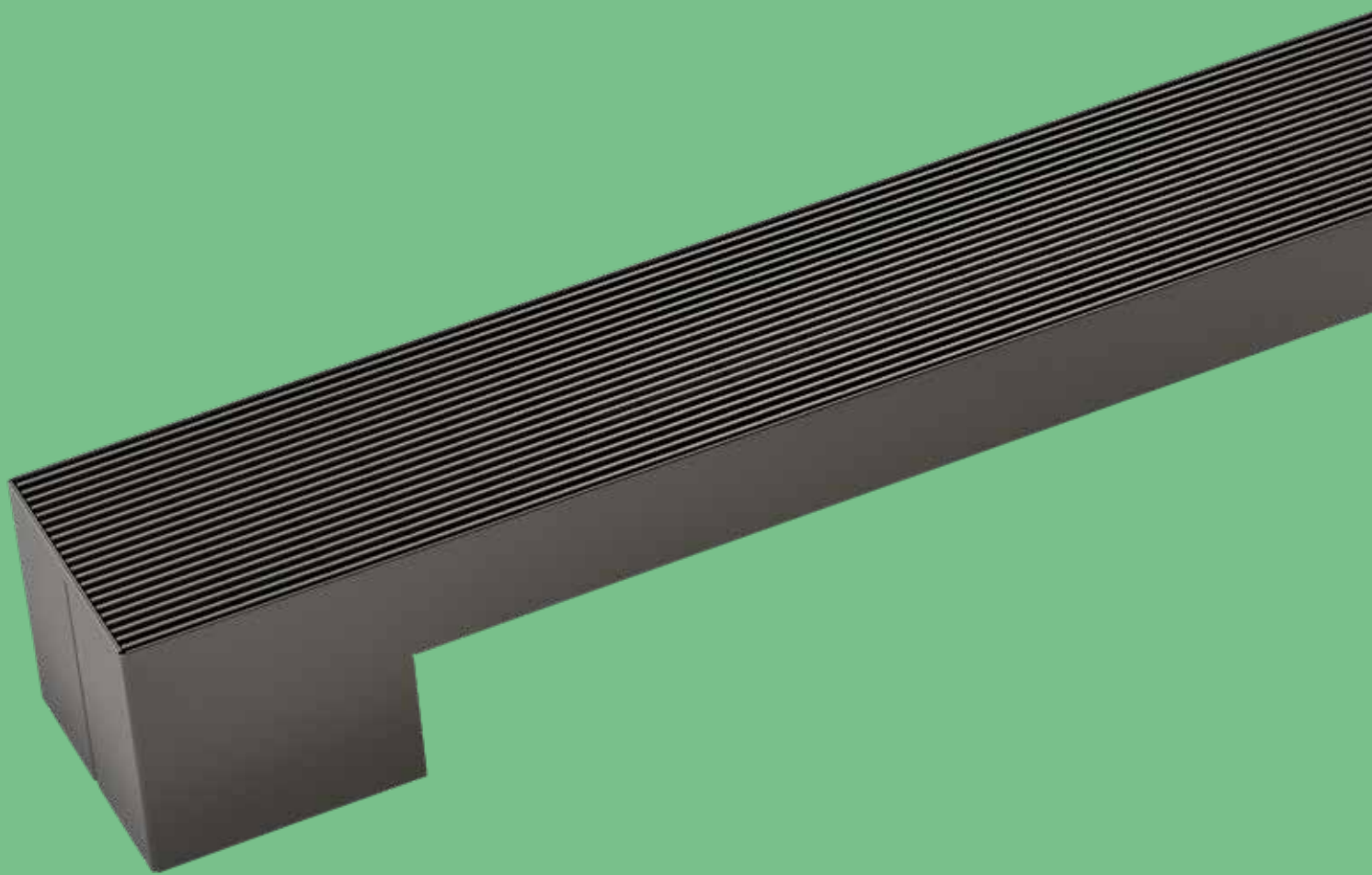


Convectors

Our low-temperature convectors are durable and responsive. Find the right version for private or commercial use, wall-mounted or as a free-standing heater.

Opt for Kampmann steel convectors to fit within cladding by others or within our PowerKon range of casings. Ultra-responsive: the PowerKon nano with fan assistance.

- + Maximum flexibility thanks to a wide range of products with or without casing.
- + All convectors are suitable for low temperature operation.
- + PowerKon nano with EC tangential fan for ultra-fast responsiveness with low noise emissions



Surprisingly versatile

You'll never compromise on quality when heating with convectors, whether in the form of architecturally made-to-measure convectors, discreet radiators or as free-standing design elements.

All Kampmann convectors are designed with high-quality heat carriers.

At the window

PowerKon + F

Admittedly, trench convectors are the go-to units under floor-to-ceiling windows or glazed façades. But this is not always possible, or perhaps you have a different design in mind.

Then PowerKon +F convectors are the solution for your project. Ultra-discreet and equally effective, thanks to their **high-quality copper-aluminium heat carriers**. And durable with **phosphated, powder coated sheet steel covers**.

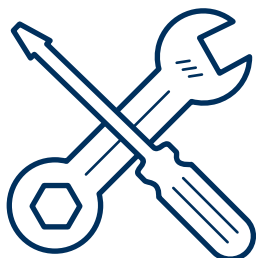
But our be-all and end-all is finding the perfect solution for you.





Easy to install and maintenance-friendly

Let's ask people



We always have our ear to the market. We know from talking to tradespeople and designers that **sturdy metal casings** are of great importance to them and that a **simple maintenance concept** will keep installers and users happy for many years to come. Who would we be if we didn't take that to heart? You can rely on our convectors.

It's your choice

PowerKon nano

We have incorporated our entire **knowledge and expertise of trench technology into the PowerKon nano**. The **EC tangential fan** provides optimum flow through the copper-aluminium heat exchanger. And yet its operating noise is scarcely audible, our trademark with our trench technology and fan coils. And this free-standing convector cannot fail to attract admiring glances.

Its high-quality casing can be designed in any RAL colour and the design roll-up grille is extremely fine.

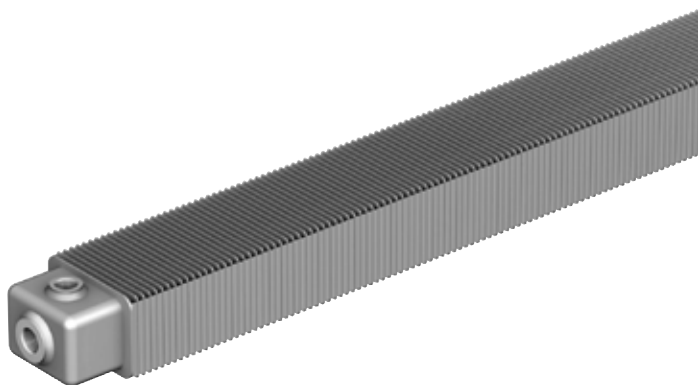


Steel is simply good

Steel convectors are sturdy, customisable and sensibly integrated timelessly into your project.

Kampmann will manufacture units in a variety of lengths, widths and heights – either straight or even curved. **Designed as low-temperature units, steel convectors are perfect for providing full-room air conditioning or as a module for “transitional heating”.**

And yet, at the same time, the unit is virtually invisible. The convectors are discreetly integrated into structural wall casings or are hidden in underfloor trenches covered by design roll-up grilles.



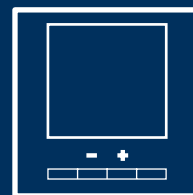
Steel convectors are also durable, reliable and silent. In the best sense, they leave you in peace year after year. This is because the **galvanised steel fins are carefully protected against corrosion.**

Control options

Simple systems, simple control



Room thermostat



Clock thermostat

We offer various control units in conjunction with thermoelectric actuators. For instance the flush-mounted room thermostat provides a **setpoint setting with main switch and separate switching input for night setback**. The **clock thermostat with display** provides even greater convenience. **Configure three individual operating modes with up to six switching stages for each day.**

Unobtrusive

PowerKon + W

If our products had a character of their own, then the PowerKon +W would be the selfless type. It fades into the background and really never wants to be noticed. At least not visually. However, its inner life is as multifaceted as its design is restrained. Our copper-aluminium heat carrier also **performs its service in absolute silence in this wall-mounted convector**.

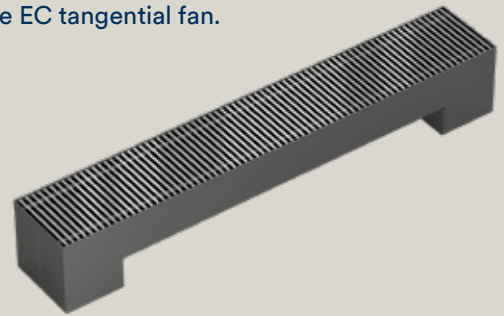
But even if you take a closer look at its exterior, say during installation or maintenance, you learn to appreciate the details.

The one-piece casing, for example, can be fitted and dismantled without the need for a tool. Or its air discharge grille – either perforated or in the form of a linear grille. Take the time to get to know it.

The solution

PowerKon QE

The PowerKon QE with electric heating coil offers the ideal solution when the use of a low pressure hot water convector is impossible. The high-output **electric heating coil** delivers high heat outputs in conjunction with fan assistance provided by the EC tangential fan.



Whether for new build or refurbishments: **One width. One height. Three lengths** – the PowerKon QE impresses with its compact strength. There is no need for more. Every convector is designed for heating and noise efficiency.



Casings

Wall-mounted models for Kampmann convectors and fan coils

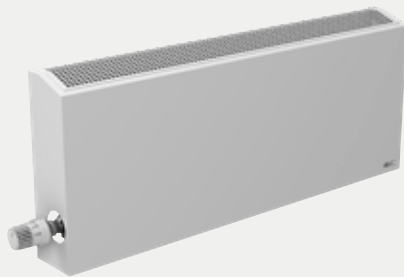
Our customised casings are robust and multifunctional. **It all comes down to precise site measurement, which we would be happy to provide.**

It's how we provide the basis for your individual wall casings for natural convection-based and fan-assisted systems.

And if you also wish to incorporate comfortable radiant heat, the **front panels can also be designed to carry water**. Designed to perfection, taking into account structural elements like columns, and concealing structural tolerances discreetly in the shadow joints between individual casing units.

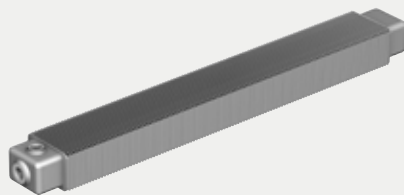
Our convectors at a glance

Wall-mounted convectors



PowerKon + W

- > convector optimised for use with low water temperatures
- > fast response due to low water content
- > low surface temperature



Steel convector

- > heating with LPHW
- > natural convection
- > in casings or trenches (in-floor installation)

Free-standing convector



PowerKon + F

- > convector optimised for use with low water temperatures
- > fast response due to low water content
- > low surface temperature



PowerKon nano

- > free-standing and versatile
- > usual quietness and high performance
- > EC fan - efficient in terms of noise and energy

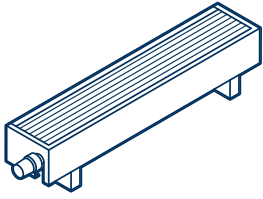


PowerKon QE

- > ideal solution without hot water connection
- > free-standing and versatile in a slimline design
- > high-quality look thanks to powder-coated steel housing

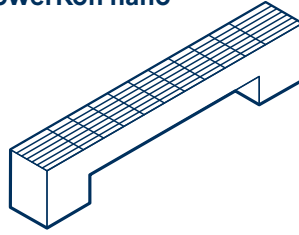
Fits every time

PowerKon + F



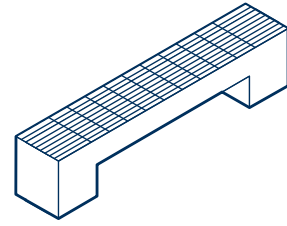
Height	80 130
Depth	130 180 230
Length ¹⁾	600 – 2600

PowerKon nano



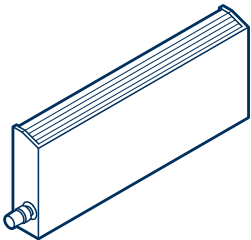
Height	160
Depth	160
Length	950 1150 1400 1800 2150

PowerKon QE



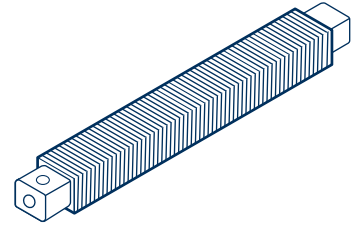
Height	200
Depth	205
Length	825 1250 1700

PowerKon + W



Height	250 400 550 700
Depth	70 120 170 220
Length ¹⁾	600 – 2600

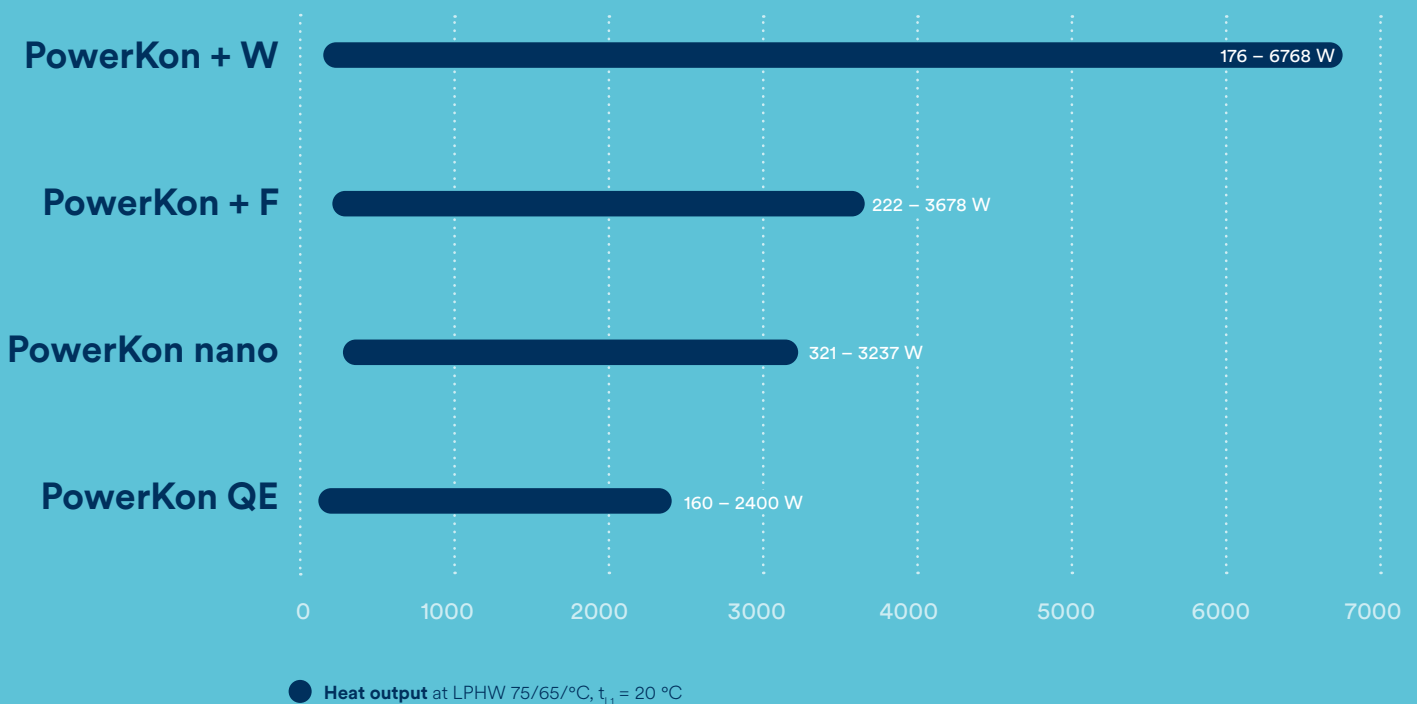
Steel convector



Height	70 150
Depth	50 100 150 200 250 300
Length ²⁾	500 – 5000

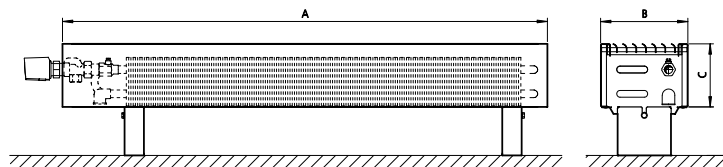
Dimensions in mm ¹⁾ 200 mm increments ²⁾ 100 mm increments

Performance data



It's your choice

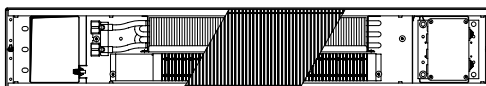
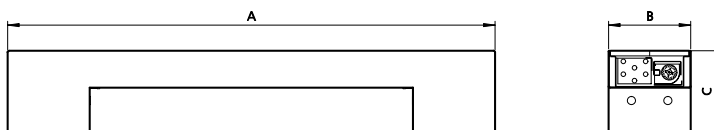
PowerKon + F



Heat output ¹⁾ [W]	Height (C) [mm]	Depth (B) [mm]	Length (A) [mm]
222 – 1292	80	130	600 – 2600
310 – 1802		180	
466 – 2712		230	
313 – 1821	130	130	
461 – 2685		180	
632 – 3676		230	

¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

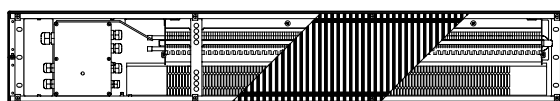
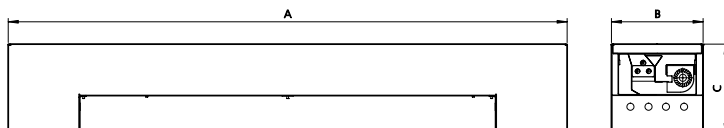
PowerKon nano



Heat output ¹⁾ [W]	Width (B) [mm]	Height (C) [mm]	Length (A) [mm]	Control option
321 – 851	160	160	950	electromechanical 230 V electromechanical 24 V
497 – 1317			1150	
646 – 1713			1400	
971 – 2574			1800	
1221 – 3237			2150	

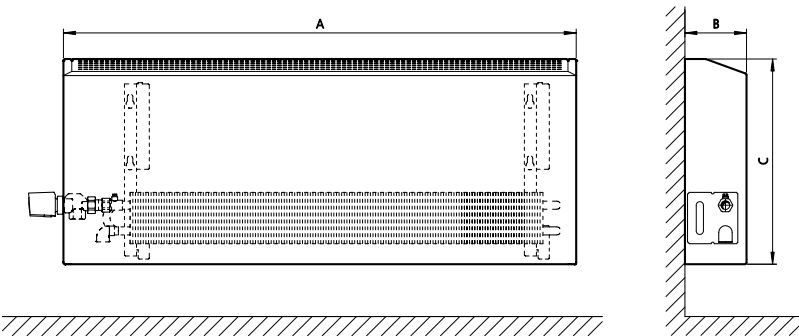
¹⁾ at LPHW 75/65 °C, t_{l1} = 20 °C

PowerKon QE



max. heating capacity [W]	Width (B) [mm]	Height (C) [mm]	Length (A) [mm]
160 – 800	205	200	825
320 – 1600			1250
480 – 2400			1700

PowerKon + W

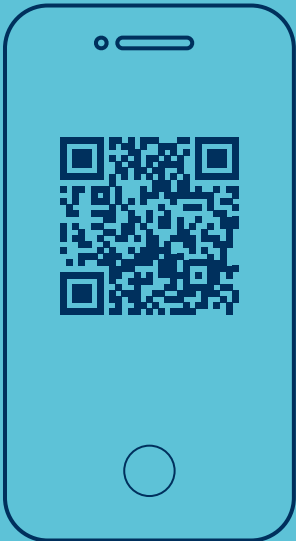


Heat output ¹⁾ [W]	Height (C) [mm]	Depth (B) [mm]	Length (A) [mm]
176 – 1044	250	70	600 – 2600
354 – 2100		120	
529 – 3143		170	
711 – 3870		220	
197 – 1169	400	70	600 – 2600
417 – 2477		120	
637 – 3785		170	
891 – 4849		220	
216 – 1284	550	70	600 – 2600
482 – 2860		120	
752 – 4468		170	
1021 – 5561		220	
224 – 1330	700	70	600 – 2600
515 – 3057		120	
801 – 4755		170	
1140 – 6205		220	

¹⁾ at LPHW 75/65 °C, t_{int} = 20 °C

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Local ventilation units






It is with good reason that local ventilation units are popular in building refurbishments. Local units allow the room to breathe again at the latest when retrofitted façade insulation cuts off the air. And they do so with relatively minimal intervention to the structure of the building.

Local solutions are becoming more popular in new buildings as well. No wonder, because when it comes to individual room air conditioning, they have many advantages over their big brother, the centralised unit.

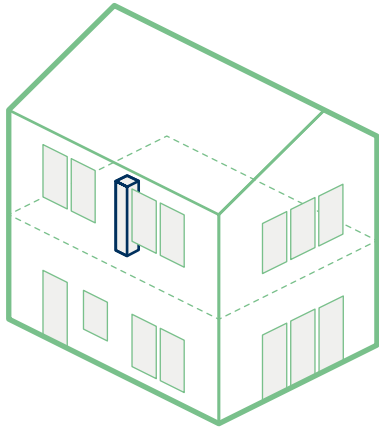
- + healthy indoor climate with precise air change
- + range of units from pure ventilation to full air conditioning units
- + local ventilation including heat recovery



Our local ventilation units at a glance

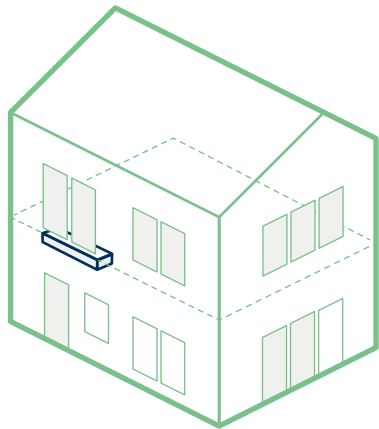
	Supply air	Extract air	Heating 	Cooling 	Heat Pump ready 	Heat recovery	Moisture recovery	Secondary air	2- and 4-pipe	Supply air volume flow
Cabinet unit WZA 	✓	✓	✗	✗	✗	✓	✓	✗	✗	1000 m³/h
Trench technology UZS 	✓	✓	✓	✓	✓	✗	✗	✓	✓	120 m³/h

Installed



Façade units

- > When you opt for local full air conditioning in new buildings, you opt for façade ventilation.
- > From the outside, the cladding options are so varied that façade units are often regarded as design elements rather than technical building services units.



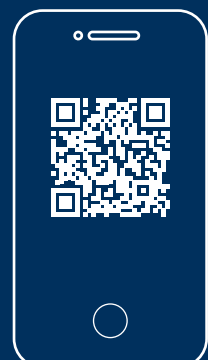
Trench technology

- > It doesn't get more space-saving and unobtrusive than this. There's something for everyone from simple solutions to high-end units with heat recovery and mixed air operation.
- > And they come with a wide range of design grille covers.

All units are optionally available with factory-fitted controls, room control units and interfaces for all popular building automation systems

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Finally ventilation in schools

Healthy, automatic and quiet

Mechanical ventilation in schools is finally getting the attention it deserves to contain disease waves. However, let's not forget that a low concentration of CO₂ is needed throughout the year for concentrated work.

Adequate supply air and very low noise emissions are mandatory with modern ventilation technology. Our **WZA** operates in nominal air mode with a sound pressure level of only 35 dB(A) and delivers 800 m³/h – naturally with 100% outside air and heat recovery.

One-button operation enables users to intuitively switch through Automatic and Shock ventilation modes, as well as Stage 1 and Stage 2.

Mixed air versus displacement air

There's a definite answer in classrooms

Displacement ventilation is fantastic in offices: a temperature-controlled air volume for around four people is fed in at a low pulse rate and at a slight undertemperature close to floor level. This air rises by the thermal effects of machines and people, displacing the room air.

This is not possible in classrooms! The larger volume of cool supply air for 25 to 30 students would be extremely uncomfortable. The teacher would quickly switch off the unit. What is more, the low-pulse supply of air would be incapable of ventilating the classroom evenly and fully throughout the year.

Mixed ventilation is therefore the right choice in schools. It feeds in large volumes of air along the ceiling of the room, which then sink down into the entire room at low air speed and flush through it. With no draughts!

Moisture recovery

Local school ventilation unit WZA



This component has it all: the enthalpic exchanger in the WZA recovers a large part of the heat or cold from the extract air. **But to a greater extent, by recovering moisture, it also protects the students' natural viral defences.** We now know that adequate humidity in a room protects people's nasal mucous membranes, strengthening their own viral barrier. The residual risk of infection is thus halved.

Incidentally, the enthalpic exchanger does not produce condensate and so is easier to install and operate.



High-end ventilation from the floor

UZZ

The UZZ local ventilation unit is packed with high-quality components for supply air, secondary air, heating and cooling. The underfloor unit is placed directly along the façade, usually under floor-to-ceiling windows. The air routing is designed for maximum comfort. **Only a 345 mm wide design grille is visible**, which can be easily removed. This means that all components can also be removed for maintenance.



Local ventilation in offices

The demands for a comfortable working environment are becoming ever greater

How do employees in offices work in a focused and motivated way? Fortunately, operators, investors and, above all, architects of office buildings are asking this question when it comes to design.

Because, after all, well-thought-out structural concepts all contribute to enhancing performance at the workplace. **A pleasant working environment might include, for example, a clear view outside.** The use of glazed façades has therefore been very popular for some time. It allows plenty of daylight to flood into the offices, but at the same time increases the heat load. The IT systems do the rest. A challenging environment for efficient air conditioning, which also needs to take into account increased demands on the part of employees. Temperature, air movement, acoustic stress as well as other air quality factors, such as humidity and CO₂ content – all this needs to be controlled with air conditioning systems for ventilation, cooling and heating.

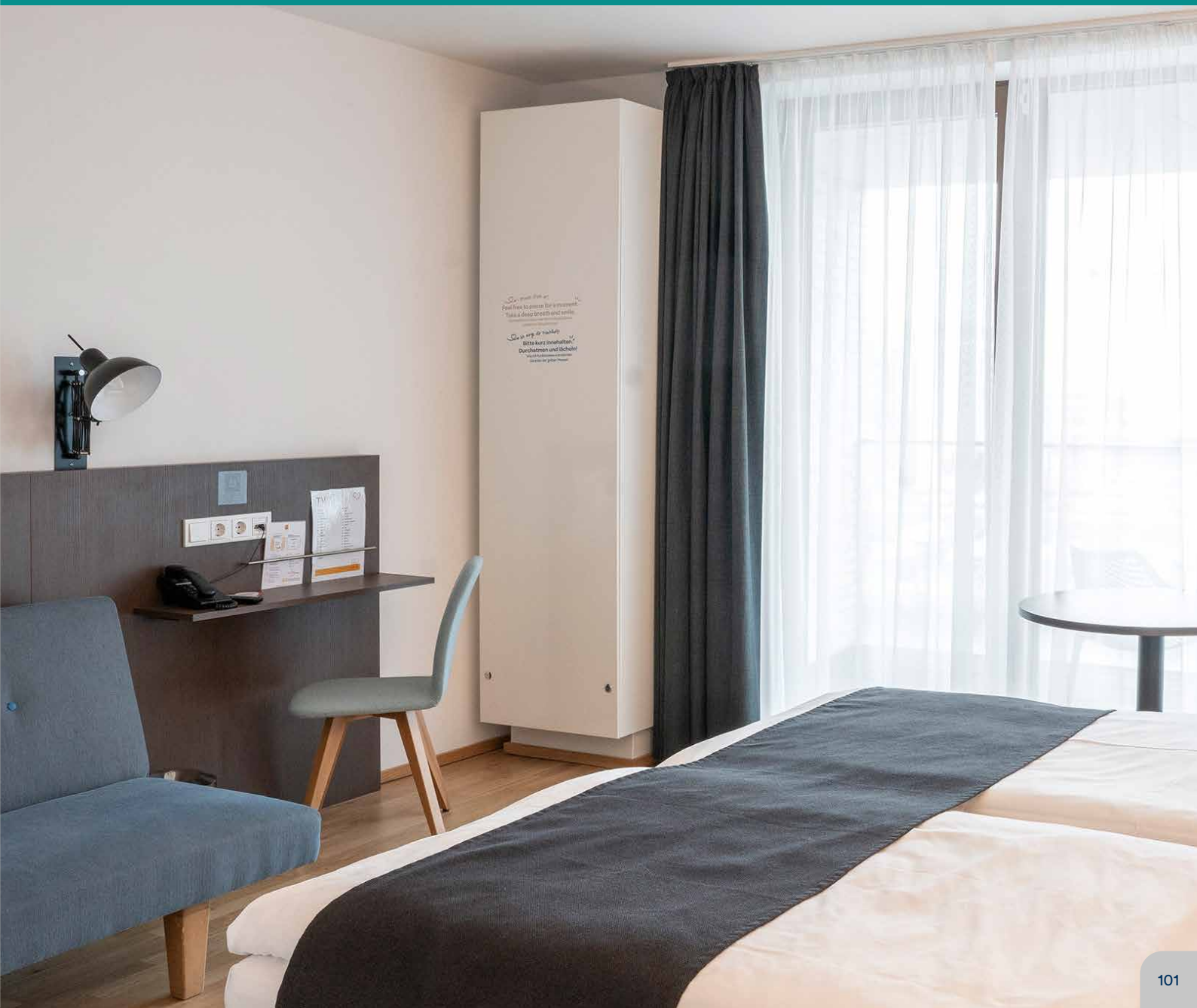
Ventilation systems are now standard in new buildings. Legal requirements and energy efficiency standards now mean that opening windows for ventilation is no longer a legitimate alternative. But **external influences, such as street noise or fine dust and pollen in the outside air, make it clear that ventilation through open windows does not go hand in hand with a pleasant working environment.** Local units are increasingly becoming the systems of choice for this kind of application. They have decisive benefits over central ventilation units. **Individual room temperature control and ventilation** is often more energy-efficient and, to a large extent, more comfortable for employees. Façade units or underfloor versions are particularly popular in new buildings.

Local ventilation units are unrivalled when ventilation needs to be retrofitted to existing buildings. In these cases, sill units or façade units are often the best choice, as there is minimal ingress into the structure of the building.

Air humidity

Increasingly in focus

People's well-being is a pretty good indicator of whether something is wrong with the room air. However, far too rarely is it recognised that it is the air humidity that is actually too low. **The malaise usually stems from mucous membranes that are too dry. As a result, viruses and bacteria have a much easier time breaking through the immune system, and infections can develop more quickly.** Maintaining a 50% humidity level can prevent mucous membranes from drying out. People with allergies and asthma also quickly appreciate good air humidity. **The local ventilation units BZAS and FZAS with their enthalpic heat exchangers provide for 65% humidity recovery levels.** They deliver all the aspects crucial for comfortable air conditioning.



Heat pumps and chillers

Water-based systems for heating and cooling buildings are future-proof. Minimal refrigerant is used when chillers and heat pumps are combined with room units. And only in the unit, not in the building.

- + Cold water-based systems are becoming even more efficient and convenient with the option of low-noise operation, e.g. during the night hours.
- + Many models feature the low GWP refrigerant R32 for a 75% reduction in the greenhouse effect.
- + The EC fans can be controlled continuously variably and thus provide precisely the required output. No more and no less.
- + Many of our KaClima R32 units have an integrated circulation pump, safety valve and dirt trap (available in some cases as an option on other models).

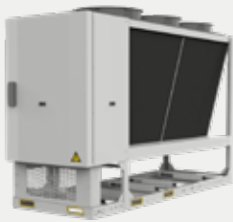


Our chillers and heat pumps at a glance



KaClima S

- > available with refrigerant R290 (propane) or refrigerant R32
- > leaving water temperature control
- > energy efficiency class A+++ in accordance with (EU) Delegated Regulation No. 811/2013



KaClima M

- > available with refrigerant R290 (propane) or refrigerant R32
- > constant flow temperature control for consistent output by consumers
- > energy efficiency class A+++ in accordance with (EU) Delegated Regulation No. 811/2013



KaClima L

- > R32 refrigerant to reduce the CO₂ equivalent by up to 75%
- > leaving water temperature control
- > energy efficiency class A+++ in accordance with (EU) Delegated Regulation No. 811/2013



KaClima XL

- > two separate cooling circuits for maximum operating reliability
- > integrated safety valve and differential pressure switch
- > low refrigerant volume to avoid harmful F-gases



KaClima XXL

- > two separate cooling circuits for maximum operating reliability
- > constant flow temperature control for consistent output by consumers
- > low starting currents

R290

The refrigerant of the future



The KaClima range is operated using the refrigerant R32. Among other things, this leads to better efficiency in the refrigeration circuit and fewer or even no leak tests (depending on the model) compared to the R410A previously used. All units will be successively converted to the environmentally-friendly and natural refrigerant R290 (propane). Propane is characterised by its extremely low GWP (Global Warming Potential) value of only 3/kg. Filling volumes can be further reduced by its use.

The thing about hydraulics

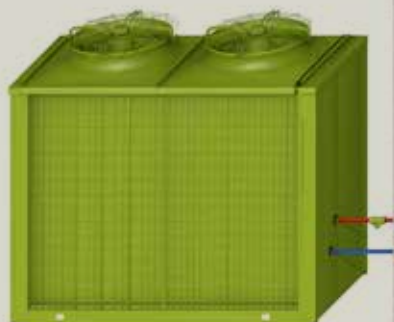
....it's easier than you think.

With our hydraulic box

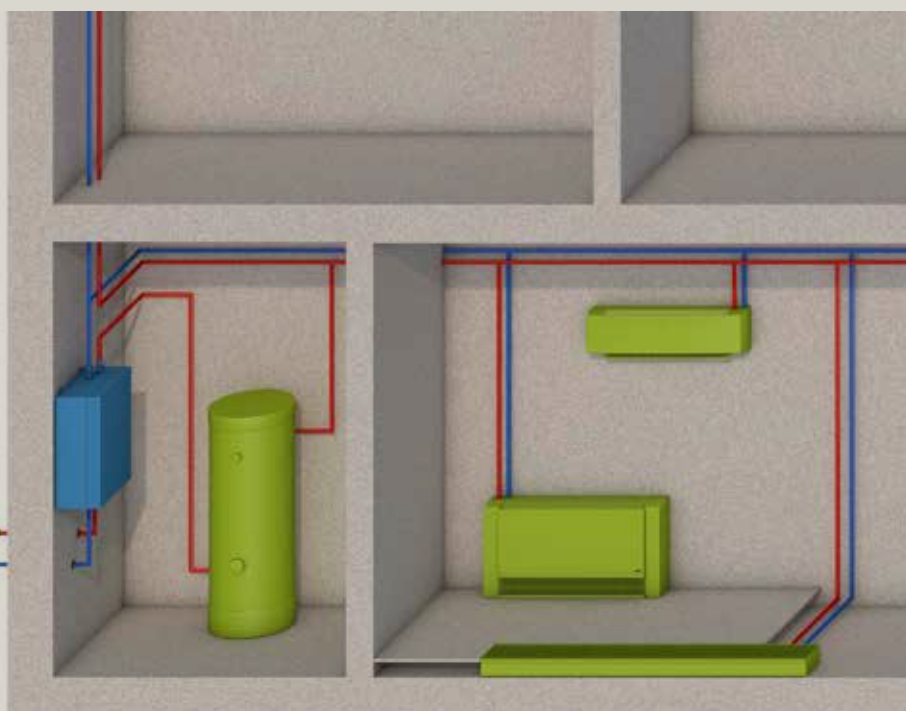


Save design and assembly time with **all the essential components, such as system isolators, pump and safety valve, vapour-tightly insulated in a shock-proof housing.** Available in three combinable sizes with 12, 20 and 35 kW.

Use of the hydraulic box



Chiller/heat pump (outdoor installation shown here)



Plant room with hydraulic box and hot water boiler

Connected room units, such as Venkon fan coils, Katherm HK or KaCool (shown here in the occupied zones, but also suitable for use with industrial unit heaters)

Heating and air conditioning units for heat pumps

Regardless of why you are interested in heat pump solutions, whether to reduce your operating costs or for reasons of sustainability, they contribute to our target of decarbonising our energy supply.



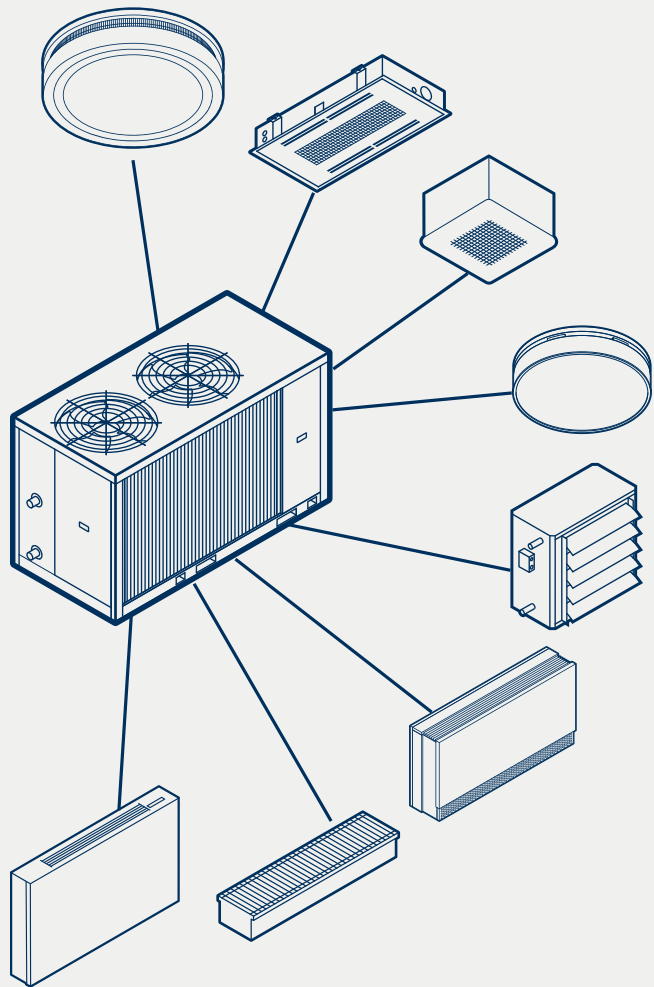
Let us present one of the widest product ranges of units suitable for use with heat pumps – “Heat Pump ready” as it were. Choose our products that carry this label for your future-proofed heating and cooling system.



The heat pump system

The basic idea is not new: a heat generator supplies warm water to room units, which then use the warm water to control the temperature in the rooms. In the past, we had oil or gas-fired boilers (heat generators), today we have heat pumps.

Today's room units are fan-assisted convectors, where we previously used radiators. Fan-assisted units rapidly achieve 3-4 times the output of conventional radiators particularly when operated with low system temperatures.



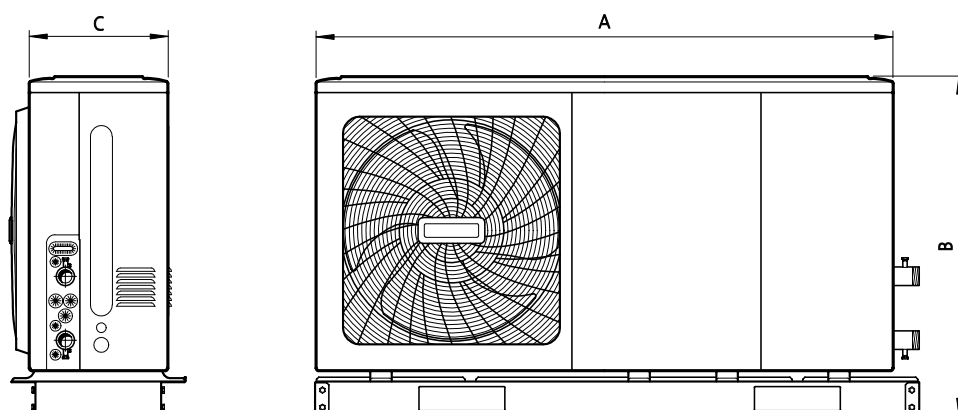
Cooling with heat pumps

Almost as an after-thought, you also benefit from a heat pump's cooling function. Many heat pumps already incorporate this functionality. You can therefore supply the appropriate room units with hot water, but also with cold water, which you can use to cool your building. There may be a need for further insulation of the pipes and the removal of condensate water depending on the cooling output you require.

So why not consciously design in a cooling function from the get-go. Then you're sure to have a lot of pleasure with this added comfort.

It's your choice

KaClima S



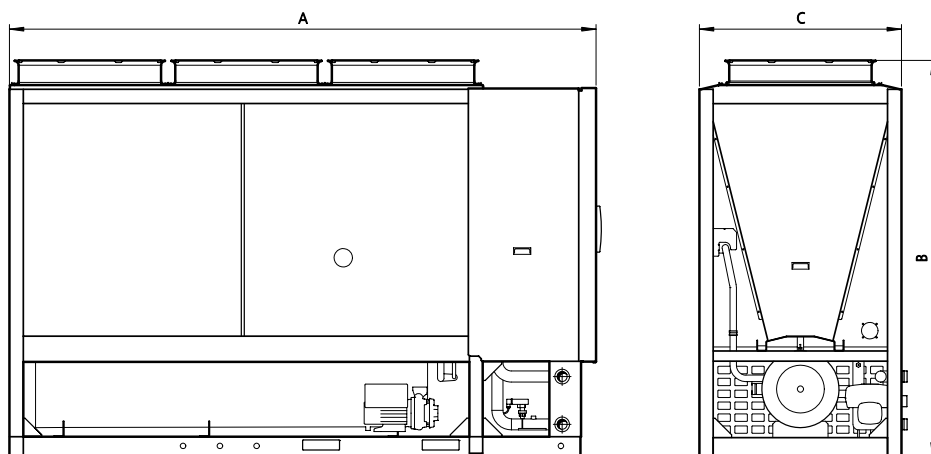
Unit design	Refrigerant	Model size	Dimensions (CxBxA) [mm]	heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Sound pressure level ³⁾ [dB(A)]
Cooling and Heating	R290	21	426 x 718 x 1299	4.5	4.7	46
		31		6.4	6.8	48
		41		8.2	7.5	50
		51	523 x 865 x 1385	10.0	8.9	51
		61		12.0	11.5	53
		71		14.0	12.7	54
		81		15.0	14.0	58
	R32	21	429 x 718 x 1295	4.3	4.7	41
		31		6.3	7.0	44
		41		8.1	7.5	45
		51	526 x 865 x 1385	10.0	8.2	46
		61		12.4	11.5	50
		71		14.1	12.4	
		81	528 x 1558 x 1129	16.0	14.0	53
		91		18.0	17.0	55
		101		22.0	21.0	56
		121		26.0	26.0	58
		141		30.0	29.5	61

¹⁾ at LPWH 45/40 °C, outside temperature 7 °C

²⁾ at CHW 7/12 °C, outside temperature 35 °C

³⁾ the sound pressure level a 1 m distance in a free field, measurement in accordance with UNI EN ISO 9614-2

KaClima M



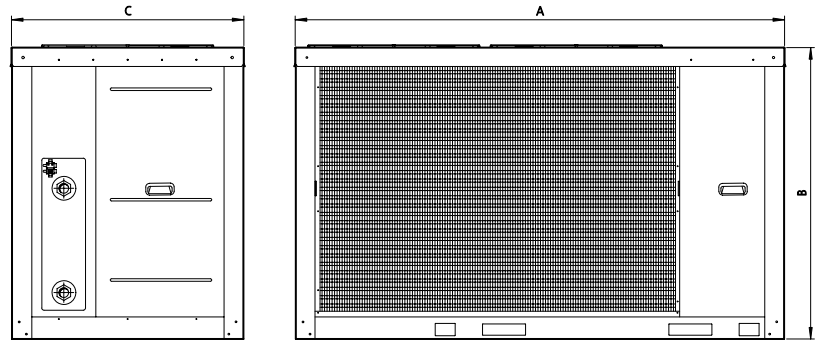
Unit design	Refrigerant	Model size	Dimensions (CxBxA) [mm]	heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Sound pressure level ³⁾ [dB(A)]
Cooling and Heating	R290	1141	1094 x 2240 x 2384	39.9	34.9	57
		1161		45.2	38.5	
		1181		55.1	49.9	59
		1191		61.5	54.0	
		1201	1094 x 2240 x 3402	68.5	58.2	60
		1252		78.6	67.8	59
		1302		85.9	72.7	60
		1182	1130 x 2152 x 2337	53.3	53.1	67
		1202		66.7	58.8	
		1252	1130 x 2155 x 3190	79.1	72.4	69
Cooling only	R32	1302		85.0	78.4	
		1352		91.2	85.3	67
		1182	1130 x 2152 x 2364	---	53.1	
		1202		---	59.2	
		1252	1130 x 2155 x 3220	---	72.2	69
		1302		---	77.5	
		1352		---	85.1	
only cooling with free-cooling function		1182	1014 x 2152 x 2364	---	50.4	64
		1202		---	56.2	65
		1252	1130 x 2153 x 3220	---	68.6	62
		1302		---	73.6	65
		1352		---	80.8	67

¹⁾ at LPWH 45/40 °C, outside temperature 7 °C

²⁾ at CHW 7/12 °C, outside temperature 35 °C

³⁾ the sound pressure level a 1 m distance in a free field, measurement in accordance with UNI EN ISO 9614-2

KaClima L



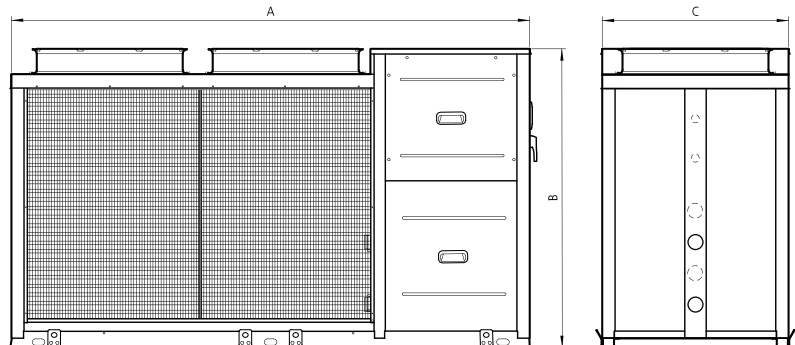
Unit design	Model size	Dimensions (Cx BxA) [mm]	heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Sound pressure level ³⁾ [dB(A)]
Cooling and Heating	101	1005 x 1340 x 1920	24	24	57
	121		29	27	58
	141		34	30	59
	162		51	44	58
	182	1060 x 1480 x 2274	55	50	61
	222		63	57	
	302	1100 x 1510 x 3300	75	70	60
	352		85	80	63
	402		102	94	65
	432	1184 x 1750 x 3906	98	95	64
	452		107	107	65
Cooling only	162	1043 x 1320 x 2204	---	43	65
	202		---	54	66
	242		---	65	67
	302	1089 x 1510 x 3221	---	76	66
	352		---	87	68
	402		---	98	69

¹⁾ at LPWH 45/40 °C, outside temperature 7 °C

²⁾ at CHW 7/12 °C, outside temperature 35 °C

³⁾ the sound pressure level a 1 m distance in a free field, measurement in accordance with UNI EN ISO 9614-2

KaClima XL



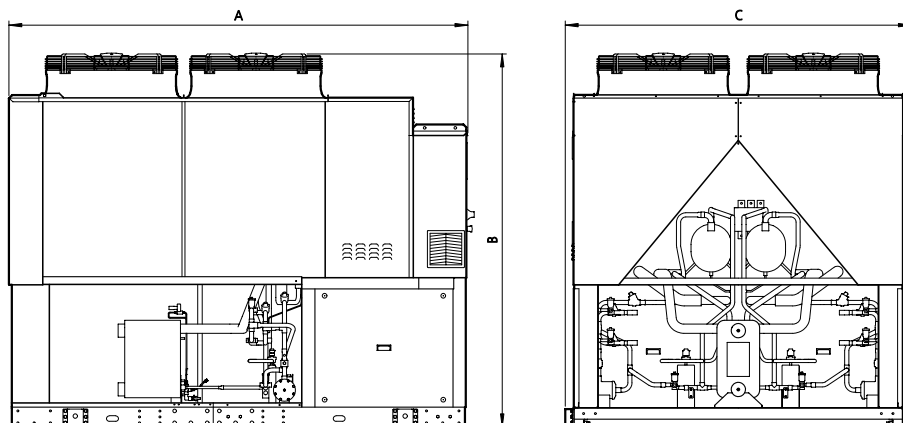
Unit design	Model size	Dimensions (Cx BxA) [mm]	heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Sound pressure level ³⁾ [dB(A)]
Cooling and Heating	454	1200 x 1900 x 3310	118	115	67
	504		130	127	
	554		150	139	
	604		170	152	
	654	1200 x 1900 x 4300	190	164	70
	704		210	176	
	754		230	196	
	804		250	215	
	854		268	233	
Cooling only	454	1200 x 1900 x 3310	---	110	66
	504		---	118	
	554		---	133	
	604		---	142	
	654	1200 x 1900 x 4300	---	156	69
	704		---	169	
	754		---	183	
	804		---	197	
	854		---	209	
	904		---	226	70

¹⁾ at LPWH 45/40 °C, outside temperature 7 °C

²⁾ at CHW 7/12 °C, outside temperature 35 °C

³⁾ the sound pressure level a 1 m distance in a free field, measurement in accordance with UNI EN ISO 9614-2

KaClima XXL



Unit design	Model size	Dimensions (Cx BxA) [mm]	heat output ¹⁾ [kW]	Cooling output ²⁾ [kW]	Sound pressure level ³⁾ [dB(A)]
Cooling and Heating	803	2250 x 2520 x 3118	225	215	68
	904	2250 x 2520 x 4114	255	240	
	1004		280	265	
	1104		310	290	69
	1204		335	320	
	1304		375	355	
	1454	2250 x 2520 x 5091	415	390	70
	1604		455	430	
	1855		530	500	
	2106	2250 x 2520 x 6066	584	556	71
Cooling only	803	2228 x 2535 x 2925	---	223	68
	1004		---	267	69
	1154		---	315	
	1304	2228 x 2535 x 4175	---	364	70
	1555		---	424	
	1705		---	472	71
	1855	2228 x 2535 x 5417	---	520	
	2106		---	574	
	2256		---	624	
	2406	2228 x 2535 x 6680	---	676	72

¹⁾ at LPWH 45/40 °C, outside temperature 7 °C

²⁾ at CHW 7/12 °C, outside temperature 35 °C

³⁾ the sound pressure level a 1 m distance in a free field, measurement in accordance with UNI EN ISO 9614-2

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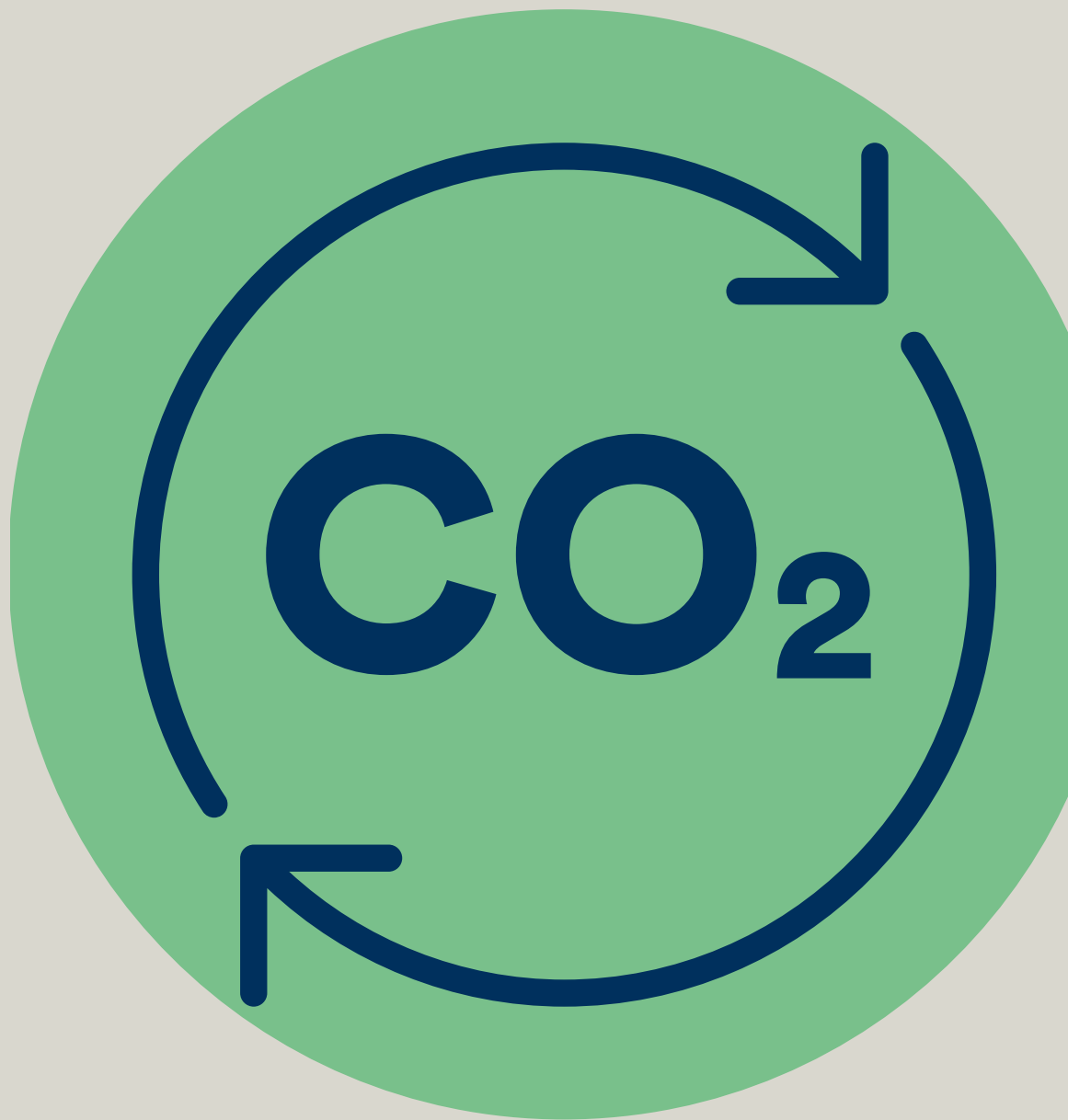


Heating and cooling with CO₂ refrigerant

The new Kampmann units have been specifically designed for air conditioning in supermarkets and smaller retail stores that use refrigeration systems operating with the natural refrigerant CO₂ (R-744). Especially when used with commercial refrigeration systems, these units are capable of utilising the waste heat, for instance to heat staff rooms or sales floors. This means heating or cooling with low global warming potential (GWP) and reducing energy consumption and CO₂ emissions.

Applications

- > supermarkets, retail chains, retail stores
- > as a component of a CO₂ system to use the waste heat





Natural heating and cooling with CO₂

Our range of CO₂ units offers a promising alternative to heating and cooling with the **natural refrigerant CO₂ (R-744)** in supermarkets. Waste heat from commercial refrigeration can be used in heating mode to heat up the required area. This environmentally-friendly technology offers many benefits and helps to improve the climate footprint.

Benefits:

- + Efficient heating, cooling, or heating and cooling with the natural refrigerant CO₂
- + Tested operating pressure of max. 120 / 130 bar
- + High output combined with low energy consumption
- + Utilisation of waste heat from commercial refrigeration systems
- + Low GWP
- + Developed, produced and tested to the most stringent standards

Waste heat from commercial refrigeration

Waste heat is the heat generated by a technical unit or system that is not used. In a CO₂ cooling system, especially in commercial refrigeration, the waste heat plays an important role in energy efficiency. Commercial refrigeration systems, such as are used in supermarkets, retail chains and retail stores, generate waste heat as a by-product of the cooling process.

By adapting their cooling system, they can store their products at the same time utilising the valuable heat energy from the waste heat instead of releasing it unused to the outside air. This type of heat recovery makes good use of the waste heat to heat staff rooms or sales floors etc. It saves energy and benefits both the environment as well as the bottom line.



Benefits of using waste heat



Businesses and industrial plants that use their waste heat reduce their energy consumption and pollutant emissions. This saves energy costs and reduced carbon dioxide emissions help to protect the climate. There are also special funding programmes.

Our CO₂ units at a glance

FanCoils



Venkon CO₂

- > with natural refrigerant CO₂
 - > available in 4 sizes
 - > hygiene-compliant in accordance with VDI 6022 in conjunction with optional ePM10>50% filter, easy to clean
 - > versatile combination by the use of basic unit and casing
-



Ultra CO₂

- > use of the natural refrigerant CO₂
 - > very high cooling outputs despite its compact dimensions
 - > minimal height due to circular heat exchanger
 - > hexagonal housing design for optimum air distribution when heating and cooling
-

Door air curtains Under-ceiling units



UniLine CO₂

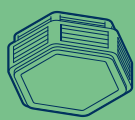
- > actively uses waste heat from “commercial refrigeration”
 - > heating function with natural refrigerant CO₂
 - > air screening reduces energy losses and increases comfort in the entrance area
 - > Silent AutoMotion: The self-regulating discharge flap increases the penetration depth of the air stream, particularly at lower fan stages
-



Tandem CO₂

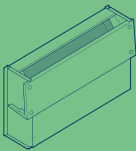
- > actively uses waste heat from “commercial refrigeration”
 - > heating function with natural refrigerant CO₂
 - > for controlled screening of cold air with open doors
 - > officially verified property right: European Patent EP 1462730
 - > up to 38% energy savings through the patented separation of ambient and warm air streams (Tandem technology)
-

Fits every time



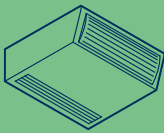
Ultra CO₂

Size 7	840 x 750 x 330 mm
Size 8	1.004 x 900 x 330 mm
Size 9	1.177 x 1.050 x 330 mm



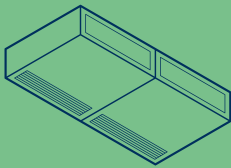
Venkon Basic units

Size	Length	Height
61	625	494
63	925	494
66	1375	494
67	1725	494



Tandem CO₂

Height	365
Depth	985
Length	1250 2000 2750



UniLine CO₂

Height	250
Depth	550
Length	1000 1500 2000 2500 3000

Heat and cooling outputs

Venkon CO₂



Ultra CO₂



UniLine CO₂



Tandem CO₂

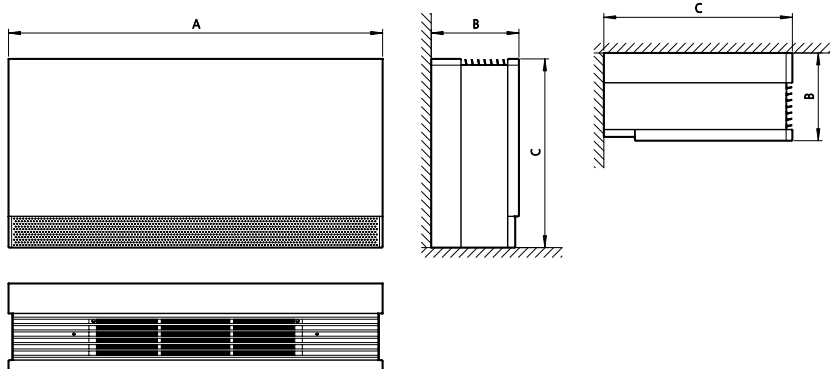


0 5000 10000 15000 20000 25000 30000 35000 40000 45000 50000 55000

Heat output Cooling output

It's your choice

Venkon CO₂

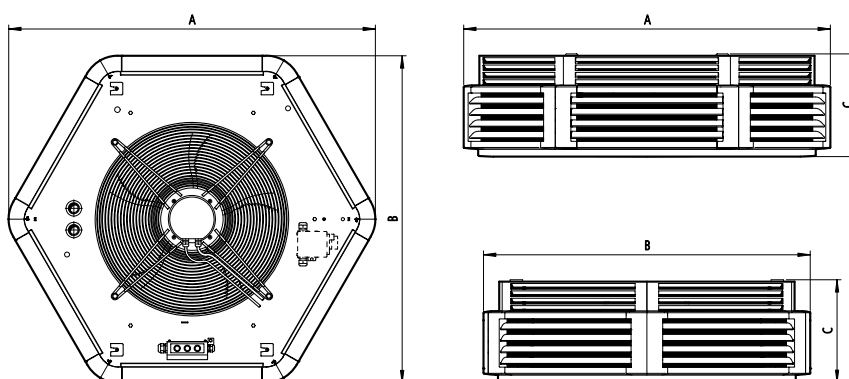


Heat exchanger model
copper/aluminium for CO₂ refrigerant

Dimensions including casing

Filter class	heat output, transcritical [kW]	heat output, sub-critical [kW]	Cooling output, total [kW]	Model size	Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]
ISO Coarse filter	2.0 – 6.3	0.6 – 1.1	0.9 – 1.5	61	900	235	605
	2.9 – 9.2	1.5 – 1.7	1.3 – 3.5	63	1200		
	4.8 – 14.8	1.3 – 2.9	2.3 – 3.2	66	1650		
	5.4 – 17.6	3.0 – 3.6	2.5 – 7.1	67	2000		
Filter ePM10>50% (M5)	1.4 – 5.6	0.8 – 1.0	0.6 – 1.2	61	900		
	1.8 – 7.9	1.2 – 1.5	1.3 – 3.5	63	1200		
	3.1 – 12.7	1.1 – 2.5	1.4 – 2.9	66	1650		
	3.5 – 15.0	2.4 – 3.0	2.6 – 7.2	67	2000		
Filter ePM1>50% (F7)	1.4 – 4.7	0.6 – 0.8	0.6 – 1.6	61	900		
	1.8 – 6.4	1.2	1.1 – 2.9	63	1200		
	3.0 – 10.4	1.5 – 2.0	1.4 – 1.9	66	1650		
	3.5 – 12.2	2.4	2.2 – 5.9	67	2000		

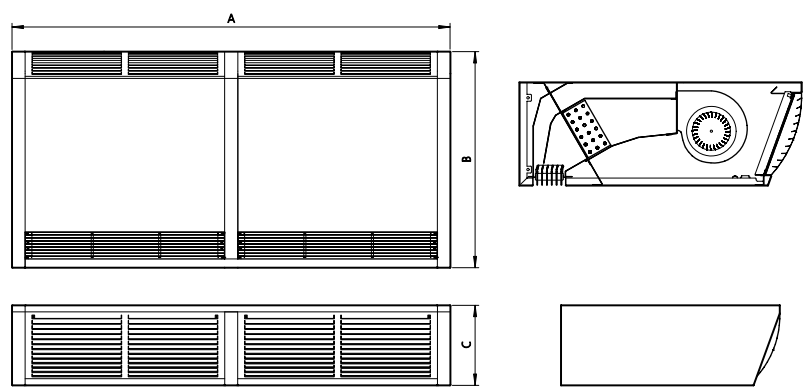
Ultra CO₂



Heat exchanger model
copper/aluminium for CO₂ refrigerant

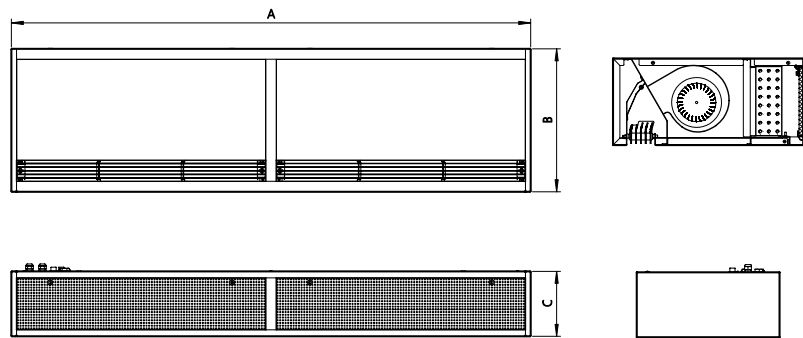
Unit design	Fan version	heat output, transcritical [kW]	Cooling output, total [kW]	Air flow [m ³ /h]	Model size	Width (A) [mm]	Dimensions Depth (B) [mm]	Height (C) [mm]
Heating with CO ₂ (R744)	EC fan, 230 V, high speed	8.5 – 31.0	---	830 – 5300	96	1177	1050	330
Heating with CO ₂ (R744) Heating or cooling with CO ₂ (R744)	EC fan, 200-240 V, reduced speed	6.0 – 25.0	3.0 – 10.0	520 – 3700				

Tandem CO₂



Dimensions								
Fan version	Version	Max. door width [m]	Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]	heat output, transcritical [kW]	heat output, sub-critical [kW]	Model size
EC fan	Tandem 365	1.25	1250	985	365	5.4 – 10.7	2.0 – 2.2	12
		2.00	2000			9.5 – 20.0	2.0 – 4.4	20
		2.75	2750			13.4 – 29.5	2.9 – 6.6	27

Uniline CO₂



Dimensions								
Fan version	Max. door width [m]	Length (A) [mm]	Depth (B) [mm]	Height (C) [mm]	heat output, transcritical [kW]	heat output, sub-critical [kW]	Model size	
EC fan	1.0	1000	550	250	2.7 – 8.2	---	10	
	1.5	1500			4.0 – 14.8	2.4 – 3.3	15	
	2.0	2000			5.9 – 18.0	3.1 – 4.2	20	
	2.5	2500			7.4 – 24.9	3.1 – 5.9	25	
	3.0	3000			8.6 – 31.5	3.9 – 7.5	30	

For more information, visit www.kampmanngroup.com

Venkon CO₂ - Ultra CO₂ - Tandem CO₂ - UniLine CO₂



Control technology

The connectivity of building services components in buildings is now state of the art. Standardised automation networks ensure a cross-trade interplay of systems, killing two birds with the one stone: the demand for improved energy consumption of the entire company and increased comfort.

- + harmonised operation of heating, cooling and ventilation units
- + linking of all functional areas
- + easy to install
- + flexible to use
- + from analogue to cloud-based – you'll always have the right communication
- + central maintenance and fault reporting management



We'll arrange it all

Kampmann products are available with two control versions. The "electromechanical control" version is suitable for control by the customers as well as for use with simple accessories, such as thermostats and fan speed controllers. The "KaControl MC" version is an advanced and convenient solution for the control of individual rooms or for integration into an overall system.

Electromechanical room control units

If the electromechanical version of the unit is selected, all integrated actuators and sensors are wired to a terminal block. Controllers or communication systems provided by the customer can be connected to these terminal blocks. In addition, Kampmann offers a wide range of controllers for easy control of the units. The various properties of the different versions are listed in the following overview.

- > All basic heating and cooling functions for 2- and 4-pipe applications
- > Available as different versions, for example with:
 - Switching input for setback mode using a presence detector or window contact
 - Modbus RTU interface to automation networks
 - Integrated timer function
 - Integration into many common flush-mounted ranges





KaControl MC control

Intelligent single-room control



TP 2 touch panel control unit

KaControl MC is a comprehensive comfort control which can be used to control individual rooms, groups of units, and even entire systems, including ventilation units and heat generators. Operation is either via a modern, design-orientated 2" touch display or a user-friendly web interface. Within a control group/room, KaControl MC takes over complete control and monitoring of all functions of the connected units, and is the optimum solution for communication with a BMS (building management system). Within a room or group, up to 10 units and one room control unit can be networked.

Connectivity

The KaControl MC system demonstrates its versatility when it comes to communication with BMS systems. On the hardware side, all common interfaces for building management systems are integrated as standard. The required protocol can be flexibly selected at any time via a permanent licence, which is either factory-installed or can be subsequently activated. Expensive hardware upgrades or missing interfaces thus do not impede the construction process. Subsequent clarification of the BMS communication is possible with ease.

BACnet IP

Modbus RTU

Modbus TCP

KNX

Access via web browser

The integrated and free of charge Webserver provides access both via the network (each board is equipped with a built-in switch) and wirelessly via the Wi-Fi interface. The system can thus be conveniently operated via laptop, tablet, or smartphone. This provides for ease of parametrisation (e.g. during commissioning, through a guided step-by-step quick configuration), the recording and visualisation of live data during operation as well as an overview of the trend data for up to four weeks.

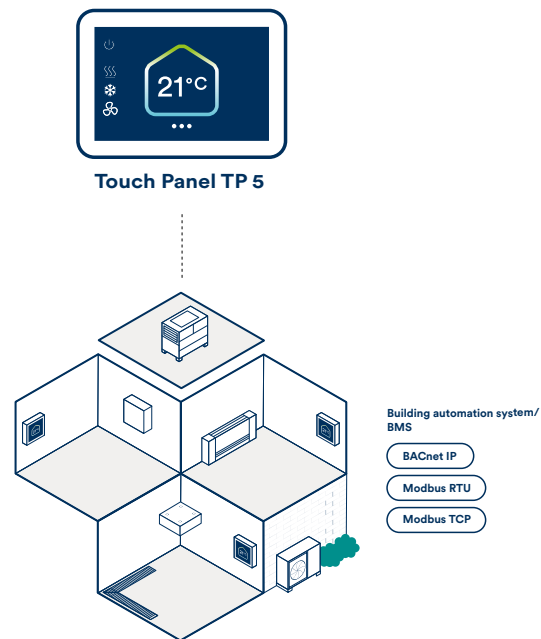


System control in the building

The **KaControl MC System Controller** is installed in an IP54 wall-mounted housing with integrated TP 5" touch panel. The System Controller significantly expands functionalities. The Modbus TCP protocol can be used to connect up to 25 rooms or groups, each with up to 10 units, which makes it possible to centrally specify time programs and setpoints. In addition, heat generators and various hydraulic circuits can be controlled.

The control system integrated in the System Controller also provides the option of controlling a ventilation system. Thus, the identical control is also used directly in the KaCompact KG, while maintaining the full range of functions of the System Ccontroller.

Thanks to the option of an external remote control (100 m cable length), all settings can be made either directly at the System Controller or at any location. All operating functions are mirrored on the remote control. Naturally, a Webserver is also available.



Multifunctional inputs and outputs

There are two different control versions KaControl MC1 and KaControl MC2 for the secondary air units. Both versions include 5 multifunctional inputs that can be used to record temperatures, window contacts, presence detectors, card readers etc., or to output fault messages. They can be connected to any unit within the control group.

Different outputs are available depending on the control system used. The exact identification is provided by the article number of the unit.

Control configuration	Article no.	Technical differences	Functions	Available from
KaControl MC1	*M1	Continuous fan control and Open/Closed valve control	Maximum efficiency of room temperature control	Immediately
KaControl MC2	*M2	Continuous fan control and continuous valve control	In addition: - Supply air temperature control - Return temperature control - Actuation of a 6-way valve	Gradually per product group

We are always there to help!

We will support you through every phase of your project in line with our aim to be the market leader. Our tightly connected network of employees from Sales, Service and Kampus is on hand to deliver our exceptional service levels.

At one of our sites, at your premises, on site or digitally.

kampmanngroup.com/service





Project support

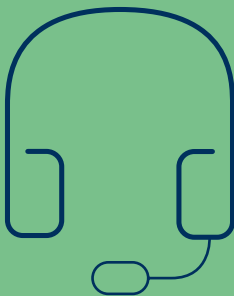
Precision and speed.



Wherever you are. We have a wide range of tools to support you in your design: smart apps and calculations programs, BIM data and CAD drawings.

Customer Service

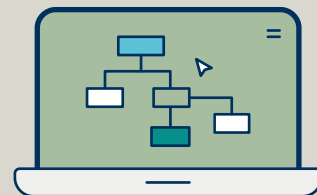
Take advantage of our nationwide customer service network.



The Customer Service department of the Kampmann Group ensures that our customers are satisfied throughout the entire After-sales Service process. We offer you flexible options to express your concerns and quickly complete your processes.

Tools

We use these tools in our project planning.



Our website offers a host of time-saving website tools, such as our calculation program, watch list and our individual specification and tender descriptions. Watch our application videos for a quick overview or get started directly – for fast, easy working.

kampmanngroup.com/service/tools



The Kampmann Group: unique solutions expertise for the best air conditioning systems.

With over 1000 employees at 16 sites around the world, Kampmann is one of the major players in the construction and building services sector.

The Kampmann Group offers solutions expertise and a unique broadbased product range.

Our systems for heating, cooling and ventilation are at the forefront of different market segments today.



1000
+

employees working for
you at the Kampmann
Group.

21,893

variants of our products in our
standard range alone.



International sites



Headquarters

Kampmann GmbH & Co. KG
Lingen (Ems), Germany



› Canada/USA
› France

› Italy
› Netherlands

› Austria
› Poland

› Switzerland
› Great Britain

Research & Development Playground

The Kampmann Research and Development Centre (FEC) is a veritable playground for our physicists and engineers. And it also provides the necessary testing ground for our system-based new product and product development processes.

The unprecedented range of laboratories, test stands and premises within the FEC enables our employees to practise their academic expertise in elaborate measurements and simulations. They maintain the high quality standards that our Kampmann customers have come to expect. The Research and Development Centre has therefore provided us with a boost for our innovative prowess time and time again.







The Airflow Lab

For real simulation of the air conditioning of rooms: the walls, floor and ceiling can be heated and cooled independently of each other.

The System Rooms

The two system rooms reproduce a two-axis and a three-axis office.

Customer projects can be replicated and measured in them, or product demonstrations arranged.



The Acoustic Measurement Lab

Ssssh! 300 mm of concrete, 400 mm of stone and glass wool as well as 450 mm pyramid acoustic foam in the sound measurement laboratory guarantee absolute silence.



The Multi-purpose Lab

The heart of the multi-purpose laboratory is the test rig for the standard-compliant measurement of fan and resistance characteristic lines, as well as filters, baffles and ducts.

The Industrial Tower

The Industrial Tower is where we demonstrate the momentum of our units: depending on the setting, warm air reaches floor level with ease, and cold air is evenly distributed under the ceiling to then fall gently and draught-free.



The Reverberation Room

As impressive as it is to enter the anechoic sound measurement laboratory with its almost oppressive silence, entering the Reverberation Room is quite the opposite: sound waves are constantly reflected on the acoustically hard wall surfaces, none of which are parallel to their opposite wall.

Genau mein Klima

Our Sustainability Strategy

Taking responsibility and acting sustainably. That is our aim in all our business activities. While it is our core business is to ensure a good indoor climate with modern air conditioning units, we also see the need as a company to make our contribution to achieving climate targets, such as the 1.5 degree target set by the Paris Climate Agreement.

We do this through increasingly sustainable products and by operating our sites as ecologically as possible, for example by using climate-neutral gas and electricity.

As an Emsland-based family-owned company, we also feel strongly connected to our location and our local people. Here too, we take responsibility from a sense of conviction – along our supply chain, for our employees and the society in which we operate.

“Sustainability is more than just a tiresome legislative duty: Sustainability also means safeguarding the future of the company with satisfied and motivated employees, and with a future-centric and fair business strategy. But also by achieving climate targets.”

Hendrik Kampmann, Managing Director



Four pillars of sustainability

As part of our sustainability strategy, we have addressed the economic, ecological and social factors of sustainability. In order to further highlight the outstanding role of our employees, we have further sub-divided the social issues. From the three central pillars of sustainability, we thus made Kampmann's four pillars of sustainability. In line with our core business, they are:



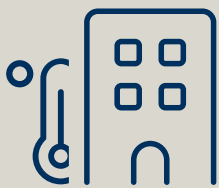
Ecoclimate

- + Business ecology
- + Product ecology
- + Sustainable self-image



Working climate

- + Motivated employees
- + New Work
- + Job security



Corporate Climate

- + Governmental Compliance
- + Risk/Opportunity Management
- + Supply Chain



Social Climate

- + Social commitment



Responsibility in the supply chain

Partnering with customers and suppliers is a key factor for our success. Binding guidelines and conduct that are in line with our values are therefore of particular importance.

For Kampmann, responsibility does not start with its own production sites. We therefore attach great importance to transparency and a high proportion of regional suppliers.

Regionality of our supply chain

Lower Saxony	22.7%
Germany	63.1%
EU	84.8%
Europe	94.2%

The carbon footprint of our products



Environmental Product Declarations (EPDs) provide information about the environmental impact of a product.

EPDs are standardised and verified so that they can be used as evidence in certification processes for sustainable buildings etc.

We are constantly working to expand our broad-based product range to include new EPDs.

You can obtain material-based LCA data on request for all fan coil units.


THE INTERNATIONAL EPD® SYSTEM

And that's in our Environmental Product Declarations (EPDs)

Our audit does not end with the life cycle of a product. The ongoing use or recycling of products after their original use is also taken into account in our life cycle assessments: from cradle to cradle. This gives you an end-to-end picture of the cycle that our trench technology unit heaters, fan coils etc. go through.

Manufacturing phase



Supply of raw materials



Transport of raw materials



Production

Construction phase



Transport of products



Installation

Usage phase



Maintenance



Repair



Replacement of components



Energy usage

Disposal phase



Demolition/removal



Transport of waste



Waste treatment



Disposal/recycling

Example of project solution:

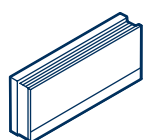
Revo Munich

“Standard hotels were yesterday.” That’s the brand message on the hotel’s website. The trendy concept hotel with both rooms and serviced apartments opened in November 2022.

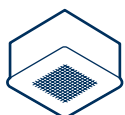
The stylish hotel has 607 rooms. It offers different types of rooms, from studios to loft apartments, which can be booked for a few days or up to several weeks. The community area provides a cinema, gaming areas or a bike workshop for guests to use.

Revo München GmbH is thus offering precisely what people are asking for today. **Serviced apartments** specialising in long stays have been experiencing a boom for some time.

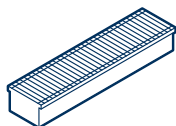




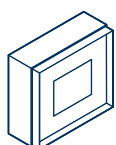
612
Venkon



91
KaCool D AF



42 metres
Katherm NK 380



36
KaControl SEL secondary air
control panel with BACnet





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