CASA CLIMATE CCF

Residential comfort module for cooling, heating and ventilation

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Solution for residential cooling, heating and ventilation

CASA Climate is a unique cooling, heating and ventilation system for apartment buildings. It is affordable and economical solution designed for residential needs.

CASA Climate simplifies the design and building process because the different HVAC components work seamlessly together and are provided by one trusted partner. For residents it offers optimal indoor climate that can be easily controlled from one interface and so that different systems don't conflict with each other. For building owners CASA Climate guarantees energy efficient and economical heating, cooling and ventilation for the whole lifetime of use.

Builders

- One system with one trusted partner
- No conflicts between different HVAC systems
- Affordable solution for cooling

Module builders

- HVAC built inside one module
- One lift installation at site

Real-estate owners

- Optimized heating and cooling
- Energy efficient
- Low carbon footprint EPD
- Miljöbyggnad Guld / LEED etc
- Easy to maintenance

Residents

- Fresh air and healthy indoor climate
- Individual temperature control in each room/zone
- No draft
 Silent
- Silent
- One system to control ventilation, heating and cooling
- Comfortable indoor climate and better sleep quality





CASA CLIMATE CCF is a waterborne comfort module that is connected to the apartments ventilation system and the buildings hydronic circuit. It provides fresh supply air, heating and cooling to the apartment. Each apartment can have several room units depending on the need. CCF uses the heating and cooling energy from ground source or district heating/cooling to provide energy-efficient climatization with individual temperature control for each room.

In decentral ventilation system CCF is connected to an apartment placed Swegon CASA ventilation unit and regulated with CASA Genius control.

In central ventilation system CCF is connected to a centrally placed Swegon GOLD air handling unit.



CCF is connected to the hydronic circuit for cooling and heating energy and ventilation system for supply air.







Designed for apartments

CASA Climate CCF is designed to fit the tight space requirements of apartments. Compact size and multiple duct connections enable various mounting options and climatization for all rooms. CCF comfort modules can be placed inside furniture or in suspended ceiling providing fresh air, heating and cooling to the whole apartment.

Placement in furniture

CCF can be mounted inside a fixed furniture such as the upper or floor section of kitchen cabinets or wardrobe. This is fantastic way to save room and utilize empty space that is not in use.

Placement in suspended ceiling/wall

CCF can be placed in the suspended ceiling of a bathroom or other connected rooms. This way the room units and ventilation unit can be placed in the same room while providing ventilation and climatization to all surrounding spaces.

Individual temperature control

Temperature for each module is regulated separately enabling different temperature settings in different rooms (for example 18 C° in the bedroom and 22 C° in the living room).



CASA CCF mounted in the upper/floor section of kitchen furniture



CASA CCF mounted in suspended ceiling of bathroom with grilles in the living room and bedroom walls





Ideal for modular building

With CASA Climate the comfort modules and the ventilation unit can be fitted inside a single room.

This enables module manufacturers to premanufacture the HVAC units inside one building module and just lift everything in place with one lift at building site.

This makes installation faster and speeds up the whole building process significantly.



Energy-efficient heating and cooling with individual room temperature control!

HVAC today



CASA Climate



Summer function

40 I/S 19 °C

Inlet air to the room

10 I/S 24 °C

Supply air



Fresh supply with recirculated room air

Supply air volumes are primarily designed to provide fresh air in to the apartment. But if only supply air flows are cooled/heated, the air volume is not sufficient to control room temperature. CCF multiplies air volume by recirculating room air, mixing it with supply air and providing significantly higher volume of cooling/heating airflow in to the apartment.

The supply air from ventilation unit is supplied to the CCF creating positive pressure inside the unit.

The positive pressure pushes supply air though nozzles with high velocity. The high velocity on the other side creates negative pressure on the other and this generates induction of room air inside the unit.

The room air is sucked in through an air grille and it flows through the coil where it is heated or cooled if required, before it mixes with the supply air and is discharged back into the room. The drawing above illustrates a summer situation where 101/s of +24°C supply air from ventilation unit is supplied in to the CCF.

At the same time there is 30 l/s of +25°C room air getting sucked in to the CCF. The room air then flows through a cooling coil and mixes with the supply air. As a result we get total of 401/s inlet air cooled down to +20°C.

The ventilation works around the clock providing continuous cooling to the apartment. Therefore CCF can prevent indoor temperature increase with low noise level and relatively low cooling power. This is more comfortable and more economical compared to cooling solutions that are used with high power and noise level for shorter periods.



CASA CLIMATE CCF

Comfort module for heating, cooling and ventilation.

- Heating power: 500W
- Cooling power: 300W
- Air flow: 5–15 l/s
- Sound: Silent <25dB(a)
- Measurements (60x60 cabinet)
 - Width: 560 mm
 - Depth: 485 mm
 - Height: 166 mm
- 100 Ø mm supply duct connection in bottom, top and rear









Accessories

- Condensation sensor CG IV
- Temp sensor T-TG-1
- Actuator RTN81 5 m
- Actuator c 24V NC
- Strap-on Temp sensor TEPK
- LUNA RE MB
- LUNA RE Changeover
- Grille 166 mm
- Grille 186 mm
- VDN 110 valve
- Angle bracket kit
- Mounting kit with screws
- Leakage indicator kit
- Nozzle plug kit
- Painted screws for grille



ProCLIMATE

System selection & calculation tool

ProCLIMATE selection and calculation tool is an easy way to create a complete heating, cooling and ventilation system for multi-apartment buildings. Start by defining cooling, heating and ventilation need for apartment and then multiply with the whole building. The tool provides a list of of needed articles.

- 1. Cooling and heating need
- 2. Ventilation need
- 3. System definition
- → Shopping list

Design data also available in following software

- Room Unit Design
- Acoustic Design
- MagiCAD/MagiCloud





Feel good **inside**



