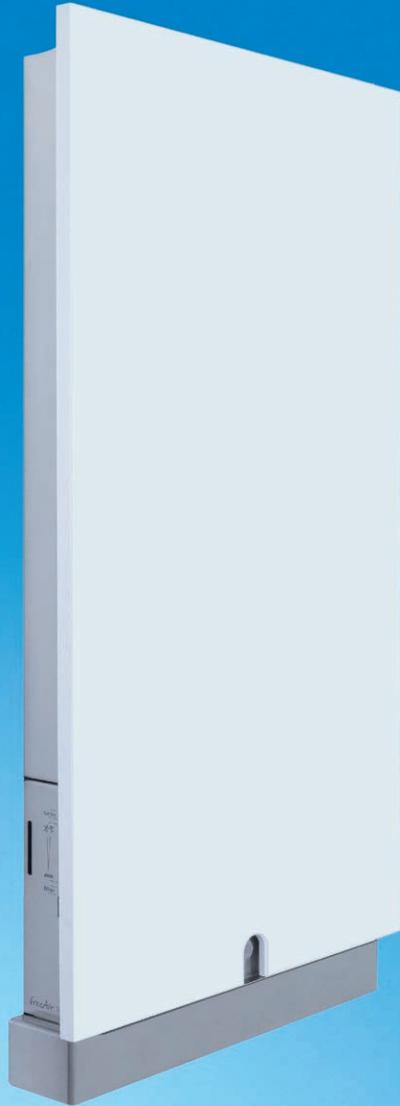


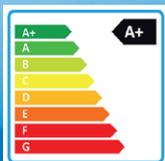
freeAir® better ventilation



freeAir 100

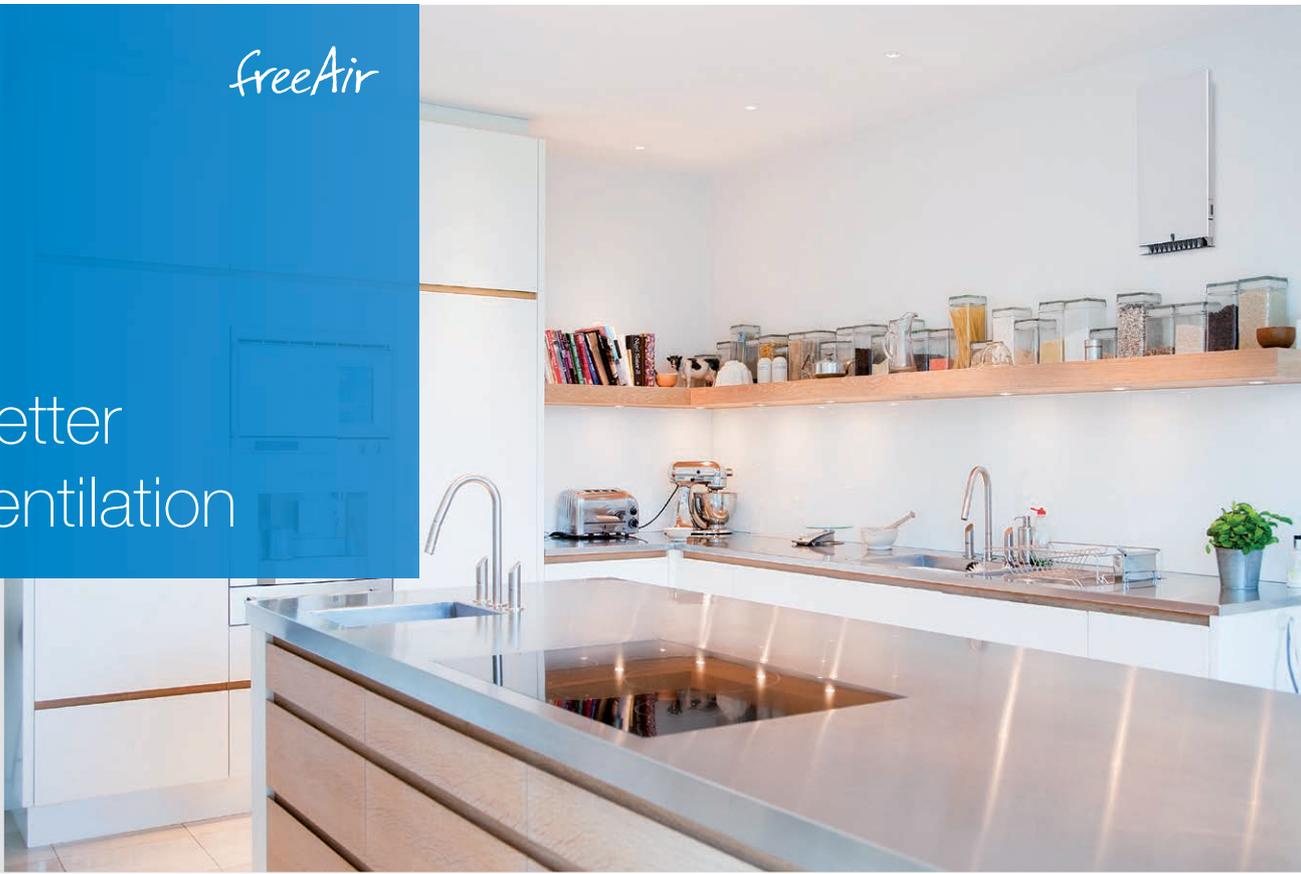


freeAir plus



bluMartin

A Swegon Group company



freeAir

better
ventilation



Maximum effect – minimum dimensions

Effective and quiet – the freeAir ventilation system provides a sophisticated ventilation solution for energy efficient new build and the modernisation of existing buildings. The system's demand-dependent control ensures a healthy indoor climate, achieving a 'real life' heat recovery rate in excess of 90 percent – yet with very low power consumption. The option to provide several rooms with fresh air using only one outside wall device offers a further benefit. In this way, freeAir cleverly combines the advantages of both centralised and decentralised ventilation systems.

freeAir

Good
air quality for
a heightened
sense of
wellbeing



Healthier living

We spend 90 percent of our lives indoors. This is why the quality of the air we breathe matters so much – it is vital for good health. Without appropriate air changes, harmful substances such as mould and dust, as well as bad odours, accumulate. With freeAir, the air in your home is always fresh and clean – it is neither too low nor too high in humidity. This is achieved by our unique demand-dependent system, which employs as many as 8 sensors. All air parameters such as CO₂, temperature and humidity levels are captured, enabling ventilation to be controlled automatically to meet the actual demand. In addition, high quality filters offer protection against fine particles and pollen, as standard.

Peaceful sleep

Sleeping soundly has a positive effect on our performance. Peace and a comfortable indoor climate are necessary for us to enjoy restful sleep and pleasant dreams. freeAir delivers fresh air without having to open a window – keeping noise at bay. The unit is whisper quiet in operation and meets the requirements demanded of a sound insulating fan. A good night's sleep is further guaranteed through automatic summer cooling when the weather is hot. Cooled outdoor air streams in during the day; at night, cool outdoor air is routed directly into the bedroom.

Ecological living

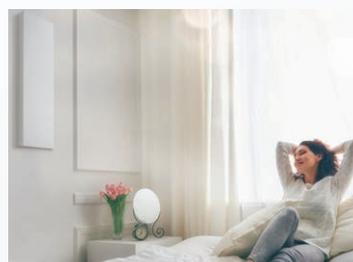
The best thermal insulation is of little value if up to 50 percent of heating energy is lost through opening windows to air your home. Using freeAir, you can save 25 percent of heating energy; in highly insulated buildings up to 50 percent. This is made possible by a highly efficient countercurrent heat exchanger, normally used in centralised systems, alongside extremely low running costs. Thanks to its high energy efficiency, this ventilation system was certified for passive houses in 2014 and was awarded the highest rating A+ according to the EU Ecodesign Directive. freeAir is the perfect solution for new build or energy related modernisation projects.

Individual design

A harmonious and coherent appearance, whether on the façade of the building or the interior, is best achieved through options that allow for customisation. Outside hoods are available in white or stainless steel and can be painted in any colour. Vents can be integrated into the reveal, so maintaining a discreet presence and avoiding the interruption of the contours of the building. Indoors, the freeAir front plate is barely larger than an A3 sheet of paper and can be designed according to your taste. Integrate the ventilation unit inconspicuously or turn it into a feature – the choice is yours.



High air quality



Even more silent with the Premium Cover



Modern outside hood in stainless steel



Individual design of the front plate

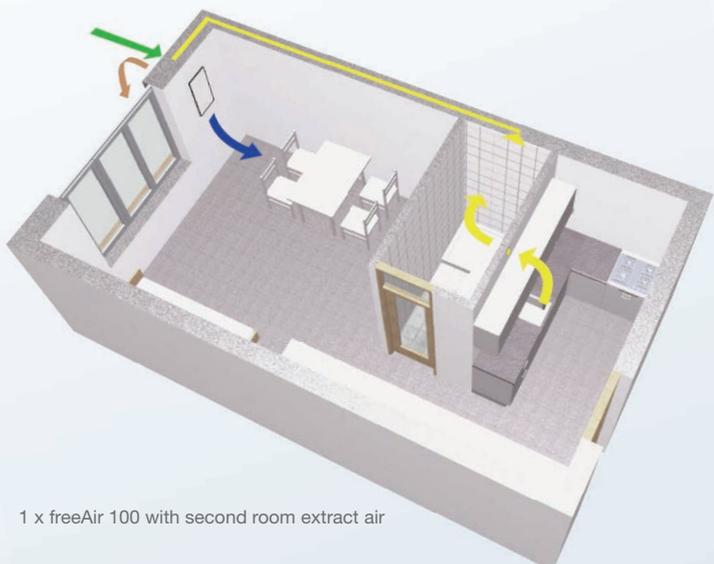
Smart technology for optimal solutions



1 x freeAir 100 with second room extract air
2 x freeAir plus

Easier engineering

With just one freeAir exterior wall unit, several rooms or a small flat can be ventilated using only a few ducts and vents. There is no need for sensor cables or external controls. The ventilation system can be extended to include further rooms via the intelligent active transfer unit freeAir plus, working on the principle of controlled cascading without the need for additional ducts. All of which brings considerable benefits with regard to engineering and conceptual design, as well as to the operation of the system itself. It also significantly simplifies modernisation.



1 x freeAir 100 with second room extract air

More economical construction

The freeAir ventilation system requires less equipment and fewer vents compared to conventional decentralised systems – and significantly fewer ventilation ducts compared to centralised systems. This reduces engineering and installation effort considerably. Moreover, no expensive fire protection measures are required, because the ventilation system does not cross fire compartments. Finally, these compact units, together with their complex sensor technology, leave your utility room clear, as they fit neatly into the wall. With its intelligent humidity management, freeAir also prevents structural damage and consequential losses.

freeAir

Innovative
functions
for maximum
efficiency

freeAir Connect

Free software for depicting air quality and energy values. Read out of current and monthly values.



Humidity management

By measuring inside and outside humidity and temperature, freeAir is able to dehumidify or to minimise moisture entry, preventing harmful mould growth and excessively low humidity.

Summer cooling

On hot days, the freeAir 100 ventilation unit actively contributes towards keeping living areas and bedrooms cool. At night, the cool air automatically bypasses the heat exchanger and streams directly into the rooms.

Demand-dependent

Intelligent sensor technology ensures that ventilation is constantly and automatically matched to the prevailing demand. In combination with its effective heat exchanger, the freeAir even surpasses the efficiency requirements for passive houses.

Minimised sound emissions

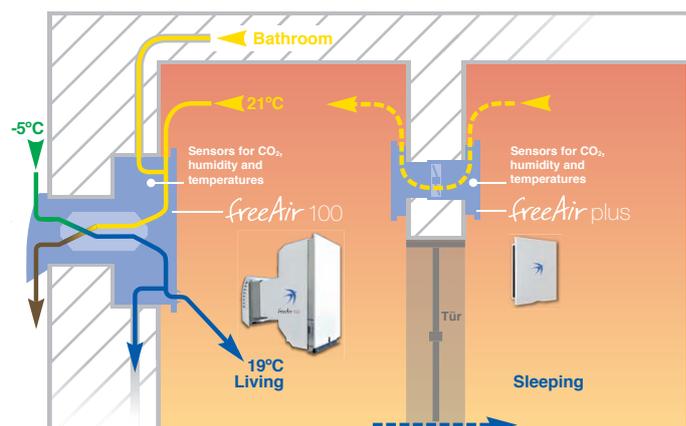
Highly effective sound insulation and minimum sound emissions prevent the living space and bedrooms from being disturbed by noise. This is achieved through the use of sensor controlled technology and advanced radial fans.

Single button operation

Operating the freeAir ventilation system is so straightforward that it only requires one selector at the front of the unit. All comfort programs are executed automatically at the push of a button.

How the freeAir system works

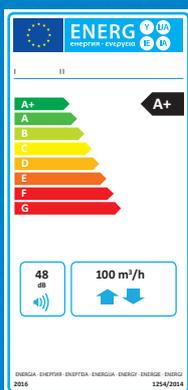
The decisive difference between the freeAir 100 and comparable ventilation units lies in the integral sensor control system which measures CO₂, humidity and temperature levels at different locations throughout the living space. This ensures precise, demand-dependent ventilation. Spent, warm air is extracted from the kitchen or bathroom. Its latent energy is used to heat fresh air to a comfortable temperature, e.g. for the living room. In addition, the intelligent freeAir plus transfer unit compares the air quality of other connected areas and ensures the necessary air change at the right time.



freeAir 100 specification



Dimensions interior cover	28 x 58 cm
Wall thickness	32 to 53 cm including render/plaster (< 40 cm → deeper cover; > 53 cm → extension)
Airflow rate	8 to 100 m ³ /h
Heat supply rate	87 % (according to PHI criteria and EN 13141-8)
Heat recovery	94 % (at 50 % relative humidity)
Heat exchanger type	Countercurrent; aluminium
Power supply	125 to 265 V AC
Total power consumption	Standby → 1 W; 20 m ³ /h → 4 W; 50 m ³ /h → 13 W; 100 m ³ /h → 40 W (max. duct lengths; F7)
Weight	10 kg
Interior sound pressure level (at 1 m distance)	20 m ³ /h → 17 dB (A); 30 m ³ /h → 22 dB (A); 50 m ³ /h → 34 dB (A); 100 m ³ /h → 51 dB (A) (with Premium Cover 12 dB lower)
Sound insulation factor	Standby → 52 dB; Operation → 46 dB (EN 20140-10; Dn, e, w)
Control	Intelligent 5 level Comfort Control
Airflow control	Automatic; virtually infinitely variable; constant volume; balanced
CO ₂ control	Automatic
Dehumidification	Automatic and with special operating mode
Summer cooling	Automatic and with Turbo-Cool
Frost protection	Automatic bypass control from approx. -5 °C outside temperature
Temperature range	-40 to +50 °C outside and 0 to +40 °C inside
Filter - supply air	Fine particle filter M5 (pollen protection) or F7 (allergy protection)
Filter - extract air	Fine particle filter M5 (EN 779)
Colour	Front plate primer painted (ready to paint, lacquer and design)
DIBt approval	Z-51.3-287



freeAir plus specification



Dimensions interior cover	25 x 25 cm
Wall thickness	10 to 22 cm including render/plaster (< 12 cm with spacers supplied)
Airflow rate	30 to 70 m ³ /h
Power supply	85 to 265 V AC
Total power consumption	Standby → 0.5 W; 30 m ³ /h → 0.9 W; 50 m ³ /h → 1.4 W; 70 m ³ /h → 2.5 W
Interior sound pressure level	30 m ³ /h → 13 dB (A) (at 1 m distance); 50 m ³ /h → 25 dB (A); 70 m ³ /h → 37 dB (A)
Sound insulation factor	33 dB (EN ISO 10140-2; Dn, e, w)
Control	Intelligent 5 level Comfort Control
Airflow control	Automatic; virtually infinitely variable
CO ₂ control (VOC)	Automatic
Dehumidification	Automatic
Summer cooling	Automatic
Temperature range	0 to +40 °C
Colour	Front plate primer painted (ready to paint, lacquer and design)