


C6 SMART HOME

Smart control system C6 for DOMEKT units

Panel C6.1

- Indication of parameters
- Setting of all parameters from the panel
- Colored touch-sensitive LED display




Integrated webserver

Modern design

Factory preset parameters

Panel C6.2

- Simple control
- Touch-sensitive screen
- Operation modes



Updated controller – C6M*

More accurate temperature maintenance

Modulated heat exchanger control allows you to maintain the desired temperature more accurately. Updating reduces the power consumption of the unit.

New application

Remote control in two steps: connect the unit to the Internet, scan the controller's QR code – and the unit will automatically connect to the KOMFOVENT Cloud server.

"Plug and Play"

All temperature sensors are integrated into the unit, making installation and maintenance easier.

Measurement of air flow in real time

The new sensors measure airflow in real time, and therefore automatic system accurately maintains the specified performance and adjusts the airflow balance independently of changing conditions.

* Implementation will be gradual and by 2020 all DOMEKT units will be equipped with the C6M controller.

For both: beginners and advanced users

A user-friendly interface enables intuitive navigation and control of the unit. Core philosophy behind the design of C6 was so that the ventilation unit would operate properly without constant adjustments from the user. Different ventilation modes are optimized for the user's daily needs. Automatic air quality control selects the most appropriate mode and ensures the comfort conditions in the room. Advanced users can control unit's operation according to his needs, as many settings and control possibilities are provided as well:

- Airflow control: CAV / VAV / DCV.
- Intensity control by air quality, CO₂, humidity level.

Energy counters

- Real-time energy consumption indicator.
- Possibility of observing the running costs of ventilation unit.
- Heat recovery counter.

Control options

- Possibility to choose from two control panels.
- Control via web browser / smartphone.
- Ability to control via BMS (Modbus, BACnet).

Operating modes

- 8 preset modes.
- Intelligent energy saving algorithms.
- Automatic air quality control with optional AQ sensor.
- Extensive weekly schedule.



SMART CONTROL FUNCTIONS

Supply air temperature control

The unit supply a user-defined temperature air

Extract air temperature control

The unit automatically delivers air at a temperature so that the set temperature of the exhaust air is maintained

Room air temperature control

The unit supports the user-set ambient room temperature, according to the temperature sensor located in the panel

Temperature balance control

The temperature support value of the supply air is automatically set on the basis of the current extract air temperature, i.e. the extract air temperature and the supply air temperature will be the same

Constant air volume control (CAV)

The unit supplies and extracts a constant air volume as set by the user, regardless of changes in the ventilation system

Variable air volume control (VAV)*

The unit supplies and extracts air volume correspondingly to the ventilation requirements in different premises

Directly controlled volume (DCV)

The air volumes are controlled by direct external control signals

External water coil control

There is estimated an additional water duct heater or cooler control that can be activated by the user on the control panel

External DX unit control

There is estimated an additional external direct expansion (DX) unit control that can be activated by the user on the control panel

Weekly operation schedule

It is possible to choose one of the four pre-set weekly operation schedules. If necessary, the schedule can be modified

Holidays planning

The user can set the holiday dates for period when he is away. Then the unit will not operate for most of the time, but ventilate the premises occasionally

Air quality control*

Upon connecting the external air quality/humidity sensors, the ventilation intensity is chosen automatically. In this way, the maximum room comfort is ensured with the minimum energy cost

Operation on demand*

The ventilation unit will operate when the air quality in the premises exceeds the set levels

Cool recovery

During the summer season, in the conditioned premises cool from extract air is returned back into the premises

Temperature saving function

The automatic function attempts to maintain comfortable temperature conditions in the premises by reducing the ventilation intensity, i.e. it prevents excessive cooling down or overheating of the premises

Free cooling

When the room temperature air exceeds the set value, and the outdoor temperature is lower than the room temperature, the heat recovery and the other heating/cooling processes is blocked automatically and freecooling are performed only by fans

Ventilation control by external contacts

Air flow can be controlled by three external contacts, each of which can be assigned to different ventilation intensity

Control via internet browser

When the device is connected to the computer network or the Internet, the user-friendly web interface allows the operator to control the equipment with a computer or with another mobile device

Control with smartphones

The "Komfovent Home" mobile app has the same interface as the control panel and allows the user to control the ventilation unit from any point

SAFETY FUNCTIONS

Filter clogging indication

Clogging of the air filters is measured depending on the duration and intensity of the unit's operation. The user is informed by a message, when it is time to change air filters

Water mixing system warming-up

For units with additional external water heaters/coolers, the circulation pump and mixing valve motion system is provided

Rotor warm-up and cleaning function

In order to prevent the eventual contamination of the stopped rotary heat exchanger, the unit has a periodical forced activation

Heat exchanger frost protection

Units with a counter-flow plate heat exchanger have a primary elected heater that is controlled as needed, and is operated only at the capacity to ensure frost protection. In this way, the ventilation unit can operate in low outside temperatures

Heat exchanger failure indication

In units with plate or rotary heat exchanger, a control system monitors the thermal efficiency, and if it does not reach the stated level, a fault is indicated

Water heater frost protection

This ensures the maximum reduction of the possibility of water freezing during the unit's operation. When the unit is switched off, warm water circulation is supported

Electric heater overheat protection

If there is danger of overheating, heater shuts down automatically. When unit is shut down during the heating operation, fans will continue to operate for set time period

Low air flow indication

If the ventilation unit does not reach the set air volume during the specified time, the unit's operation is stopped

Emergency shut down in case of fire

The external fire alarm is provided when the unit is connected to the building fire alarm system. There is also an internal fire alarm to detect an increased temperature inside the air handling unit or the ventilation system

Emergency shut down when temperature reaches critical limits

When the supply air temperature drops below or exceeds the permitted value, the unit is stopped

Intelligent self-diagnostic

Self-check function of controller and elements of the air handling unit. If a fault is detected, controller terminates the operation of the unit and warns about such a fault using the respective informative messages

* these functions require additional accessories.