

Worlds finest in Infra- Heating/ Cooling Systems Technology

Design, manufacture and marketing of Thermodynamic Heating & Cooling Systems for industry and households

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Conventional convection - The circulation of air

The conventional heaters heat water. This water flows through pipes into the radiator. The surrounding air is heated, rises upward, releases heat energy and falls on the other side down (see picture). The circulating air is sometimes perceived as annoying drafts

Disadvantages:

- · heat losses in the piping system
- different temperature thermal stratification
- air circulation dust and possibly pollen swirls
- room air feels very dry

Infralight Ceiling Heater

A solid object which is irradiated by the sun, heats up faster than the air surrounding him. Why? Objects in contact with the sun's rays, absorb heat much more efficiently than air.

The operation method of the ceiling heating is:

The radiant energy of the ceiling heater warms objects (furniture, walls, floor, etc.), but not the air. Thus, we feel a warmth coming from two heat sources: the direct heat radiation (ceiling heating) and the reflecting heat radiation from the floor, walls and furniture.

Advantages:

- · Comfortable even heat low energy requirements
- Dry walls and therefore no mold
- Multifunctional element (ceiling heating, direct and indirect lighting)
- · Easy installation ideal for new construction and renovation



The principle of IR radiation heating - radiant energy from the overhead (ceiling) heater

The radiant energy of the overhead heater generates heat based on the model of the solar radiation. Long wave radiation energy is emitted from a heated surface. This radiation travels at the speed of light through space. The thermal radiation strikes the surface of an object (furniture / walls / floor / human). The absorbed radiation energy from the object is then transformed into heat. Thus, the radiation leads to heating of all objects.

The ceiling heating causes an evenly distributed and comfortable warmth for humans and animals in space. Very low energy consumption.



Convection Heating



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or









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Model Infralight Ceiling heater	IFL 560/S5 IFL 420/S5 IFL 280/S4 IFL 280/L/S3 IFL 140/S2		
Description	Ceiling Heater		
Infrared	IR-C		
Tension (voltage)	230V / 50Hz		
Ceiling Heater (Performance)*	IFL 560 max. 560 W $(ca. 18 - 22m^2)$ IFL 420 max. 420 W $(ca. 14 - 16m^2)$ IFL 280 max. 280 W $(ca. 8 - 10m^2)$ IFL 140 max. 140 W $(ca. 3 - 5m^2)$		
Lighting (Performance)	$\begin{array}{rcl} S5 &=& 5 \ x \ LED \ Spots &=& 9W/Spot & (max. \ 45 \ W) \\ per \ Panel &=& 1 \ x \ LED \ Striplight &=& 7, 2W/m & (max. \ 65 \ W) \end{array}$		
Protection class	IP57		
Size / weight	IFL 560/S5= 1500mm x 3000mm / ca. 27kgIFL 420/S5= 2000mm x 1500mm / ca. 20kgIFL 280/S4= 1500mm x 1500mm / ca. 15kgIFL 280/L/S3= 750mm x 3000mm / ca. 15kgIFL 140/S2= 1000mm x 1500mm / ca. 11kg		

* = average home with ceiling heights of 2,5 - 3m

Thermo Climatic Systems

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