

Comfort Fresh Air

Heat and Energy Recovery Ventilator

FAV-250 / 350 / 500 Advance



UPGRADED WITH
SMART CONTROL



WIFI FUNCTION



INDOOR AIR QUALITY MONITORING



GROUP CONTROL



MULTIPLE LINKAGE CONTROL



Health

Removal of harmful substances, supply of oxygen-rich air.



Comfort

Fresh air without droughts or excess humidity.



Convenience

Easy installation and maintenance for healthy air without efforts.



Sustainability

Higher building ratings, energy costs savings and reduction of CO2 emissions.

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Healthy, comfortable and energy-efficient ventilation

Comfort Fresh air HRV brings in outdoor fresh air and create a healthy living environment with oxygen, comfortable temperature and humidity, and constant dustfree air. The fresh air supply and the stale extract air are balanced. The airflows do not mix and they remain separate.

Heat is transferred from the extracted air to the cold incoming air. This means the cold outdoor air is warmed 'for free' so no energy is wasted.

The heat from the exhaust air is transferred to the incoming air via a heat exchanger. The heat recovery efficiency is up to 95%. The high efficiency heat recovery will keep the incoming fresh air temperature close to the indoor temperature, which will greatly increase indoor comfort.

This also helps reduce the size of the HVAC equipment needed because it doesn't have to work as hard to heat and cool when the intake air is conditioned by the ERV unit.

This benefits end-users by increasing their wellbeing and reducing their energy bills. And, reducing the need for fossil fuels also benefits our environment.

Comfort Fresh Air

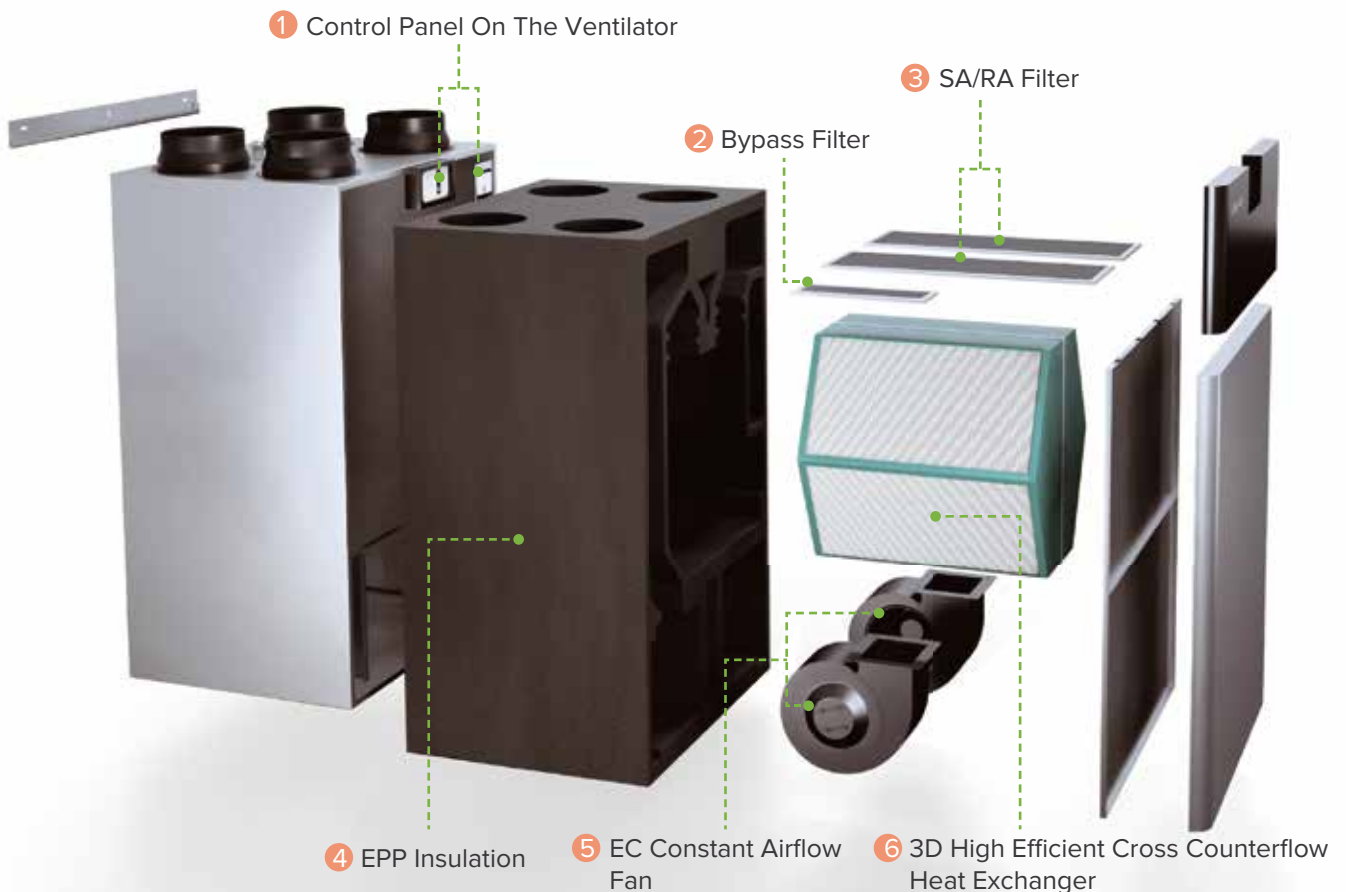
Heat and Energy Recovery Ventilator



■ FEATURES

- High-efficiency heat recovery up to 95%.
- EC constant airflow fans with low energy consumption, 4 speeds.
- The highest efficiency under all conditions due to Constant Flow Control.
- Supply air purification with primary filter (G4) and medium filter (F7) optional.
- Standard 100% bypass.
- Eco-design A or A+ label.
- Enthalpy exchanger available for a better balanced indoor humidity during winter season.
- The lowest operating noise is 31dB(A).
- Two types of installation to suitable room.
- Smart phone control Android / IOS.

■ DESIGN



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CASING

The internal structure is made by EPP material, which is light weight, heat preserve, silent, environmental friendly, no odor, etc. It has the good performance for air tightness and thermal insulation.

AIR FILTRATION

Comfort Fresh air HRV is equipped with two filters. These filters remove 95% of the dust from the air. A high performance fine dust filter (F7) is optionally available, ideal for areas with a high dust load like highways and airports. People who are allergic to pollen or fine dust benefit from these filters.

The bypass includes the separate primary filter to ensure the cleanness of incoming air.

EC CONSTANT AIRFLOW FANS

Application of the unique constant airflow fans guarantees the preset air flow rates and the balance between supply and extract air. Balanced ventilation always guarantees high efficiency, independent of the resistance in the duct system or dirty filters.

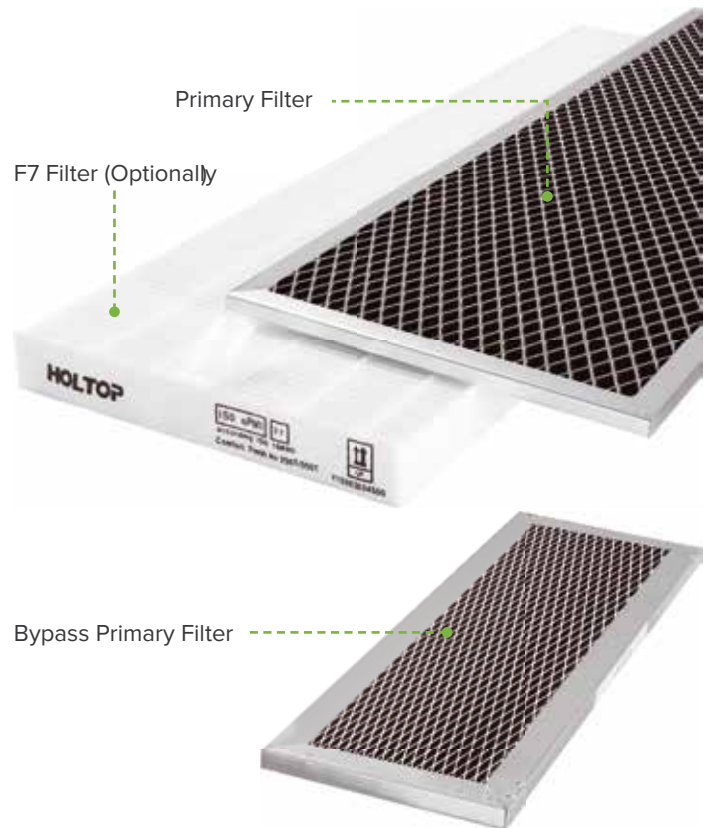
It also saves time when commissioning the system.

BYPASS

In summer, the 100% bypass contributes to improved comfort and it is controlled automatically on the basis of the measured outdoor temperatures.

FLEXIBLE INSTALLATION

Left type or right type is optional. The installation type can be adjusted at site to meet different installation requirements.



Right Type (Default)



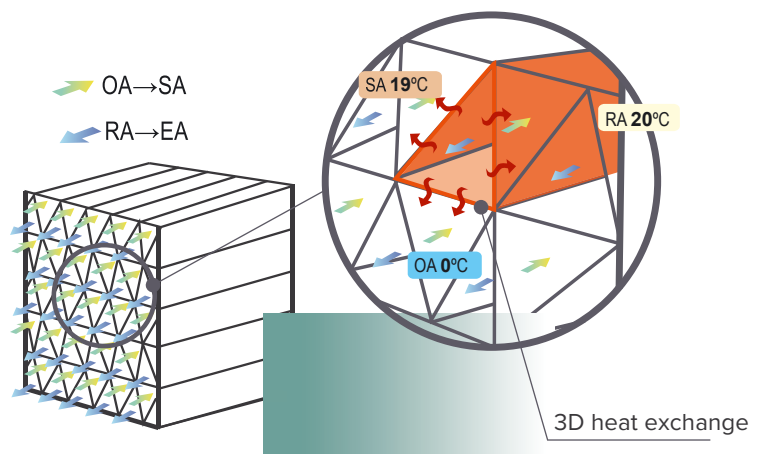
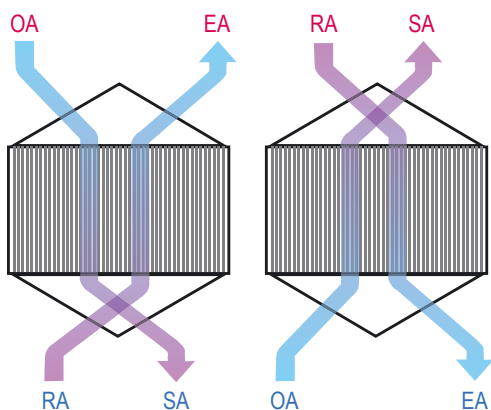
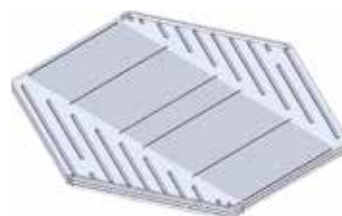
Left Type

3D HIGH EFFICIENT CROSS COUNTERFLOW HEAT EXCHANGER

Cross counter-flow heat exchanger has a unique 3D heat exchange channel, the heat can be transferred from 3 directions. This structure can fully ensure the maximum heat exchange area. The large heat exchange surface allows the unit to achieve higher level of efficiency.

The air flows counterflowly to extend the heat exchange time and make heat transfer more thoroughly. The heat recovery efficiency is up to 95%.

The frame material of the heat exchanger is ABS, and the core material is special resin. This material has the characteristics of high thermal performance, good air tightness, tear resistance, oxidation resistance, and mildew resistance. The core is washable, and the service life is up to 15 years.



Special Resin
Material



3D Heat Exchange
Design



High Efficiency
up to 95%



Washable



Longer Service Life
up to 15 years

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OPTIONAL ENTHALPY EXCHANGER

ADVANTAGES

Enhanced comfort through optimum indoor air quality

- High efficiency with up to 90% heat recovery and up to 80% humidity recovery.
- No more dry air in winter.
- Pleasant reduction in humidity in summer.

Increased durability of the building fabric

A constant humidity level prevents cracks in sensitive materials such as wood flooring and extends their lifetime.

No frosting under - 30°C

Because of its high permeability to water molecules, no condensation water will form on the surface of the membrane, and condensation and ice blockage will not occur under extreme conditions of - 30°C.

More cost efficiency

Condensate-free operation under normal conditions means there is no need for a condensate drain. This saves your customers money.

Users can replace the enthalpy exchanger at any time directly.



Special Polymer Membrane



Anti-mold And Anti-bacteria



High Strength and Stability



Washable



Long Service Life

Advanced LCD Remote Control Panel



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CONTROL FUNCTIONS

LOCAL CONTROL PANEL

There are two control panels on the machine body. Panel 1 is for daily simple settings and Panel 2 is for advance parameter setting.



ADVANCED LCD REMOTE CONTROL PANEL (OPTIONAL)



No.	Functions	Local Control Panel	LCD Remote Control Panel
1	Fan speed control	√	√
2	Adjustable air volume for each speed	√	√
3	Constant airflow	√	√
4	Balance rate setting	√	√
5	One-key fan boost	√	√
6	Auto bypass Light indicate Bypass setting available	Light indicate	Bypass setting available
7	Temperature display	x	√
8	Humidity control	√	√
9	Humidity display	x	√
10	Defrosting Light indicate	Light indicate	Defrost setting available
11	Filter replacement alarm	√	√
12	Filter timer reset	√	√
13	Fault alarm	√	√
14	Error code display	x	√
15	RS485	√	√
16	Right & Left installation switching	√	√
17	Restore factory setting	√	√
18	Auto restart once power on incident power cut off	√	√
19	Traveling mode	√	√
20	Sleep mode	x	√
21	Timer function(4 periods)	x	√
22	Time & date display and setting	x	√
23	Power consumption statistics	x	√
24	CO2 display and control	x	Optional
25	Temperature setting for heater	x	√
26	WIFI function	Optional	Optional
27	Fire signal interface	√	√
28	Fault signal interface	√	√
29	Running signal interface	√	√
30	Force start signal interface	√	√

Your home
indoor climate
in your hand with
SMART LIFE app



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WIFI FUNCTION

Wifi function is available to control and monitor the ventilation system from anywhere in the world using a smart phone. User can monitor the indoor air quality at your hand for healthy living.

■ MONITORING INDOOR AIR QUALITY

Monitor local weather, temperature, humidity, CO2 concentration at your hand for healthy living.

■ VARIABLE SETTING

Timely switch, speed settings, bypass/ time/filter alarm/ temperature setting.

■ GROUP CONTROL

Smart control according to local weather.
One APP can control multiple units.
Linkage control with other appliances with Tuya IoT.



SMART LIFE app is available at Google Play market and App Store.



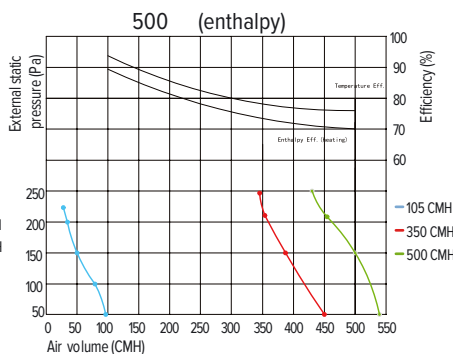
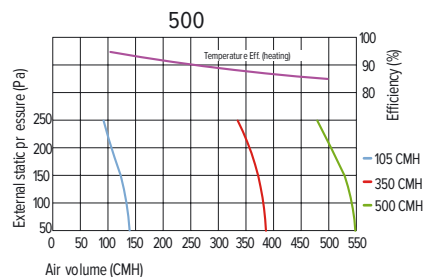
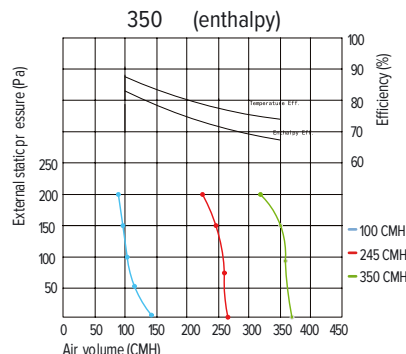
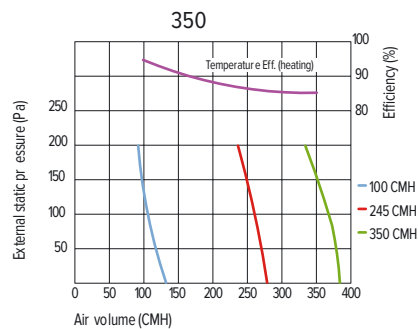
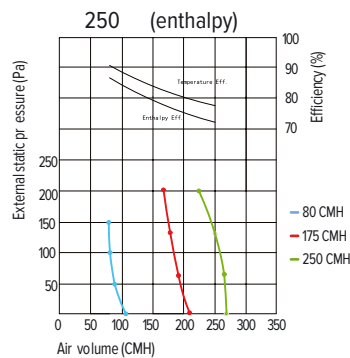
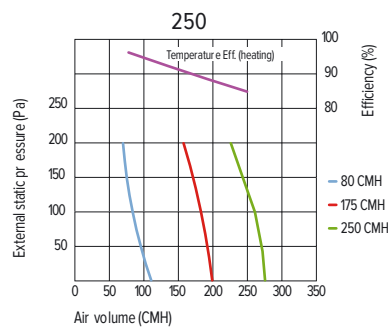
TECHNICAL DATA

TECHNICAL PARAMETERS

Model No.C	FAV-250	FAV-350	FAV-500	FAV-250 (enthalpy)	FAV-350 (enthalpy)	FAV-500 (enthalpy)
Unit voltage [V/50 (60) Hz]	230	230	230	230	230	230
Airflow [m ³ /h]	250	350	500	250	350	500
External Static Pressure [Pa]	130	150	160	130	150	160
Temperature Efficiency [%]	90	87	88	83	77	78
Enthalpy Efficiency [%]	-	-	-	78	72	73
Max. Power [W]	137	272	412	137	285	440
Transported air temperature [°C]	-25...+40					
Casing material	Galvanized steel					
Insulation	EPP					
Connected air duct diameter [mm]	144	144	196	144	144	196
Noise [dB(A)]*	35	37	39	35	37	39
Energy Efficiency Class	A+	A	A	A+	A	A
Weight [kg]	40	40	50	40	40	50

Note: This data is measured under the condition of 70% of the maximum air volume and 50Pa static pressure..

PERFORMANCE CHARTS



250

Reference	Airflow (m ³ /h)	Pa	P (W)	SFP*(W /l/s)
1	250	100	83.8	1.21
2	250	50	82.6	1.19
3	175	100	53.6	1.10
4	175	50	46.8	0.96
5	80	100	31.8	1.43
6	80	50	20.7	0.93

250 (enthalpy)

Reference	Airflow (m ³ /h)	Pa	P (W)	SFP*(W /l/s)
1	250	100	79.3	1.14
2	250	50	77.5	1.12
3	175	100	51.6	1.06
4	175	50	44.9	0.92
5	80	100	30.1	1.36
6	80	50	21.3	0.96

350

Reference	Airflow (m ³ /h)	Pa	P (W)	SFP*(W /l/s)
1	350	100	256.0	2.63
2	350	50	254.1	2.61
3	245	100	97.6	1.43
4	245	50	84.4	1.24
5	100	100	35.1	1.26
6	100	50	30.6	1.10

350 (enthalpy)

Reference	Airflow (m ³ /h)	Pa	P (W)	SFP*(W /l/s)
1	350	100	246.2	2.53
2	350	50	242.0	2.49
3	245	100	106.3	1.56
4	245	50	86.1	1.27
5	100	100	32.7	1.18
6	100	50	26.2	0.94

500

Reference	Airflow (m ³ /h)	Pa	P (W)	SFP*(W /l/s)
1	500	100	201.8	1.45
2	500	50	198.7	1.43
3	350	100	80.5	0.83
4	350	50	68.8	0.71
5	105	100	34.2	1.17
6	105	50	30.0	1.03

500 (enthalpy)

Reference	Airflow (m ³ /h)	Pa	P (W)	SFP*(W /l/s)
1	500	100	375.5	2.70
2	500	50	372.6	2.68
3	350	100	125.5	1.29
4	350	50	115.7	1.19
5	105	100	33.5	1.15
6	105	50	30.7	1.05

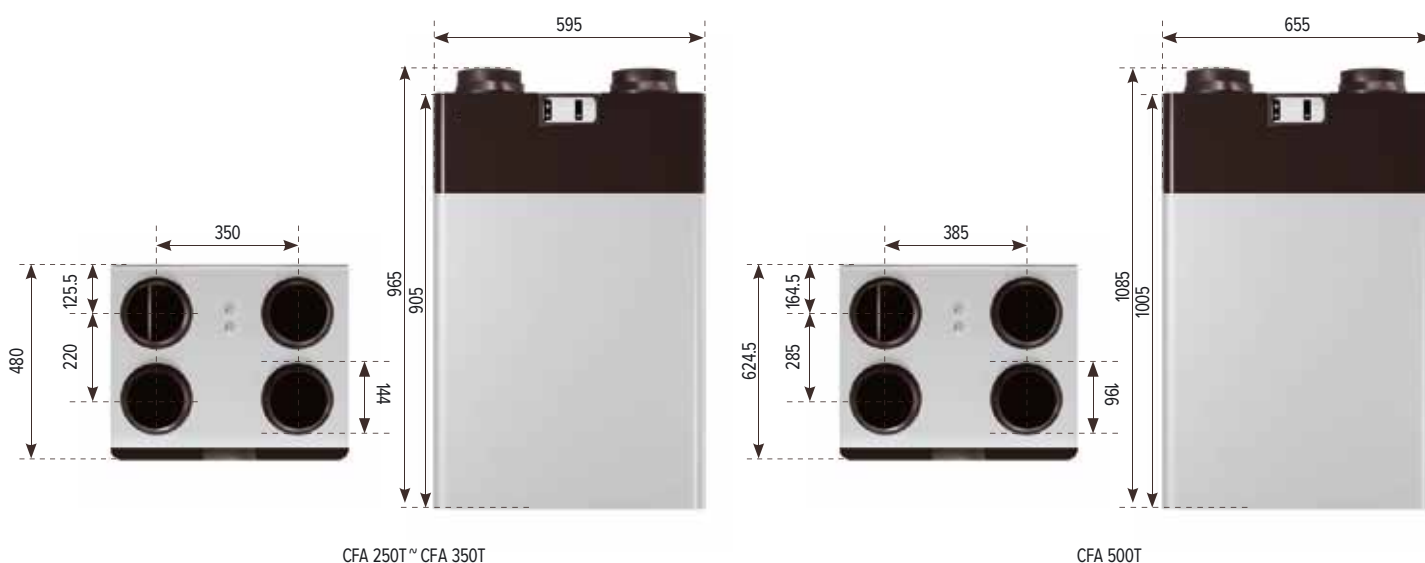
* SFP includes power consumption of both fans and the controller.

ECODESIGN INFORMATION

Ecodesign information according to Commission Regulation (EU) 1254/2014

Model	FAV-250	FAV-350	FAV-500	FAV-250 (enthalpy)	FAV-350 (enthalpy)	FAV-500 (enthalpy)
Energy class-Average	A+	A	A	A+	A	A
Specific energy consumption- Average (KWh/ m ² .a)	-42.58	-41.12	-41.12	-40.97	-40.83	-41.23
Specific energy consumption-Co ld (KWh/ m ² .a)	-82.78	-80.93	-81.06	-80.28	-79.36	-79.89
Specific energy consumption- Warm (KWh/ m ² .a)	-16.92	-15.68	-15.61	-15.83	-16.13	-16.45
Type of airflowD	FD	FD	FD	FD	FD	F
Declared type	RVUR	VU	RVUR	VU	RVUR	VU
Type of motor	Variable speed drive					
Type of heat recovery system	Recuperative					
Thermal efficiency of heat recovery (%)	90	87	88	83	77	78
Maximum flow rate (m ³ /h)	250	350	500	250	350	500
Electric power input of the fan drive at maximum flow rate (W)	137	272	412	137	285	440
Sound power level dB(A)	35	37	39	35	37	39
Reference flow rate (m ³ /s)	0.049	0.068	0.097	0.049	0.068	0.097
Reference pressure difference (Pa)	50	50	50	50	50	50
Specific power input (SPI) (W /(m ³ /h))	0.35	0.43	0.44	0.40	0.35	0.33
Control factor	0.65	0.65	0.65	0.65	0.65	0.65
Type control system	Local demand control					
Maximum internal and external leakage rates (%)	< 5% Internal, <5% External					
Visual filter warning	Timer	Timer	Timer	Timer	Timer	Timer
The annual electricity consumption (AEC) (k Wh electricity/a)	2.30	2.72	2.77	2.57	2.30	2.19
The annual heating saved-Average (KWh primary energy /a)	47.66	47.25	47.39	46.72	45.91	46.04
The annual heating saved-Cold (KWh primary energy /a)	93.23	92.44	92.71	91.39	89.81	90.07
The annual heating saved-Warm (KWh primary energy /a)	21.55	21.37	21.43	21.12	20.76	20.82

DIMENSIONS (Unit: mm)



OTHER ACCESSORIES

OPTIONAL PERHEATER FOR INTELLIGENT DEFROSTING

The intelligent frost protection with preheater guarantees the high efficiency at extremely low outdoor temperatures. Compared to other solutions for frost protection, it means extra savings on the energy bill.



SPECIFICATIONS OF PERHEATER

Model	Rated Airflow	Power Consumption (kw)	Heating power (kw)	Temp. rise (°C)	Current (A)	Volt (V)	Frequency	Size L x W x H (mm)	Connected air duct diameter (mm)
EH-15/35-1st	250/350	1.1	1	13/10	4.68	230	50	350x250x250	144
EH-15/35-1st	500	1.7	1.6	10	7.5	230	50	350x280x270	196

OTHER ACCESSORIES



APPLICATIONS

PROVIDES COMFORTABLE BREATHING ENVIRONMENT IN VARIOUS PREMISES

With a full range of components designed to work together, Comfort Fresh Air HRV can be integrated into a home simply and effectively to provide fresh air and comfort.

HOW TO SELECT THE RIGHT MODEL FOR YOUR HOUSE?

$$L = V \text{ prem.} * \text{Ach} [\text{m}^3/\text{h}],$$

1. Calculation of airflow according to air exchange rate.

where $V \text{ prem.}$ – premise volume $[\text{m}^3]$,
 Ach – minimum air exchange per hour, refer air exchange table.

Premise		Air exchange rate
Domestic premises	Living room of apartments or hostel residential premises	$3 \text{ m}^3/\text{h}$ for 1 m^2 in residential premises
	Kitchen in flat or hostel	6-8
	Bathroom	7-9
	Shower cabin	7-9
	WC	8-10
	Home laundry room	7
	Cloakroom	1.5
	Storeroom	1
	Garage	4-8
	Cellar	4-6

2. Calculation of airflow according to number of inhabitants.

$$L = L_1 * N_L [\text{m}^3/\text{hour}],$$

where L_1 – rated value for air volume per one person, $\text{m}^3/\text{h} * \text{person}$,

N_L – number of inhabitants in the premises

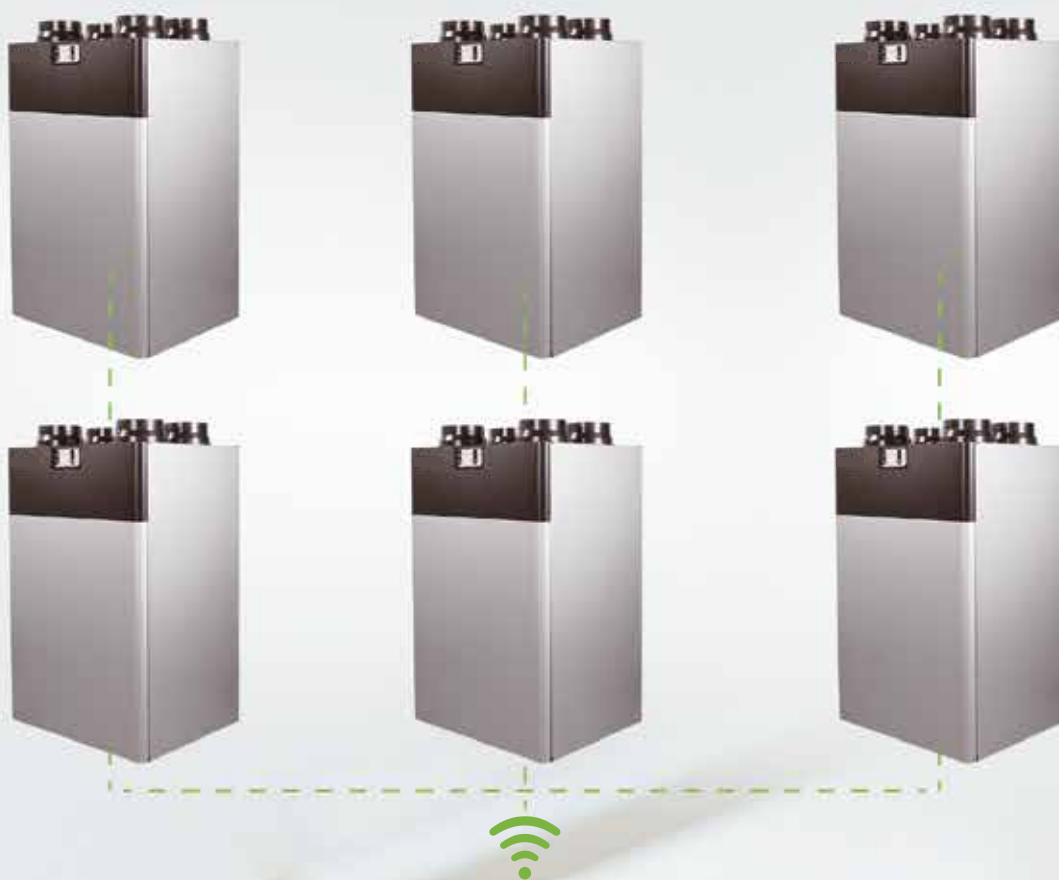
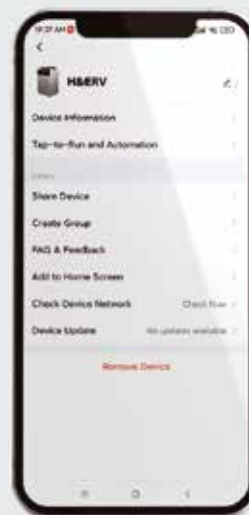
20-25 m^3/h per one person at low physical activity
45 m^3/h per one person at light physical activity
60 m^3/h per one person at heavy physical activity

3. Choose the bigger result as the required airflow. Then choose the model with the required airflow accordingly.



GROUP CONTROL

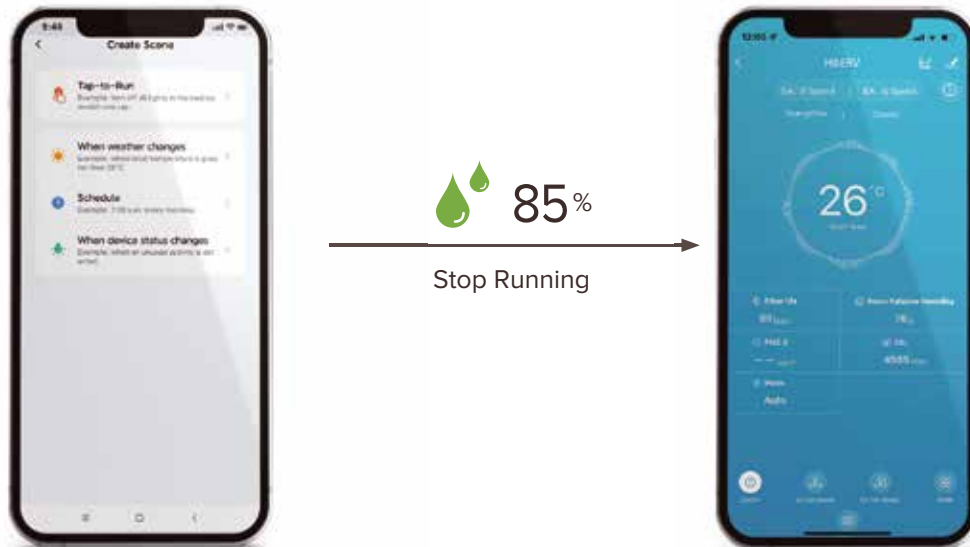
The ventilator can create group control at the APP, the quantity is not limited. User can control all the ventilators in the group easily.



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SCENE CONTROL

User can create the scene according to the weather changes, schedule or the device status changes. For example, when the weather shows the outdoor relative humidity is higher than 85%, user can set the ventilator to stop running, to prevent the outdoor humidity coming inside. The unit will run according to the setting automatically.



LINKAGE CONTROL

Users can add the devices with Tuya APP to their home screen. For example, they can add all the single room ventilators, exhaust fans or light switches in the APP and control them at their will.



Comfort Fresh Air

Heat and Energy Recovery Ventilator

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Flip your life

www.flixxair.com