

Article group
1.46



05/2006

Katherm GK

Quality is our benchmark

Kampmann – the name today is synonymous with innovative and intelligent systems in the fields of heating, cooling and ventilation and, over the last 33 years, the Company has grown into an internationally-renowned group of companies.

Performance and quality are the benchmark for the continued success of Kampmann. Kampmann products are defined by their high performance capability, with guaranteed EN-tested heat outputs, materials fully rated to requirements, first-class workmanship, design-orientated form and shaping and fast delivery times. The quality management system has been documented for many years and is certified by DIN 9001:2000.

Kampmann systems for heating, cooling and ventilation:

- high-output convectors
- underfloor heating and cooling systems
- air handling systems
- door air curtains
- façade heating systems
- air conditioning systems
- radiant ceiling panels
- floor and façade ventilation systems
- fresh air climate with **OXYCELL TECHNOLOGY**

Versatility

The wide product range comprises a mix of standard, non-standard and products tailor-made for specific projects. Kampmann systems are currently proving their reliability and efficiency in industrial, commercial and private buildings around the globe.

Sales

Kampmann places great emphasis on technical discussions and collaboration with architects, project engineers, heating contractors and builders, as well as with wholesalers. In Germany some 50 sales engineers, operating out of six regional offices, and a further 70 sales engineers working in 14 subsidiary offices throughout Europe provide on-the-spot technical assistance.

HQ and production

In addition to the Kampmann headquarters building in Lingen (Ems), there is a second production plant in Gräfenhainichen (Sachsen-Anhalt). The high-quality products are developed, manufactured and sold by a total workforce of over 550 employees in a production area of more than 55,000 m².

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Katherm GK - fan-assisted convection for even more power

A gentle and quiet fan-assisted air stream is the characteristic hallmark of **Katherm GK**. This tried-and-tested member of the **Katherm** family is put to use wherever **Katherm NK** natural convection units do not meet the required heat output. This is often the case when underfloor heating is not a viable option.

Katherm GK is available in three duct widths (**Katherm GK 182** = 182 mm wide) all with different output levels

- **Katherm GK 182**
- **Katherm GK 272**
- **Katherm GK 400**

The central position of the convector in **Katherm GK 400** units means that cold air falls into the duct on both sides of the convector, an important consideration wherever heat is required on both the window and room side.

- 112 mm deep units
- **PowerKon high output convectors**, with copper pipes and aluminium fins and **Eurokonus valve fittings**, have low water content and thus guarantee good controllability and rapid warm-up.
- **Katherm GK** come as standard with computerized voltage regulation for whisper-quiet operation.

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Ready-to-install floor duct convectors

Type numbers · Grille finishes



1 4 6 0 2 11 1 11 20

Article no.

Length key

- 20 = NP 1250 mm
- 30 = NP 1750 mm
- 40 = NP 2250 mm
- 50 = NP 2750 mm
- 60 = NP 3250 mm
- 70 = NP 3750 mm
- 80 = NP 4250 mm
- 90 = NP 4750 mm
- 95 = NP 5000 mm

Grille design (see table on right)

- 1 = roll-up grille
- 3 = linear grille

Floor duct height

- 11 = duct height 112 mm

Overall frame width

- 2 = Overall frame width 182 mm
- 4 = Overall frame width 272 mm
- 8 = Overall frame width 400 mm

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Grille finishes

- 11 = aluminium,
natural anodized



- 12 = aluminium,
brass anodized



- 13 = aluminium,
bronze anodized



- 14 = aluminium,
black anodized



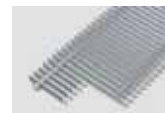
- 15 = aluminium,
bronze-effect



- 16 = aluminium,
painted basalt grey,
DB 703



- 31 = stainless steel



- 32 = stainless steel,
polished



- 33 = natural brass,
CuZn 44



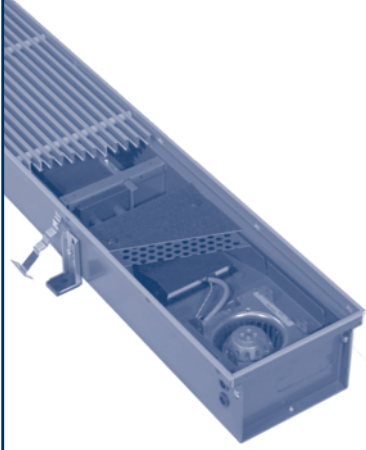
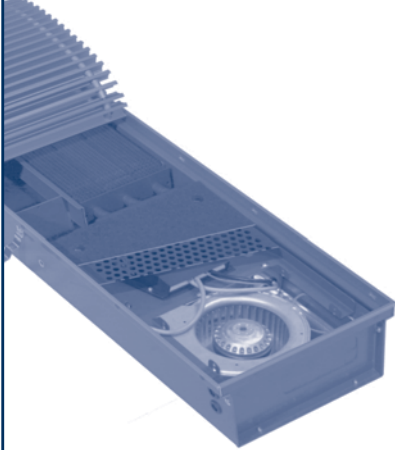
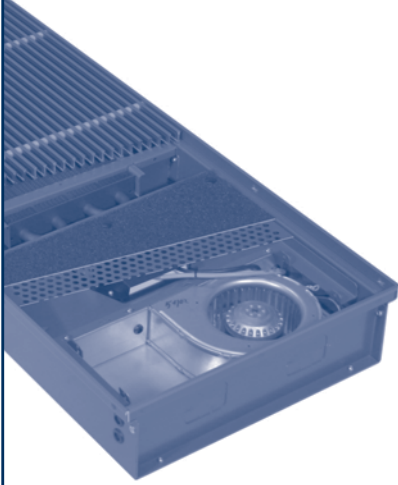
- 34 = natural brass, CuZn 44,
polished,
oxydation-proof



Further grille finishes (colours) are available on request

The grilles illustrated here are printed using a 4-colour printing process and may not be an exact replica of the original colour.

Overview

	Description	Duct width	Duct length	Duct height	Heat output ¹⁾ LPHW 82/71 °C, t _l = 20 °C w	Heat output ¹⁾ LPHW 75/65 °C, t _l = 20 °C w	Heat output LPWW 55/45 °C, t _l = 20 °C w	Dimensions
	Katherm GK 182	182 mm	NP 1250 -NP 5000 mm NP = standard range (500 mm increments) Non-standard (MP) dimensions are also possible	112 mm	415-1938 w	364-1698 w	210-978 w	p 16
	Katherm GK 272	272 mm	NP 1250 -NP 5000 mm NP = standard range (500 mm increments) Non-standard (MP) dimensions are also possible	112 mm	787-3159 w	690-2768 w	397-1594 w	p 18
	Katherm GK 400	400 mm	NP 1250 -NP 5000 mm NP = standard range (500 mm increments) Non-standard (MP) dimensions are also possible	112 mm	1199-4248 w	1051-3723 w	605-2144 w	p 20

Description

¹⁾Heat outputs at medium fan speed (50 %)

1.46 Katherm GK - fan-assisted convection

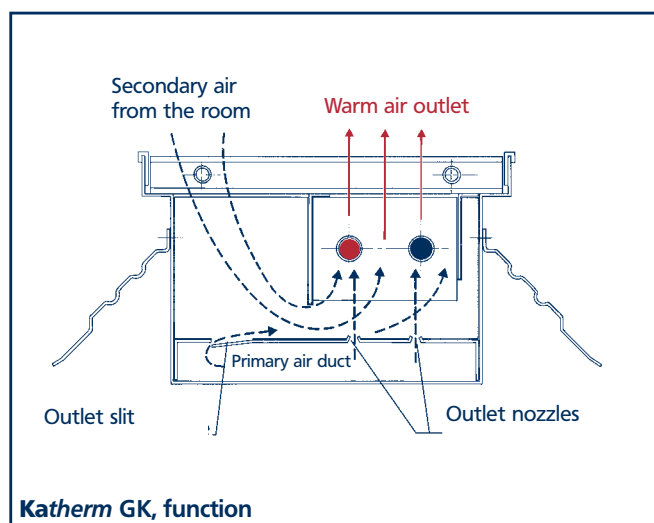
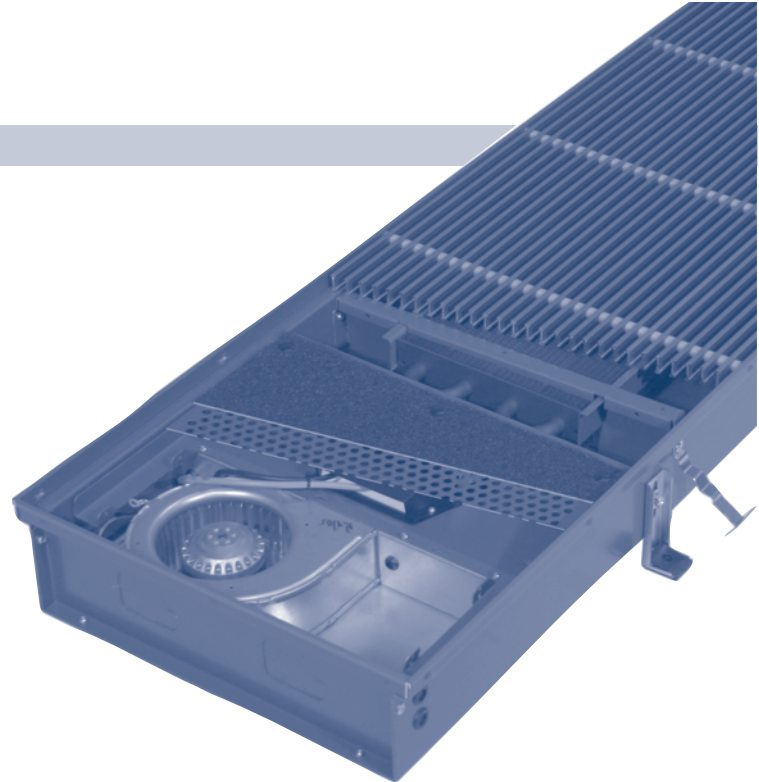
Ready-to-install floor duct convectors

Description

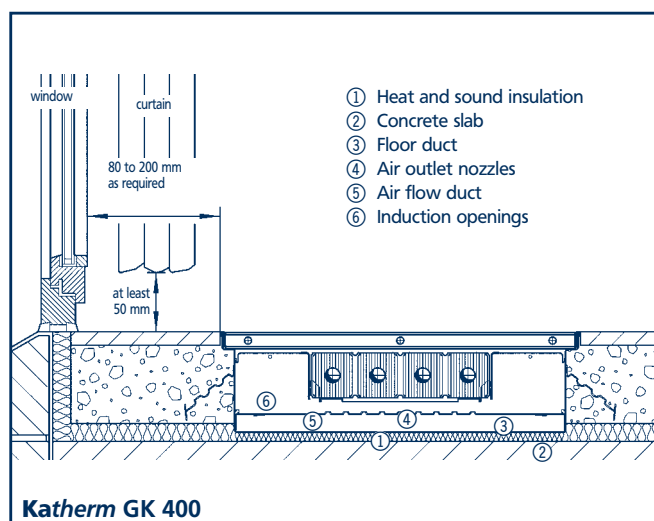
Katherm GK – fan-assisted convection

The clever design of the **Katherm GK** baffle system means that fan-assisted air passes through the convector but, additionally, secondary air is also drawn into the fan-assisted air stream along the entire length of the floor duct. Additional nozzles underneath the convector ensure that air passes evenly through the entire length of the convector.

The innovative baffle system means that floor ducts up to 5000 mm in length can be serviced using only one fan (the exception being **Katherm GK 400**, where units longer than 3250 mm have two integral fans).



The central positioning of the convector in **Katherm GK 400** units means that cold air falls into the duct on both sides of the convector - a useful benefit when heat is required on both the window and room side of the unit.



Katherm GK 182 and 272 can be used to prevent the build-up of condensation on glazing - essential with shop windows. The convector should be positioned on the window side and, for maximum effect, the floor duct should be installed directly adjacent to the window.

The so-called "Coanda effect" means that the air stream is guided towards the window, warming the surface thereof and preventing the formation of condensation. Whether the glazing can be kept completely condensation-free is largely dependant, however, on the ambient conditions, such as the relative humidity in the rooms, outside and inside air temperature, window design, fan speed and flow and return temperature. These factors should all be checked for each project.

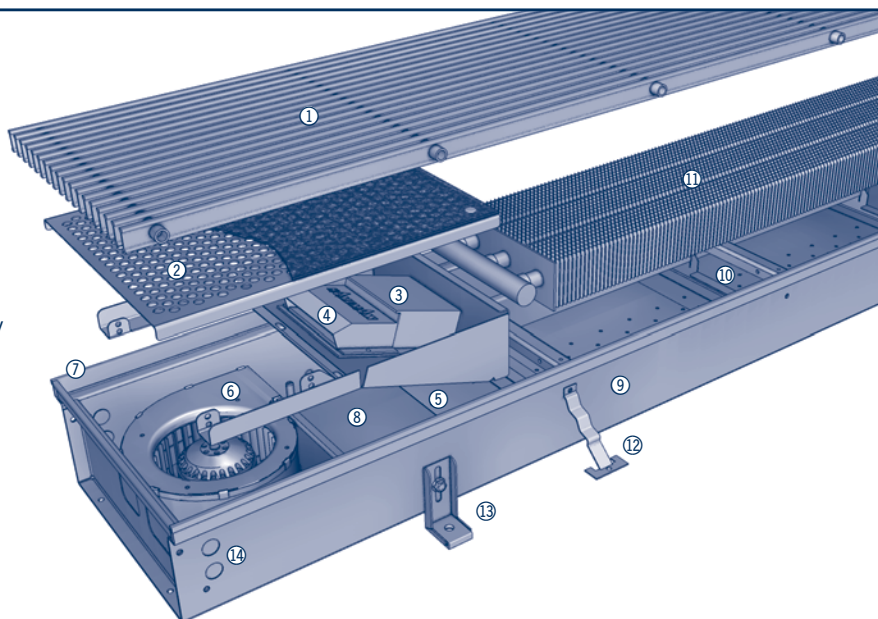
Katherm GK - the engineering at a glance

- sendzimir-galvanized steel duct, painted graphite grey inside and out
- self-supporting design complete with adjustable mounting feet and anchoring lugs
- 112 mm deep
- PowerKon high-output convector with copper pipes and aluminium fins, also painted graphite grey
- optimum cold air screening of glazing for condensation-free windows
- rapid warm-up and versatile control - ideal for use as the primary heat source
- factory-wired 0-100% speed control with computerized voltage regulation for whisper-quiet operation; speed control electronics activated by speed controller or BMS system
- quick and easy to install - saving the customer money!

Description

Katherm GK

- ① Linear grille (alternatively roll-up grille)
- ② Fan cover with filter
- ③ Fan electronics (0-100% control)
- ④ Terminal block
- ⑤ Baffle plate
- ⑥ Radial fan
- ⑦ Frame to match grille
- ⑧ Fan base plate
- ⑨ Floor duct, sendzimir galvanized, painted graphite grey
- ⑩ Steel brackets
- ⑪ High-output convector
- ⑫ Anchoring lug
- ⑬ Mounting feet
- ⑭ Electrical connection/cable entry point

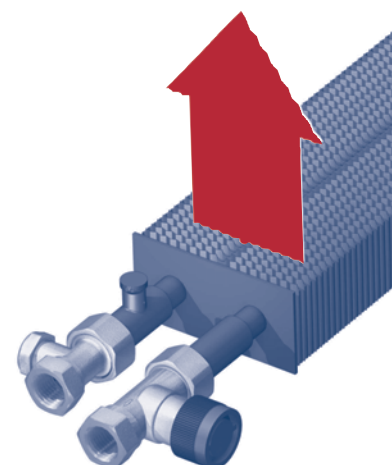


Katherm GK 272

PowerKon – the new generation of convectors

The greater the surface area, the higher the output - the new Kampmann copper/aluminium convector! Corrugated fins create a larger surface area in comparison with conventional convectors. This results in greater performance whilst the external dimensions of the convector remain unchanged.

The convector itself is now also stronger and more rigid due to the new multiple pressing process and the pipe/fin joint has also been further improved.

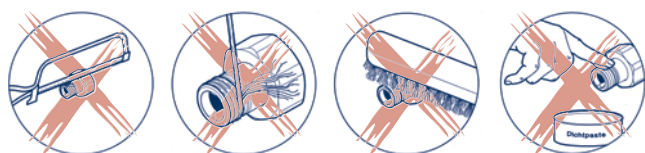


PowerKon convector

The Eurokonus valve fitting – simple to use and saves you money!

The Eurokonus valve fitting fits all valves which comply with DIN V 3838 i.e all valves from reputable manufacturers.

The key benefit is its simplicity of use: the Eurokonus valve fitting requires no additional sealing. Just screw it in - and the job's done! This saves time and money, not forgetting the reduced fitting/testing time and savings in terms of material. Venting is also much simpler - instead of a "venting flag", there is a rigid venting screw in the fitting itself.



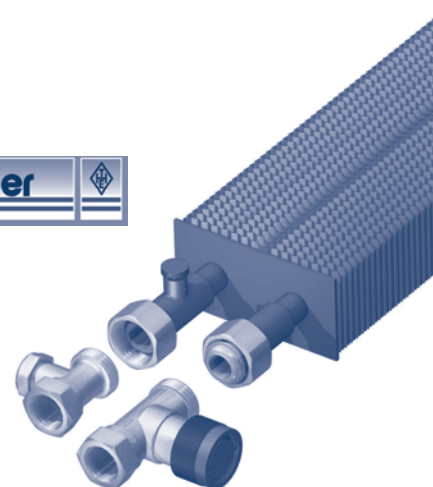
Eurokonus: no more sealing!

oventrop

Innovation + Qualität

Heimeier

Danfoss

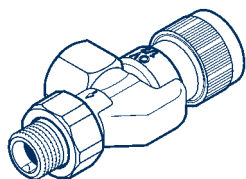


PowerKon with Eurokonus valve fitting

1.46 Katherm GK - fan-assisted convection

Ready-to-install floor duct convectors

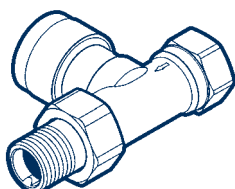
Accessories



1/2" valve body, type 246909

An axial valve body; low noise, optimum flow with Niro steel spindle and double o-ring seal;
for use with **Katherm GK 182** when using actuator type 146905 and thermostatic valve head (with remote sensor) type 146907, complete with cap

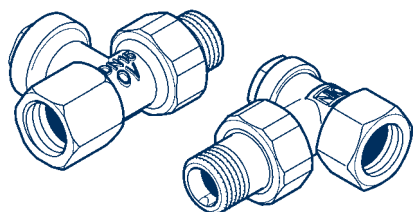
Max. operating temperature	120 °C
Max. operating pressure	10 bar



1/2" valve body, type 146909

A straight valve body; low noise, optimum flow with Niro steel spindle and double o-ring seal;
for use with **Katherm GK 272** and **Katherm GK 400** when using actuator type 146905 and thermostatic valve head (with remote sensor) type 146907, complete with cap

Max. operating temperature	120 °C
Max. operating pressure	10 bar



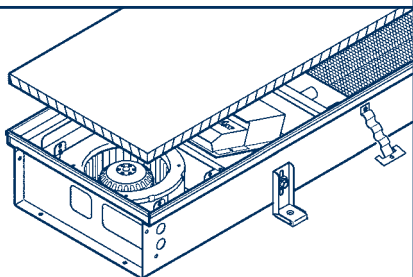
straight valve,
type 145952

angled valve,
type 145953

1/2" Return shut-off valve, type 145952, straight; type 145953, angled

Brass valve with nickel-plate housing with o-ring seal
(type 145953, angled, is not suitable for use with **Katherm GK 182**)

Max. operating temperature	120 °C
Max. operating pressure	10 bar

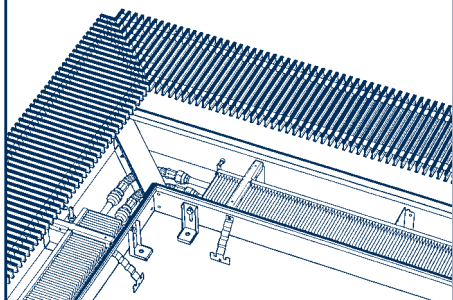


Installation cover

If required, all **Katherm GK** can be supplied with their grilles packed separately to prevent them from becoming soiled or damaged on site prior to fitting. The floor duct is supplied with a disposable wooden installation cover.

Installation cover for Katherm GK

Model	GK 182	GK 272	GK 400
Type	146984	146985	146986

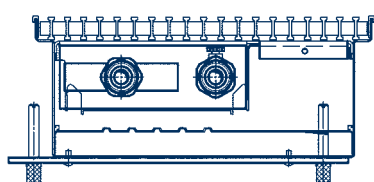


Mitred corners

The grille bars are cut on the mitre, the floor ducts are slip-jointed together and the convectors are joined using woven flexible connections.
Mitred corners have to be manufactured to exact dimensions including duct length, diagonals, angles and an indication of room/window side.

Mitred corners for Katherm GK

Model	Mitre	GK 182	GK 272	GK 400
Roll-up grille	90°	146980	146981	146982
	non-90 degree angle	146970	146971	146972
Linear grille	90°	246980	246981	246982
	non-90 degree angle	246970	246971	246972

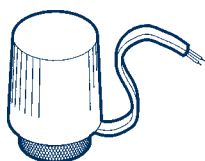


Raised floor feet

for use with **Katherm GK**

Katherm	GK 182	GK 272	GK 400
Type	14621	14631	14641
Adjustment height	115-149 mm		

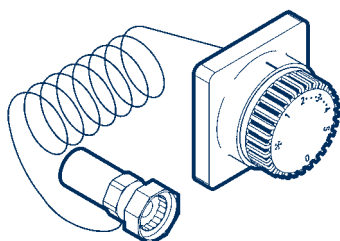
Switches and controllers



Thermoelectric actuator 230 V, type 146905

Actuator for use with valve body type 246909 and type 146909; cable must be laid within a pipe

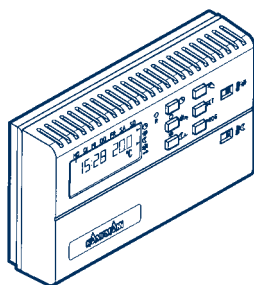
Voltage	approx. 5 w
Cable length	approx. 1900 mm
Height	69 mm
Diameter	42 mm
Connecting thread	30 x 1.5 mm



Thermostatic head with remote sensor, type 146907

Liquid-filled thermostat with 5 m capillary tube; maximum and minimum temperatures are limited or blocked; the capillary tube must be laid within a Ø 23 mm pipe.

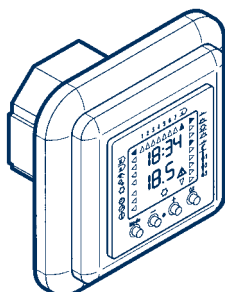
Housing	white
Temperature range	+8 to +27 °C
Max. sensor temperature	+50 °C
Frost protection	below +6 °C



Clock thermostat, type 146910

A clock and room thermostat in one; precise digital clock for week or day programming of room temperature and setback temperature; party function (setback interval override) is also possible; day or night temperature setting

Voltage	230 V/50 Hz
Temperature range	10 - 30 °C
Protection	IP 20
Max. amperage	4 A
Dimensions W x H x D	140 x 70 x 30 mm



Clock thermostat, type 146932

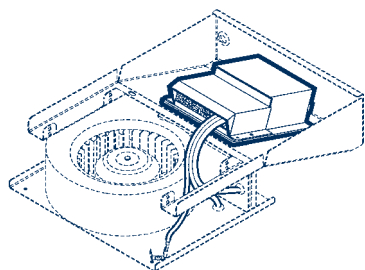
Digital clock and room thermostat in one; with electronic 2-point control; display showing set and actual temperatures; easy to use 4-button control; day or week programming; party function and frost protection

Voltage	230 V/50 Hz
Temperature range	5 - 30 °C
Protection	IP 20
Power reserve	approx. 1 hour
Contact	change-over contact, single-ended
Max. amperage	2 A
Dimensions	W x H x D: 84 x 84 x 18 mm (overall height)

1.46 Katherm GK - fan-assisted convection

Controls

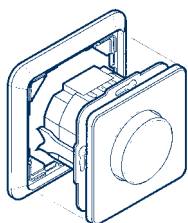
Switches and controllers



Fan electronics

0 -100% fan speed control, factory-wired and fitted as standard; activated using speed controller type 146926 or using room thermostat type 146924 which has an integral speed controller; whisper-quiet operation using computerized voltage reduction with start-up control and maximum speed limitation; BMS speed control is also possible.

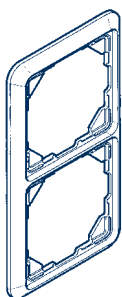
Voltage	230 V/50 Hz
Max. power uptake	50 w
No. per Katherm GK unit	1 per unit; 2 no. for GK 400, NP 3250mm and above



Speed controller, type 146926

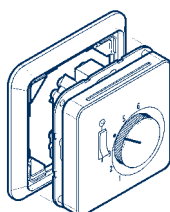
dial with on/off function, 0 - 100% speed control

Housing	manufactured by Jung, flush-mounted, white
Voltage	230 V/50 Hz
Protection	IP 20
Dimensions W x H x D	65 x 65 x 42 mm



Double frame, type 146929

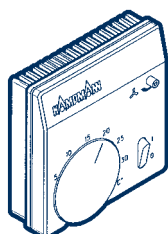
manufactured by Jung, white; to mount speed controller type 146926 and room thermostat type 146927 within the same frame



Room thermostat, type 146927

flush-mounted with white front panel and frame, with temperature indicator, main on/off switch with indicator light, thermal setback and additional terminal for night setback (4 K) using time switch

Housing	manufactured by Jung, flush-mounted, white
Voltage	230 V/50 Hz
Temperature range	5 - 30 °C
Protection	IP 20
Max. amperage	4 A
Dimensions W x H x D	65 x 65 x 42 mm



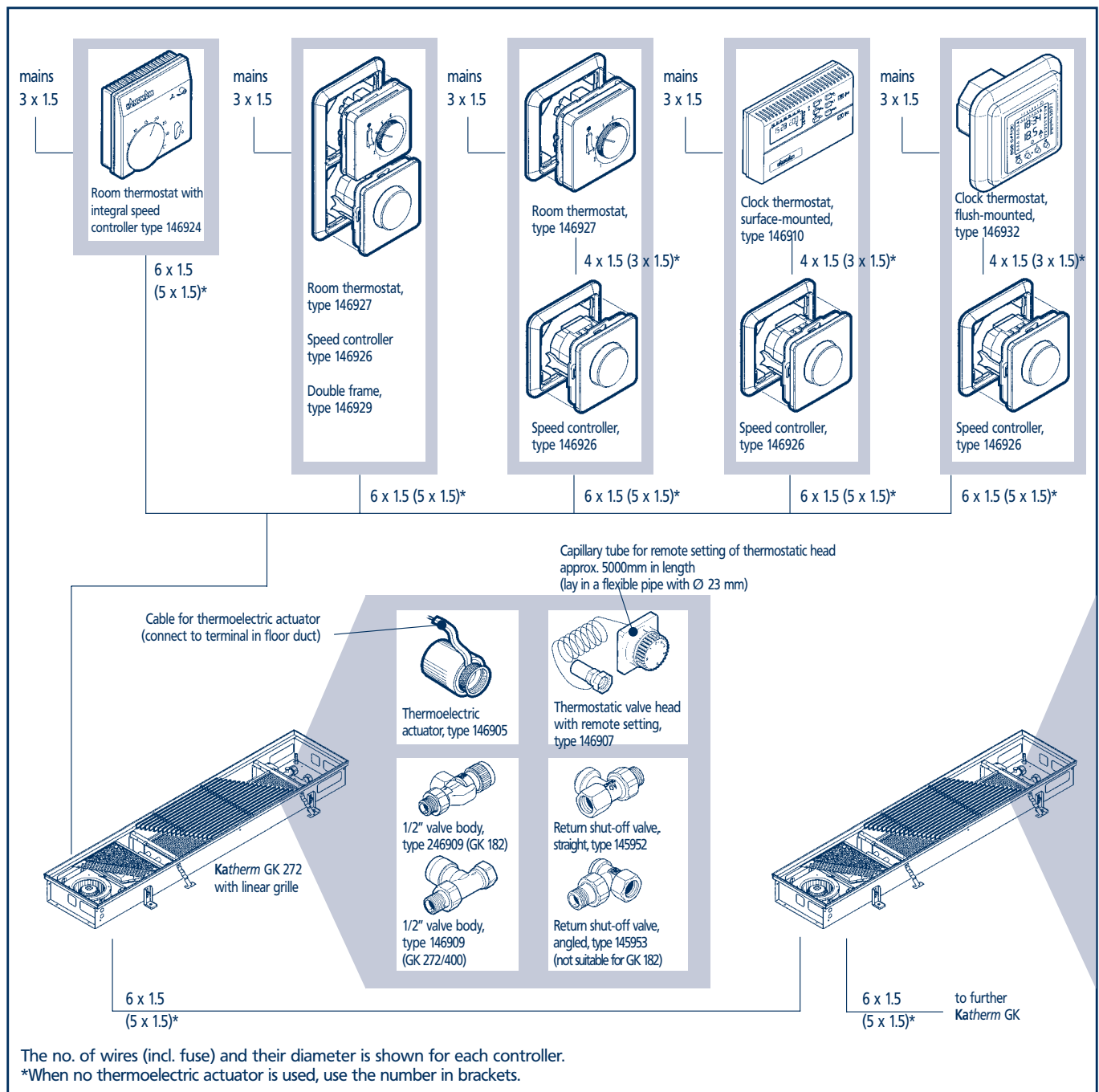
Room thermostat with integral speed controller, type 146924

attractive surface-mounted housing; with thermal setback and on/off fan switch. Combined room thermostat and fan speed controller for 0 -100% control of fan electronics; a Ø 55 mm back-box is required.

Housing	manufactured by Jung, flush-mounted, white
Voltage	230 V/50 Hz
Temperature range	5 - 30 °C
Switching differential	0.6 K
Protection	IP 30
Max. amperage	4 A
Dimensions W x H x D	70 x 70 x 35 mm

Article no. for DataNorm/EDV entry: 194 000 (enter type no.)

Controls options



Maximum no. of Katherm GK per speed controller/thermostat

Katherm GK	NP (standard range)	Model	No. of speed controller per floor duct	No. Katherm GK per speed controller/thermostat			
				Room thermostat with integral speed controller, type 146924	Room thermostat type 146927, combined with speed controller, type 146926	Clock thermostat type 146910, combined with speed controller, type 146926	Clock thermostat type 146932, combined with speed controller type 146926
GK 182	up to NP 5000	with 1 fan	1 no.	10	10	10	10
GK 272	up to NP 5000	with 1 fan	1 no.	10	10	10	10
GK 400	shorter than NP 3250	with 1 fan	1 no.	10	10	10	10
	longer than NP 3250	with 2 fans	2 no.	5	5	5	5

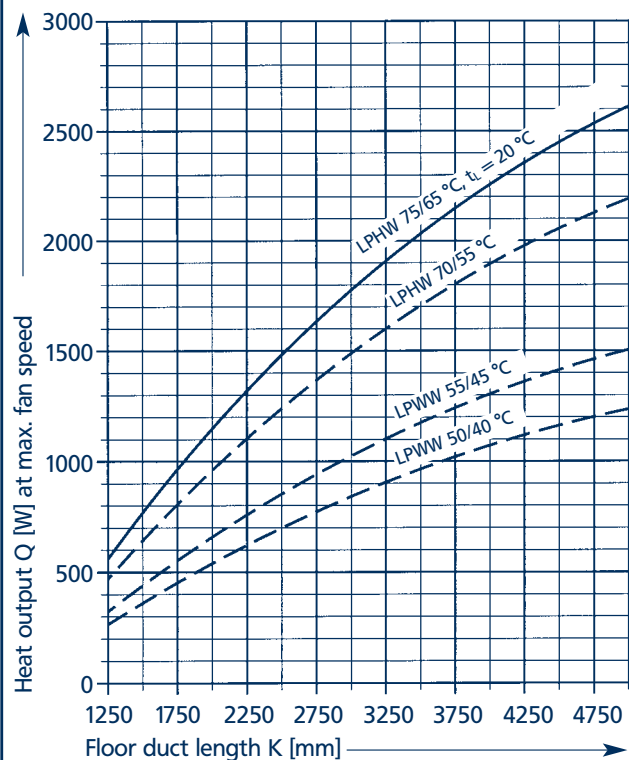
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1.46 Katherm GK - fan-assisted convection

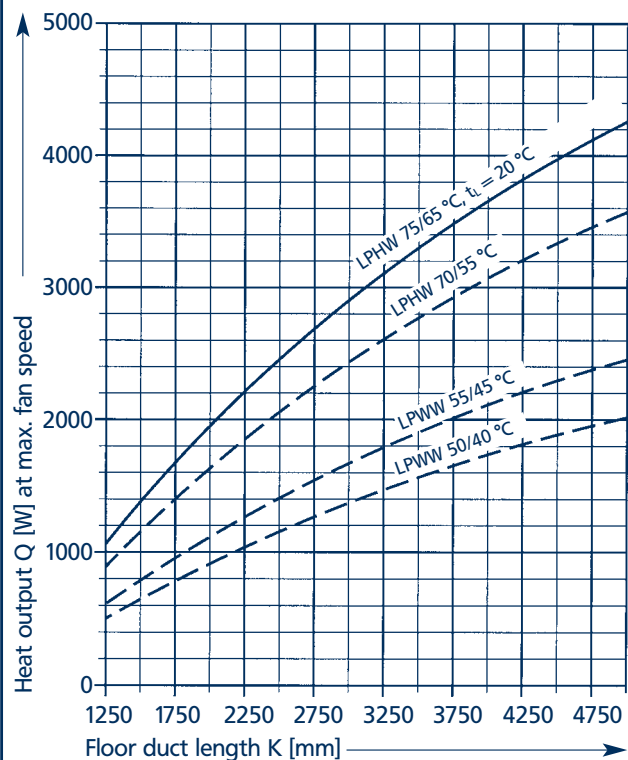
Design

Heat outputs · Water pressure

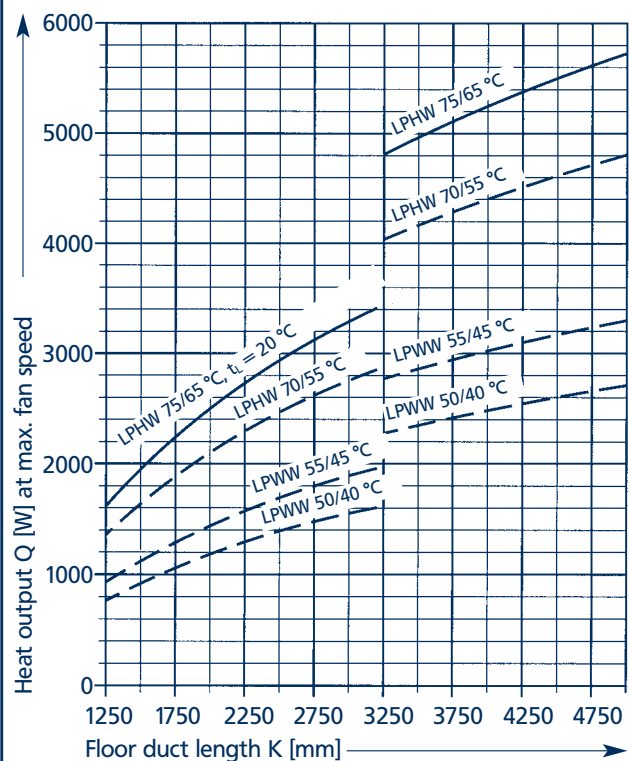
Katherm GK 182 heat output at max. fan speed



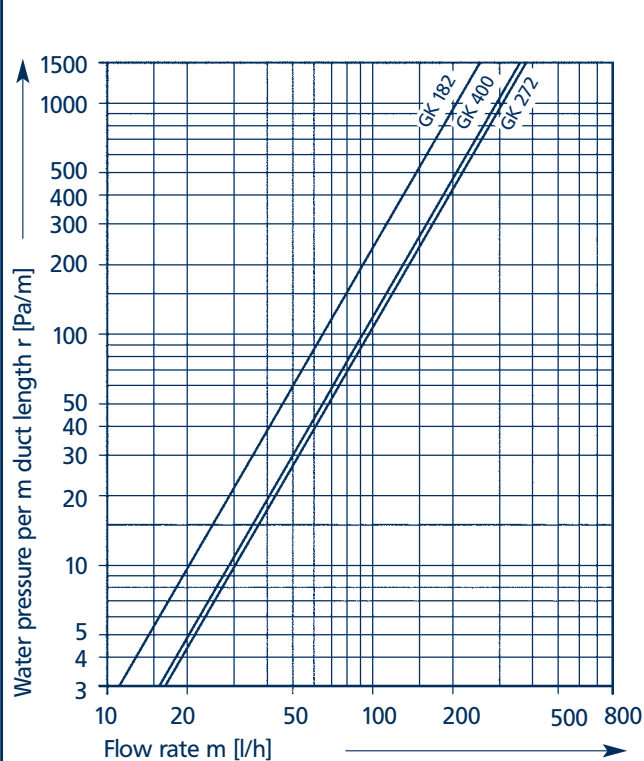
Katherm GK 272 heat output at max. fan speed



Katherm GK 400 heat output at max. fan speed

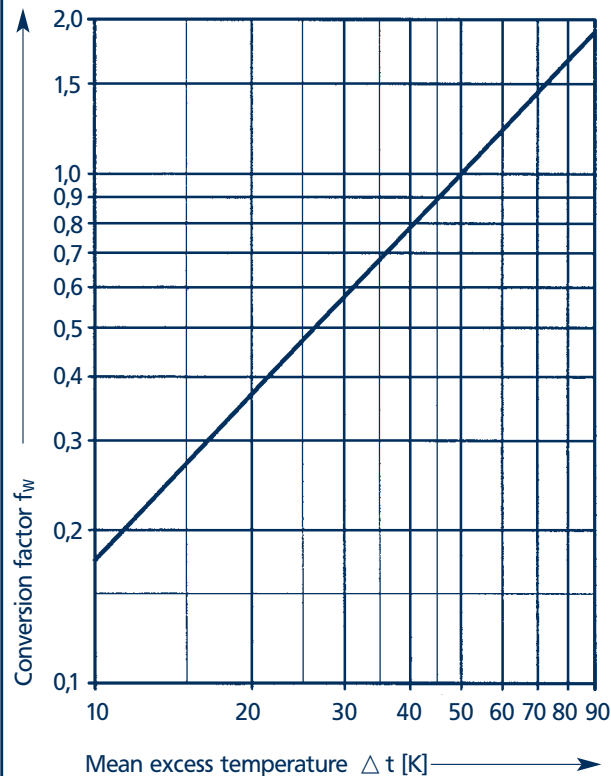


Water pressure rate - Katherm GK



Conversion to other water temperatures/fan speeds · Sound levels

Heat output conversion factors f_w



Conversion to other water temperatures and fan speeds

If the water temperatures and fan speeds used are not shown in the tables on pages 16-21, these can be calculated using the diagrams and formulae on pages 12 and 13.

Formulae

$$\Delta t = \frac{t_{w1} + t_{w2}}{2} - t_L \quad (1)$$

$$Q = f_w \cdot f_D \cdot Q_n \quad (2)$$

$$\Delta t_w = t_{w1} - t_{w2} \quad (3)$$

$$m = \frac{Q}{\Delta t_w} \cdot 0.86 \quad (4)$$

$$R = \frac{r \cdot K}{1000} \quad (5)$$

Abbreviations

t_{w1}	[°C]	= flow temperature
t_{w2}	[°C]	= return temperature
Δt_w	[K]	= water temperature difference
Δt	[K]	= mean excess temperature
t_L	[°C]	= room temperature
Q	[W]	= heat output
Q_n	[W]	= standard heat output at maximum fan speed LPHW 75/65 °C, $t_L = 20$ °C
f_w		= heat output conversion factor
f_D		= fan speed conversion factor
m	[l/h]	= flow rate
R	[Pa]	= water pressure
r	[Pa/m]	= water pressure per m duct length
K	[mm]	= floor duct length

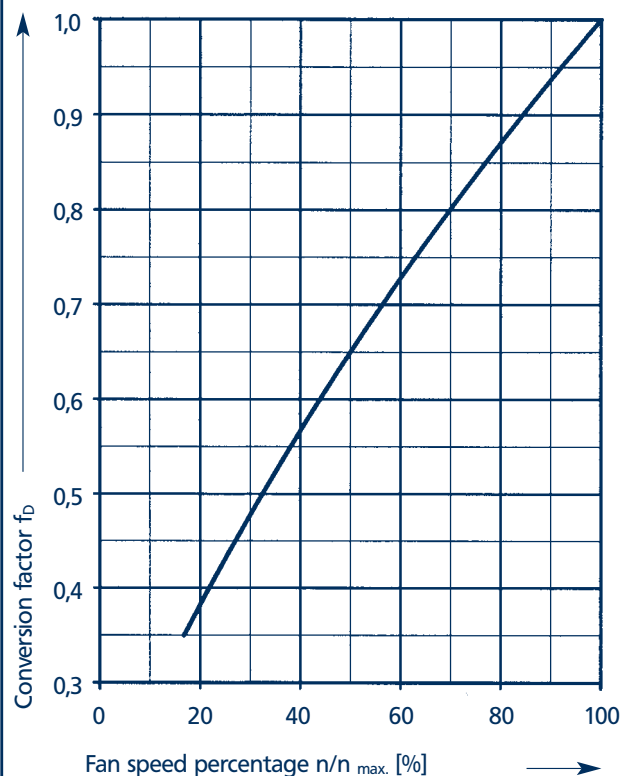
Sound levels

At the design stage, it should be noted that some noise may occur at higher fan speeds. The sound pressure levels are given in the tables on pages 16 to 21. **We recommend that Katherm GK is designed to operate at 50% fan speed.** These figures are highlighted in the above tables.

The measurements have been taken in a sound-proofed room at a distance of 2 m from the middle of the unit.

As the noise level is affected not only by the Katherm GK units, but also by the acoustic properties of the room, these values can be 3-6 dB(A) higher in practice.

Fan speed conversion factors f_D



Calculations

Calculation 1: Katherm GK 272

Given:

Floor duct length MP 4500

(non-standard range)

Katherm GK 272

Flow temperature t_{w1} = 40 °C

Return temperature t_{w2} = 35 °C

Room temperature t_L = 12 °C

Required fan speed n/n_{max} = 50 %

Required:

Heat output Q in w

Water pressure R in Pa

Calculation:

$$\Delta t = \frac{t_{w1} + t_{w2}}{2} - t_L \quad (1) = \frac{40 + 35}{2} - 12 = \underline{25,5 \text{ K}}$$

from the heat output conversion factor diagram f_w on page 13:
at $\Delta t = 25,5 \text{ K}$: $f_w = 0,48$

from the fan speed conversion factor diagram f_D on page 13:
at 50% fan speed: $f_D = 0,65$

from the Katherm GK 272 heat output diagram at max. fan speed on page 12:

floor duct length 4500 mm: $Q_n = 3980 \text{ w}$

$$Q = f_w \cdot f_D \cdot Q_n \quad (2) = 0,48 \cdot 0,65 \cdot 3980 = \underline{1242 \text{ w}}$$

$$\Delta t_w = t_{w1} - t_{w2} \quad (3) = 40 - 35 = \underline{5 \text{ K}}$$

$$m = \frac{Q}{\Delta t_w} \cdot 0,86 \quad (4) = \frac{1242}{5} \cdot 0,86 = \underline{214 \text{ l/h}}$$

from the water pressure diagram on page 12:

Katherm GK 272 graph at $m = 214 \text{ l/h}$:

$$r = 415 \text{ Pa/m}$$

$$R = \frac{r \cdot K}{1000} = \quad (5) = \frac{415 \cdot 4500}{1000} = \underline{1868 \text{ Pa}}$$

Result:

Heat output $Q = 1242 \text{ w}$

Water pressure $R = 1868 \text{ Pa}$

Calculation 2: Katherm GK 400

Given:

Floor duct length MP 3000

(non-standard length)

Katherm GK 400

Flow temperature t_{w1} = 60 °C

Return temperature t_{w2} = 50 °C

Room temperature t_L = 22 °C

Required fan speed n/n_{max} = 50 %

Required:

Heat output Q in w

Water pressure R in Pa

Calculation:

$$\Delta t = \frac{t_{w1} + t_{w2}}{2} - t_L \quad (1) = \frac{60 + 50}{2} - 22 = \underline{33 \text{ K}}$$

from the heat output conversion factor diagram f_w on page 13:
at $\Delta t = 33 \text{ K}$: $f_w = 0,64$

from the fan speed conversion factor diagram f_D on page 13:
at 50% fan speed: $f_D = 0,65$

from the Katherm GK 400 heat output diagram at max. fan speed on page 12:

at floor duct length 3000 mm: $Q_n = 3290 \text{ w}$

$$Q = f_w \cdot f_D \cdot Q_n \quad (2) = 0,64 \cdot 0,65 \cdot 3290 = \underline{1368 \text{ w}}$$

$$\Delta t_w = t_{w1} - t_{w2} \quad (3) = 60 - 50 = \underline{10 \text{ K}}$$

$$m = \frac{Q}{\Delta t_w} \cdot 0,86 \quad (4) = \frac{1368}{10} \cdot 0,86 = \underline{118 \text{ l/h}}$$

from the water pressure diagram on page 12:

Katherm GK 400 graph at $m = 118 \text{ l/h}$:

$$r = 140 \text{ Pa/m}$$

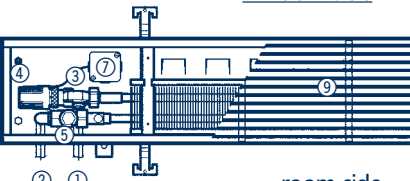
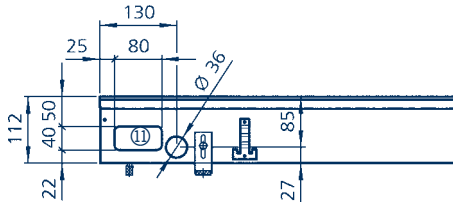
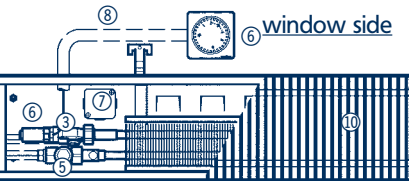
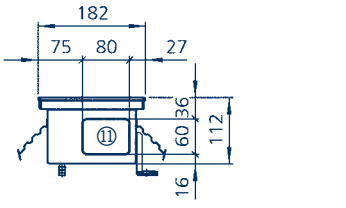
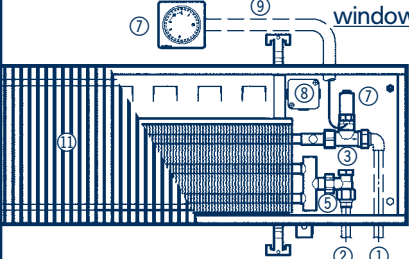
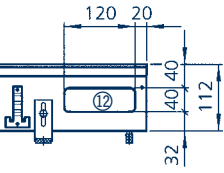
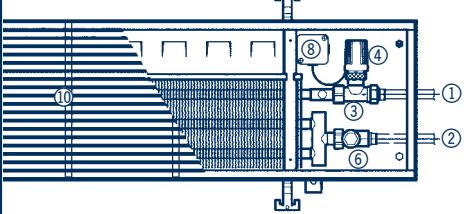
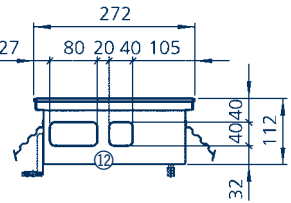
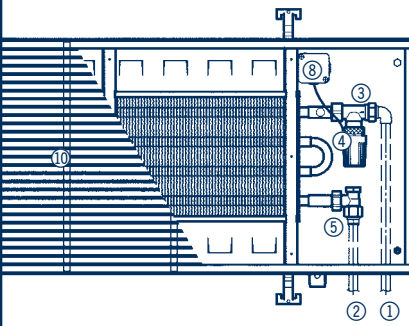
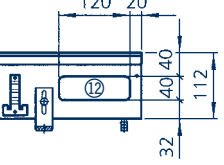
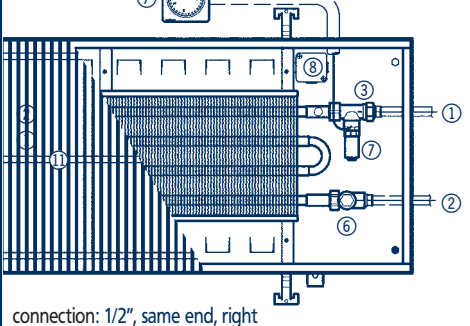
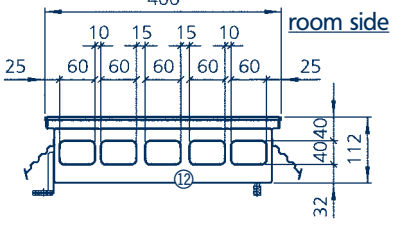
$$R = \frac{r \cdot K}{1000} = \quad (5) = \frac{140 \cdot 3000}{1000} = \underline{420 \text{ Pa}}$$

Result:

Heat output $Q = 1368 \text{ W}$

Water pressure $R = 420 \text{ Pa}$

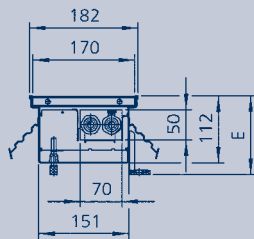
Water connections · Pipe entry

Katherm GK	Room-/window-side connection	End connection
Katherm GK 182 ① Flow connection ② Return connection ③ 1/2" valve body, type 246909 ④ Thermoelectric actuator, type 146905 ⑤ Return shut-off valve, type 145952 ⑥ Thermostatic valve head (remote sensor), type 146907 ⑦ Terminal box ⑧ Hollow pipe Ø 23 mm for capillary tube for thermostatic valve head (by others) ⑨ Linear grille ⑩ Roll-up grille ⑪ Pipe opening, stamped	<u>window side</u>  <u>room side</u> connection: 1/2", same end, left 	<u>window side</u>  <u>room side</u> connection: 1/2", same end, left 
Katherm GK 272 ① Flow connection ② Return connection ③ Valve body, type 146909 ④ Thermoelectric actuator, type 146905 ⑤ Return shut-off valve, type 145953 ⑥ Return shut-off valve, type 145952 ⑦ Thermostatic valve head, type 146907 ⑧ Terminal box ⑨ Hollow pipe Ø 23 mm for capillary tube for thermostatic valve head (by others) ⑩ Linear grille ⑪ Roll-up grille ⑫ Pipe opening, stamped	<u>window side</u>  <u>room side</u> connection: 1/2", same end, right 	<u>window side</u>  <u>room side</u> connection: 1/2", same end, right 
Katherm GK 400 ① Flow connection ② Return connection ③ Valve body, type 146909 ④ Thermoelectric actuator, type 146905 ⑤ Return shut-off valve, type 145953 ⑥ Return shut-off valve, type 145952 ⑦ Thermostatic valve head, type 146907 ⑧ Terminal box ⑨ Hollow pipe with Ø 23 mm for capillary tube for thermostatic valve head (by others) ⑩ Linear grille ⑪ Roll-up grille ⑫ Pipe opening, stamped	<u>window side</u>  <u>room side</u> connection: 1/2", same end, right 	<u>window side</u>  <u>room side</u> connection: 1/2", same end, right 400 

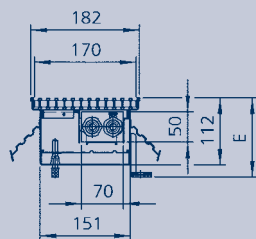
1.46 Katherm GK 182 - fan-assisted convection

Technical data

Dimensions · Heat outputs



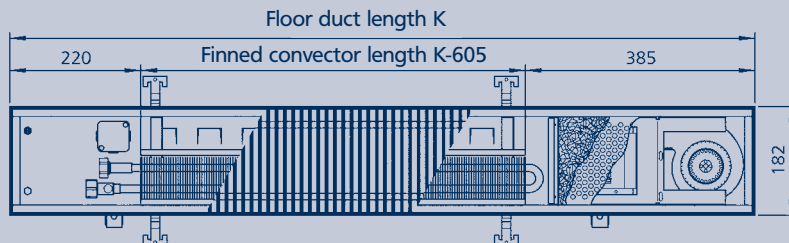
Cross-section shown with roll-up grille



Cross-section shown with linear grille

Katherm GK 182 dimensions

Overall frame width	[mm]	182
Floor duct width	[mm]	151
Grille width	[mm]	170
Adjustment height	E [mm]	115-149
Floor duct height	[mm]	112
Floor duct length NP=standard range*	K [mm]	1250-5000, in 500 mm increments, please state when ordering
Convactor height	[mm]	50
Convactor depth	[mm]	70
Finned convector length	[mm]	K-605
Eurokonus connection		1/2", same end, left
Max. power uptake of radial fan	w	30
Max. amperage	A	0.13



Plan view, shown with roll-up grille

Important:

The water connection should be made on the left hand side of the duct, seen from the room side.



Katherm GK 182*		Floor duct length NP 1250 mm				Floor duct length NP 1750 mm				Floor duct length NP 2250 mm			
Fan speed n		max.	medium fan speed	min.		max.	medium fan speed	min.		max.	medium fan speed	min.	
Fan speed percentage	n/n _{max}	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level	dB(A)	47	42	32	app. 23	47	42	32	app. 23	47	42	32	app. 23
LPHW/LPWW	Room temperature t _r	Heat output at room temperature t _r											
[°C]	[°C]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	777	652	504	334	1372	1152	892	590	1851	1554	1202	795
	18	692	581	450	297	1224	1027	795	526	1650	1386	1072	710
	20	639	536	415	275	1130	948	734	486	1523	1279	989	655
	22	588	494	382	254	1039	873	675	448	1402	1178	911	603
75/65	15	621	521	403	267	1097	921	713	472	1480	1243	961	636
	18	584	490	380	251	1033	867	671	444	1393	1170	905	599
	20	560	470	364	241	990	831	643	426	1335	1121	867	574
	22	536	450	348	231	947	795	615	408	1277	1073	830	549
70/55	15	530	445	344	228	937	786	608	403	1263	1061	820	543
	18	494	414	321	212	873	733	567	376	1177	988	764	506
	20	470	394	305	202	831	697	539	357	1120	941	727	482
	22	446	374	290	192	788	662	512	339	1063	893	691	457
55/45	15	381	320	248	164	674	565	437	290	908	763	590	390
	18	346	290	225	149	611	513	397	263	824	692	535	354
	20	323	271	210	139	570	479	370	245	769	646	499	331
	22	299	251	195	129	529	444	344	228	714	599	464	307

*Non-standard (MP) units can be made to any length between 1250 and 5000 mm, with single duct lengths up to 5000 mm. Please state type no. when ordering (see page 4).

Heat outputs

Katherm GK 182*		Floor duct length NP 2750 mm				Floor duct length NP 3250 mm				Floor duct length NP 3750 mm			
Fan speed n		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.
Fan speed percentage n/n _{max}		100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level dB(A)		47	42	32	app. 23	47	42	32	app. 23	47	42	32	app. 23
LPHW/LPWW [°C]	Room temperature t _r [°C]	Heat output at room temperature t _r											
		Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	2263	1902	1472	973	2644	2221	1718	1137	2981	2505	1938	1282
	18	2019	1695	1313	867	2358	1980	1533	1013	2659	2233	1727	1143
	20	1863	1566	1212	801	2176	1828	1415	936	2455	2062	1595	1056
	22	1715	1441	1115	738	2003	1683	1303	862	2259	1898	1469	971
75/65	15	1810	1521	1177	778	2114	1776	1374	909	2384	2003	1550	1025
	18	1704	1431	1108	732	1990	1671	1294	855	2244	1885	1458	965
	20	1633	1372	1062	702	1907	1602	1240	820	2151	1807	1398	925
	22	1563	1313	1016	672	1825	1533	1187	785	2058	1729	1338	885
70/55	15	1545	1298	1005	664	1804	1516	1173	776	2035	1710	1323	875
	18	1440	1210	936	619	1681	1413	1093	723	1897	1593	1233	816
	20	1370	1151	891	589	1600	1344	1040	688	1805	1516	1173	776
	22	1301	1093	846	559	1519	1276	988	653	1713	1439	1113	737
55/45	15	1111	933	722	478	1297	1090	844	558	1463	1229	951	629
	18	1008	847	656	434	1178	989	766	506	1328	1116	863	571
	20	941	790	612	404	1098	923	714	472	1239	1041	805	533
	22	873	733	568	375	1020	856	663	438	1150	966	747	495

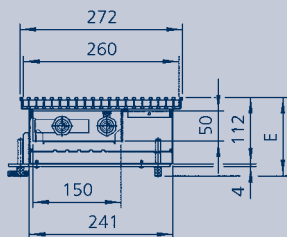
Katherm GK 182*		Floor duct length NP 4250 mm				Floor duct length NP 4750 mm				Floor duct length NP 5000 mm			
Fan speed		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.
Fan speed percentage n/n _{max}		100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level dB(A)		47	42	32	app. 23	47	42	32	app. 23	47	42	32	app. 23
LPHW/LPWW [°C]	Room temperature t _r [°C]	Heat output at room temperature t _r											
		Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	3278	2754	2131	1409	3508	2946	2280	1508	3620	3041	2354	1557
	18	2923	2456	1900	1257	3129	2628	2033	1345	3229	2712	2098	1389
	20	2699	2267	1754	1161	2888	2426	1877	1242	2981	2504	1938	1281
	22	2484	2086	1614	1068	2658	2232	1728	1143	2743	2304	1784	1180
75/65	15	2621	2202	1704	1127	2805	2356	1823	1206	2895	2432	1882	1245
	18	2467	2073	1604	1061	2641	2218	1716	1135	2725	2289	1771	1172
	20	2365	1987	1537	1017	2531	2126	1645	1088	2612	2194	1698	1123
	22	2263	1901	1471	973	2422	2034	1574	1041	2499	2099	1625	1075
70/55	15	2238	1880	1454	962	2395	2011	1556	1029	2471	2076	1606	1062
	18	2085	1752	1355	897	2232	1875	1450	959	2303	1935	1497	990
	20	1984	1667	1290	853	2124	1784	1380	913	2192	1841	1425	942
	22	1884	1583	1224	810	2016	1693	1310	867	2080	1747	1352	894
55/45	15	1609	1352	1046	692	1722	1446	1119	740	1777	1493	1155	764
	18	1461	1227	949	628	1563	1313	1016	672	1613	1355	1049	694
	20	1362	1144	885	586	1458	1225	947	627	1504	1264	978	647
	22	1264	1062	822	544	1353	1137	879	582	1396	1173	908	600

*Non-standard (MP) units can be made to any length between 1250 and 5000 mm, with single duct lengths up to 5000 mm.
Please state type no. when ordering (see page 4).

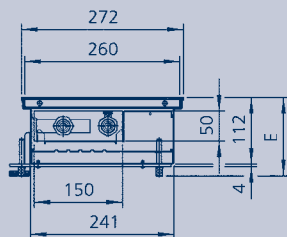
1.46 Katherm GK 272 - fan-assisted convection

Technical data

Dimensions · Heat outputs



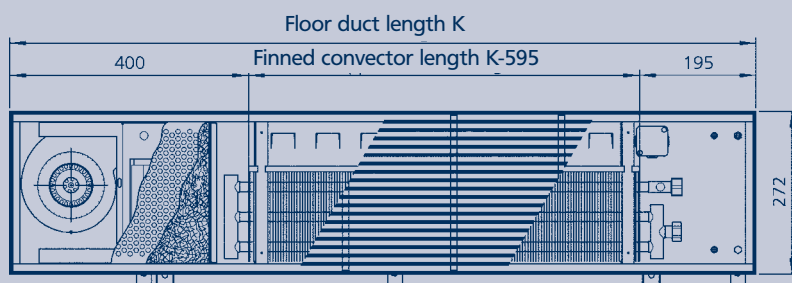
Cross-section shown with linear grille and raised floor feet



Cross-section shown with roll-up grille and raised floor feet

Katherm GK 272 dimensions

Overall frame width	[mm]	272
Floor duct width	[mm]	241
Grille width	[mm]	260
Adjustment height	E [mm]	115-149
Floor duct height	[mm]	112
Floor duct length NP=standard range*	K [mm]	1250-5000, in 500 mm increments, please state when ordering
Convactor height	[mm]	50
Convactor depth	[mm]	150
Finned convector length	[mm]	K-595
Eurokonus connection		1/2", same end, right
Max. power uptake of radial fan	w	42
Max. amperage	A	0.18



Plan view shown with linear grille and raised floor feet

Important:

The water connection should be made on the right hand side of the duct, seen from the room side.



Katherm GK 272*		Floor duct length NP 1250 mm				Floor duct length NP 1750 mm				Floor duct length NP 2250 mm			
Fan speed n		max.	medium fan speed	min.		max.	medium fan speed	min.		max.	medium fan speed	min.	
Fan speed percentage	n/n _{max}	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level	dB(A)	52	46	35	app. 26	52	46	35	app. 26	52	46	35	app. 26
LPHW/LPWW	Room temperature t _r	Heat output at room temperature t _r											
[°C]	[°C]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	1471	1236	957	632	2322	1951	1509	998	3051	2562	1983	1316
	18	1312	1102	853	564	2070	1739	1346	890	2720	2285	1769	1173
	20	1211	1017	787	520	1911	1606	1243	822	2512	2110	1633	1083
	22	1114	936	724	481	1759	1477	1144	756	2311	1942	1503	997
75/65	15	1176	988	765	505	1857	1560	1207	798	2440	2049	1586	1052
	18	1107	930	720	476	1747	1468	1136	751	2296	1929	1493	990
	20	1061	891	690	456	1675	1407	1089	720	2201	1849	1431	949
	22	1015	853	660	438	1603	1346	1042	689	2106	1769	1369	908
70/55	15	1004	843	653	431	1585	1331	1030	681	2082	1749	1354	898
	18	936	786	608	402	1477	1241	960	635	1941	1630	1262	837
	20	890	748	579	383	1405	1181	914	604	1847	1551	1201	796
	22	845	710	550	363	1334	1121	867	573	1753	1473	1140	756
55/45	15	722	606	469	310	1140	957	741	490	1497	1258	974	674
	18	655	550	426	282	1034	869	673	445	1359	1142	884	614
	20	611	513	397	263	965	810	627	415	1268	1065	824	574
	22	567	476	369	244	895	752	582	385	1177	989	765	534

* Non-standard (MP) units can be made to any length between 1250 and 5000 mm, with single duct lengths up to 5000 mm. Please state type no. when ordering (see page 4).

Heat outputs

Katherm GK 272*		Floor duct length NP 2750 mm				Floor duct length NP 3250 mm				Floor duct length NP 3750 mm			
Fan speed n		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.
Fan speed percentage n/n _{max}		100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level dB(A)		52	46	35	app. 26	52	46	35	app. 26	52	46	35	app. 26
LPHW/LPWW [°C]	Room temperature t _r [°C]	Heat output at room temperature t _r											
		Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	3692	3101	2400	1587	4308	3618	2800	1852	4828	4056	3138	2076
	18	3291	2765	2140	1416	3841	3226	2496	1652	4306	3617	2798	1852
	20	3039	2553	1975	1307	3547	2978	2305	1525	3974	3339	2583	1709
	22	2797	2350	1818	1203	3264	2741	2122	1403	3658	3073	2377	1573
75/65	15	2952	2480	1919	1269	3445	2893	2239	1481	3861	3243	2509	1660
	18	2778	2334	1806	1195	3242	2723	2107	1394	3634	3053	2362	1563
	20	2663	2237	1731	1145	3108	2610	2020	1336	3483	2926	2264	1498
	22	2548	2141	1656	1096	2974	2497	1933	1278	3333	2800	2166	1433
70/55	15	2519	2116	1638	1083	2941	2469	1911	1264	3295	2768	2142	1417
	18	2348	1972	1526	1010	2740	2301	1781	1178	3071	2580	1996	1321
	20	2234	1877	1452	961	2608	2190	1695	1121	2922	2455	1900	1257
	22	2121	1782	1379	912	2475	2079	1609	1064	2774	2330	1803	1193
55/45	15	1812	1522	1178	779	2114	1776	1374	909	2370	1991	1540	1019
	18	1645	1381	1069	707	1919	1612	1247	825	2151	1807	1398	925
	20	1534	1288	997	659	1790	1503	1163	770	2006	1685	1304	863
	22	1424	1196	925	612	1662	1395	1080	714	1862	1564	1210	801

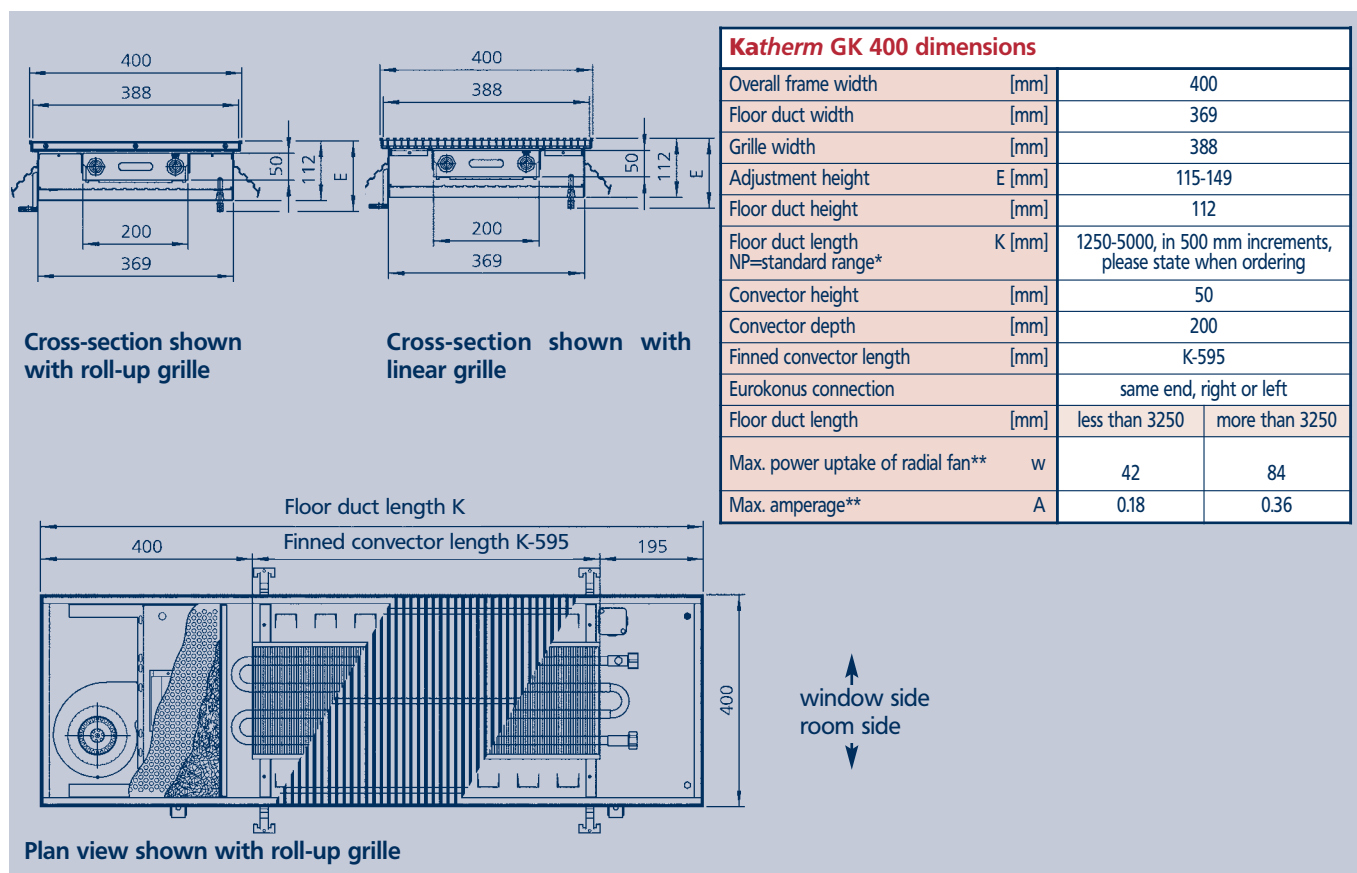
Katherm GK 272*		Floor duct length NP 4250 mm				Floor duct length NP 4750 mm				Floor duct length NP 5000 mm			
Fan speed n		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.
Fan speed percentage n/n _{max}		100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level dB(A)		52	46	35	app. 26	52	46	35	app. 26	52	46	35	app. 26
LPHW/LPWW [°C]	Room temperature t _r [°C]	Heat output at room temperature t _r											
		Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	5319	4467	3456	2287	5707	4795	3710	2455	5904	4960	3837	2539
	18	4743	3983	3083	2039	5090	4276	3309	2189	5264	4423	3422	2263
	20	4378	3678	2846	1883	4699	3947	3055	2021	4860	4083	3195	2089
	22	4030	3385	2619	1733	4324	3633	2812	1860	4472	3758	2907	1923
75/65	15	4253	3572	2764	1829	4564	3834	2967	1963	4721	3966	3068	2030
	18	4003	3362	2602	1721	4296	3609	2793	1848	4443	3733	2888	1910
	20	3837	3223	2494	1650	4118	3459	2677	1771	4259	3578	2768	1831
	22	3672	3084	2386	1579	3940	3310	2562	1695	4075	3424	2649	1752
70/55	15	3630	3049	2360	1561	3896	3273	2533	1676	4029	3385	2619	1732
	18	3383	2842	2199	1455	3631	3050	2360	1562	3755	3155	2441	1614
	20	3219	2704	2093	1384	3455	2902	2246	1486	3573	3002	2322	1536
	22	3056	2567	1986	1314	3280	2755	2132	1411	3392	2850	2205	1458
55/45	15	2610	2193	1697	1123	2802	2353	1821	1205	2897	2434	1883	1246
	18	2370	1990	1540	1019	2543	2136	1653	1094	2630	2210	1709	1131
	20	2210	1856	1436	950	2372	1992	1542	1020	2453	2061	1594	1055
	22	2051	1723	1333	882	2202	1849	1431	947	2277	1913	1480	979

*Non-standard (MP) units can be made to any length between 1250 and 5000 mm, with single duct lengths up to 5000 mm.
Please state type no. when ordering (see page 4).

1.46 Katherm GK 400 - fan-assisted convection

Technical data

Dimensions · Heat outputs



Katherm GK 400*		Floor duct length NP 1250 mm				Floor duct length NP 1750 mm				Floor duct length NP 2250 mm				
Fan speed n		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.	
Fan speed percentage	n/n _{max}	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	
Sound pressure level														
Duct length < 3250mm		dB(A)	52	46	35	app. 26	52	46	35	app. 26	52	46	35	app. 26
Duct length > 3250mm		dB(A)	55	49	38	app. 29	55	49	38	app. 29	55	49	38	app. 29
LPHW/LPWW	Room temperature t _l	Heat output at room temperature t _l												
°C	°C	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	
82/71	15	2240	1882	1457	963	3124	2624	2031	1343	3757	3156	2442	1614	
	18	1998	1679	1299	859	2787	2340	1810	1198	3349	2815	2178	1440	
	20	1844	1550	1199	793	2572	2160	1672	1106	3092	2598	2011	1329	
	22	1697	1426	1104	730	2367	1988	1539	1017	2846	2392	1850	1224	
75/65	15	1791	1505	1165	770	2498	2098	1624	1074	3004	2524	1953	1291	
	18	1686	1417	1096	725	2352	1975	1528	1011	2827	2376	1838	1215	
	20	1616	1358	1051	695	2254	1893	1465	969	2710	2277	1762	1165	
	22	1546	1299	1006	665	2157	1811	1402	927	2593	2179	1686	1115	
70/55	15	1529	1285	994	658	2133	1791	1386	917	2564	2154	1667	1102	
	18	1425	1197	927	613	1987	1669	1292	854	2390	2008	1554	1027	
	20	1356	1139	882	583	1891	1588	1229	813	2274	1910	1478	977	
	22	1287	1082	837	554	1795	1508	1167	772	2158	1814	1403	928	
55/45	15	1099	924	715	473	1533	1288	997	659	1844	1549	1199	793	
	18	998	839	649	429	1392	1169	905	598	1674	1406	1088	719	
	20	931	782	605	400	1298	1090	844	558	1561	1311	1015	671	
	22	864	726	562	372	1205	1012	783	518	1449	1217	942	623	

* Non-standard (MP) units can be made to any length between 1250 and 5000 mm, with single duct lengths up to 5000 mm.

Please state type no. when ordering (see page 4).

**Units longer than 3250 mm are fitted with two fans (each with speed controller) adjacent to each other.

Heat outputs

Katherm GK 400*		Floor duct length NP 2750 mm				Floor duct length NP 3250 mm				Floor duct length NP 3750 mm			
Fan speed n		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.
Fan speed percentage	n/n _{max}	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level													
Duct length < 3250mm		dB(A)	52	46	35	app. 26	52	46	35	app. 26	52	46	35
Duct length > 3250mm		dB(A)	55	49	38	app. 29	55	49	38	app. 29	55	49	38
LPHW/LPWW	Room temperature t _r	Heat output at room temperature t _r											
°C	°C	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	4327	3635	2814	1862	6667	5601	4334	2866	7094	5959	4612	3051
	18	3859	3242	2509	1660	5945	4995	3865	2556	6326	5314	4112	2720
	20	3563	2993	2316	1533	5489	4611	3568	2360	5840	4906	3796	2512
	22	3278	2755	2131	1410	5052	4244	3284	2172	5375	4515	3495	2311
75/65	15	3460	2907	2250	1489	5331	4479	3466	2292	5673	4765	3688	2440
	18	3257	2736	2118	1401	5018	4216	3262	2157	5339	4485	3471	2296
	20	3122	2623	2030	1343	4810	4041	3127	2068	5118	4299	3327	2201
	22	2987	2510	1942	1285	4603	3867	2992	1979	4897	4114	3184	2106
70/55	15	2954	2482	1921	1271	4551	3823	2958	1957	4842	4067	3148	2082
	18	2753	2313	1790	1184	4241	3563	2757	1823	4513	3791	2934	1941
	20	2619	2201	1703	1127	4036	3390	2624	1735	4294	3607	2791	1847
	22	2487	2089	1617	1070	3831	3218	2491	1647	4076	3424	2650	1753
55/45	15	2124	1784	1351	914	3272	2749	2127	1407	3482	2925	2263	1497
	18	1928	1620	1254	829	2970	2496	1931	1277	3161	2655	2055	1359
	20	1798	1511	1169	774	2770	2328	1801	1191	2948	2476	1916	1268
	22	1669	1402	1085	718	2572	2160	1672	1106	2736	2298	1779	1177

Katherm GK 400*		Floor duct length NP 4250 mm				Floor duct length NP 4750 mm				Floor duct length NP 5000 mm			
Fan speed n		max.	medium fan speed		min.	max.	medium fan speed		min.	max.	medium fan speed		min.
Fan speed percentage	n/n _{max}	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %	100 %	75 %	50 %	25 %
Sound pressure level													
Duct length < 3250mm		dB(A)	52	46	35	app. 26	52	46	35	app. 26	52	46	35
Duct length > 3250mm		dB(A)	55	49	38	app. 29	55	49	38	app. 29	55	49	38
LPHW/LPWW	Room temperature t _r	Heat output at room temperature t _r											
°C	°C	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]	Q [W]
82/71	15	7454	6261	4845	3205	7798	6550	5068	3353	7940	6669	5161	3414
	18	6648	5583	4320	2858	6954	5841	4520	2990	7080	5946	4602	3045
	20	6137	5154	3988	2638	6420	5393	4173	2760	6536	5490	4248	2811
	22	5648	4744	3670	2428	5908	4963	3840	2541	6016	5053	3909	2587
75/65	15	5961	5007	3874	2563	6236	5238	4053	2681	6349	5333	4127	2730
	18	5611	4712	3646	2412	5869	4930	3815	2524	5976	5019	3884	2570
	20	5378	4517	3495	2312	5626	4726	3657	2419	5728	4811	3723	2463
	22	5146	4322	3344	2212	5383	4522	3499	2315	5481	4604	3562	2357
70/55	15	5088	4274	3307	2187	5323	4471	3460	2289	5419	4552	3522	2330
	18	4742	3983	3082	2039	4961	4167	3225	2133	5051	4242	3283	2172
	20	4512	3790	2932	1940	4720	3965	3068	2030	4806	4037	3124	2067
	22	4283	3598	2784	1841	4481	3764	2913	1927	4562	3832	2965	1962
55/45	15	3659	3073	2378	1573	3827	3215	2488	1646	3897	3273	2533	1676
	18	3321	2789	2158	1428	3474	2919	2258	1494	3537	2971	2299	1521
	20	3098	2602	2013	1332	3240	2722	2106	1393	3299	2771	2144	1419
	22	2875	2415	1868	1236	3008	2527	1955	1293	3062	2572	1990	1317

* Non-standard (MP) units can be made to any length between 1250 and 5000 mm, with single duct lengths up to 5000 mm.

Please state type no. when ordering (see page 4).

**Units longer than 3250 mm are fitted with two fans (each with speed controller) adjacent to each other.

1.46 Katherm GK - fan assisted convection

Specifications

Katherm GK

Qty.	Article no.	Description	Price/each	Total price
pc.	146 0 2 11 1 11 20	Katherm GK floor duct heaters ready-to-install fan-assisted floor duct convectors, manufactured from: sendzimir galvanized steel duct, painted graphite grey inside and out, with screed anchoring lugs for use with screeded floors, internal and lateral height adjustment feet with fixing and sound insulation; copper/aluminium convector with Eurokonus valve fitting, painted graphite grey, suitable for max. operating pressure 10 bar and 120 °C, sitting on steel brackets with felt underlay, with duct reinforcing bracketry; with secondary fan-assisted convection, drawing in air along the entire length of the convector; internal 0-100% speed control, connectable to external speed controller, computerized control by voltage regulation for whisper-quiet operation, with start-up control and maximum fan speed limitation capacitor; voltage 230V/50Hz, maximum power uptake 50 w; integral electrical connection in duct (with black terminal box) for thermoelectric actuator; grille frame to match double T-profile grille; grille bar dimension 18 x 5 mm, bar spacing 9 mm; linked on corrosion-proof steel spring with matching spacers; approx. 65% free area; complete with: 1 roll-up grille 3 linear grille 11 aluminium, natural anodized 12 aluminium, brass anodized 13 aluminium, bronze anodized 14 aluminium, black anodized 15 aluminium bronze effect 16 aluminium, painted basalt grey, DB 703 31 stainless steel 32 stainless steel, polished 33 natural brass CuZn 44 34 natural brass, CuZn 44, polished, oxydation-proof 11 Height 112 mm 2 Katherm GK 182 width 182 mm connection 1/2" same end 4 Katherm GK 272 width 272 mm connection 1/2" same end 8 Katherm GK 400 width 400 mm connection 1/2" same end Length key: 20 NP 1250 mm 30 NP 1750 mm 40 NP 2250 mm 50 NP 2750 mm 60 NP 3250 mm 70 NP 3750 mm 80 NP 4250 mm 90 NP 4750 mm 95 NP 5000 mm Technical data: Duct length NP _____ mm (standard range) MP _____ mm (non-standard range) Water temp. LPHW _____ / _____ °C Room temperature _____ °C Heat output _____ w Fan speed percentage _____ % Sound pressure level _____ dB(A) Type Kampmann, article no. 1460_ 11 _____, type _____	only for use with speed controller type 146926 or room thermostat with integral speed controller type 146924	

required for
DataNorm/EDV
article no.

Qty.	Article no.	Description	Price/each	Total price
pc.	194 000 2 4 6 9 0 9	1/2" Valve body, axial design for Katherm GK 182 Type Kampmann, article no. 194000246909, type 246909		
pc.	194 000 1 4 6 9 0 9	1/2" Valve body, straight design, for Katherm GK 272 and GK 400 Type Kampmann, article no. 194000146909, type 146909		
pc.	194 000 1 4 5 9 5 2	1/2" Return shut-off valve, straight design, nickel-plate housing, o-ring seal, Type Kampmann, article no. 194000145952, type 145952		
pc.	194 000 1 4 5 9 5 3	1/2" Return shut-off valve, angled design nickel-plate housing, o-ring seal Type Kampmann, article no. 194000145953, type 145953	not for Katherm GK 182	
pc.	194 000 1 4 6 9 0 5	Thermoelectric actuator 230 V, 50 Hz Type Kampmann, article no. 194000146905, type 146905		
pc.	194 000 1 4 6 9 0 7	Thermostatic valve head with remote sensor white, surface-mounted, with 5 m capillary tube; temperature range 8-27 °C, frost protection +6 °C Type Kampmann, article no. 194000146907, type 146907		
pc.	194 000 1 4 6 9 7 0	Surcharge for mitred corners individual bars are cut on the mitre and joined; duct sections are slip-jointed; convectors are connected using woven steel flexible connections; manufactured to exact dimensions		
		0 for Katherm GK 182 1 for Katherm GK 272 2 for Katherm GK 400		
		7 non-90 degree angle 8 90° angle		
		1 for Katherm GK with roll-up grille 2 for Katherm GK with linear grille Type Kampmann, article no. 194000_469_ _ type _469_ _		
m	194 000 1 4 6 9 8 4	Installation cover to protect floor duct on site during installation 4 for Katherm GK 182 5 for Katherm GK 272 6 for Katherm GK 400 Type Kampmann, article no. 19400014698_ , type 14698_		
m	194 000 1 4 6 2 1	Raised floor feet for use with Katherm GK 2 for Katherm GK 182 3 for Katherm GK 272 4 for Katherm GK 400 Type Kampmann, article no. 1940000146_1, type 146_1		
	required for DataNorm/EDV article no.			

1.46 Katherm GK - fan-assisted convection

Specifications

Controls accessories

Qty.	Article no.	Description	Price/each	Total price
pc.	194 000 146 926	Speed controller flush-mounted, Jung System, for 0-100% parallel control of up to maximum 10 Katherm GK with one fan (maximum 5 no. GK 400 longer than NP 3250 mm with two fans); on/off dial, white front panel and frame Voltage 230 V/50 Hz Protection IP 20 Dimensions W x H x D 65 x 65 x 42 mm Type Kampmann, article no. 194000146926, type 146926		
pc.	194 000 146 927	Room thermostat flush-mounted, manufactured by Jung, temperature set using dial, main switch with indicator; with thermal setback and separate terminal for night setback; white front panel and frame Temperature range approx. 5 - 30 °C Switching differential 0.5 K Night setback 4 K Protection IP 20 Dimensions W x H x D 65 x 65 x 42 mm Type Kampmann, article no. 194000146927, type 146927		
pc.	194 000 146 929	Double frame Jung System, white; to mount speed controller type 146926 and room thermostat type 146927 in the same frame; Type Kampmann, article no. 194000146929, type 146929		
pc.	194 000 146 924	Room thermostat with integral speed controller in a slim-line surface-mounted housing, white, with thermal setback, temperature range limiter; on/off fan switch with integral speed controller for 0-100% parallel control of maximum 10 Katherm GK with one fan (or 5 no. Katherm GK 400 longer than 3250 mm, each with two fans) Temperature range approx. 5-30 °C Protection IP 30 Max. amperage 4 A Dimensions W x H x D 70 x 70 x 35 mm Type Kampmann, article no. 194000146924, type 146924		
pc.	194 000 146 910	Clock thermostat 230 V/50 Hz, in attractive white surface-mounted housing, with electronic 2-point room temperature control and digital weekly clock, power reserve 15 min; party switch; indicator showing automatic/day/night/off switch Temperature range 10 - 30 °C Night setback 2 - 10 K Protection IP 20 Dimensions W x H x D 140 x 70 x 30 mm Type Kampmann, article no. 194000146910, type 146910		
pc.	194 000 146 932	Clock thermostat 230 V/50 Hz, flush-mounted housing, white frame and cover; large display with required and actual values; 4-button operation; setting of day/week programme; party function; frost protection Temperature range 5 - 30 °C Protection IP 20 Power reserve approx. 1 hour Contact change-over contact, single-ended Max. amperage 2 A Dimensions 84 x 84 mm, 18 mm height Type Kampmann, article no. 194000146932, type 146932		
	required for DataNorm/EDV article no.			



Cut-out with cover plate



Mitred corner, acute angle



Curved unit



Mitred corner with cut-out

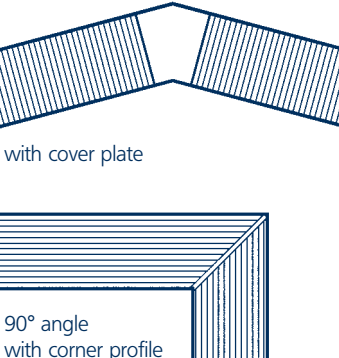
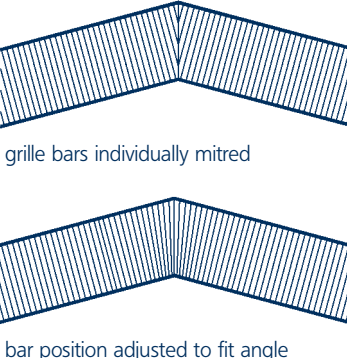
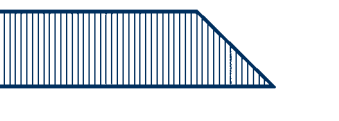
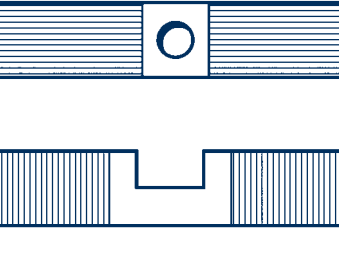
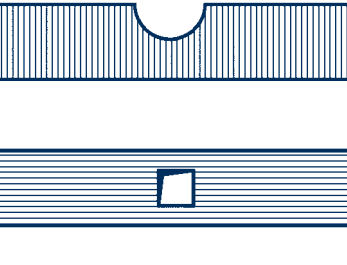
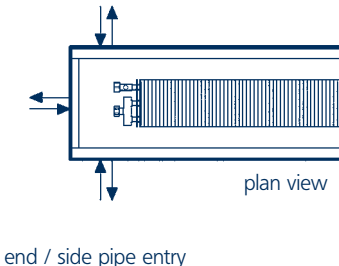
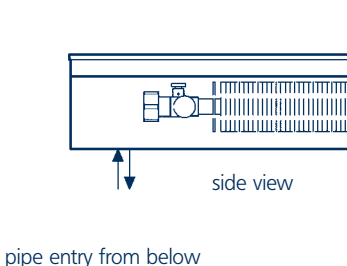
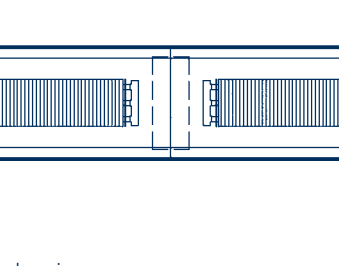
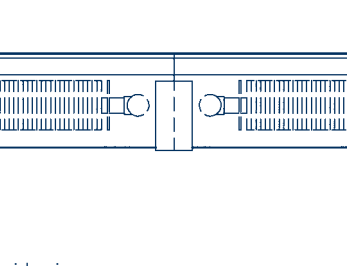
Tailor-made solutions, based on the *Katherm GK* system, have been developed by Kampmann in collaboration with architects, designers and heating contractors.

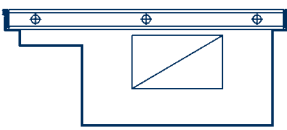
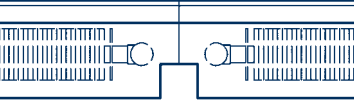
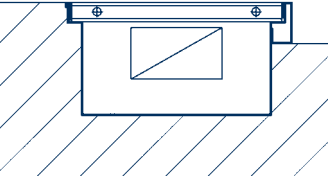
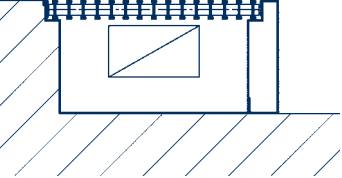
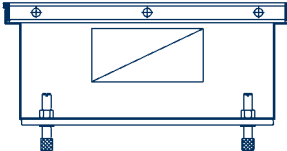
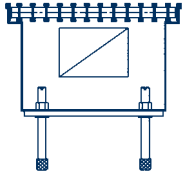
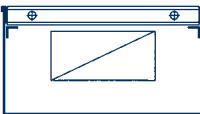
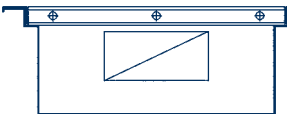
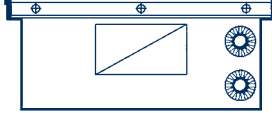
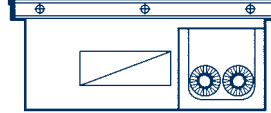
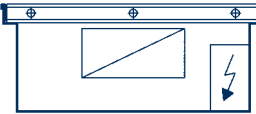
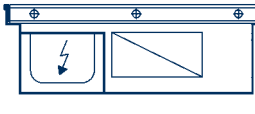
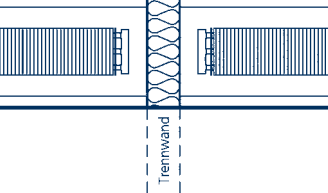
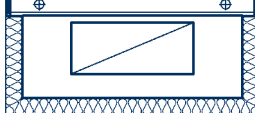
When asked to do so, the Kampmann installation team will take dimensions and ensure the precise manufacture of mitred corners, curves and recesses. In this way the correct and exact fitting of complicated components is easily done!

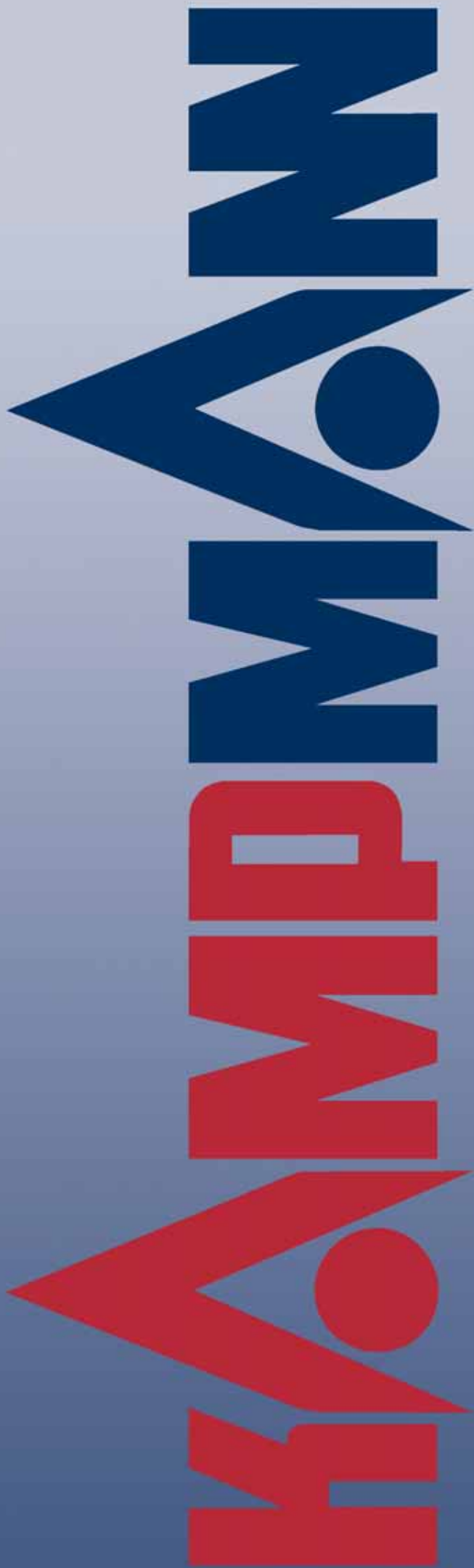
1.46 Katherm GK - Fan-assisted convection

Ready-to-install floor duct convectors

Project solutions

1. Mitred corner designs • acute/obtuse/90°-angle • convectors joined using flexible connections • all designs are available with roll-up or linear grille	 with cover plate 90° angle with corner profile	 grille bars individually mitred bar position adjusted to fit angle
2. Mitres		
3. Recesses and cut-outs • any shape or form to integrate columns, mullions etc. • cover plates in a range of materials: – natural brass – anodized aluminium – stainless steel		
4. Cover plates under partition walling used to fit duct under existing partition walling	 partition walling window mullions partition walling	
5. Connection options the convector can be connected from all sides by means of pipe openings in the duct	 plan view end / side pipe entry	 side view pipe entry from below
6. Coupling to create continuous duct lengths with cover plate over join	 plan view	 side view

7. Duct cut-outs/recesses 1. to fit around structural beams 2. duct cut-outs around façade anchors	 cross-section (1.)	 side view (2.)
8. Step with front panel design harmoniously fits within floor structure	 side partially encased	 side completely encased
9. Mounting feet adjustable height adjustment/free-standing fixing within raised floor	 within floor duct	 within floor duct
10. Frame design	 without lip	 connection to structural component
11. Pipework laid within duct space-saving pipework solutions	 pipework laid within floor duct	 pipework laid within separate duct
12. Integral electrical/computer ducts practical building solutions	 directly in the floor duct	 in a separate integral duct
13. Sound-proofing 1. sound insulating barrier prevents noise transfer from room to room 2. duct is completely encased in sound insulating material	 insulating sound barrier (1.)	 insulation around outside of duct (2.)



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