



Driving force for ventilation in bedrooms

Quiet solution for a healthy indoor climate

ClimaRad[®]
Future comfort today

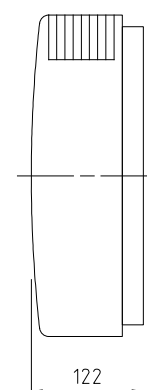
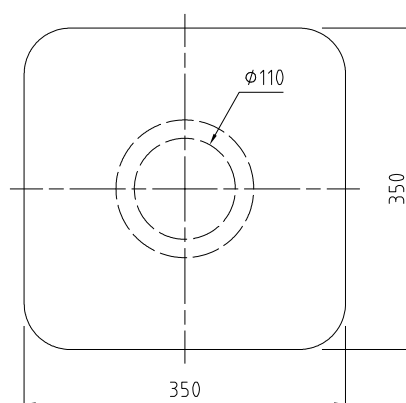
ClimaRad S-Fan

ClimaRad S-Fan

Scientific research, such as that carried out by Monicair, has shown that air quality is particularly bad in bedrooms. The cause of this problem in homes with window ventilation is the lack of a “driving force*” per occupied living space. The ClimaRad S-Fan (Supply Fan) offers a simple and quiet solution, which guarantees good air quality at all times. This Fan provides a comfortable air supply in the bedroom, which in combination with the heat recovery unit and the house air extraction system produces a healthy indoor climate.

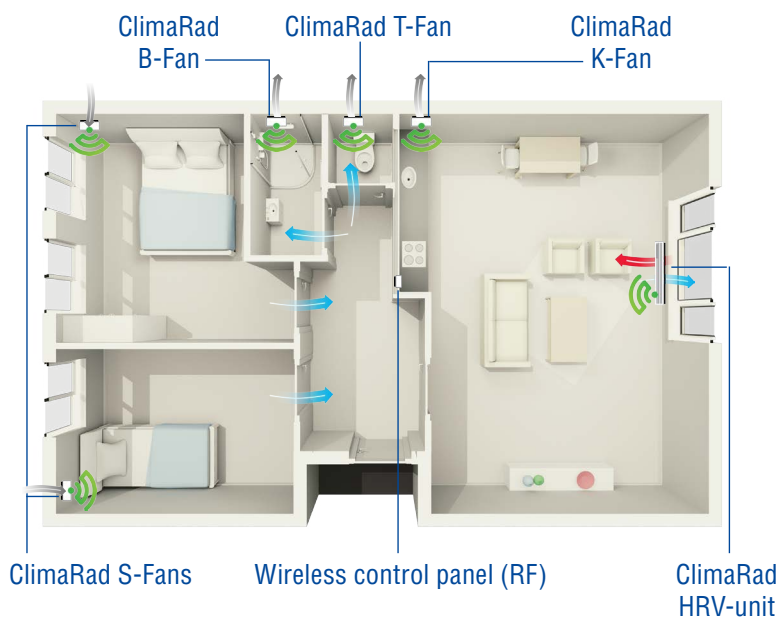
The ClimaRad S-Fan is available in two variants: with and without a heating element.

*driving force = component that ensures adequate ventilation at room level. This is generally a mechanical air supply and/or removal component.



ClimaRad S-Fan (preliminary specifications)

	<i>S-Fan (basic version):</i>	<i>S-Fan+ (with heating element):</i>
Dimensions:	350x350x122 mm (WxHxD)	350x350x122 mm (WxHxD)
Connections:	1 x ϕ 110 mm	1 x ϕ 110 mm
Ventilation throughput nom.	50 m ³ /h	50 m ³ /h
Ventilation throughput max.	300 m ³ /h	300 m ³ /h
Sensors:	RV, CO ₂ , RF	RV, CO ₂ , RF
Noise reduction through the façade:	54(-2;-5) dB	54(-2;-5) dB
Electric heating:	N/A	0-800 W
Electrical installation protection class:	Class I	Class I
Specific input power (SPI):	0,07 W/(m ³ /h)	0,07 W/(m ³ /h)
Standby consumption:	<1 W	<1 W
Accessories (optional):	Wireless control panel, CO ₂ -sensor, thermostat	Wireless control panel, CO ₂ -sensor, thermostat



Natural when possible, mechanical when necessary

The living room is the warmest room in a home; here heat recovery in the form of a ventilation unit is useful. In the bathrooms and toilets, air should be extracted with the ClimaRad Fan/Box. An S-Fan should be placed in all bedrooms.

The S-Fan determines its required ventilation setting and on/off status automatically, by means of internal sensors (such as CO₂ and relative humidity measurements). Through smart algorithms, the unit determines whether to use the naturally present air displacement forces or the fan. In this way, ventilation is always provided as efficiently as possible. This is good for the health of the residents, who will also save on their energy bills.

When the S-Fan is connected to other ClimaRad products, they will work together wirelessly (via RF), so that an optimal indoor climate can be realised throughout the home.

Draught-free

With natural air supply there is a risk of draughts, which even in the bedroom can be experienced as unpleasant. In contrast to a window ventilation unit, draughts can be prevented by means of an S-Fan. The product is equipped with a number of specific components. Because of its placement high on the gable wall, preferably close to the ceiling, its high placed induction grid and the Coandă effect prevent draughts. In addition, should a high external gable pressure be present, the flaps will automatically partially close, so that the amount of external air admitted inside will always be controlled.

Energy-saving system

The greatest energy savings can be achieved when a house is equipped with a ClimaRad Smart Supply Solution, including S-Fans in the bedrooms. This energy use reduction is achieved by means of the smart wireless link and the various sensors per room.

The table on the right shows how the system is controlled per room.

Room	Product	CO ₂ -sensor	RV-sensor	PIR-sensor
Living room	2.0	✓	✓	
Bedrooms	S-Fan	✓	✓	
Bathroom	B-Fan		✓	✓
Kitchen	K-Fan		✓	
Toilet	T-Fan			✓

Heating

ClimaRad addresses the growing demand for all-electric homes. Electrical preheating in the TCO calculation is often the most advantageous, especially in the bedrooms, where the heat demand is very small. This is certainly the case with well-insulated homes.

The S-Fan can be augmented with an electric heater (S-Fan+) with an output of 0-800 watts, enough to function as the primary heat source for the entire bedroom. Additional radiators and/or underfloor heating in these rooms will then become superfluous.

Because the S-Fan is equipped with a recirculation mode, the room can be preheated quickly and comfortably. The internal air is cleaned by means of the built-in filter, which has a positive effect on the health of the residents.

The heater can be switched on manually by the occupant and is set to the required indoor temperature. The S-Fan also has a “comfort” position, where the incoming external air can be automatically preheated to 12°C in the winter.

Summer night ventilation

It is also possible to reduce the temperature in the heated rooms by a few degrees at night by means of the “summer night ventilation” function. This is an energy-efficient form of passive cooling.

Sound level

The ClimaRad S-Fan has a very low sound level of 28,3 dB(A) at a capacity of 50 m³/h. In addition, the device dampens the outside noise. The ClimaRad S-Fan is therefore very suitable for gable walls with poor noise insulation characteristics.

The operating principle

The advantages:

- Sound damping across the gable wall
- Fast installation
- Summer night ventilation
- CO₂ en RH control
- No draughts



Accessories (optional)




ClimaRad External CO₂-sensor (RF)

The external CO₂ sensor can be used in combination with the ClimaRad Fan, MiniBox, or MaxiBox. Connecting an external CO₂ sensor to the ClimaRad ventilation solution will ensure demand-driven ventilation based on the measured CO₂ content of the room being ventilated.



ClimaRad Wireless control panel RF

The ClimaRad S/Fan can be operated manually via the wireless control panel:

Auto: automatic Mode I: low, II: center, III: high, O: pause  : comfort  : heating



ClimaRad Round thermostat

The ClimaRad S-Fan can be connected wirelessly to the ClimaRad Round thermostat for controlling the temperature.

ClimaRad[®]
Future comfort today

ClimaRad BV
Lübeckstraat 25
7575 EE Oldenzaal
The Netherlands

Tel. +31 (0) 541 358 130
e-mail: info@climrad.com
www.climarad.co.uk



View the ClimaRad Solutions for the residential, commercial and healthcare markets.