

HEATING / COOLING CEILING SYSTEM DATASHEET

Special notes » An increase in performance is possible by increasing the energy rail share.

It is particularly important to note that the stated values (heating or cooling capacity) of the ceiling system offered show the actual capacity to be achieved in the room. The mere indication of the active heating/cooling capacity (Pa) is therefore not sufficient for the proof of performance.

The following applies » For the selection of a suitable cooling system, the nominal cooling capacity must be related to the panel area of the test room

$P_p = P_a \cdot (A_a / A_p) \text{ W/m}^2$ according to VDI 6034.

The test certificates, which also serve as a basis for analytical calculations and simulations, are verified by a testing laboratory accredited according to ISO/IEC and recognized by DIN CERTCO.

Decisive for this are »

Cooling load » DIN EN 14240 (values at Δt : 8K)

Heating load » based on DIN EN 14037 (values at Δt : 15K) VDI 6034 must be observed.

The ceiling is to be installed as a climate ceiling for closed rooms to achieve a comfortable indoor climate.

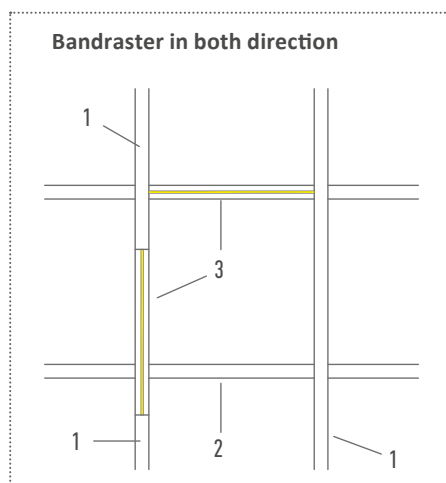
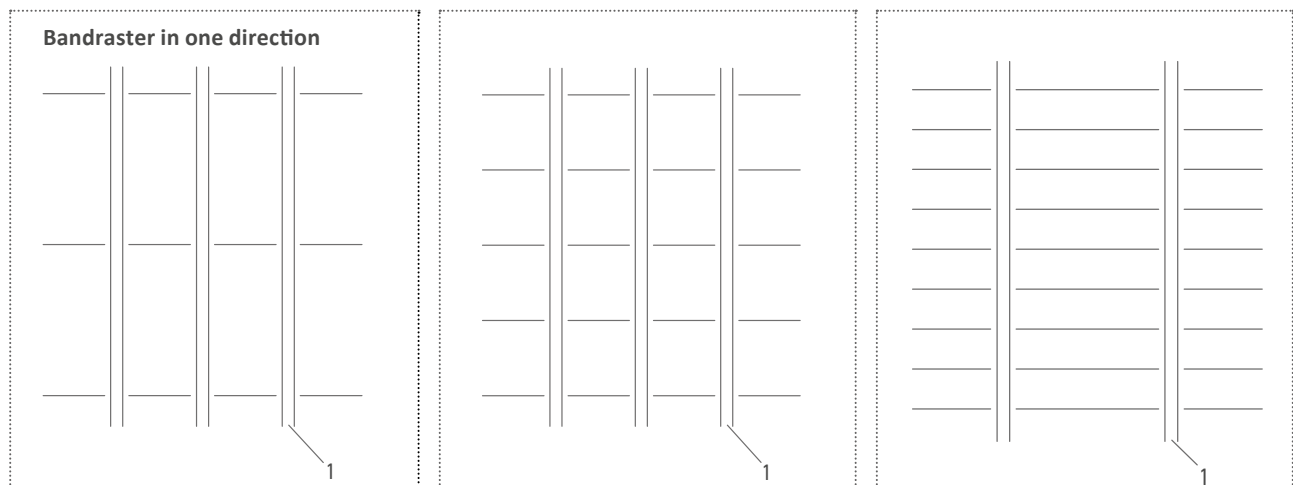
The output is to be adjusted according to the heating or cooling load by changing the pipe spacing and maintaining the active area to the plate surface or room base. Particularly in the case of heating, care must be taken to ensure optimum infrared illumination of the room.

The system is designed as an aluminum surface heat exchanger. **The heat-carrying medium must be prepared on site in accordance with the relevant guidelines, VDI 2035, and, depending on the situation on site, possibly hydraulically separated via heat exchangers, connected to the house system in a separate circuit.**

Connecting hoses plug-in/Eurocone are to be used as connecting lines. The use of metallic materials which come into contact with the heating or cooling medium is not permitted without express approval.

PARALLEL AND CROSS BAND GRID, REMOVABLE

Example of laying »



1. Energy rail Nr° 7590-3600-9003M, Length 3600 mm
2. Energy rail Nr° 7590-1121-9003M, Length 1121 mm
3. Energy light rail Nr° 9585-1121-9003M, Length 1121 mm

Energy rail center distance	Suspension distance	Total weight per unit area	Deflection l/500
710 mm	up to 1250 mm	16,9 kg/m ²	up to 2.5 mm
710 mm	1251 - 1310 mm	15,1 kg/m ²	up to 2.6 mm
710 mm	1311 - 1500 mm	7,7 kg/m ²	up to 3.0 mm
710 mm	1501 - 1800 mm	4,1 kg/m ²	up to 3.6 mm
1310 mm	up to 1250 mm	9,2 kg/m ²	up to 2.5 mm
1310 mm	1251 - 1310 mm	8,2 kg/m ²	up to 2.6 mm
1310 mm	1311 - 1500 mm	4,16 kg/m ²	up to 3.0 mm

This table only applies to area loads! Point loads, line loads, fixtures, etc. must be considered separately. A hanger must be placed next to longitudinal connections (coupling) on the supporting energy rail. Further details can be found in the installation instructions.

PERFORMANCE DATA

Technical data of the tested parallel belt system »

profile axis distance (mm): 710

Dimension energy rail: 188/28/1,5 mm

Values according to test reports:	Cooling case	Heating case
Performance per m ²		
	Pa= 44 W/m ² Δt 8 K (active surface - DIN EN 14240)	
Pp=Pa*Aa/AP	Pp= 44 W/m ² Δt 8 K (plate area VDI 6034)	
	64 Watt/m ² Δt 15 K (DIN EN 14037)	

Cooling capacity per m energy rail 21 W (Δt 8 K)

Heating capacity per m energy rail 30 W (Δt 15 K)

Technical data of the tested parallel belt system »

Profile axis distance (mm): 1316

Dimension energy rail: 188/28/1,5 mm

Values according to test reports:	Cooling case	Heating case
Performance per m ²		
	Pa= 32 W/m ² Δt 8 K (active surface - DIN EN 14240)	
Pp=Pa*Aa/AP	Pp= 32 W/m ² Δt 8 K (panel area VDI 6034)	
	50 Watt/m ² Δt 15 K (DIN EN 14037)	

Cooling capacity per m energy rail 21 W (Δt 8 K)

Heating capacity per m energy rail 34 W (Δt 15 K)

Technical data of the tested cross belt system »

Profile axis distance (mm): 1310 mm

Dimension energy rail: 188/28/1,5 mm

Values according to test reports:	Cooling case	Heating case
Performance per m ²		
	Pa= 40 W/m ² Δt 8 K (active surface - DIN EN 14240)	
Pp=Pa*Aa/AP	Pp= 40 W/m ² Δt 8 K (panel area VDI 6034)	
	59 Watt/m ² Δt 15 K (DIN EN 14037)	

Cooling capacity per m energy rail 21 W (Δt 8 K)

Heating capacity per m energy rail 31 W (Δt 15 K)

We will be pleased to provide test certificates. Due to the usual deviations in the presentation of the relevant performance parameters, we recommend evaluating them under the same conditions according to VDI 6034.