

CLIMAWIN – THE INTELLIGENT VENTILATION WINDOW SYSTEM

Climawin uses heat normally lost through a window to preheat the fresh air entering the room, increasing comfort and saving energy.

In cooler climates Climawin allows daylight in without unwanted solar heat gain, reducing cooling and lighting costs.



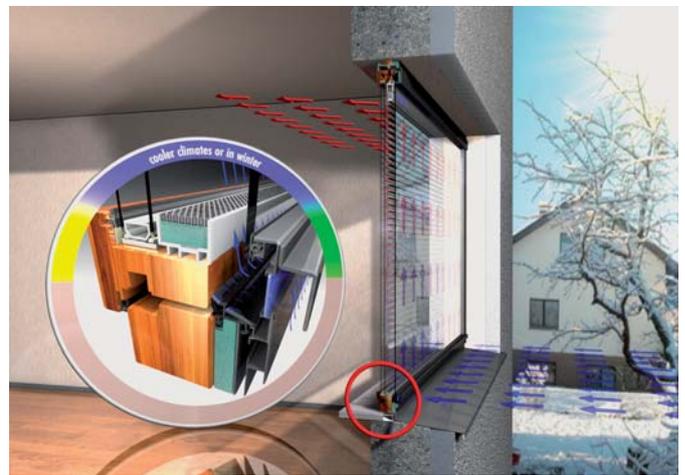
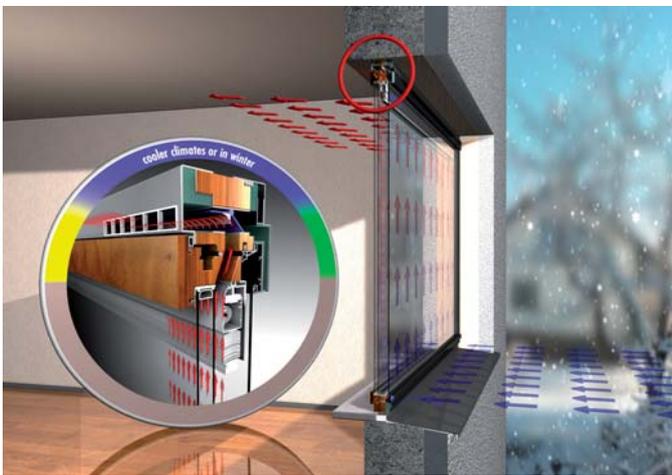
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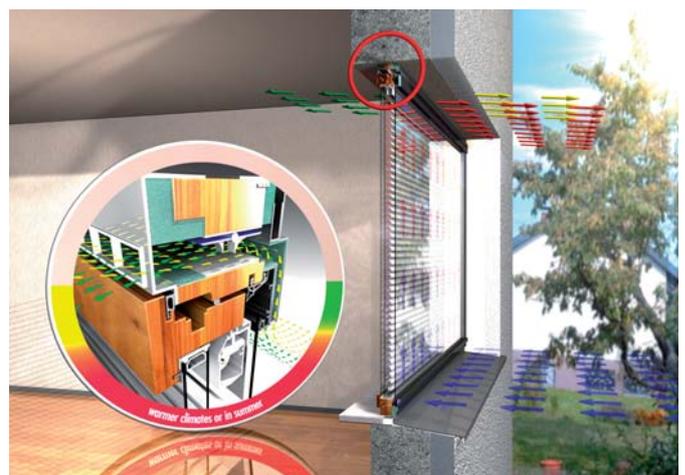
CLIMAWIN[®]
THE INTELLIGENT VENTILATION WINDOW

CLIMAWIN leads to radical improvements in energy performance and comfort levels. A typical house fitted with the Climawin system alone will reduce its annual energy bill by 20% and provide between 50 and 100% of the heat needed to warm air coming in from outside.

CLIMAWIN improves indoor air quality while reducing energy consumption and ensures optimal ventilation and minimum heat loss. The new patented CLIMAWIN Ventilation Window gains energy in moderate and cool climates by pre-warming of incoming fresh air and allows daylight in without heat gain in warm and hot climates.



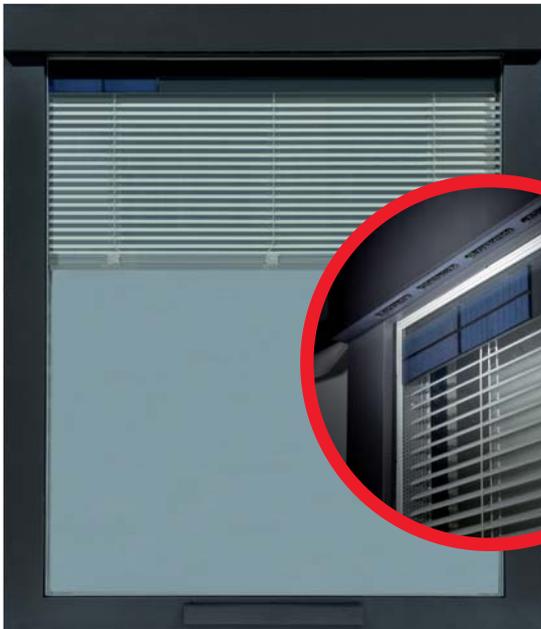
Moderate and cool climate zones: **Energy gain by pre-warming of incoming fresh air**



Warm and hot climate zones: **Daylight without heat gain**



Patented solution for all climate zones:
CLIMAWIN adapts to weather conditions.



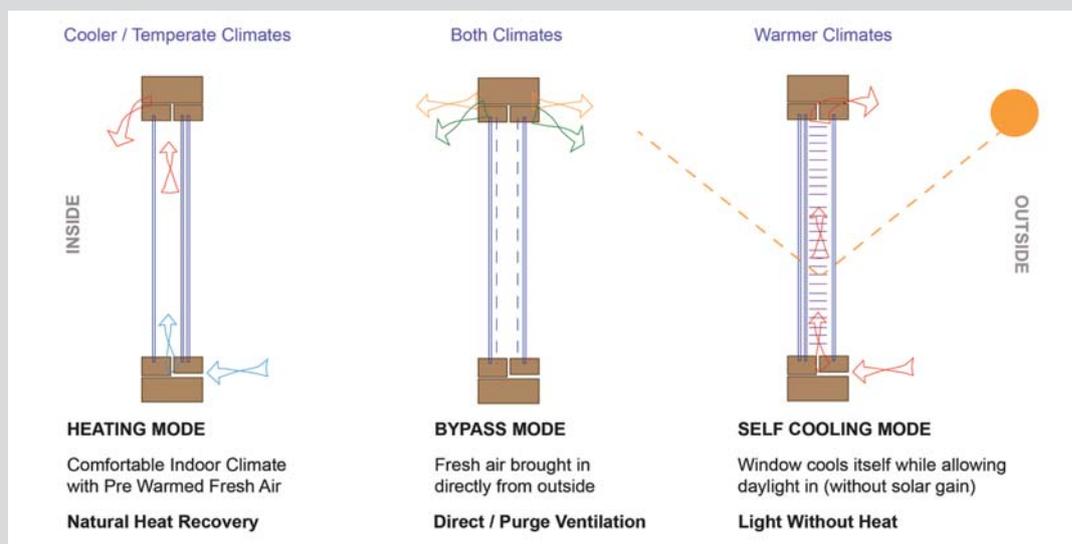
CLIMAWIN Ventilation Windows

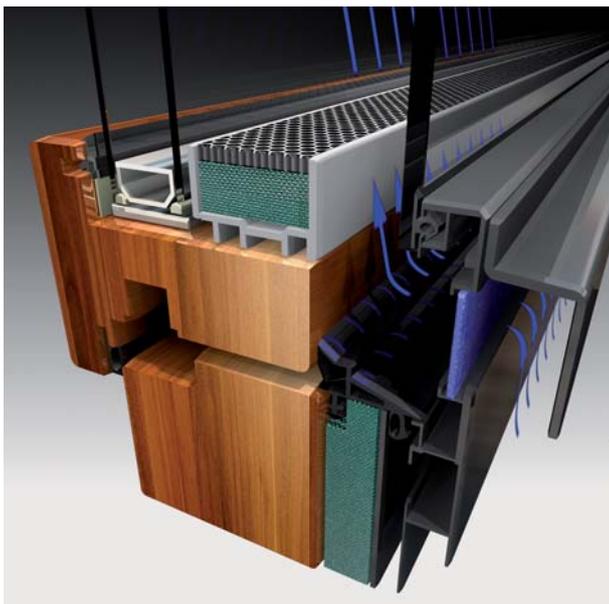
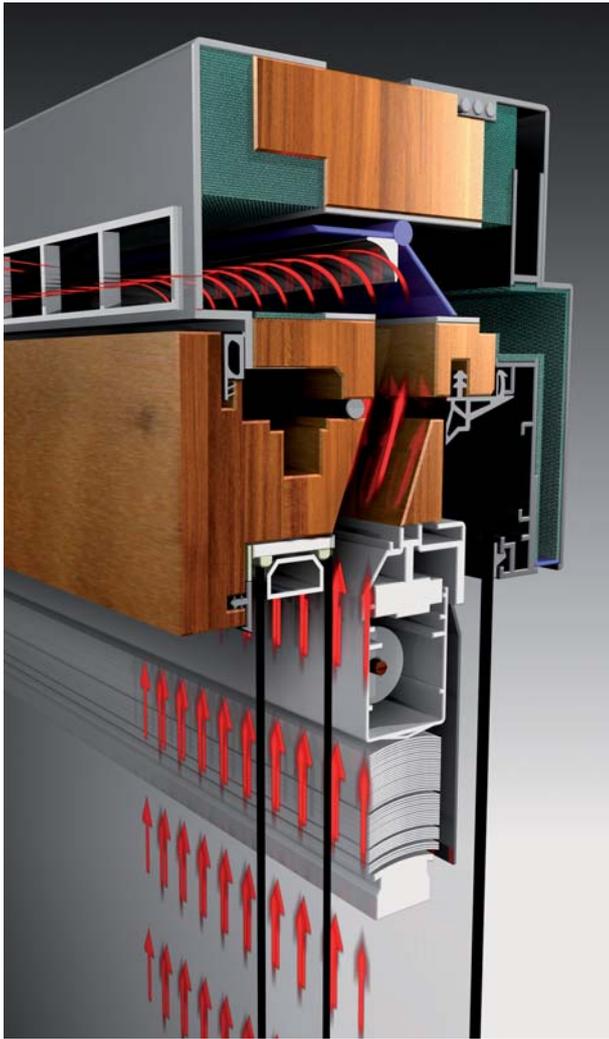
- Create cost and energy efficiency
- Enhance quality of life
- Improve indoor air quality while reducing energy consumption
- Provide for optimal ventilation at minimum heat loss
- Provide smart heat recovery in a more natural way than MHRV
- Reduce running costs
- High Performance - Typical static U Values; 1.05 to 0.8 W/m²K



CLIMAWIN ventilation technology improves comfort, increases energy performance and quality of life on each project.

CLIMAWIN Heating and Cooling Functions





CLIMAWIN – regulatable electronic valves

- CO₂/fresh air, temperature, indoor humidity control functions
- Bypass valves for direct fresh air intake
- Air filters increase indoor air quality, filter out pollen, particles and insects
- Controlled by plug and play room sensors which communicate wirelessly with windows
- Independent power supply systems-power is provided by solar PV panel

CLIMAWIN combines components for all climate zones

- Blind provides privacy
- Blind allows daylight in without unwanted heat gain
- Different glazing configurations with different functions layers
- Composite window available in wood and aluclad
- Resource saving, sustainability and climate protection
- Reduces risk of structural damages
- Boosts quality of life
- Reduces running costs
- Increases indoor comfort

The Revolution in refurbishment

- Plug and Play installation for existing building retrofits; Climawin is self powered and requires no electrical work
- Configurable solution for project specific installations
- Corresponds to DIN requirement 1946-6 for Ventilation of Residential Buildings and UK/Irish Building Regulations

Certified quality

Performance parameter and characteristics certified by Fraunhofer Gesellschaft in Stuttgart and Holzkirchen (Test certificates and confirmation).





Wireless control

The system is independent of the buildings electrical system with power for valves, controls and blinds coming from window integrated PV cells.

This means the Climawin system can be installed without specialist subcontractors.

The CO², temperature and humidity sensing functions are controlled via wireless sensors.

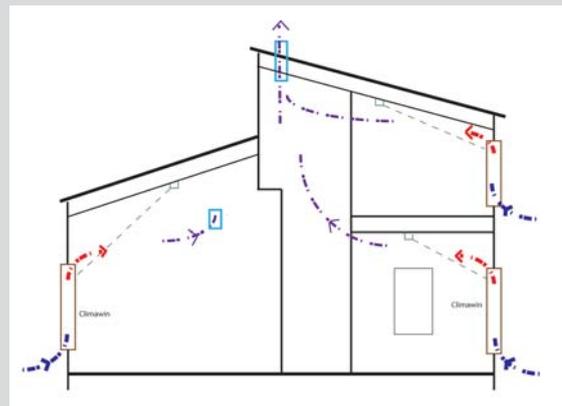
Climawin can be networked into existing home automation systems.

The CLIMAWIN System

The Climawin system consists of a window with two integrated frames of glass, an intelligent (electronically regulated) valve, room and zone sensors, optional integrated blinds and an inbuilt photovoltaic power system.

External air is drawn into the room through the Climawin module and is pre-warmed by heat escaping through the glass. Sensors on wall or ceiling of the room signal the windows (wirelessly) to increase or decrease airflow according to inside and outside conditions, user preference, or regulations.

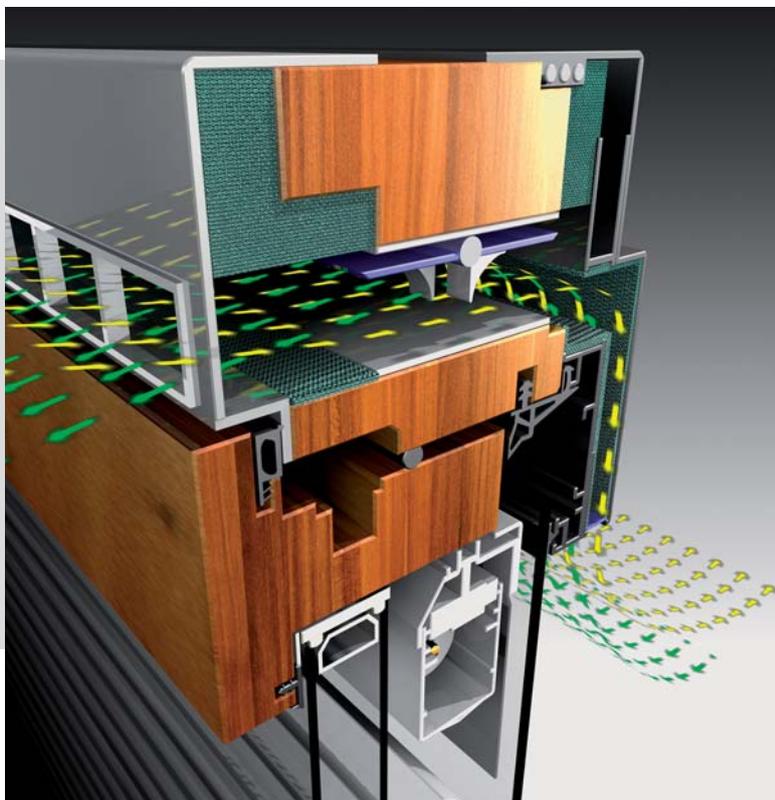
A reverse flow barrier (which prevents condensation) and a bypass that allows air in directly from outside during hot months as well as blinds and as an optional cleanable air filter, completes the system.



Solutions for each project

In the CLIMAWIN system range, different window types in wood and aluclad are available offering solutions of inward or outward opening windows or sash windows. They are suitable for the different climate conditions on the European market.

In addition, a special software allows us to optimally tailor the CLIMAWIN components to each project. The Climawin system integrates both ventilation and non ventilation modules (not all windows in a building need to be ventilation windows) in an aesthetically seamless way. Special solutions are available even for protected buildings.



High air quality

In summer, bypass valves allow air in directly from outside.

CLIMAWIN improves Quality of Life:

CLIMAWIN improves air quality in residential buildings increasing efficiency, alertness and productivity.

Extraction:

CLIMAWIN is compatible with demand control ventilation and passive stack ventilation products from Aereco and Renson



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CLIMAWIN is a joint development by Climawin Atlantic, Ireland, Rauh SR Fensterbau GmbH and Ventilationsvidnuet of Denmark. The unique technology was grant-aided in the Seventh Framework Program of the European Union and accompanied by prestigious institutes and universities in Germany, Denmark and Portugal.

Performance parameters and characteristics were certified by the Fraunhofer Gesellschaft in Stuttgart and Holzkirchen. A project for the pan-European market developed by Rauh SR Fensterbau GmbH, Germany, Horn Vinduer, Denmark, and Solearth Ecological Architecture, Ireland.

For more information please visit

www.climawin.eu
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