Technical Product Information

WEM Climate Grid

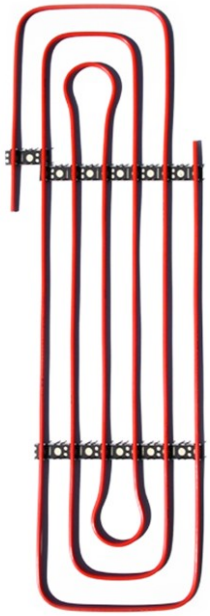
Article no. 02501-3

Description

The WEM Climate Grid is a pre-finished element with pipes fitted on toothed rails. The pipes are made of oxygen proof multi-ply composite material.

Scope of application

The WEM Climate Grid is fitted to the wall surface. It is suitable for heating and cooling purposes. The low-temperature heating can be used as an exclusive source of heating or to support the existing heating system. It is suitable for new construction as well as for renovation and refurbishment of old buildings.



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Benefits

- Easy and quick installation
- With low effort
- Close contact to the wall due to overtensioned elements
- Combinable with WEM Underfloor Heating

Technical data

Max. temperature/pressure	max. 95 °C/10 bar
Material class	D (normally flammable) as per DIN EN 13501-1
Connections	WEM Press-Fit Fittings (press contour U16)
Supply temperature	35°C to 45°C
Heating power (with clay plaster)* **see page 3*	100 W/m² at T_O = 12.5 °C 200 W/m² at T_O = 22.5°C
Automatic control system	Room thermostats and motorized actuators in the heating manifold or thermostat valves (WEM Multibox)
Fastening	Screws, ∅ 4.5 to 6 mm, plugs

Materials	Heating tube	WEM Multi-Ply Composite Pipe, ⌀ 16 x 2 mm (PE-RT/aluminium/PE-RT), tested as per DIN DVGW*
	Toothed rail	PVC regranulate

	Climate Grid MV 200	Climate Grid MV 160	Climate Grid MV 80
Dimensions	200 x 60 cm	160 x 60 cm	80 x 60 cm
Heating area	1.25 m²	1.0 m²	0.5 m²
Weight	approx. 1.6 kg	approx. 1.3 kg	approx. 0.7 kg
Water content	approx. 1.4 kg	approx. 1.1 kg	approx. 0.6 kg
Pipe length	13 m	10.5 m	5.5 m
Pressure drop	For information concerning the pressure drop see the document ‘Design’, page 4.		

Dimensions:

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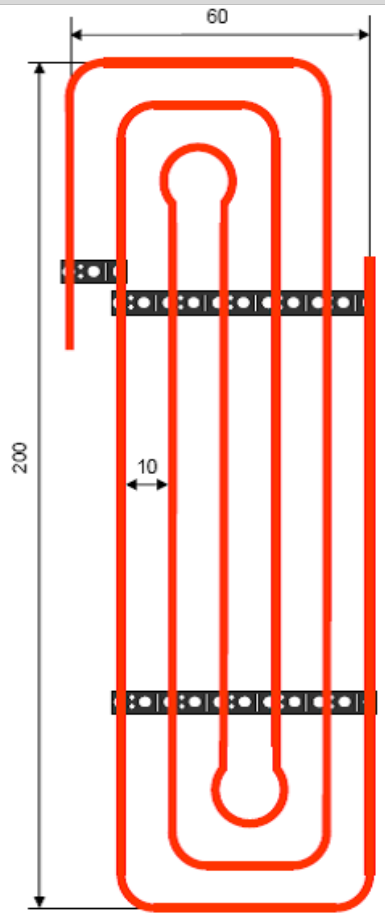
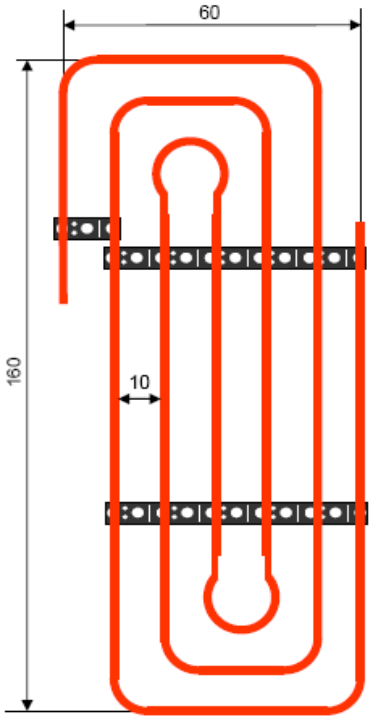
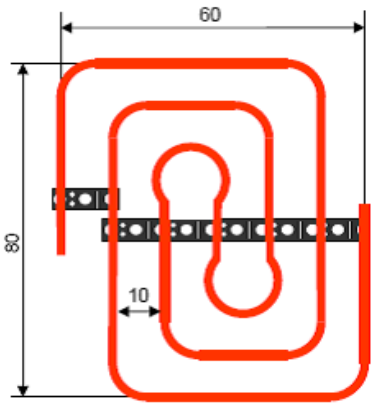
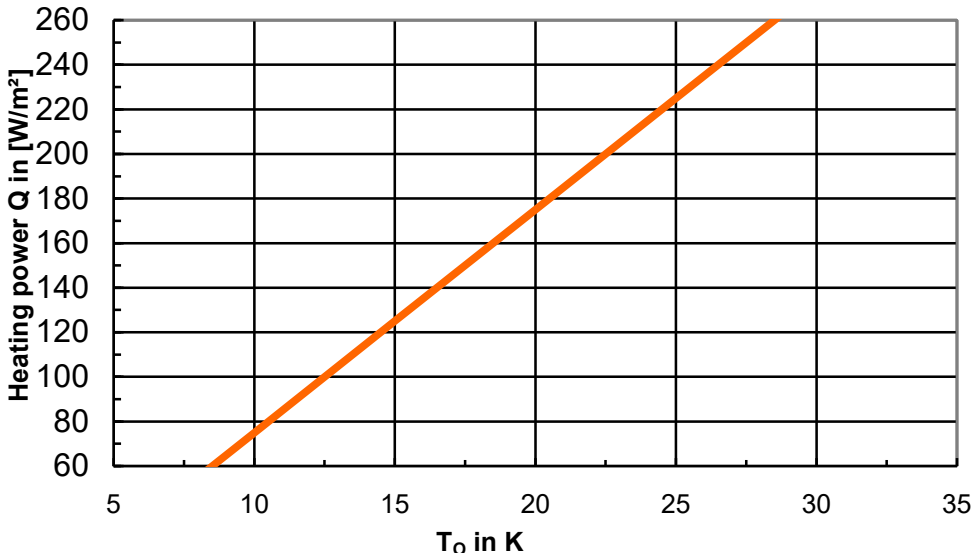
		

*DVGW = German Technical and Scientific Association for Gas and Water

Heating power

The heating power depends on the supply and return temperatures of the heating medium and the desired indoor temperature. The characteristic represents the heating output at different temperatures.



$$T_O = \frac{T_S + T_R}{2} - T_I$$

T_O = Mean overtemperature
T_S Supply temperature
T_R Return temperature
T_I Indoor temperature (e.g. 20 °C)

The table below gives an overview of typical temperature conditions and the associated heating power

T_{Supply} [°C]	T_{Return} [°C]	Q [Watt/m²]
35	30	100
40	35	150
45	35	175
45	40	200
50	40	225
50	45	250
55	45	275
55	50	300

The specified values only apply if WEM Clay Plaster was used and the plaster layer above the pipes does not exceed a thickness of 1 cm.

Characteristic taken from the test report in accordance with DIN EN 442; testing institute: HLK Stuttgart, 02/2004