

Manual: QA Ventilation Komfovent C6

Integration of the Komfovent C6 ventilation unit into the SHE system — reading values, manual control and fully automatic operation according to the season, time of day, arming state and air quality.

Introduction

QA Ventilation Komfovent C6 connects the Komfovent C6 ventilation unit to the Fibaro / Yubii controller. The application can be used in three ways:

- only for **reading the values** of the unit (temperatures, flows, air quality, heat recovery, filters, alarms),
- for **manual control** of the unit and its modes from the **Manual control** card,
- for **complex integration** of ventilation operation into the smart home — the application changes the behaviour of the unit according to the season, time of day, arming state, open windows and air quality.

Compared with control from the unit panel, the application adds new modes:

- **Living room flaps** — in night mode, the application closes the dampers of the living areas, so the ventilation ventilates only the part of the house where people sleep.
- **External Quality** — own regulation of the ventilation output according to external air quality sensors. You can add e.g. a Netatmo sensor to the bedroom, and the application controls the ventilation so that the air quality in the room corresponds to the set value.

Other features:

- Automatic ventilation presets according to the season (the **QA Global Climate Mode** application) — e.g. regulation to the supply temperature in winter and to the extract temperature in summer, free cooling disabled in winter, permanent heat recovery disabled in summer.
- Reaction to external sensors, e.g. **Smoke Sensors**.
- Setting of the behaviour in the **Vacation** and **Visit** modes and according to the arming state (the **QA Profile Control** application).
- Reaction to windows being opened, including the selection of windows for the individual times of day.
- Selection of air quality (CO2) sensors for the whole day and for the night.

For clear visualisation and for working with the measurement history and charts, we recommend connecting to Mervis SCADA.

Previous applications

Mandatory:

- **Main schedule in the controller** — schedule from which the application takes the set temperature for the ventilation.

Optional:

- **QA Global Climate Mode** — annual climate mode (winter / transitional period / summer), according to which the application automatically sets the ventilation presets.
- **QA Profile Control** — time of day (morning / day / evening / night), absence, **Vacation** and **Visit** modes.
- **Window Sensors**, **CO2 sensors** (e.g. Netatmo), **Smoke Sensors** and the **Living room flaps** switch — devices in the controller that the application uses for the automatic mode.

Installation and initial setup of the QA

Installation

Purchase the application in the Smart Home and Energy e-shop (<https://eshop.smarthomeenergy.cz>). After the purchase you receive an e-mail with a link to the activation form, in which you choose one of the two installation methods:

- **Installation via the SHE Installation Application (recommended)** — the application is installed into the unit automatically and allows future automatic updates. It requires the “superuser” credentials for the unit. See the separate “Installation Application” manual for details.
- **Standalone installation file (*.fqax)** — install the file manually into the unit according to the unit manufacturer's instructions (logged in as “superuser”). This option does not allow automatic updates.

You can try out the application functions before purchase in a trial version — the TRIAL unlocks full functionality for 2 days. We recommend verifying the following on your ventilation unit:

- reading the values on the **Values** card,
- switching the unit on and off,
- switching the **Air Conditioning Mode** (the ventilation mode) on the **Manual control** card.

After a successful installation, the following appear on the unit desktop:

- the main **KOMFOVENT** card with a quick overview and control,
- the **Values**, **Setting Properties**, **Manual control** and **Installation** cards,
- tiles with the values: **Temperature supply**, **Temperature exhaust**, **Supply**, **Exhaust** (fan output in %), **Quality Towing** (extract air quality), **Quality external**, **VOC Towing** (extract air VOC), **Heater**, **Pollution filter**, **Alarm** and **Filter alarm**.

Operating prerequisites

- **Controller:** Fibaro HC3L or Fibaro HC3 (or Yubii Home / Yubii Home Pro).
- **Komfovent ventilation unit with a C6 or C6M controller** (firmware X.X.X.18 or later) connected by cable to the same local network (LAN) as the controller — RJ-45 socket on the unit's controller.
- The application communicates with the unit via **Modbus TCP** (port 502). Firewalls or other network devices must not block this communication.
- A **main schedule** is created in the controller.
- For the automatic mode (season, time of day, windows, profiles), the relevant applications of the SHE ecosystem and the sensors are installed and configured.

Opening the application control card

To open the application card in a web browser, move the cursor over the application tile (e.g. **KOMFOVENT**, **Installation**) and click the eye icon in its top-right corner. The application card opens.

 **Warning:** Not all cards and tiles are displayed to all users. Each user selects which cards and tiles are displayed on the Display Settings card (sheViewControl application) – levels SHORT, ADVANCED and ADMIN. If you cannot see a described card, check the settings on this card.

User settings

Initial setup procedure

1. Connect the Komfovent C6 ventilation unit to the local network by cable (RJ-45 socket on the C6 controller). The default IP address of the unit is 192.168.0.60. Set the IP address, subnet mask or DHCP on the C6.1 control panel (**Menu** > hold the **Settings** button for more than 5 s > **Advanced settings** > **Connectivity**) or on the unit's website (**SETTINGS** > **CONNECTIVITY**). The unit must be in the same subnet as the controller.

2. "Installation" card

- Use the **SEARCH NETWORK** button to find the unit and select it in the **MAC ADDRESS** field.
- Set the **SECTION**, **ROOMS**, **MAIN SCHEDULE** and the sensors (windows, CO2, smoke, dampers).
- Save the settings with the **SAVE** button.

3. "**Setting Properties**" card — set the behaviour of the automatic mode: external quality, reaction to windows, CO2 sensors, mode presets and the settings for the individual seasons.

4. "**Manual control**" card — set the parameters of the individual ventilation modes (flows, setpoint temperatures, heating).

5. "**KOMFOVENT**" card — for automatic operation, press the **AUTO** button and check the current application mode in the **Control Mode** row. Use this card for routine control and status checks.

"Installation" card

Used for the initial setup of the links to the rooms and sensors and of the communication with the ventilation unit.

⚠ Warning: When saving settings, always wait until Run status changes to Running. Do not press SAVE before that.

Device Settings

- **SECTION** — section (part of the building) to which the ventilation belongs.
- **ROOMS** — rooms served by the ventilation.
- **MAIN SCHEDULE** — schedule from which the application takes the set temperature for the ventilation.
- **WINDOW SENSORS** — window sensors for the reaction to windows being opened.
- **CO2 SENSORS** — external air quality sensors (e.g. Netatmo) for the **External Quality** mode.
- **SMOKE SENSORS** — smoke sensors; when they are activated, the application switches the ventilation to the mode set in the **SMOKE MODE** item (**Setting Properties** card).
- **LIVING ROOM FLAPS** — switch of the living area dampers, which the application closes in night mode.

Communication settings

- **Unit ID** — address of the ventilation unit; set the value with the -- / - / + / ++ buttons.
- **IP Address** and **MAC Address** — network identification of the ventilation unit.
- **MAC ADDRESS** (item **Select**) — selection of the ventilation unit from the list of devices found.
- **SEARCH NETWORK** — searches for available units in the network. If the unit is not displayed, check according to the manufacturer's instructions that it is connected to the same local network as the controller and repeat the search.

The **Run status** row shows the application run state. Save the settings with the **SAVE** button. The application version is shown at the bottom of the card (e.g. sheKomfoventControl 1.03.01).

"KOMFOVENT" card

The main card with a quick overview and control. The current application mode is shown below the card name and on the tile (e.g. **AUT-DAY**), in more detail in the **Control Mode** row below the unit diagram (e.g. **AUTO-DAY:Air quality**).

To display the meaning of each symbol on the card, move the mouse cursor over the symbol (tooltip).

Unit diagram

The centre of the card is formed by the diagram of the ventilation unit with the current values:

- **Outdoor** — outdoor temperature.
- **Setpoint** — setpoint temperature and set air quality.
- **Efficiency** — heat recovery efficiency and energy saving.
- **Extract** — temperature and quality of the extracted air and output of the extract fan.
- **Heat Recovery** — heat recovery level and recovered power.
- **Supply** — temperature of the supplied air, output of the supply fan and output of the heater.
- **Room** — temperature, air quality and humidity from the unit panel.
- **Quality** — current and set air quality and the state of the **Quality** mode.
- **External** — current and set quality from the external sensors and the state of the **External Quality** mode.

Icons around the diagram:

- **left outside** — application modes: automatic, local, manual and daily mode (the daily mode requires **QA Profile Control**),
- **left inside** — global climate mode (requires **QA Global Climate Mode**),
- **right inside** — additional states of the ventilation,
- **right outside** — main ventilation modes: switching on, main mode, state of the Auto mode, **ECO**, **Quality** and **External Quality**.

Control

- **AUTO** — automatic control by the SHE application according to the schedule, the season, the time of day, the arming state and the settings on the **Setting Properties** card. Do not confuse it with the **Auto Mode** item on the **Manual control** card, which controls the automatic mode of the Komfovent unit itself. The **AUTO** button always returns the application to automatic mode — from manual control as well as from manual switching on or off.
- **ON / OFF** — manual switching of the ventilation on or off.
- **Visit time** — length of the **VISIT** mode; set it with the - / + buttons. Use the **VISIT** button to start the mode; when the time has elapsed, the application returns to the previous permanent mode.
- **Vacation midnights** — length of the **VACATION** mode (number of midnights); set it with the - / + buttons. Use the **VACATION** button to start the mode; when the time has elapsed, the application returns to the previous permanent mode.
- **Temporary time** — duration of the temporary mode; set it with the - / + buttons. This applies to any start of a temporary mode, e.g. when you manually start a mode directly on the unit's control panel while the application is in automatic mode. When the time has elapsed, the application returns to the previous permanent mode.

Set the behaviour of the ventilation in the **Visit** and **Vacation** modes on the **Setting Properties** card in the **Mode selection** section.

Status values

The lower part of the card shows **Annual climate mode**, **Armed Status**, **Presence Status**, **Profile**, **Auto Mode**, **Auto Mode Type**, **Auto Mode Schedule** and **Eco Mode**.

"Values" card

Overview of the values read from the ventilation unit (read only):

- **Time**, **Operating Status**, **Air Conditioning Mode**, **Temperature control**, **Temperature setpoint**,
- **Temperature Panel 1**, **Quality panel 1**, **Humidity panel 1** — values from the unit control panel,
- **Temperature supply**, **Temperature exhaust**, **Sensor 1**, **Sensor 2** (and their type **Sensor 1 Type**, **Sensor 2 Type**),
- **Fan supply**, **Fan exhaust**, **Recuperation**, **Cooler**, **Electric heating** (two rows: permission of the electric heating and its current output in %),
- **Consumption**, **Heater power**, **Power recovery**, **Recuperation efficiency**, **Energy Saving**,

- Filter impurity, Filter impurity alarm, Number of active alarms, Alarm status,
- settings of the modes **Auto Mode**, **Eco Mode**, **Quality Mode** and **Quality Mode External**.

“Manual control” card

Complete control of the ventilation unit in manual mode and setting of the parameters of the individual ventilation modes. There is no **SAVE** button on the card — changes are saved automatically.

Control mode

The **Mode** row shows the current application mode. Use the **LOCAL CONTROL** button to switch the application to manual control. To return to automatic mode, press **AUTO** on the **KOMFOVENT** card.

Operation and ventilation mode

- **Operating Status** — use the **OFF / ON** buttons to switch the unit off or on.
- **Air Conditioning Mode** (the ventilation mode) — use the **AWAY**, **NORMAL**, **INTENSIVE** and **BOOST** buttons to select the ventilation mode (away from home, normal, intensive, maximum).

Temperature control

Temperature control — use the buttons to select the temperature according to which the unit controls its operation: **SUPPLY** (supply temperature), **EXHAUST** (extract temperature), **BALANCE** (balanced) or **ROOM** (room temperature).

Auto Mode

Automatic mode of the Komfovent unit itself (according to its schedule or the air quality).

- **Auto Mode** — **OFF / ON**.
- **Auto Mode Type** — **TIME PROGRAM** (according to the unit schedule) or **QUALITY** (according to the air quality).
- **Auto Mode Time.prg.** — unit schedule: **HOME**, **WORK**, **OFFICE** or **SCHEDULER**.

Eco Mode

- **Eco Mode** — **OFF / ON**.
- **Temp. Supply Min** and **Temp. Supply Max** — limits of the supplied air temperature in the Eco mode; set them with the **- / +** buttons.
- **Free cooling**, **Heater**, **Cooler** and **Constant recuperation** — **DISABLED / ENABLED** buttons.

Quality Mode

- **Quality Mode** — **OFF / ON**.
- **Quality Setpoint** — required air quality (ppm).
- **Temperature Setpoint** — setpoint temperature in the Quality mode.
- **Heating** — **DISABLED / ENABLED**.
- **Flow Min** and **Flow Max** — limits of the ventilation output in the Quality mode.

Set the values with the **-- / - / + / ++** buttons.

Ventilation mode settings

For the modes **Away Mode**, **Normal mode**, **Intensive mode**, **Boost Mode**, **Kitchen Mode**, **Fireplace mode** and **Override Mode**, set:

- **Flow Supply Setpoint** and **Flow Exhaust Setpoint** — fan output in %,
- **Temperature Setpoint** — setpoint temperature in the given mode,
- **Heating** — **DISABLED / ENABLED**.

Set the values with the -- / - / + / ++ buttons.

The modes **Kitchen Mode**, **Fireplace mode** and **Override Mode** also have a **Timeout**. **Override Mode** also has the item **Override Mode**: **ALWAYS**, **When ON** or **When OFF**.

Vacation Mode contains **Microventilation**, **Temperature Setpoint**, **Heating** and the period **From – To**.

“Setting Properties” card

Setting of the application behaviour in the automatic mode. There is no **SAVE** button on the card — changes are saved automatically.

Quality External

Regulation of the ventilation output according to external air quality sensors, e.g. Netatmo in the bedroom or a room. Select the sensors on the **Installation** card (**CO2 SENSORS**) and in the **CO2 external daytime sensors** section.

- **Quality External Setpoint** — required air quality (ppm) that the application is to maintain in the room.
- **Flow Day Min** and **Flow Day Max** — limits of the ventilation output during the day.
- **Flow Night Min** and **Flow Night Max** — limits of the ventilation output at night.

Set the values with the -- / - / + / ++ buttons.

 **Warning:** The **Boost Mode** is used to control the ventilation output according to external air quality sensors. The application takes over its settings and, in the **External Quality** mode, sets the fan output using a PID controller.

Opening windows off

Reaction to windows being opened according to the time of day. In the items **WINDOWS OFF MORNING**, **WINDOWS OFF DAY**, **WINDOWS OFF EVENING** and **WINDOWS OFF NIGHT**, select the windows whose opening switches the ventilation off at the given time of day. The windows that you do not select can be opened while the ventilation keeps running — e.g. at night, or when you ventilate the living room by windows and the ventilation unit ventilates the rest of the house.

CO2 external daytime sensors

Selection of the CO2 sensors for the **External Quality** mode according to the time of day:

- **CO2 SENSORS OTHER NIGHT** — sensors according to which the application regulates outside night (morning, daytime and evening),
- **CO2 SENSORS NIGHT** — sensors according to which the application regulates at night; at night only these sensors are used (e.g. in the bedroom) and the living area dampers are closed in night mode (if **LIVING ROOM FLAPS** are set on the **Installation** card).

Override the heater in modes

In the **OVERRIDE THE HEATER IN MODES** item, select the ventilation modes (**Quality**, **Normal**, **Intensive**, **Maximum**, **Away**, **Vacation**, **Kitchen**, **Fireplace**, **Override**) in which the application overrides the heating permission according to the annual climate mode (**Heater Enable** in the **Period settings** section).

Mode selection

For each situation, select the ventilation mode to which the application switches the unit:

- **SMOKE MODE** — when a smoke sensor is activated,
- **VACATION MODE** and **VISIT MODE** — in the **Vacation** and **Visit** modes,
- **AUTO-PROTECTED MODE**, **AUTO-PARTIALLY PROTECTED MODE** and **AUTO-GUARDED MODE** (disarmed) — according to the arming state,
- **AUTO-AWAY MODE** — when no persons are present,

- **AUTO-MORNING MODE, AUTO-DAY MODE, AUTO-EVENING MODE and AUTO-NIGHT MODE** — according to the time of day.

Options: **Not changed** (the application does not change the mode), **Off, Standby, Quality, Normal, Intensive, Maximum, Away** and **Vacation**.

Period settings

Ventilation settings according to the annual climate mode (**QA Global Climate Mode**) separately for the **Summer, Transient** and **Winter** periods:

- **SETPOINT SETTINGS** — the main schedule in Fibaro has a separately set temperature for heating and for cooling; select which of them the application uses in the given period: **Heating, Cooling** or **Not apply**.
- **TEMPERATURE CONTROL ACC.TO** — temperature according to which the unit controls its operation: **Supply temperature, Exhaust temperature, Balanced** or **Room temperature**.
- **Eco Mode On, Eco Mode Free Cooling, Eco Mode Heating, Eco Mode Cooling, Eco Mode Permanent Recuperation** and **Heater Enable** — use the buttons to switch the individual functions on or off in the given period. A highlighted button means on.
- **Eco Temp. Min Supply** and **Eco Temp. Max Supply** — limits of the supplied air temperature in the Eco mode; set them with the - / + buttons.

Example: in winter, select **Supply temperature** in the **TEMPERATURE CONTROL ACC.TO** item and switch off **Eco Mode Free Cooling**. In summer, select **Exhaust temperature** and switch off **Eco Mode Permanent Recuperation**.

Notes

- The application supports both the Komfovent C6 and C6M controllers — both use the same Modbus description.
- The ventilation modes, temperature control, the Eco mode and the unit schedules correspond to the functions of the Komfovent C6 unit; their meaning is described in detail in the manufacturer's documentation.
- The tiles **Supply**, **Exhaust**, **Temperature supply**, **Temperature exhaust**, **Quality Towing**, **Quality external**, **VOC Towing**, **Heater**, **Pollution filter**, **Alarm** and **Filter alarm** serve to display values.
- For clear visualisation, measurement history and charts, we recommend connecting to Mervis SCADA.