

Control system

Integrated control system ensures safe operation of the air handling unit, controls preset ventilation system parameters, and optimise unit operating costs. To lower unit instalment and operating costs, automatic unit control system was designed. The system connects the elements and allows quickly assembling and connecting unit parts together.

Controller
KOMFOVENT C3



Operating Functions	Description
Unit control using panel	Panel can be used to control unit operation: to change operation modes and parameters, to switch unit on or off anytime
Remote switching on or off	Possibility to switch unit on or off using additional device
Supply air temperature maintenance	Unit automatically supplies air according to temperature preset by the user
Room temperature maintenance	Unit automatically supplies air of such temperature to maintain preset room temperature
Setpoint sliding	Option to displace set value of the supply or room air temperature for the specified time period
Temperature maintaining mode setting	User can select from the panel temperature to be maintained: supply air or room
Automatic temperature maintaining mode selection	Depending on the outdoor temperature, maintaining mode can be selected automatically
Ventilation intensity control	User may set most economical and effective ventilation intensity level
Constant air volume control*	Unit maintains set by the user supply and exhaust air volume
Ventilation intensity control option according to external sensor signal*	Provided ventilation intensity correction, according to increased CO ₂ , humidity level and etc.
Ventilation correction in winter time	In winter time, if there is not enough heating power, temperature is maintained by decreasing ventilation intensity
Unit weekly schedule programming	Weekly operation schedule with three daily events may be set. For each daily event, user can select ventilation rate or maintained pressure

Unit operation mode selection	In automatic mode the unit is operated according to weekly schedule. In manual mode the unit operates by set intensity constantly
Season setting	For the unit to operate in the most economic mode, summer and winter settings are provided
Automatic season change	Depending on the outside temperature, season can be selected automatically
Pump control	Water pump is controlled depending on the outside temperature and according to the need
Cooling energy recovery	In summer time, cooling energy is recovered to the room
Exhaust air flow correction**	User for the set time period can adjust exhaust air fan speed

Protection functions	Description
Water heater frost protection	Maximally decreases water frost possibility
Electric heater overheating protection	If there is danger of overheating, heater shuts down automatically Unit is equipped with heater cooling. When unit is shut down during the heating operation, fans will continue to operate for set time period
Plate heat exchanger frost protection	When there is low outdoor temperature, heat exchanger is protected from freezing
Fan overheating protection	Fan motor is protected from failure
Rotary heat exchanger rotation guard	If heat exchanger has a failure, the unit operation is stopped
Emergency shut down in case of fire	If the unit is connected to the building fire-alarm system, in case of fire unit operation is stopped automatically
Emergency shut down according to the temperature value limits	If supply air temperature reaches emergency level, unit operation is stopped
Distance unit failure indication	Possibility to indicate about the unit failure anywhere

Other functions	Description
Filter clogging indication	In case of at least one filter clogging, warning appears on the panel display
Mode operation, temperature and time indication	User can monitor the processes on the control panel
Failure indication	In case of failure of a separate unit assembly or elements, the air handling unit is stopped. This is indicated by text message
Language selection	Control panel provides menu for the language selection
Air flow indication*	Option to monitor unit supply and exhaust air flow (m ³ /h)
Unit PC control*	Option to manage and control units by computer, when connected to the PC network, or internet

* additionally ordered function

** for unit with 3-speed fan control this function not provided

