

Trench Heating/Cooling

# Katherm HK

Tested acc. to:  
**EN 16430**

**KAMPMANN**  
Genau mein Klima.



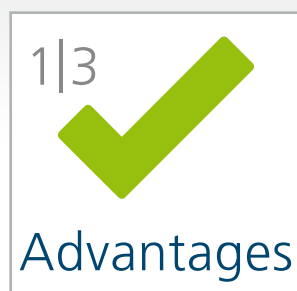


# Improved performance

The narrower trench width and shallower trench height of the totally redesigned Katherm HK delivers an optimised output range for on-demand heating and cooling from low level. With its new incremental lengths, the Katherm HK is the solution for the most diverse building requirements.

## Innovative

The Katherm HK has been further developed in the Kampmann Research & Development Center. With revised components, like the tangential fan, high-output coil and the modified design chassis, the new Katherm HK provides optimised air flow foreven higher performance.



Advantages



Details



Control



Data



Grilles

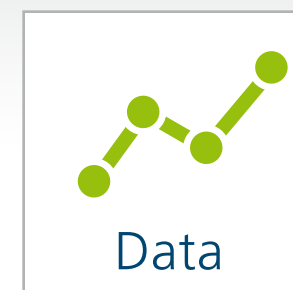
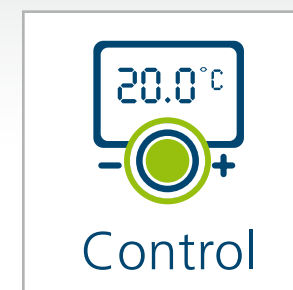
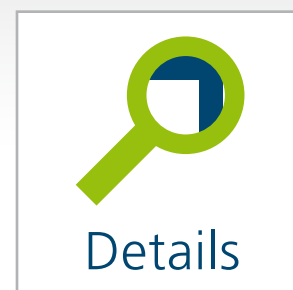
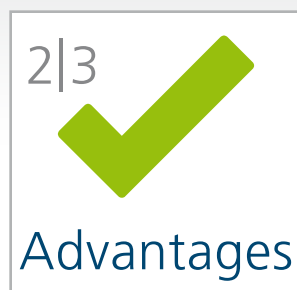


# Hygiene-compliant

It's unique! Thanks to improved condensate drainage in cooling mode, coupled with the ease of cleaning of the condensate tray, the Katherm HK is totally hygienic!

# Energy-efficient

State-of-the-art EC tangential fans with low power consumption ensure energy-saving operation combined with low sound levels. The fixing system in the floor trench, perfected over many years, which also incorporates sound decoupling ensures that the unit can be quickly and easily removed for cleaning and maintenance.



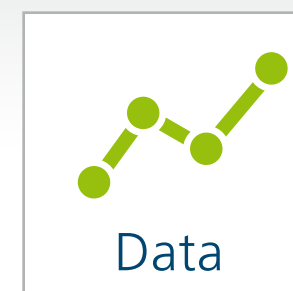
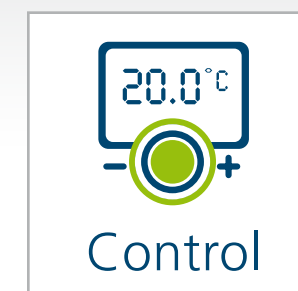
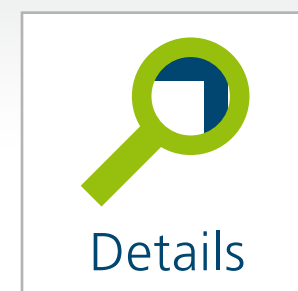
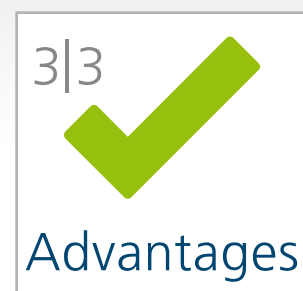


# Flexible

Katherm HK trench units can be equipped as standard with a 0-10V BMS interface for Fan speed control. Units can be supplied individually or in banks with a choice of Class 2 Transformers. All units have been designed specifically for the North American market and are therefore fully certified to UL/cUL 1995 (CSA C22.2).

# Air flow-optimised

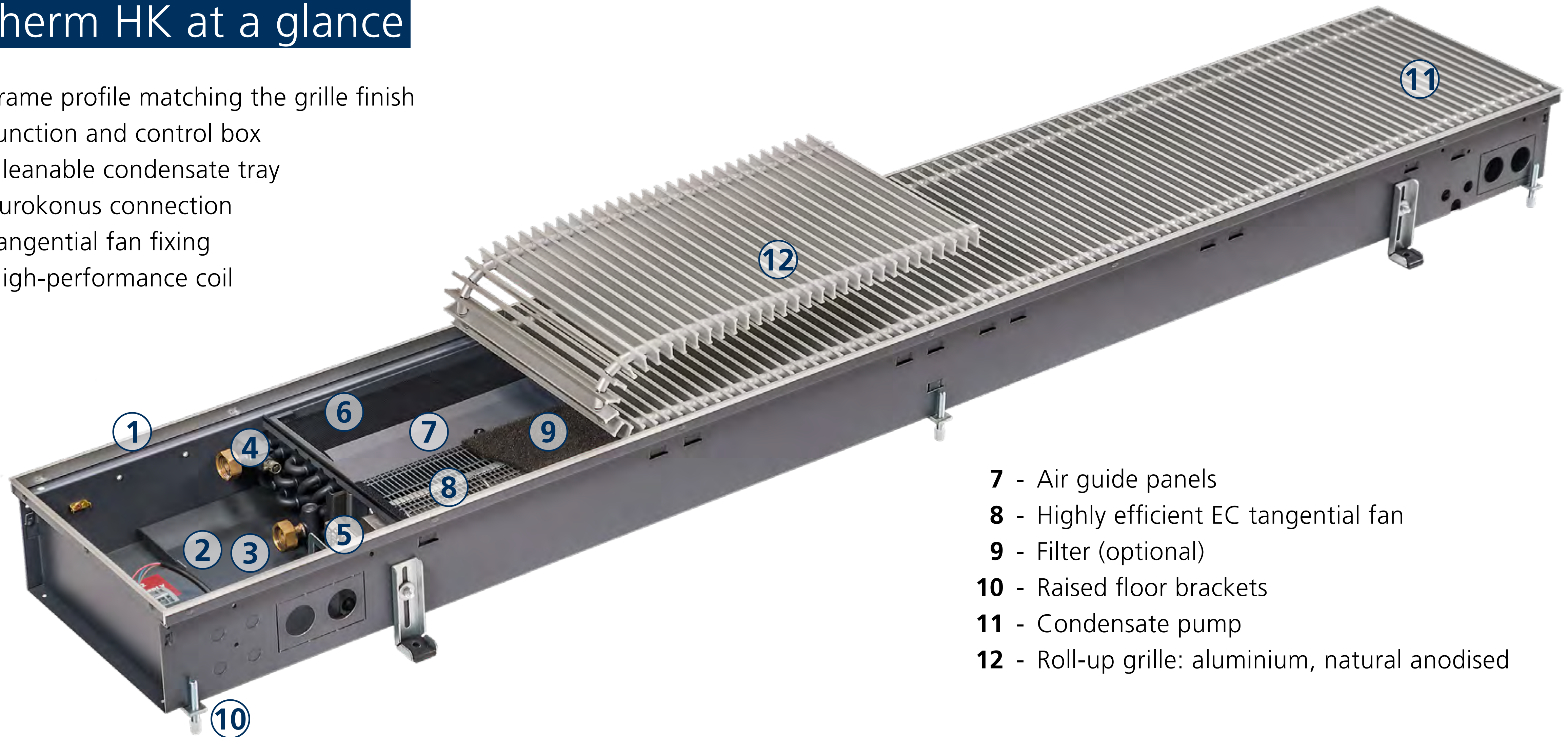
The arrangement and air guidance have both been optimised on the Katherm HK and guarantee maximum comfort levels in all rooms. The unit is enhanced with air flow-optimised roll-up and linear grilles.



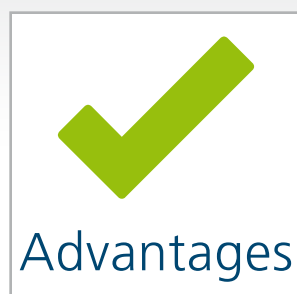


# Katherm HK at a glance

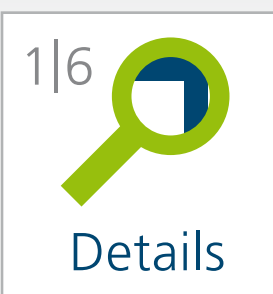
- 1 - Frame profile matching the grille finish
- 2 - Junction and control box
- 3 - Cleanable condensate tray
- 4 - Eurokonus connection
- 5 - Tangential fan fixing
- 6 - High-performance coil



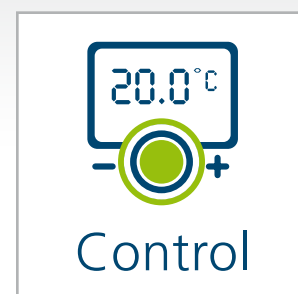
- 7 - Air guide panels
- 8 - Highly efficient EC tangential fan
- 9 - Filter (optional)
- 10 - Raised floor brackets
- 11 - Condensate pump
- 12 - Roll-up grille: aluminium, natural anodised



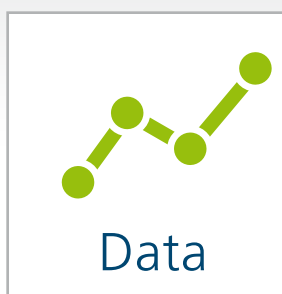
Advantages



Details



Control



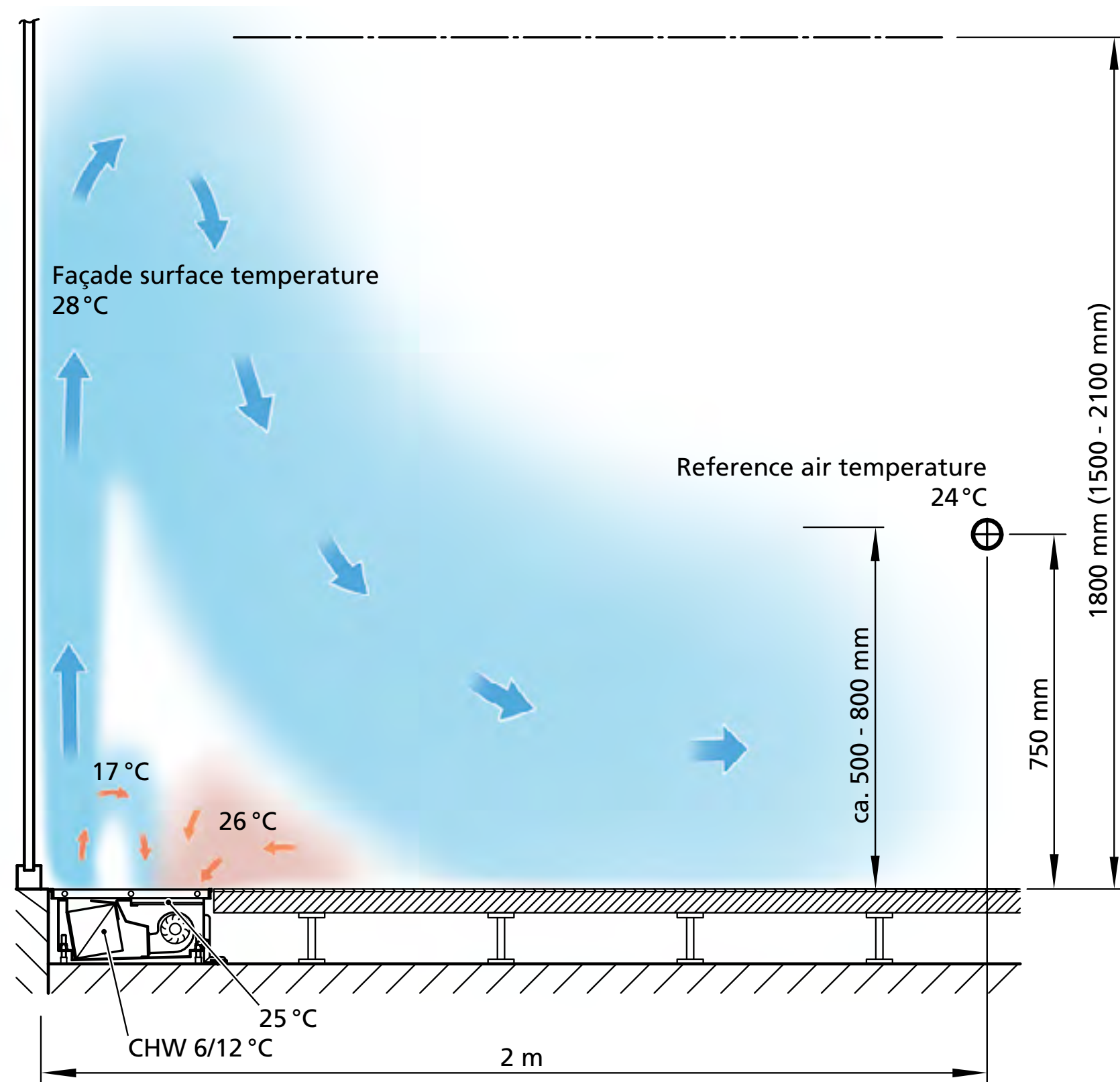
Data



Grilles



# Katherm HK with short-cut optimised air outlet



Katherm HK: Short-cut optimised air outlet

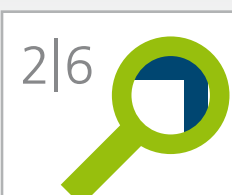
The diagram shows the the air flow of short-cut optimised heating/cooling trenches in cooling mode.

With the short-cut optimised model the air at the façade rises significantly higher, blends and penetrates deeper into the room at a higher temperature. The result is a more even temperature distribution and higher comfort in the occupied zone.

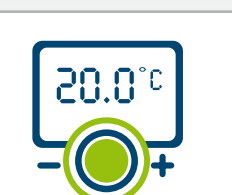
The development and design of the Katherm HK have been optimised to minimise the short-cut as far as technically possible. All performance data refer to the reference air temperature measured at a distance of 2 m from the façade, 0.75 m above floor level.



Advantages



Details



Control



Data

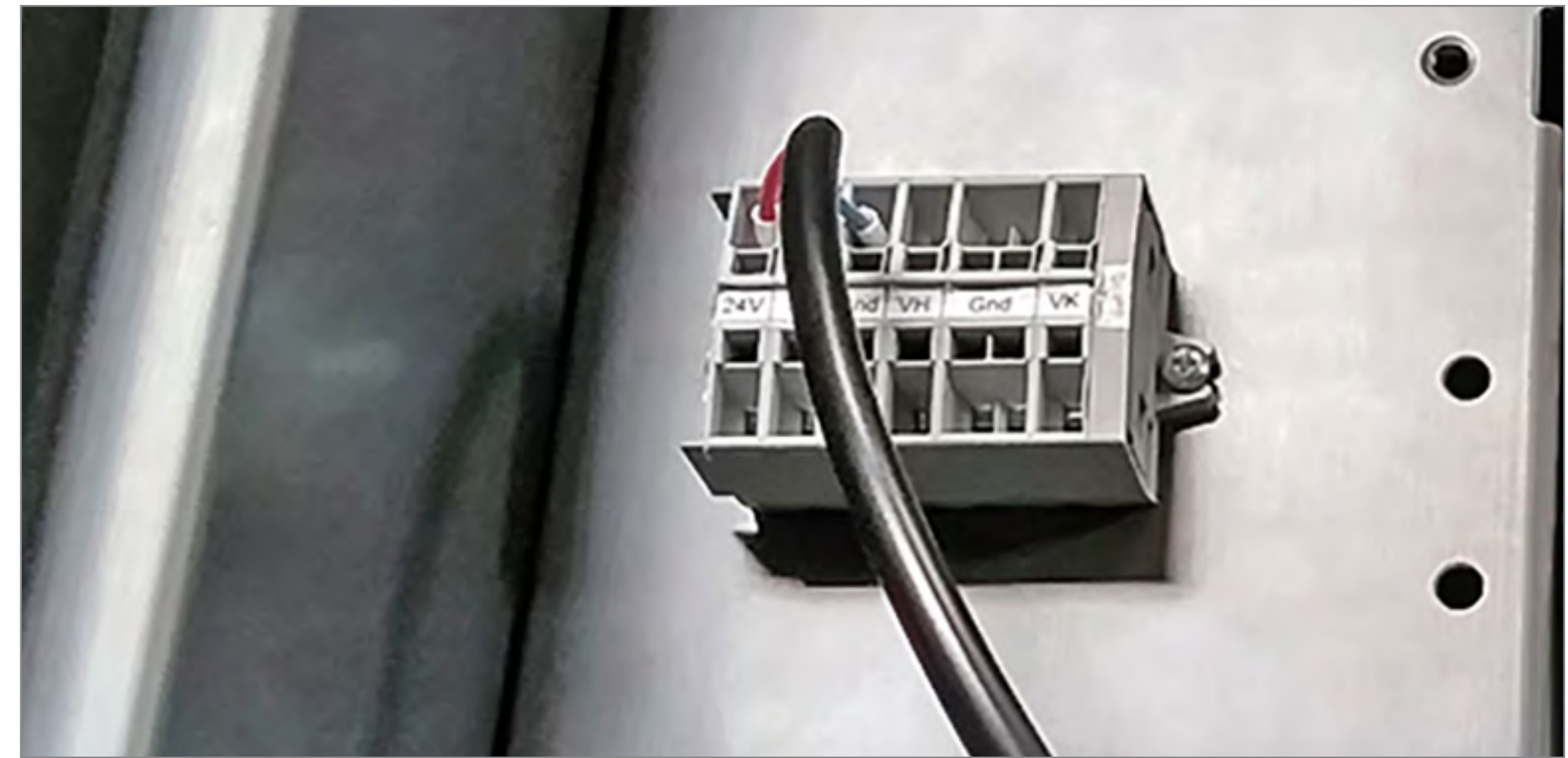


Grilles



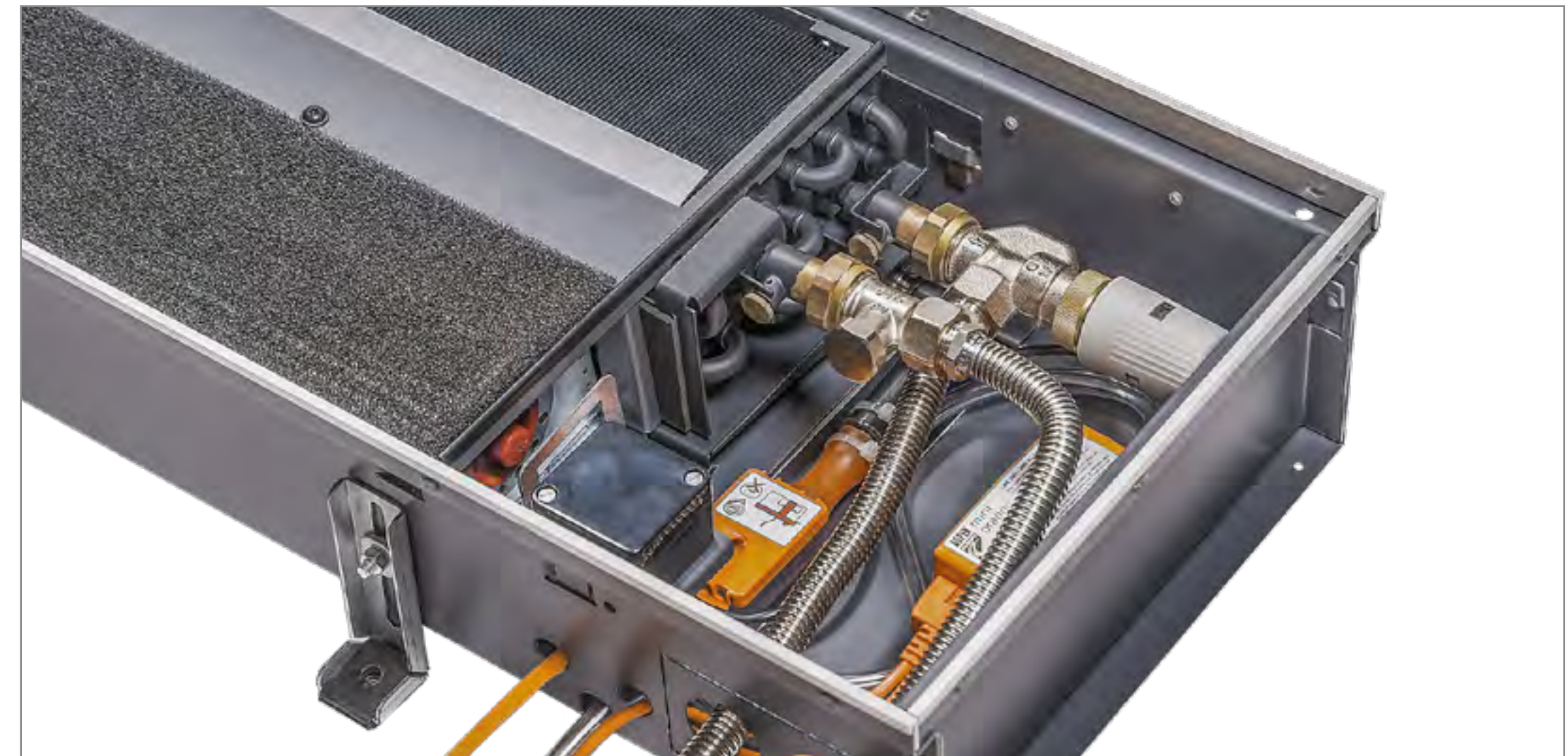
## Junction and control box

- ▶ For fast and safe wiring, saves installation time
- ▶ Electromechanical control with 0-10 V BMS interface

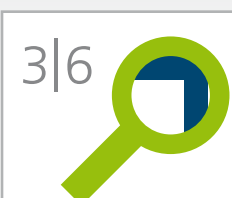


## Condensate tray/pump

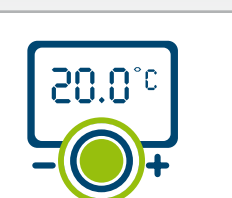
- ▶ Integral tray ensures safe discharge of condensate
- ▶ Tray can be removed for ease of cleaning
- ▶ Optional condensate pump can be factory fitted in the unit



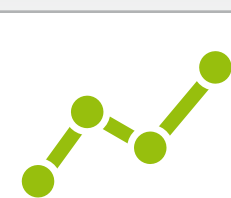
Advantages



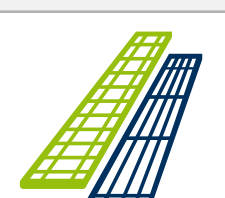
Details



Control



Data

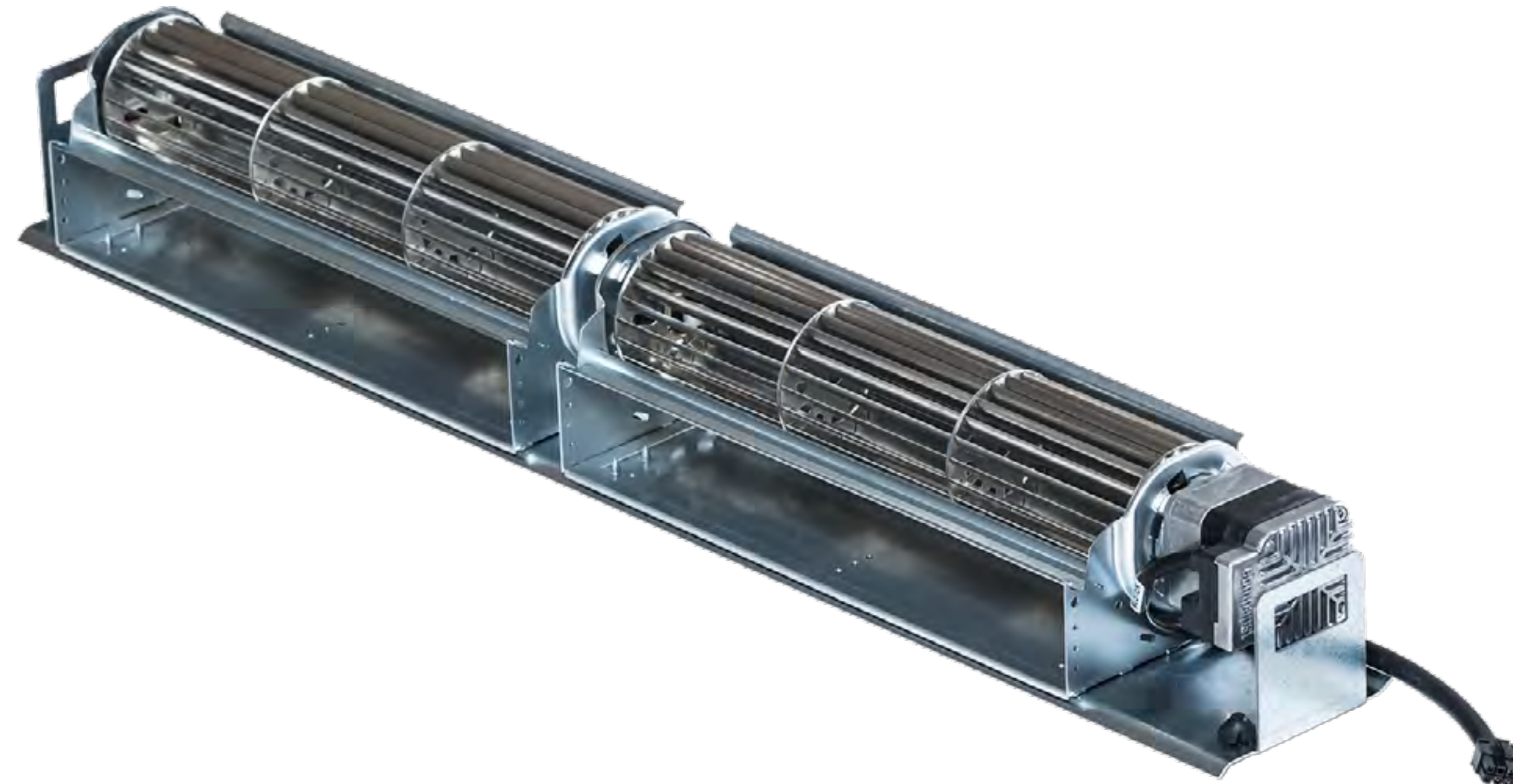


Grilles

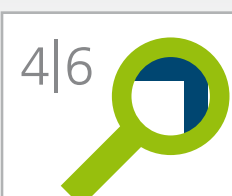


## Highly efficient EC tangential fan

- ▶ Energy-saving 24 V ECM
- ▶ Optional Class 2 Transformers supplied separately
- ▶ Even air flow across coil
- ▶ Reliable and extremely low noise
- ▶ 20-100 % continuously variable fan speed control



Advantages



Details



Control



Data



Grilles



## Tangential fan fixing

- ▶ Easy removal of tangential fan without tool
- ▶ Novel coupling/cone pin system
- ▶ Simultaneous sound decoupling

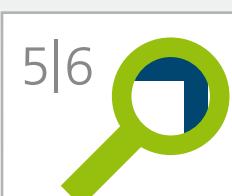


## Air guide panels

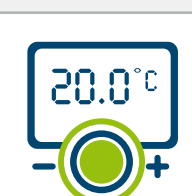
- ▶ Act as a finger guard for the tangential fan, filter frame, airflow baffle, grille seat and reinforcing stay to strengthen the trench



Advantages



Details



Control



Data



Grilles



## High-performance coil

- ▶ With anti-torsion mechanism, made of the proven combination of copper/aluminium
- ▶ Optimised for air flow and heat output
- ▶ NPT adaptors available on request

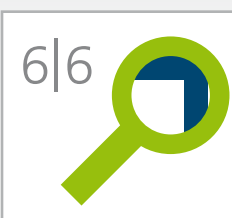


## Supply air module

- ▶ For inducing preconditioned supply air
- ▶ Primary air volume can be adjusted
- ▶ Max. air volume per module = 60 m<sup>3</sup>/h
- ▶ Amount of modules selectable depending on trench length
- ▶ *Change in trench dimensions: trench width + 20 mm (0,79"); trench height + 35 mm (1,38")*



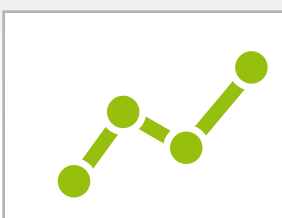
Advantages



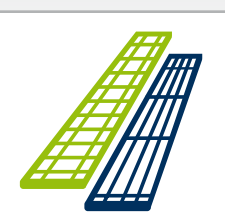
Details



Control



Data



Grilles



# Control options

## Power supply unit



- Power supply 24 V
- Optional DIN rail Class 2 Transformers for 120 V/60 Hz supply
- Fan speed control 20 to 100% via 0-10 V BMS signal

## Valves

with NPT adaptors for Eurokonus connection



Isolation valve body: DN15 R 1/2", straight form, Combi 2, NPT, Type 1275404



Thermostatic valve body: DN15, 1/2", axial form, NPT M30x1,5, Type 1275402



Thermostatic return shut-off valve: DN15, 1/2", straight form, NPT M30x1,5, Type 1279306



Thermoelectric actuator: 24 V DC, Type 146906



Advantages



Details



Control



Data



Grilles



# Performance data according to BS EN 16430

Unit length		Unit width		Unit height		Heat output <sup>1)</sup>				Sensible cooling output <sup>2)</sup>				Sound level <sup>3)</sup>	
A		B		C		2-pipe		4-pipe		2-pipe		4-pipe		Pressure	Power
[mm]	[in]	[mm]	[in]	[mm]	[in]	[W]	[BTU]	[W]	[BTU]	[W]	[BTU]	[W]	[BTU]	[dB(A)]	[dB(A)]
915	36	320	12.6	130	5.1	652	2200	379	1295	286	975	287	980	27	35
1200	47.2					1164	3970	734	2500	559	1905	554	1890	29	37
1700	66.9					2161	7370	1410	4810	1110	3785	1092	3725	31	39
2000	78.7					2469	8420	1679	5730	1292	4405	1273	4345	32	40
2500	98.4					3470	11840	2363	8060	1848	6305	1815	6190	33	41
3000	118.1					4474	15265	3051	10410	2407	8210	2361	8055	34	42
950	37.4	290	11.4	190	6.3	711	2427	446	1523	321	1096	313	1069	24	32
1200	47.2					1201	4100	754	2574	542	1850	529	1806	26	34
1700	66.9					1912	6528	1200	4097	863	2946	842	2875	28	36
2000	78.7					2504	8549	1571	5364	1130	3858	1103	3766	29	37
2500	98.4					3197	10915	2007	6852	1443	4927	1409	4811	30	38
3000	118.1					4263	14554	2676	9136	1924	6569	1878	6412	31	39

<sup>1)</sup> Heat output per Katherm HK, with a medium fan speed 60 %, at LPHW 49/38 °C (120/110 °F), room air temperature 20 °C (70 °F)

<sup>2)</sup> Cooling output per Katherm HK, with a medium fan speed 60 %, at CHW 6/12 °C (44/54 °F), room air temperature 24 °C (78 °F), 50 % relative humidity

<sup>3)</sup> The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m³ and a reverberation time of 0.5 s, at medium fan speed.  
Sound pressure level < 20 dB (A) and sound power level < 28 dB (A) outside the usual measuring and audible range.



Advantages



Details



Control



Data

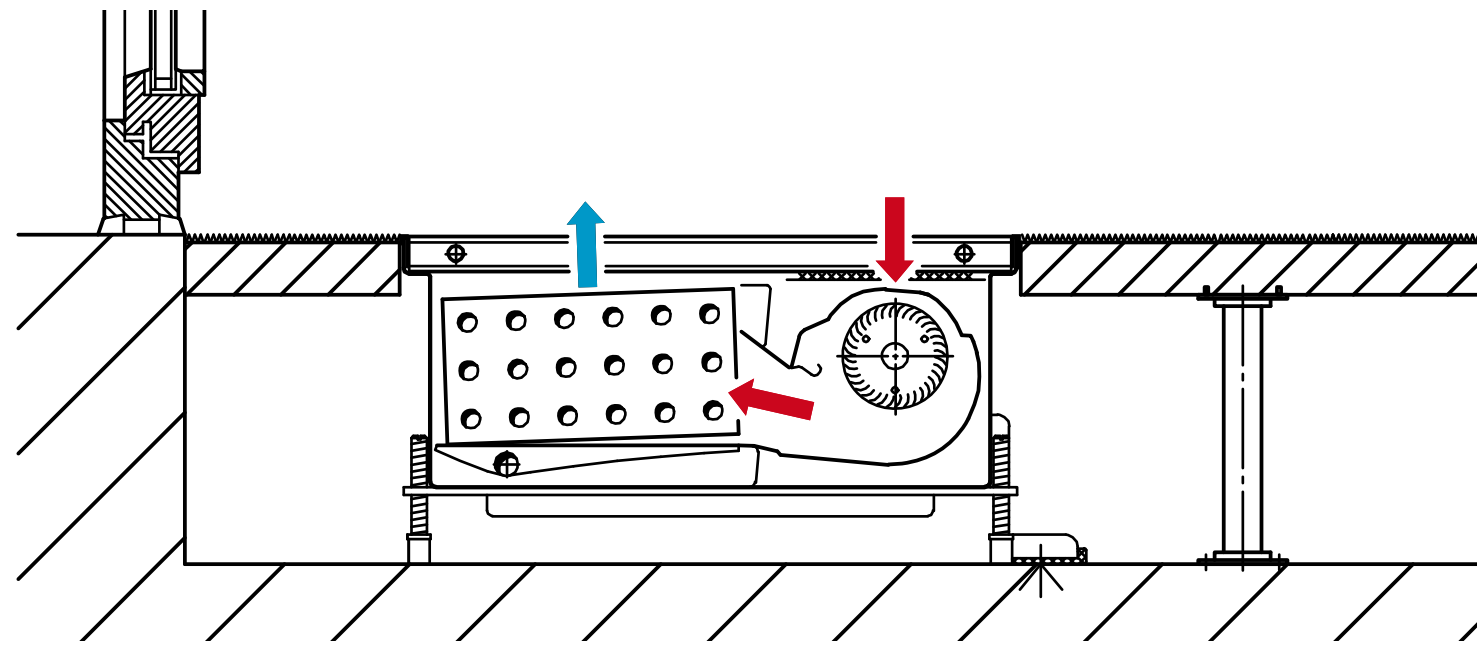


Grilles

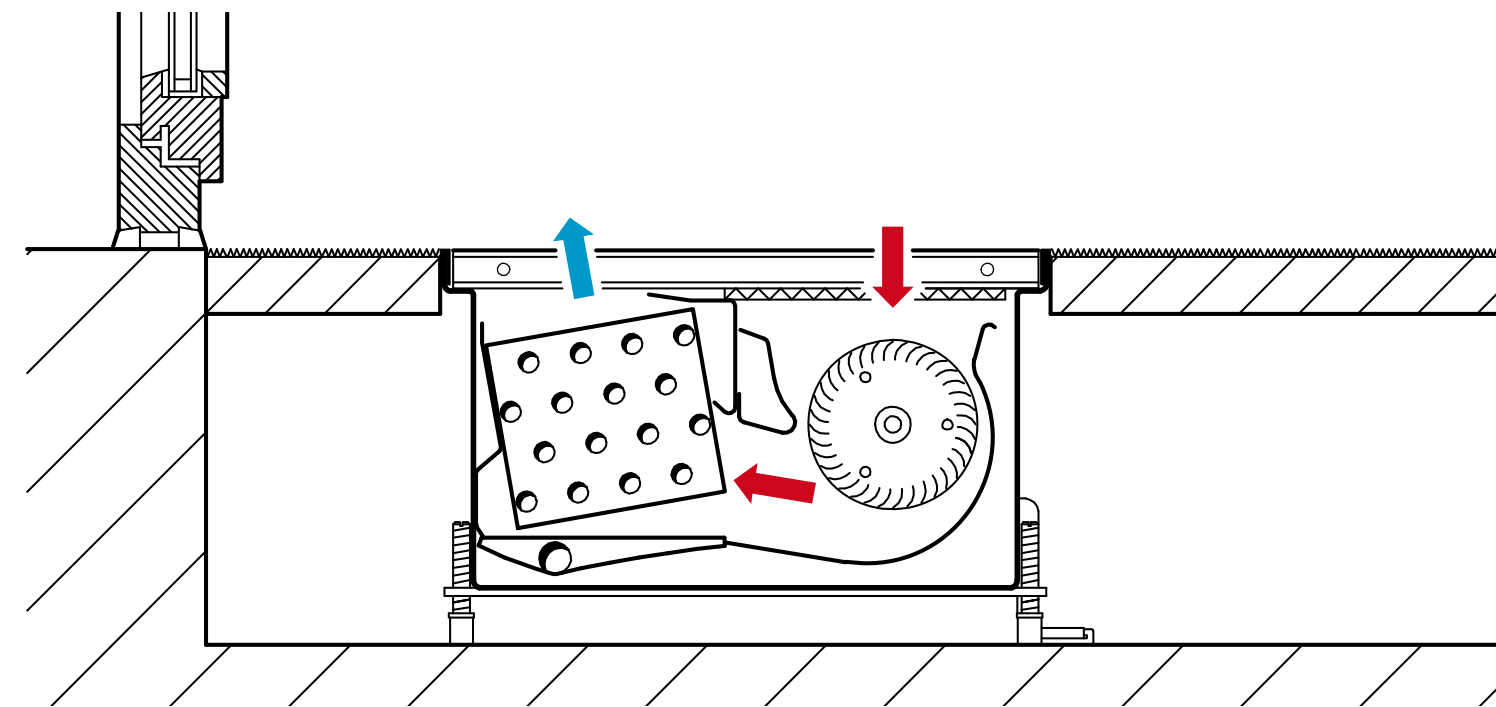




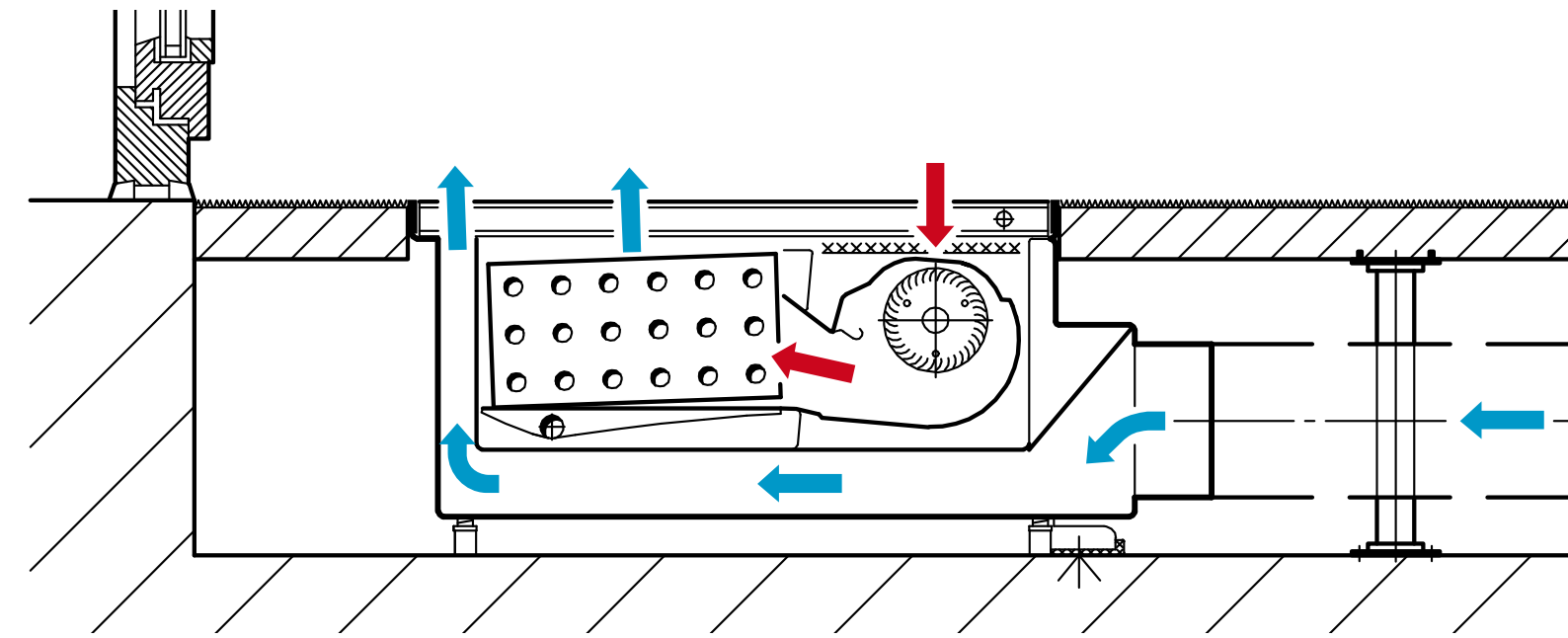
# Cross sections



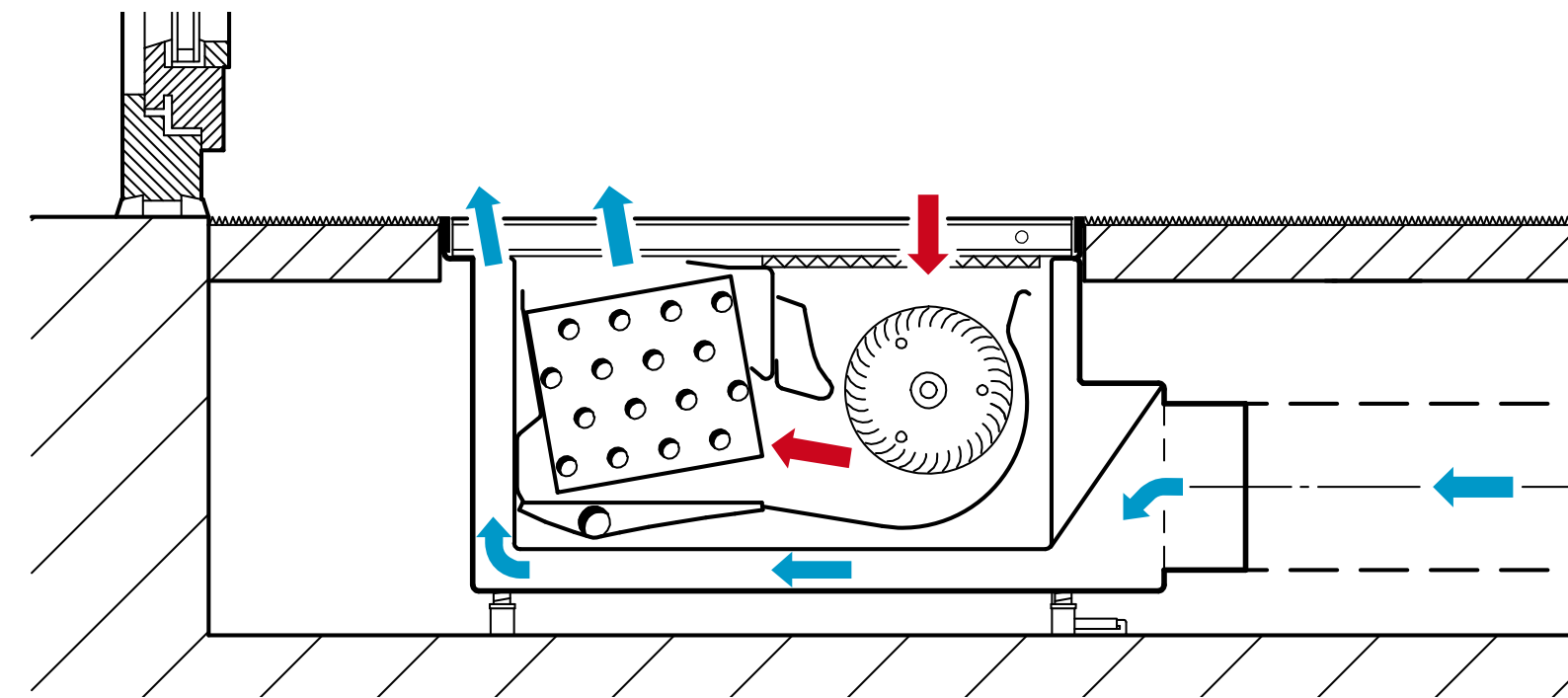
Katherm HK 320, 4-pipe



Katherm HK 290, 4-pipe



Katherm HKZ 320, 4-pipe,  
with supply air connections



Katherm HKZ 290, 4-pipe,  
with supply air connections



Advantages



Details



Control



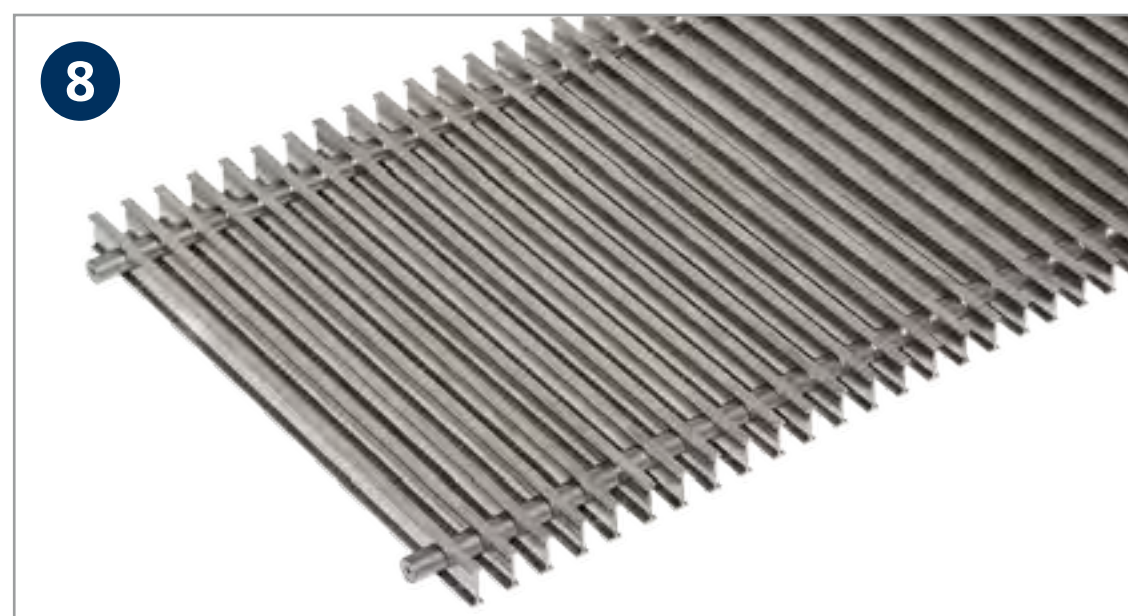
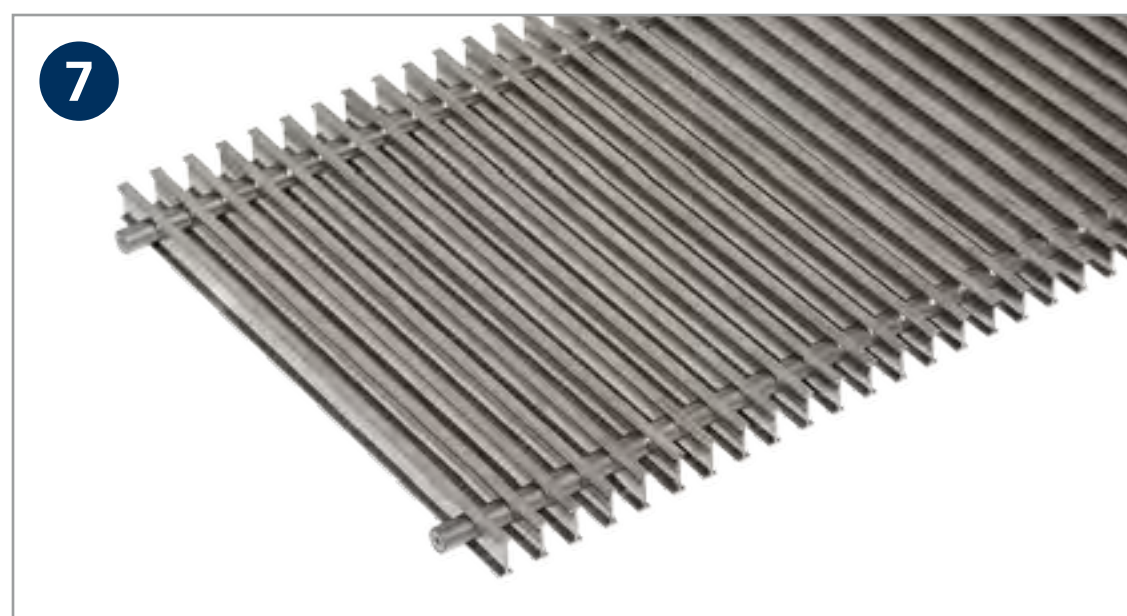
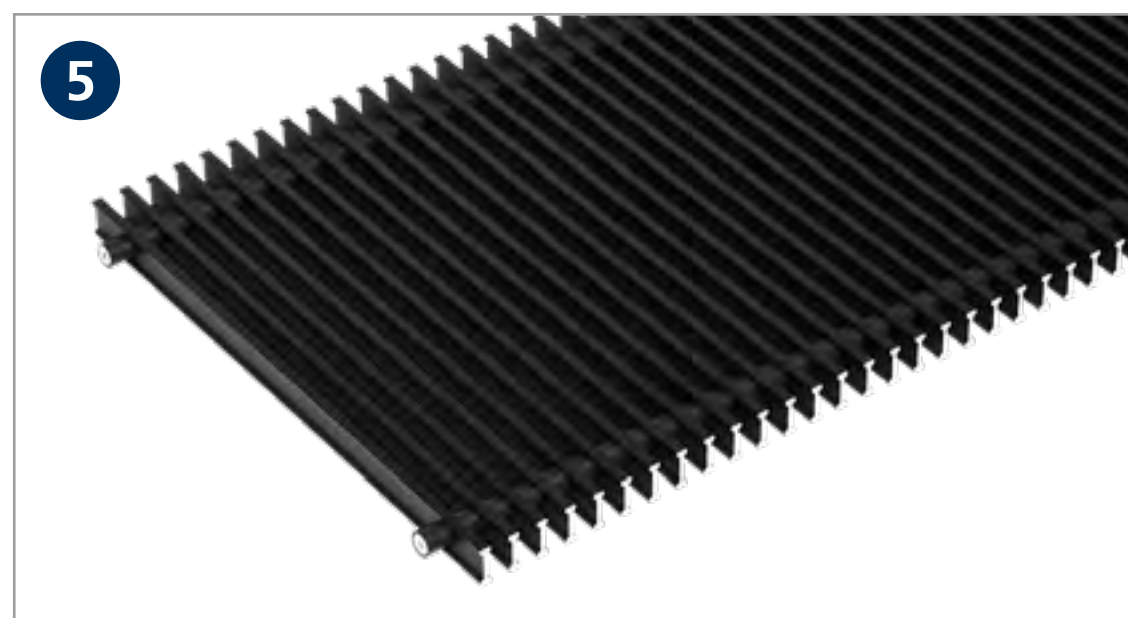
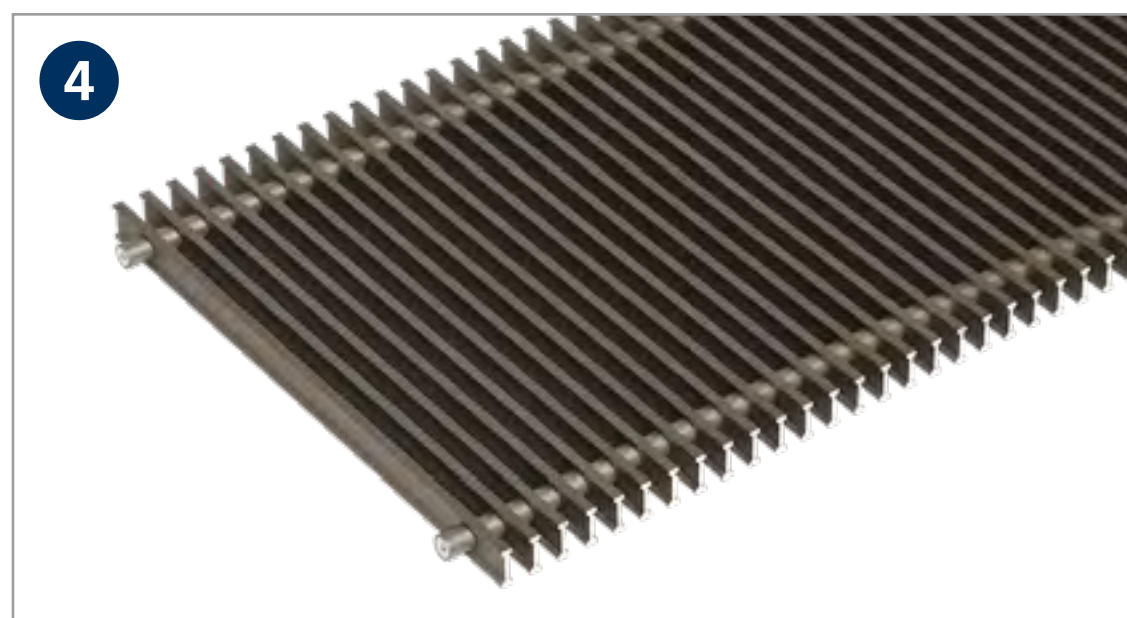
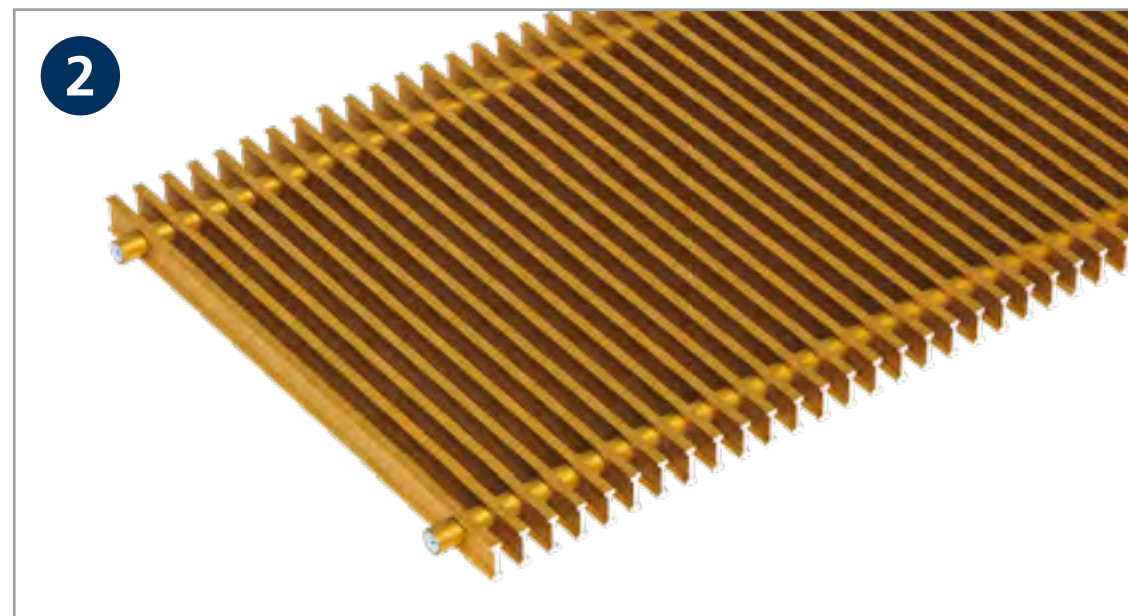
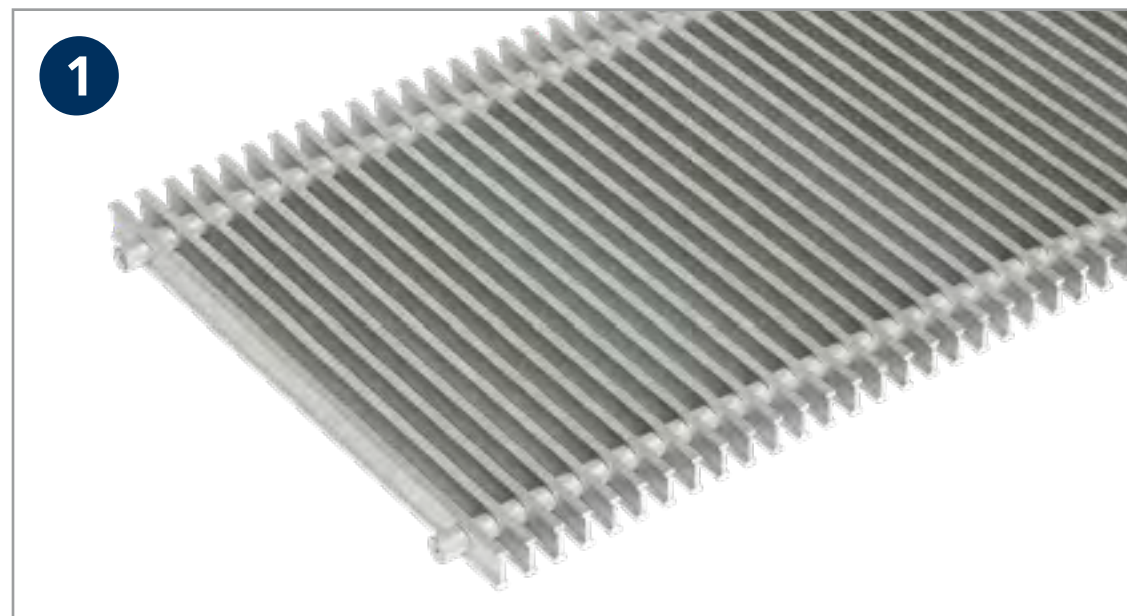
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Grilles



# Choice of grilles



- 1 Aluminium, natural anodised
- 2 Aluminium, brass anodised
- 3 Aluminium, bronze anodised
- 4 Aluminium, bronze finish
- 5 Aluminium, black anodised
- 6 Aluminium, basalt grey painted DB 703
- 7 Stainless steel
- 8 Stainless steel, polished
- 9 Brass, natural

## Aluminium roll-up grille, natural anodised:

- ▶ double T-profile roll-up grille
- ▶ bar dimension 18 x 5 mm (stainless steel 18 x 6 mm)
- ▶ bar spacing 12 mm (stainless steel 10.5 mm)
- ▶ connections made of corrosion-proof steel springs with spacers in a matching colour
- ▶ 70 % free area



Advantages



Details



Control



Data



Grilles



# Benefits for you!

Kampmann offers you the following service benefits:

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- ▶ Design support
- ▶ System solutions
- ▶ Site-surveys
- ▶ After Sales Service

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