

# DAPHNE FLAT

Residential heat recovery unit



PARTNER  
IN VENTILATION  
2VV.CZ



# SMART & SLEEK

Goddess of heat recovery units







# FAMILY HOUSES





# LOW-ENERGY & PASSIVE HOUSES

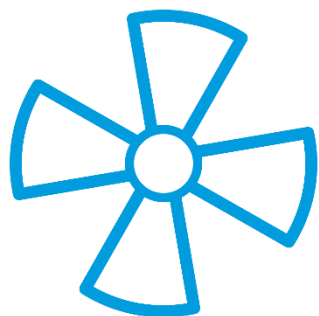


# FLATS & APARTMENTS





# DAPHNE FLAT



**High  
efficiency**



**Smart  
construction**



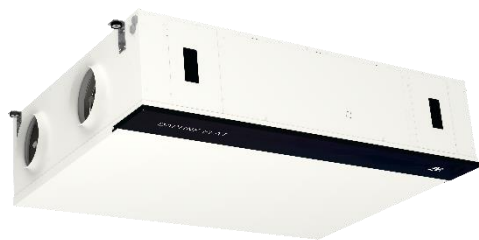
**Intelligent  
control**

# HIGH EFFICIENCY

Great comfort with minimized  
operation cost



# AIRFLOW PERFORMANCE



Size 030

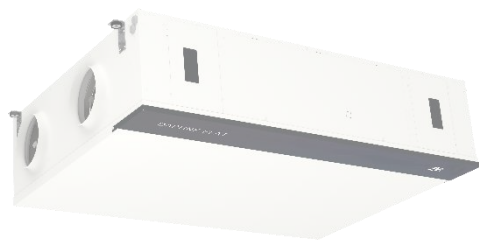
**350m<sup>3</sup>/h**

@100Pa

Energy class **A**



# AIRFLOW PERFORMANCE



Size 030

**350m<sup>3</sup>/h**

@100Pa

Energy class **A**



Size 050

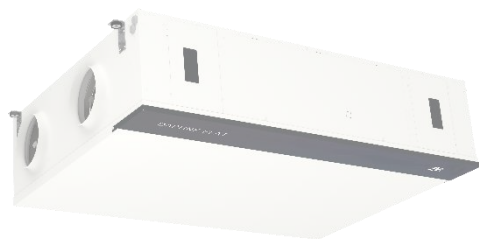
**520m<sup>3</sup>/h**

@100Pa

Energy class **A+**



# AIRFLOW PERFORMANCE

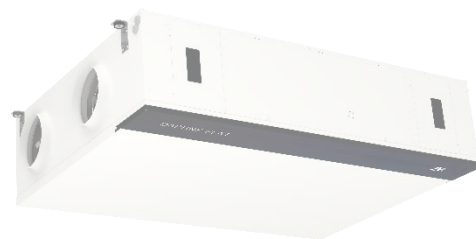


Size 030

**350m<sup>3</sup>/h**

@100Pa

Energy class **A**



Size 050

**520m<sup>3</sup>/h**

@100Pa

Energy class **A+**



Size 070

**770m<sup>3</sup>/h**

@100Pa

Energy class **A+**



# HEAT RECOVERY

Heat recovery ensured by **counter-flow aluminium** cell, which strength is a high thermal efficiency and air tightness.





# HEAT RECOVERY

Heat recovery efficiency  
**up to 96%**



# HEAT RECOVERY

Heat recovery efficiency  
**up to 96%**

At nominal speed it is  
**more than 81%** (EN13141-7)

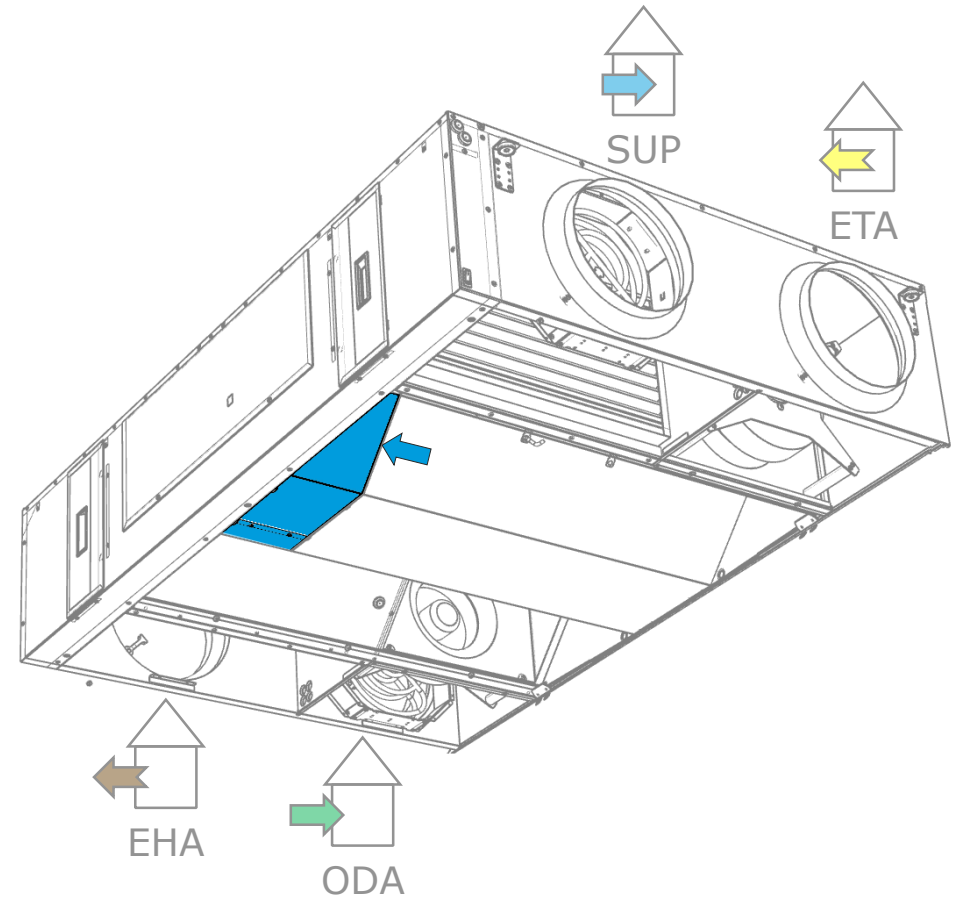




# FLUENT BY-PASS

**0-10V** control secures temperature comfort at any time.

Even during anti-freeze protection mode it ensures partial **heat recovery whenever possible.**



# EC FANS

**Highly-efficient** centrifugal EC fans with backward curved impellers and a variable speed drive motor.

Significant for its **low energy consumption** and quiet operation.





# PRE-HEATER POST-HEATER

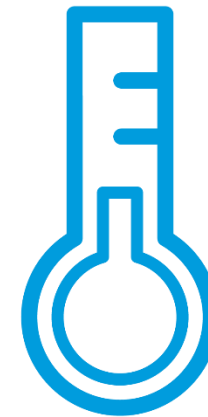
Electric (pre/post) heater with  
**fluent control** of the heat output.

Integral part of the unit when such  
option selected.



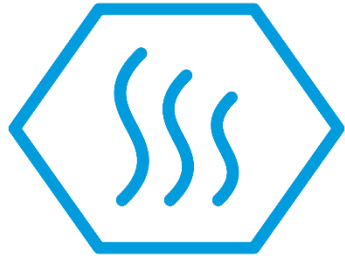
# TEMPERATURE CONTROL

**Integrated** NTC temperature **sensors** (interior temperature control, fluent control of by-pass, anti-freeze protection) to ensure **most effective operation.**

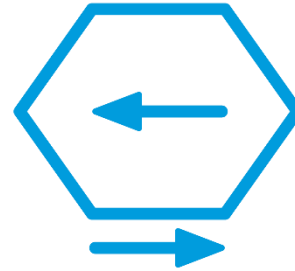




# HIGH EFFICIENCY



**Thermal efficiency**  
up to 96% ensured  
by aluminium  
counterflow cell



Constant **thermal comfort** thanks to a  
fluent control of  
by-pass



**Low energy consumption** and  
quiet operation

# SMART CONSTRUCTION

Clever solution focused on your  
needs



# LOW SOUND

Sound-attenuating design, optimized air flow and attentive selection of components results in a **quiet operation** of the unit.





# CEILING INSTALLATION

Valid for all 3 sizes:

**030** (350m<sup>3</sup>/h @100Pa)

**050** (520m<sup>3</sup>/h @100Pa)

**070** (770m<sup>3</sup>/h @100Pa)



# LOW PROFILE

Super slim fit for an under-ceiling  
installation

Size 030 – **281mm**

Size 050 – 322mm

Size 070 – 364mm



# WALL INSTALLATION

Only for size **030** (350m<sup>3</sup>/h  
@100Pa)





# LOW PROFILE

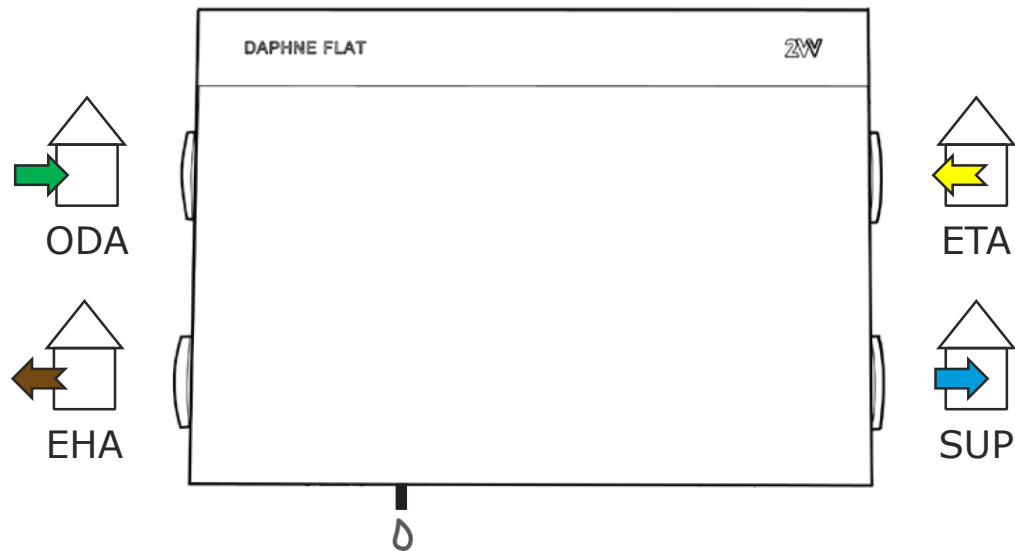
Super slim fit ideal for installation  
with **limited space**

Size 030 – **281mm**



# INSTALLATION SIDE

**Right** version (bottom view)

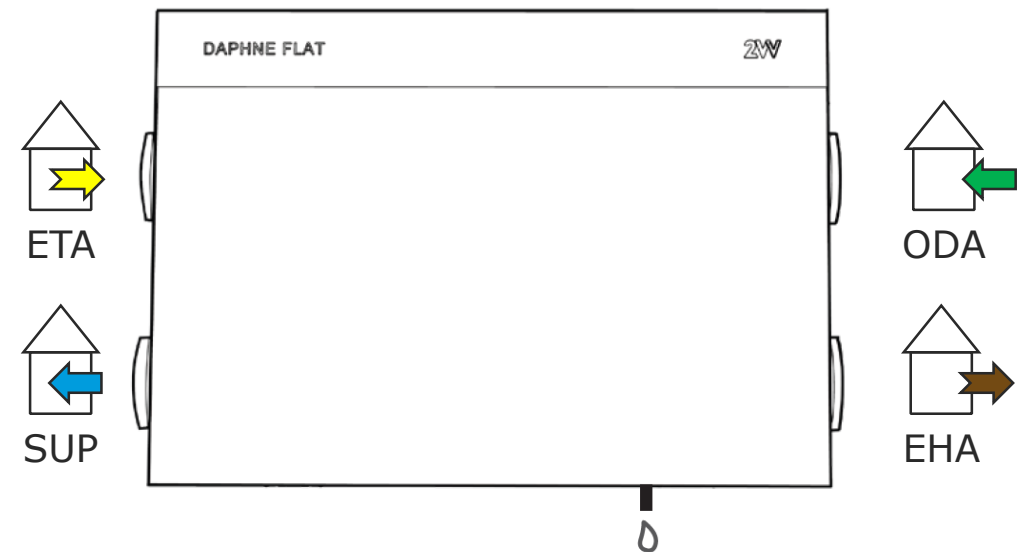


# INSTALLATION SIDE

**Right** version (bottom view)



**Left** version (bottom view)

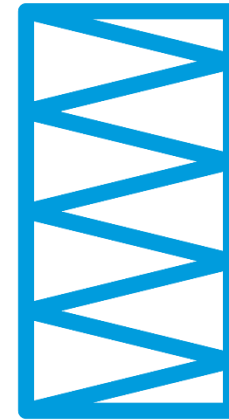




# FILTERS

**Inlet / Outlet** filters are delivered with filter class: **Coarse 60%**.

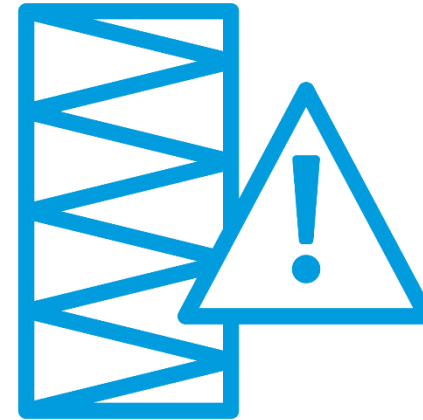
Available also filters with class **Coarse 90%** and **ePM 1 60%**.



# FILTERS

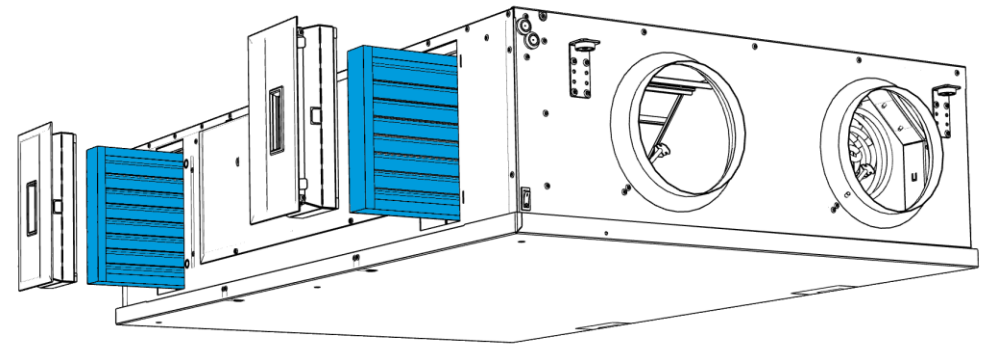
**Time indication** for clogged filters  
settable in service menu.

Clogged filters **signalization**  
displayed on the **control panel**.



# FILTERS

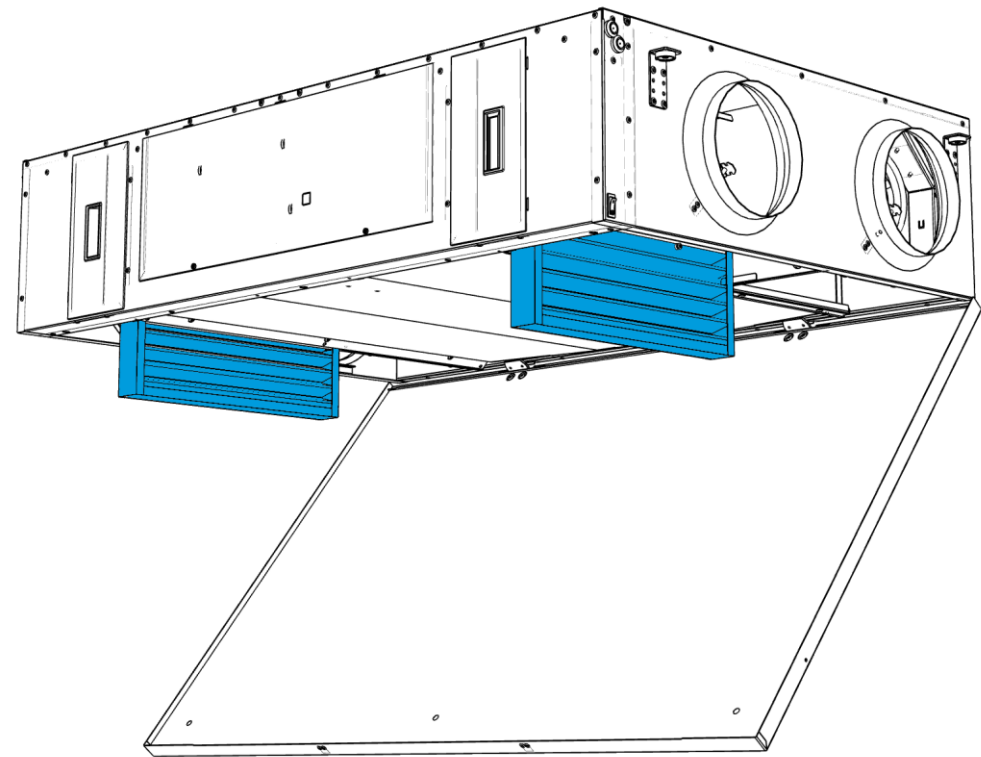
**Side access** to the filters exchange is through the filter doors (inlet / outlet).





# FILTERS

**Bottom access** to the filters exchange is through the service door.



# SMART CONSTRUCTION



Sound-attenuating design, optimised airflow and high-quality components



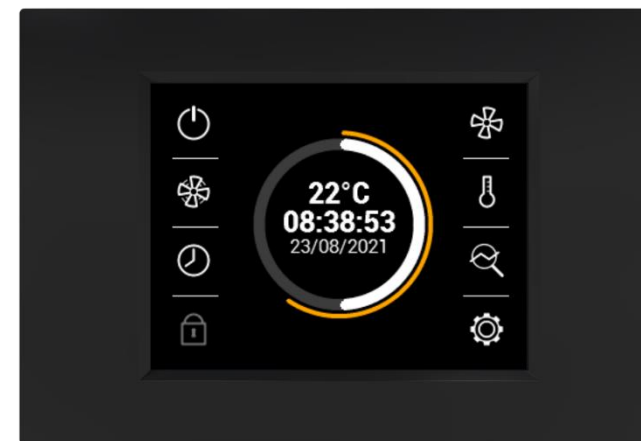
Ceiling installation and wall installation for size 030  
Left / right version



Coarse 60%  
Clogged filters time indication and easy exchange

# AirGENIO CONTROL

Intuitive – Intelligent - Innovative



# AirGENIO



## **Intuitive**

Easy to set up  
and operate

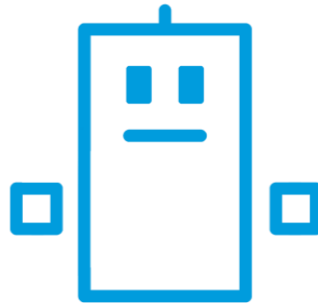


# AirGENIO



## **Intuitive**

Easy to set up  
and operate



## **Intelligent**

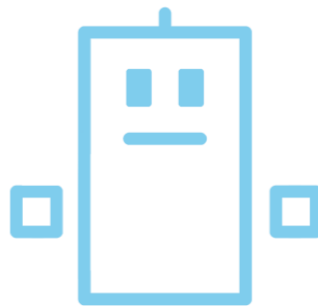
The brain of the  
whole device

# AirGENIO



## **Intuitive**

Easy to set up  
and operate



## **Intelligent**

The brain of the  
whole device

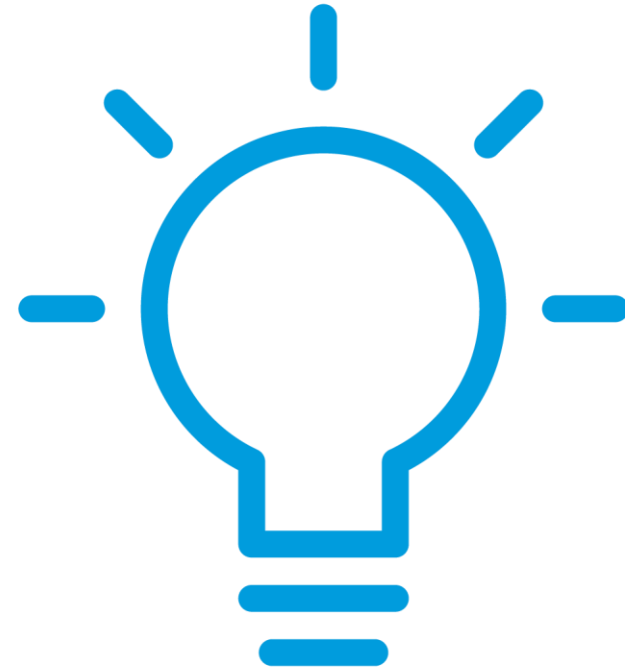


## **Innovative**

Reflects market  
trends

# INTUITIVE

AirGENIO control

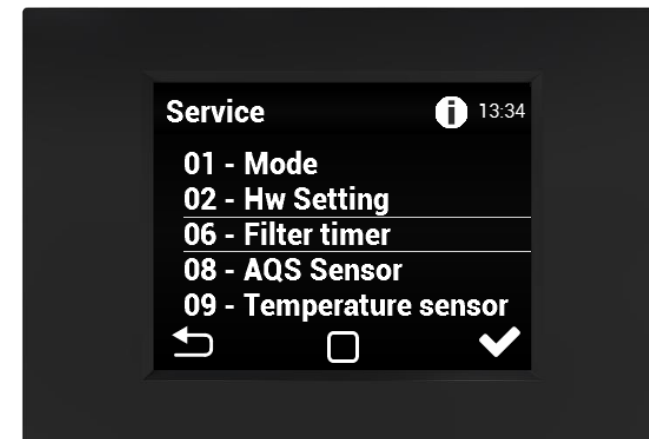
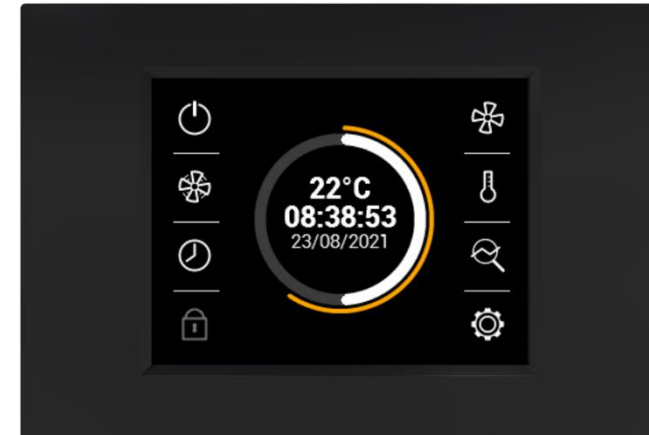


# INTUITIVE

Easy control, setting up and device service

Clear icons

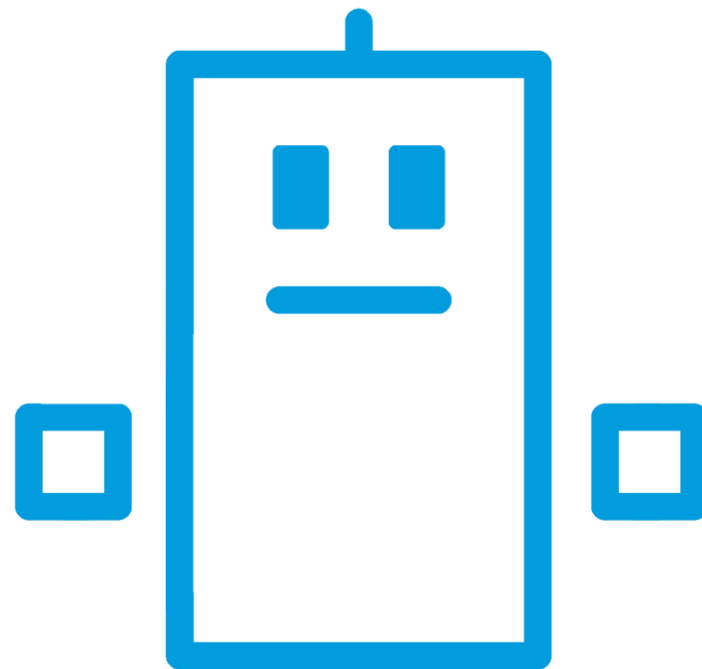
Users menu / Service menu





# INTELLIGENT

AirGENIO control

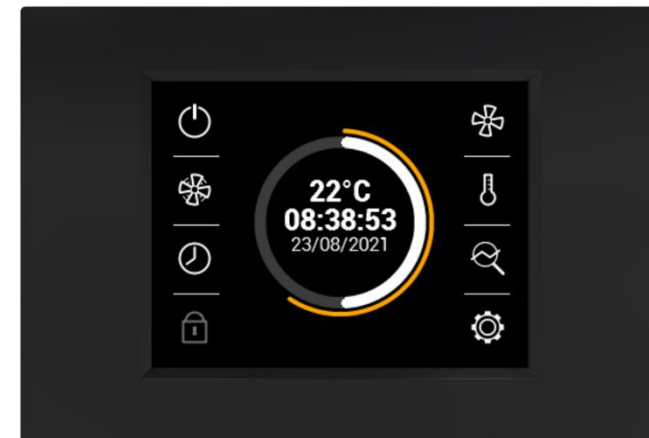


# INTELLIGENT

Maximal comfort for minimal operation cost

Smart and complex algorithms

Integrated temperature sensors



# INTELLIGENT

Manual / Automatic control

**0-10V** fan control

**DCV** mode when AQS connected



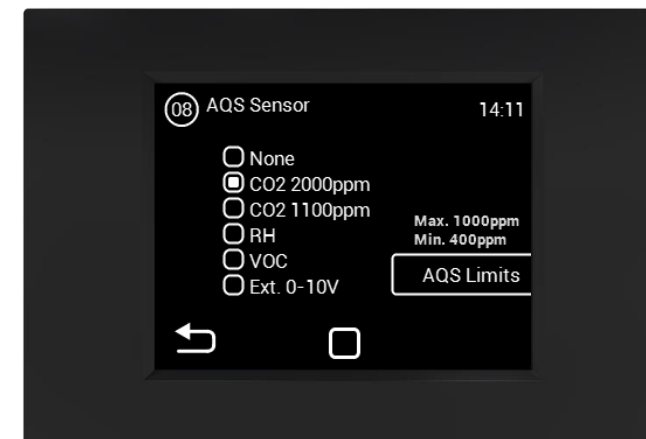
# INTELLIGENT

Control based on AQS sensors

**CO<sub>2</sub>** sensor

**RH** sensor

Other 0-10V external sensor





# INTELLIGENT

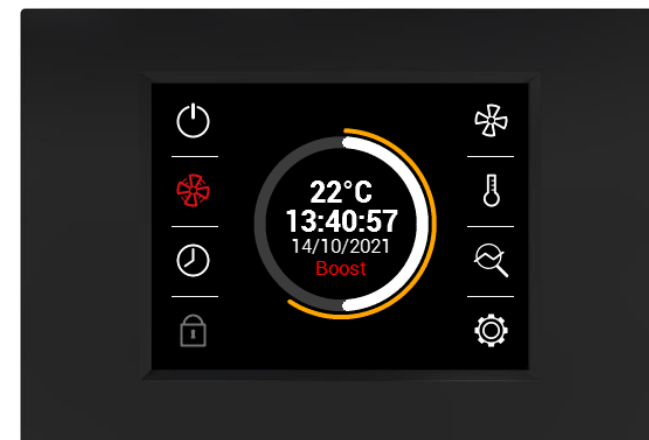
Supplementary modes:

**BOOST**

**Free-cooling** (Night mode)

**Fire** mode

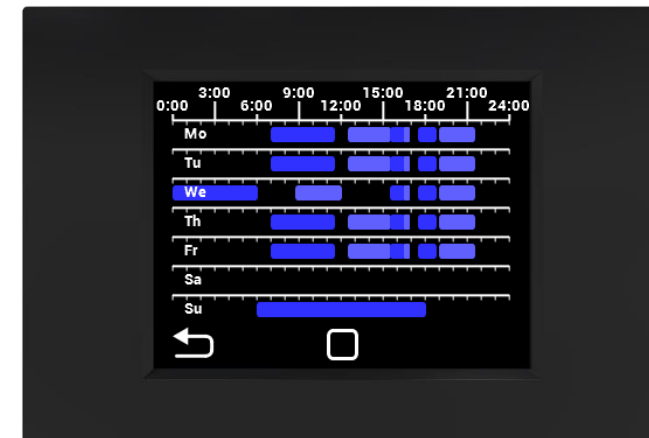
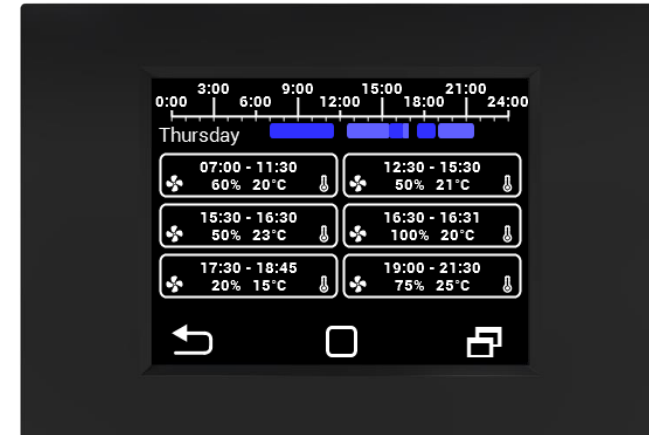
**Occupancy** mode



# INTELLIGENT

## Timer

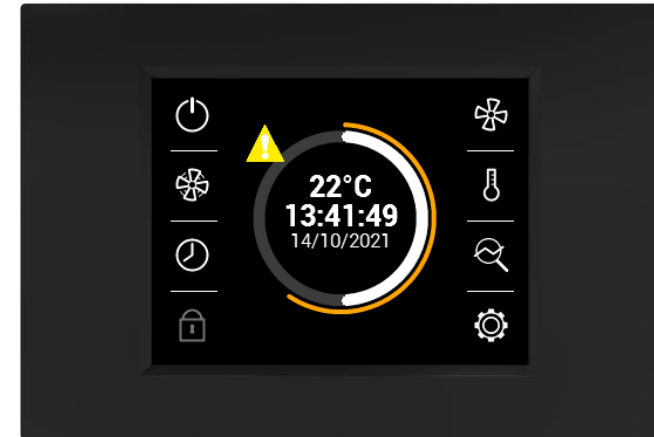
Settable 6 different time interval  
for year / week / day



# INTELLIGENT

## Warning / Error messages

Notification displayed on the control panel

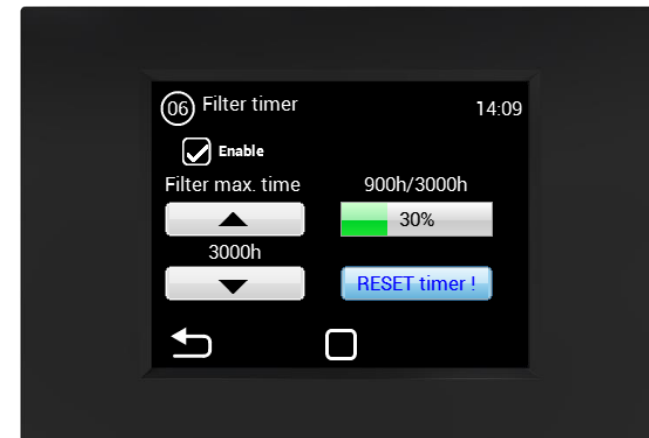


# INTELLIGENT

## Filter timer

Time period settable in the service menu.

Filter timer RESET in the same menu.





# INNOVATIVE

AirGENIO control



# INNOVATIVE

Easy unit operation via smart devices thanks to **2VV application**

Simple operation, display of run indication, error or warning messages (filter exchange, etc.)



# INNOVATIVE

Possibility to connect to **BMS** via different network protocols:

**ModBUS RTU/TCP, BACnet**

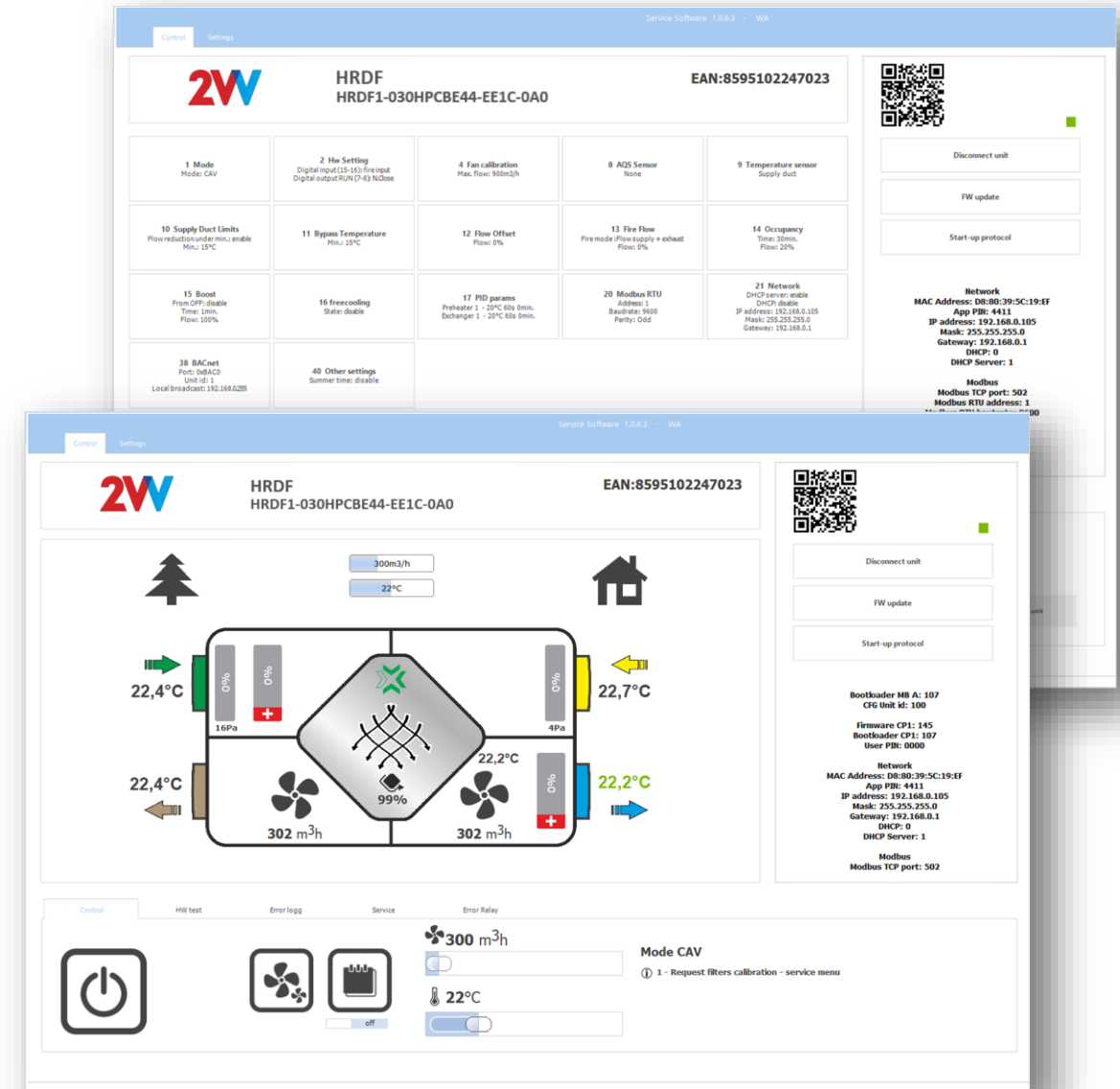


# INNOVATIVE

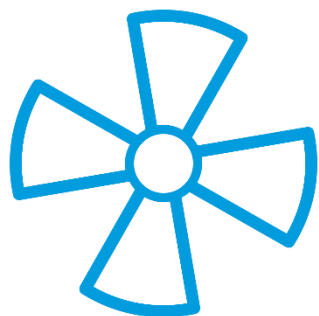
Easy commissioning and service thanks to **Service SW**

Restore setting from backup

Error display, identification and history list



# DAPHNE FLAT



## High efficiency

Thermal efficiency  
and interior comfort  
at low operation cost



## Smart construction

Quiet ventilation  
designed for ceiling  
(wall) installation



## Intelligent control

Integrated control  
system optimizing  
the operation

# 2VV SUPPORT

Sales and after-sales assistance

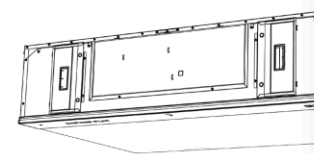


# TECHNICAL DOCUMENTATION

Technical sheet  
Manuals

List of recommended accessories

## DAPHNE F



### INSTALLATION

W01 31-05-21

DAPHNE FLAT | HRDF1  
**2V**

HEAT RECOVERY



#### BASIC FEATURES

**DAPHNE FLAT** is a highly energy-efficient heat recovery unit designed for either ceiling or wall mounting installation and thanks to its super-low profile the unit is highly convenient for interiors with limited space. **DAPHNE FLAT** is designed for installations in residential premises such as **family houses, apartment buildings, low-energy and passive houses.**

- Nominal airflow **350, 520, 770 m³/h** (at 100Pa)
- Energy class **A / A+**
- **Super quiet** operation
- Ceiling and Wall installation
- Slim profile convenient for use in premises with limited space
- Energy-efficient EC fans with low SFP and quiet operation
- Aluminium counterflow heat exchanger with recovery efficiency up to 96% (EN308)
- Stepless fully automatic bypass-damper control (temperature control, free-cooling, anti-freeze protection)
- AirGENIO COMFORT control system integrated
- CAV or DCV ventilation based on AQ5 sensors (CO<sub>2</sub>, RH, VOC)
- BMS control via ModBUS RTU, ModBUS TCP or BACnet
- Control via Smart Device
- Easy installation and maintenance

The unit is designed to be operated in a dry indoor environment (relative humidity not exceeding 80%) and at an ambient temperature in the range from +5°C up to +40°C.  
The unit is designed for transporting standard atmospheric air that is free of dust, grease, chemical emissions and other impurities. The unit has an IP rating of IP 20.  
It is recommended that the heat recovery project always be designed by a qualified HVAC designer, engineer or architect.

# AFTER-SALES SUPPORT

Technical support **hotline**

**support@2vv.cz**



Petr NEUMANN



Martin KRÁTKÝ



Lukáš BORŮVKA



Sergiy SHRAMKO

# PRODUCT REFERENCES

DAPHNE FLAT heat recovery unit



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