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EN **EURONORM**
16430

TESTED



Floor Convectors for
Heating and Cooling

LK

LK Series

Floor Convectors for Heating and Cooling

STEKON cooling floor convectors are designed to provide high levels of thermal comfort in spaces with large external glazed surfaces. Unlike heating-only convectors, the fan system draws air from the room and directs it towards the glass surface. The cooled air blown towards the warm glass absorbs heat from the surface, increases its temperature difference with the room air, and then descends back into the space, conditioning the room through displacement airflow. For maximum comfort, STEKON tangential fans with proven quiet operation and high airflow capacity are used. The units can be manufactured as 4-pipe or 2-pipe systems. All convectors are tested by independent accredited laboratories according to EN 442-2, EN 16430-2 and EN 16430-3.

Cooling convectors with a stainless steel drain pan, high-capacity heat exchanger and Ø60 or Ø80 tangential fans can provide both heating and cooling efficiently from a single unit.

LK series fan-assisted cooling convectors operate with a safe 24 V DC power supply. The integrated EC fans have very low energy consumption and automatically adjust their speed according to the room temperature, based on the signal received from the room thermostat or building automation system. They are suitable for 0–10 V input signals.

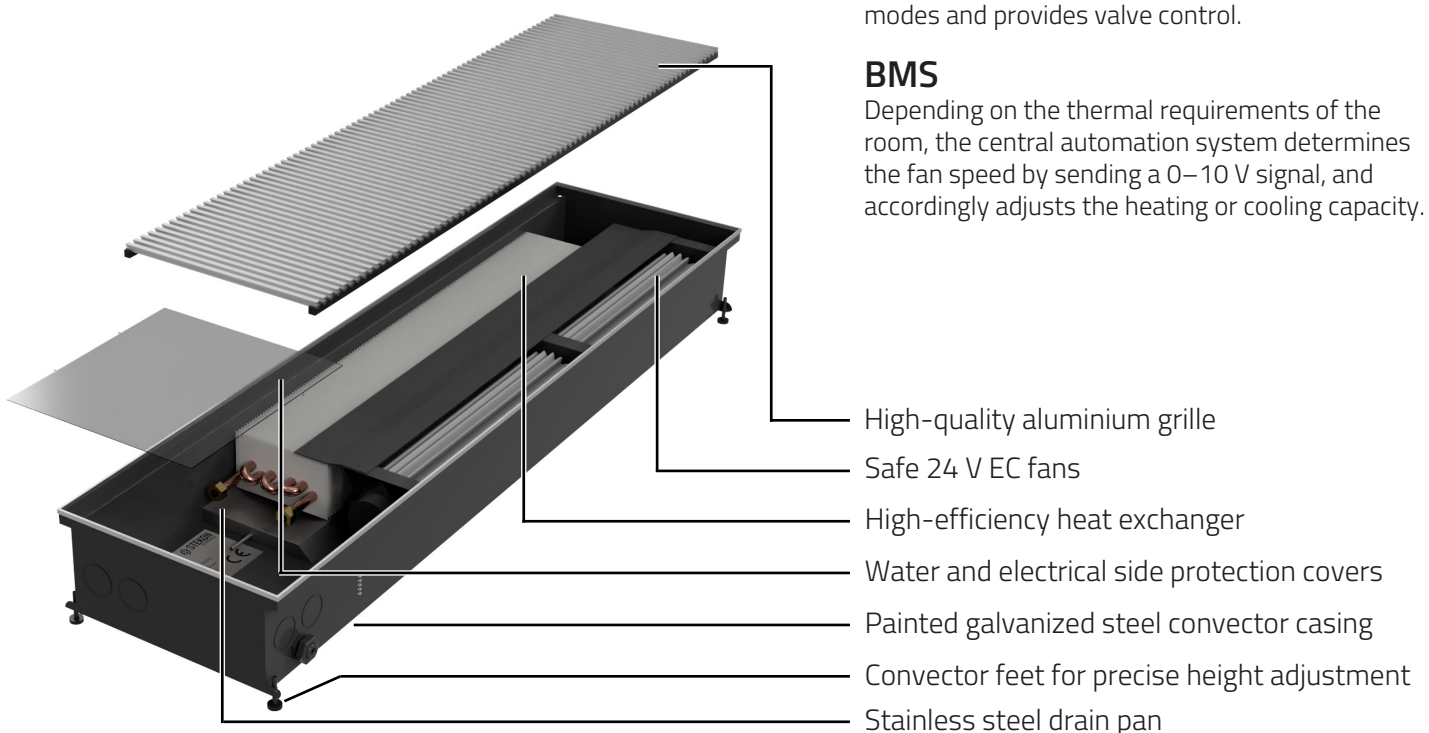
Convector Control Options

Room Thermostat

The room thermostat provides fan speed control by sending a 0–10 V signal to the convector according to the set temperature and the actual room temperature. It controls heating and cooling modes and provides valve control.

BMS

Depending on the thermal requirements of the room, the central automation system determines the fan speed by sending a 0–10 V signal, and accordingly adjusts the heating or cooling capacity.



LK 115

Fan-Assisted Floor Convectors

HEATING / COOLING FUNCTION

- Excellent integration with heat pumps
- Suitable for offices, homes and winter gardens
- High forced convection efficiency
- Low energy consumption and low noise level with 24 V DC fans
- 3- or 5-step fan speed control with 0–10 V signal
- Suitable for use together with other heating systems
- 2-pipe system
- Supplied with stainless steel drain pan
- Heating and cooling performances are tested and certified according to EN 16430



Technical Data

Floor Convector

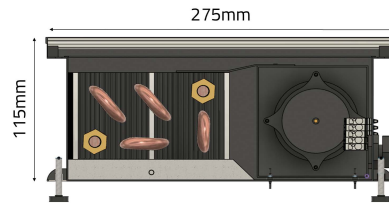
Height	H = 115 mm
Width	W = 275mm
Length	L = 1100 - 3000 mm

Heat Exchanger

Type	Al-Cu finned
Length	L-400 mm
Connection Type	2 x G½" male threaded

Operating Conditions

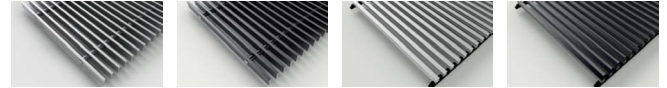
Max. temperature	110 °C
Max. pressure	1,6 MPa (16 bar)
Ambient Conditions	Temperature = +2 - 40 °C Relative Humidity = 20 - 70 %



Heat Pump Ready!



Walkable Grille Options



Convector Power Table

Convector Length (mm)	1100	1250	1500	1750	2000	2250	2500	2750	3000
Number of Fans	1	1	1	2	2	2	3	3	3
Input Power (W)	10	10	10	20	20	20	30	30	30

75/65, 20 °C

Length (mm)	Heating Capacity (W)		
	Fan Speed 1	Fan Speed 2	Fan Speed 3
1100	1466	1754	1946
1250	1789	2141	2375
1500	2328	2786	3091
1750	2867	3431	3806
2000	3406	4075	4522
2250	3945	4720	5237
2500	4484	5365	5952
2750	5023	6010	6668
3000	5562	6655	7383

7/12, 27 °C

Length (mm)	Heating Capacity (W)		
	Fan Speed 1	Fan Speed 2	Fan Speed 3
1100	539	646	693
1250	656	786	844
1500	851	1020	1095
1750	1047	1255	1346
2000	1242	1489	1597
2250	1437	1723	1848
2500	1633	1957	2099
2750	1828	2191	2350
3000	2023	2425	2601

Floor Convectors

LK 140

Fan-Assisted Floor Convectors

HEATING / COOLING FUNCTION

- Excellent integration with heat pumps
- Suitable for offices, homes and winter gardens
- High forced convection efficiency
- Low energy consumption and low noise level with 24 V DC fans
- 3- or 5-step fan speed control with 0–10 V signal
- Suitable for use together with other heating systems
- 2-pipe or 4-pipe system
- Supplied with stainless steel drain pan
- Heating and cooling performances are tested and certified according to EN 16430

Technical Data

Floor Convector

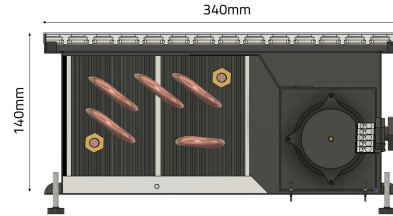
Height	H = 140mm
Width	W = 275mm
Length	L = 1100 - 3000 mm

Heat Exchanger

Type	Al-Cu finned
Length	L-400 mm
Connection Type	4 x G $\frac{1}{2}$ " male threaded

Operating Conditions

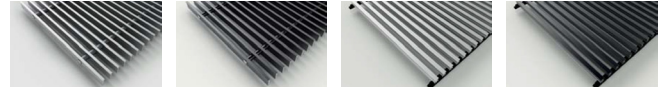
Max. temperature	110 °C
Max. pressure	1,6 MPa (16 bar)
Ambient Conditions	Temperature = +2 - 40 °C Relative Humidity = 20 - 70 %



Heat Pump Ready!



Walkable Grille Options



Convector Power Table

Convector Length (mm)	1100	1250	1500	1750	2000	2250	2500	2750	3000
Number of Fans	1	1	1	2	2	2	3	3	3
Input Power (W)	10	10	10	20	20	20	30	30	30

75/65, 20 °C

Uzunluk (mm)	Heating Capacity (W)		
	Fan Speed 1	Fan Speed 2	Fan Speed 3
1100	1654	1930	2099
1250	2019	2356	2562
1500	2627	3065	3334
1750	3235	3775	4105
2000	3843	4484	4877
2250	4451	5194	5649
2500	5059	5904	6420
2750	5667	6613	7192
3000	6275	7323	7964

7/12, 27°C

Uzunluk (mm)	Heating Capacity (W)		
	Fan Speed 1	Fan Speed 2	Fan Speed 3
1100	773	941	1010
1250	941	1146	1230
1500	1221	1487	1596
1750	1501	1827	1961
2000	1781	2168	2327
2250	2061	2509	2693
2500	2341	2850	3059
2750	2621	3191	3425
3000	2902	3532	3791

STEKON LK – Technical Specification (Fan-Assisted Heating / Cooling Convectors)

The heating / cooling convectors shall be fan-assisted type, supplied with an integrated casing, walkable grille and decorative frame, and shall be installed recessed into the concrete floor. Convection shall be provided by the tangential fan integrated inside the unit.

The unit casing shall be manufactured from painted galvanized steel. The casing height shall be 115 or 140 mm, and the casing width shall be 275 or 340 mm. The casing shall be equipped with height adjustment screws to allow precise levelling after installation. The heating / cooling coil inside the casing shall be 2-pipe or 4-pipe type, made of copper tubes with aluminium fins. The maximum operating pressure of the coil shall be 16 bar, and the maximum test pressure shall be 20 bar.

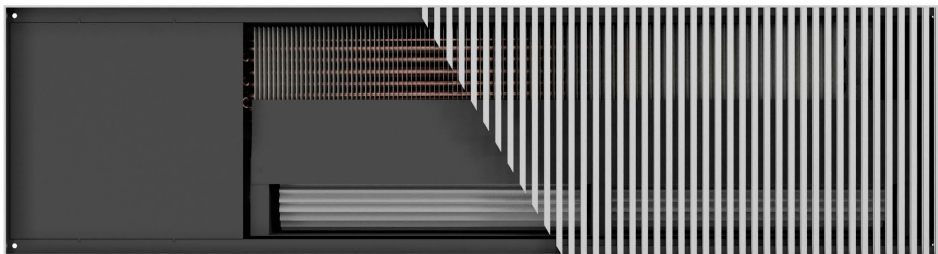
The unit shall be equipped with an inclined stainless steel drain pan. The casing shall have a dedicated opening for drainage connection.

For operational safety, the convector fan voltage shall be 24 V DC. The fan motors shall be equipped with EC technology and shall provide quiet operation. For cooling efficiency, the diameter of the tangential fan to be used shall be minimum Ø60 mm.

Walkable aluminium grilles with sufficient rigidity shall be supplied together with the unit to cover the convector casing. Architectural selections related to the grille, such as colour, frame option and similar details, shall be determined at a later stage. Accessories such as flexible connection hoses, ball valves and balancing valves shall be supplied together with the unit.

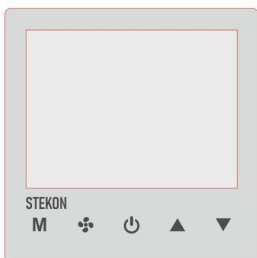
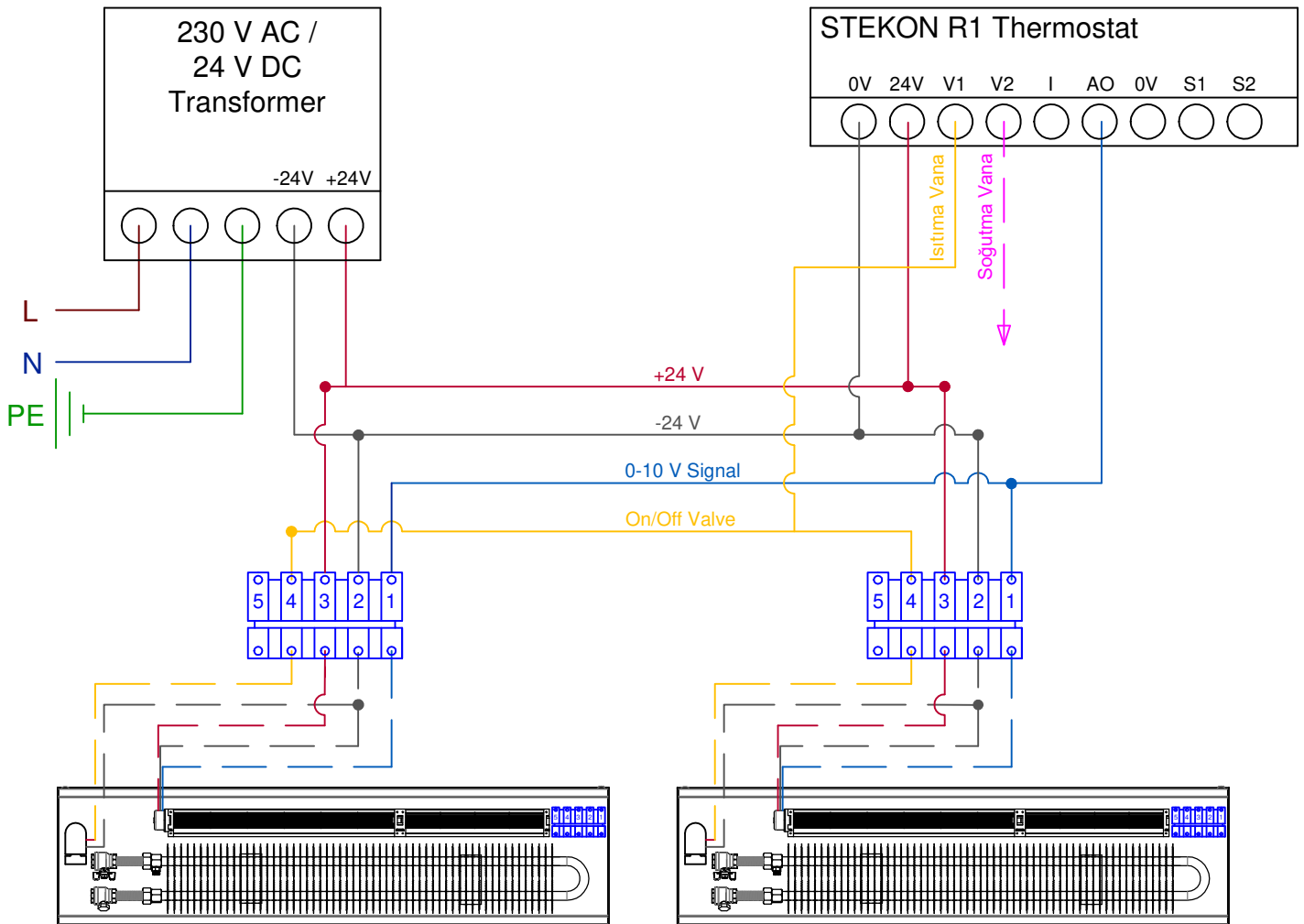
The room thermostat and the required transformers shall be offered separately from the unit.

The convectors shall be capable of meeting the performance values specified in the equipment schedule. Heating capacity values shall be tested in accordance with EN 16430, and the relevant test reports shall be available upon request by the consultant or the client.



Floor Convectors

Wiring Diagram for Fan-Assisted Convectors with STEKON R1 Thermostat



- A 2-core cable shall be installed between the transformer and the convectors to provide 24 V DC +/- power supply.
- A 4-core cable shall be installed between the room thermostat and the convector closest to the thermostat. If more than 3 valves are to be controlled, a 5-core cable shall be used. A single thermostat cannot control more than 6 valves.
- Cable connections between the units shall be made in parallel according to the convectors to be controlled. Distances of 20 m and above are not recommended.

**Recommended cable cross-section: 1 - 1.5 mm².*

Ordering Code

LK 140 / 340 / 1100 / SK / K / I / L1

(1) (2) (3) (4) (5) (6) (7) (8)

(1) Model LK = Fan-Assisted Heating / Cooling Convectors

(2) Height = 115 or 140 mm

(3) Width = 275 or 340 mm

(4) Length = 1100 ... 3000

(5) Control Type SK = 0-10 V control
OF = Fixed speed on/off control

(6) Grille Type U = Grille parallel to the long side
K = Grille parallel to the short side

(7) Frame Type I = Standard frame
F = L frame

(8) Water Connections L1 = Water connection from left short side
L2 = Water connection from left long side
R1 = Water connection from right short side
R2 = Water connection from right long side

