HOLTOP

Comfort Fresh Air

Ceiling Mounted Energy Recovery Ventilator

Comfort fresh air

Ceiling mounted ERV, makes good indoor air quality.

Health

- Reducing the risk of COVID-19 and other respiratory infections that spread through the air.
- Enhancing productivity, comfort and cognitive performance by alleviating stress and sick building syndrome.
- Avoiding premature mortality and chronic diseases caused by air pollution, such as cardiovascular and respiratory diseases and lung cancer.

Save Energy Costs and Long-term Payback

- Reducing energy consumption and HVAC equipment capacity by transferring heat and moisture between the outgoing and incoming air streams.
- It meets the ventilation and energy standards for airtight buildings that cannot rely on natural ventilation alone.
- Increasing tenant satisfaction and retention in commercial buildings that provide healthy indoor air. Prolonging the life period of the HVAC system.

Comfort

- Reducing humidity, pollutants and stale air that can cause health and comfort problems.
- Keeping a comfortable indoor relative humidity level regardless of the outdoor conditions.

Easy Maintenance And Upkeep

- The heat exchangers and filters are removable for maintenance, the filters are washable.

Better indoor air quality & less energy consumption

Holtop Ceiling Mounted Energy Recovery Ventilator introduces clean and fresh air to indoor and exhuasts the polluted air outdoors.

When the outdoor air is comfortable, it works in bypass mode, the fresh air can be directly supplied to the room without heat exchange, and the exhaust air in the room can be discharged at the same time, to improve the indoor air quality. In winter or summer time, to provide comfortable indoor atmosphere and reduce the energy consumption, it works in energy recovery mode. This product is built with high efficient **5th Generation Heat Exchanger** that integrates compact and delicate filter slider.

It uses less energy while providing greater benefits, such as keeping your home healthier, replacing stale air with fresh air, and removing various contaminants.

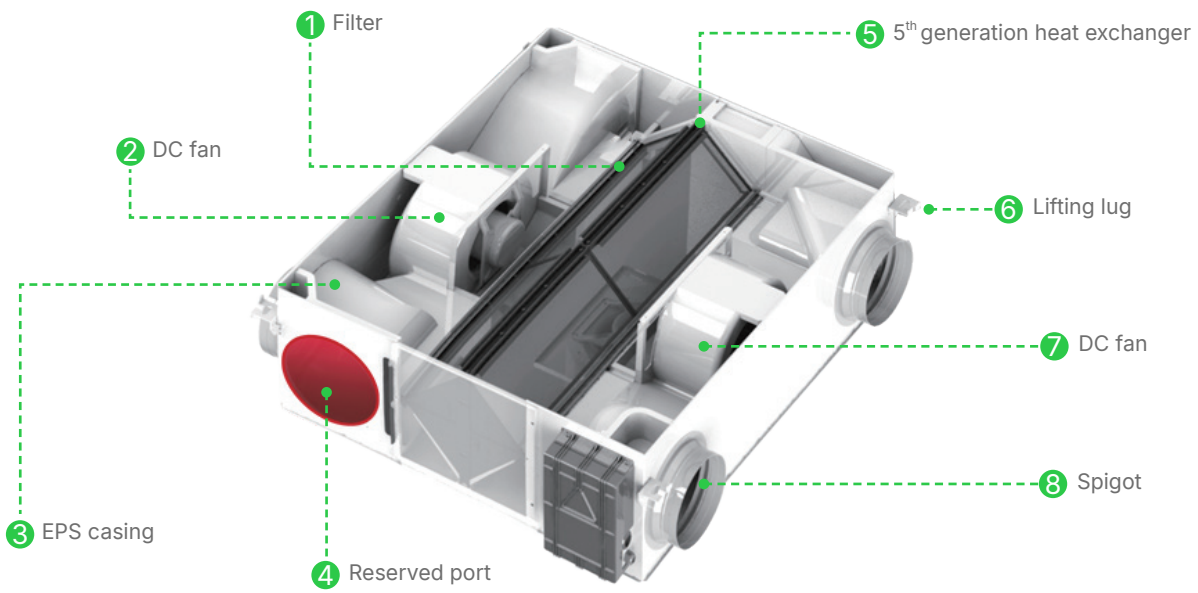
Comfort Fresh Air

Ceiling Mounted Energy Recovery Ventilator

FEATURES

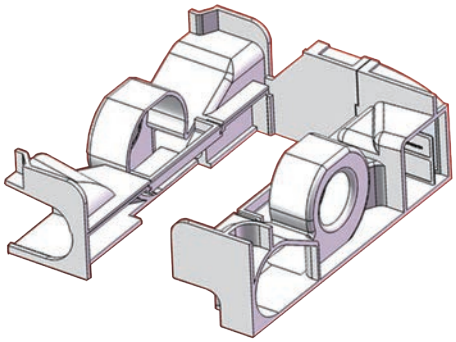
- Wide airflow range among 88-295 CFM.
- Plastic encapsulated DC motor, 10 speeds.
- Supply air purification with primary filter (MERV6) and medium filter (MERV13) optional.a
- Occlusal edge sealing technology.
- High efficiency 5th generation total heat exchanger.
- Reserved side ports for OA and EA, flexible installation.
- Auto bypass.
- Two types of installation to suitable room.
- A smarter control system Android/ IOS.

DESIGN



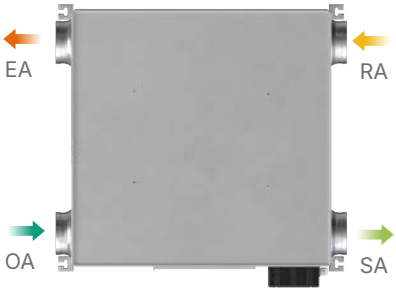
CASING

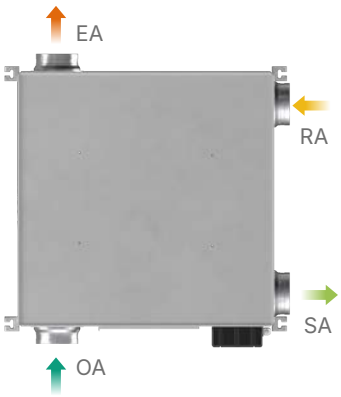
- Easy installation with integrated EPS casing.
- Better insulation, air tightness, and noise reduction.
- Mid-mounted fans, with stable air flow to have better heat exchange efficiency and stable operation.



FLEXIBLE INSTALLATION

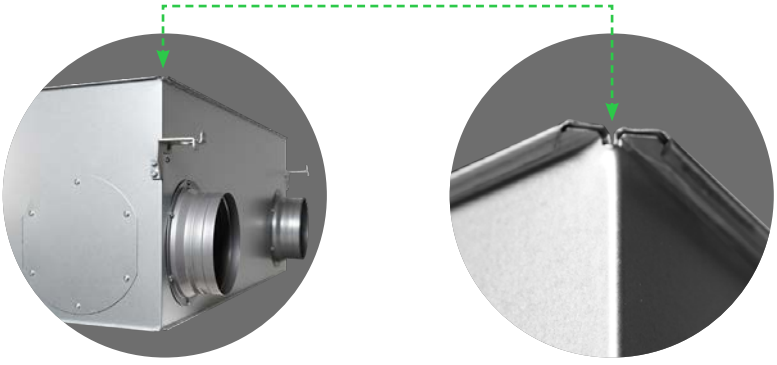
- Parallel airflow.
- Available with inverted installation.
- Reserved side ports for OA and EA.





OCCLUSAL EDGE SEALING TECHNOLOGY

- Triple folded edge thickness improving casing strength.
- Higher production efficiency.
- Good appearance and air tightness.



NEW DC FANS

Comparing with the old AC motor with metal casing, the new motor operate more stable, silent and energy-efficient, saving up to 40%.

5TH GENERATION TOTAL HEAT EXCHANGER

- New ER paper with higher heat exchanger efficiency.
- The heat exchange materials are mildew resistant and fire retardant.
- Integrated structure, better air tightness and appearance.

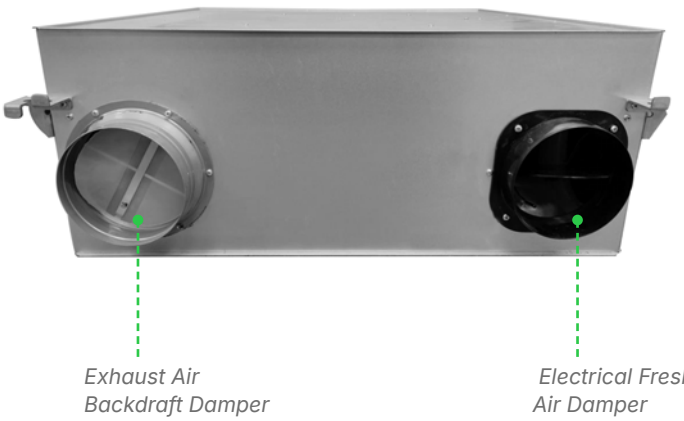
Mildew-proof and fire-protection rating testing certification

INTEGRATED FILTER GRID

Reserved track integrated with primary filter.

OPTIONAL DAMPER

It's optional to have the electrical fresh air damper and exhaust air damper from backdraft. (Except CFA150C(H11))



HOLTOP

Advanced LCD **Remote Control Panel**

INTELLIGENT CONTROL

Temperature Correction

Display and correct temperature for OA, RA and SA. They also included in **Smart Mode**.

Low-temperature Operation

Running at below -20.5°F with Smart mode can effectively avoid frosting. Unit can also run intermittently if below -26.1°F

Advanced Sleep Function

Display will be off at certain time and unit running at lowest speed. And at the same time, run bypass automatically based on setting.

Intelligent Airflow Compensation

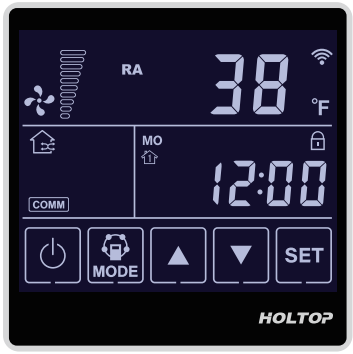
If running without cleaning filter and heat exchanger, system will compensate volume automatically.

Heat Recovery Mode

In this mode, the energy in the exhaust air can be recovered for heating (in winter) or cooling (in summer) of the fresh air, reducing energy loss.

Auto Run Mode

The unit runs automatically according to the timer setting. When the auto bypass function is ON, the unit runs in heat exchange mode or bypass mode depending on the outdoor air temperature.



Sleep Mode

In sleep mode, the machine runs at the lowest speed and the backlight is off.

Bypass Mode

When the outside air is comfortable, fresh air can be supplied directly into the room without heat exchange, and exhaust air can be exhausted into the room simultaneously to improve indoor air quality.

Basic Functions

01. Fan speed selection
02. Pressure balancing
03. Screen lock
04. Timer ON/OFF
05. Weekly timer
06. Filter/heat exchanger cleaning alarm
07. Power-off memory
08. Fault alarm
09. Auto bypass
10. Auto defrosting
11. Engineering mode

Advanced Functions

01. Low-temperature operation
02. Temperature correction
03. Advanced sleep function
04. Intelligent airflow compensation

Reserved Functions

01. Cloud control
02. Forced dehumidification
03. Forced CO_2 extraction
04. Filter pressure switch alarm
05. Various signal connectors

OPTIONAL SIMPLE CONTROL (HDK-CK23C2)

No.	Function	Instructions
1	On/Off Button	Turn on/off of the unit
2	SA Fan Control	5 speeds
3	EA Fan Control	5 speeds
4	SA Speeds Indication	Indicator lamp indicates the running speed.
5	EA Speeds Indication	Indicator lamp indicates the running speed.
6	Constant Operation	The unit runs continuously at the set speed.
7	Intermittent Operation (15 mins)	The unit works at the set speed for 15mins, then stop for 45 mins, and continue the cycle according to this process.
8	Intermittent Operation (30 mins)	The unit works at the set speed for 30mins, then stop for 30 mins, and continue the cycle according to this process.
9	Intermittent Operation (45 mins)	The unit works at the set speed for 45 mins, then stop for 15 mins, and continue the cycle according to this process.
10	Controller Communication Failure	All the 13 indicator lamps flash.
11	Failure Display 1	SA fan failure, all the SA Fan indicator lamps flash.
12	Failure Display 2	EA fan failure all the EA Fan indicator lamps flash.

Your home indoor climate in your hand with **SMART LIFE** app

WIFI FUNCTION

Wifi function is available to control and monitor the ventilation system from anywhere in the world with a smart phone. For healthy living, users can monitor indoor air quality at their fingertips.

MONITORING INDOOR AIR QUALITY

Monitor local weather, temperature, humidity, CO_2 concentration at your hand for healthy living.

VARIABLE SETTING

Speed settings, timely switch, bypass, filter alarm.

GROUP CONTROL

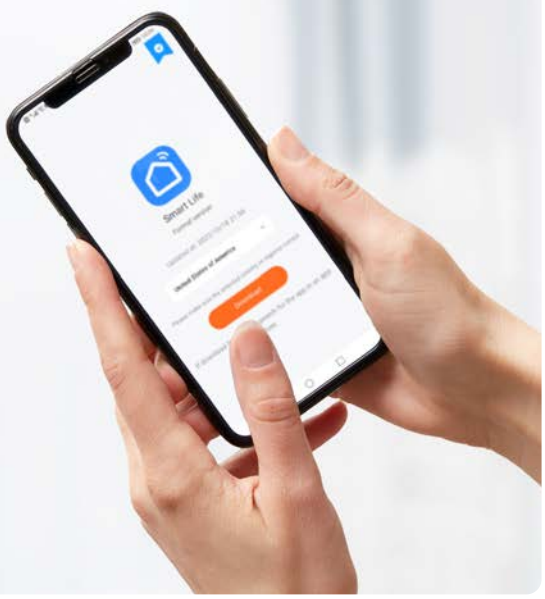
Smart control according to local weather. One APP can control multiple units.

Linkage control with other appliances with Tuya IoT.

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

Download on the App Store

GET IT ON Google Play



TECHNICAL PARAMETERS

Model Name	CFA150C(11)	CFA250C(11)	CFA350C(11)	CFA500C(11)
Airflow (CFM at 0.2 in. w.g.)	106	162	229	318
Airflow (CFM at 0.4 in. w.g.)	89	147	206	294
Power Consumption (Watts)	83	93	129	180
Fan Efficacy at 32°F (CFM/Watt)	1.28	1.74	1.78	1.77
Apparent Sensible Efficiency at 32°F*	86.4	85.4	89.2	83.7
Sensible Recovery Efficiency at 32°F*	81.4	84.3	87.6	82.6
Total Recovery Efficiency at 95°F	53.6	52.1	59.2	50.1
Noise dB(A)	29	28	32	34
Voltage	120V/60HZ/1ph			
N.W.(kg)	20	23	30	33

* Performance at low speed.

■ **CFA150C(11)**

Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency (%)	Apparent Sensible Effectiveness	Net Moisture Transfer
°F	°C	L/S	CFM				
Heating							
32	0	13.9	29.4	21	81.4	86.4	34
32	0	27.7	58.8	65	70.5	78	21
32	0	41.6	88.2	83	68.5	74.5	37
Cooling					Total Recovery Efficiency		
95	35	41.6	88.2	83	53.6		

■ **CFA250C(11)**

Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency (%)	Apparent Sensible Effectiveness	Net Moisture Transfer
°F	°C	L/S	CFM				
Heating							
32	0	27.7	58.8	17	84.3	85.4	29
32	0	41.6	88.2	30	77.4	79.8	21
32	0	69.4	147.1	93	71.7	74.7	33
Cooling					Total Recovery Efficiency		
95	35	69.4	147.1	93	52.1		

■ **CFA350C(11)**

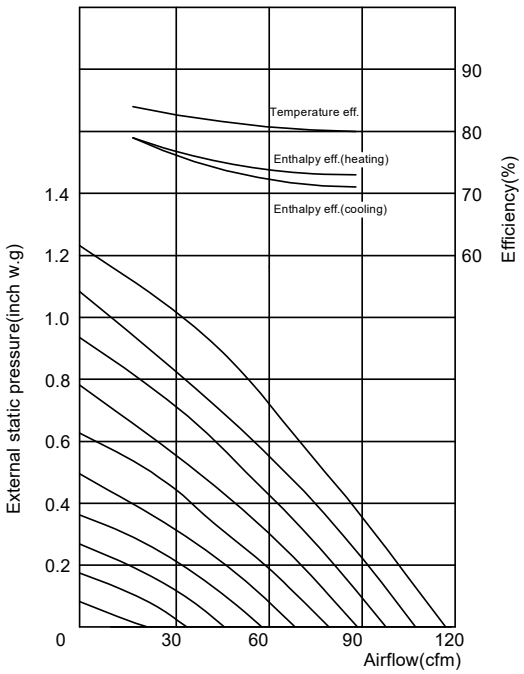
Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency (%)	Apparent Sensible Effectiveness	Net Moisture Transfer
°F	°C	L/S	CFM				
Heating							
32	0	27.7	58.8	23	87.6	89.2	50
32	0	55.5	117.6	47	78.9	80.5	45
32	0	97.1	205.9	129	74.8	77.4	45
Cooling					Total Recovery Efficiency		
95	35	97.1	205.9	129	59.2		

■ **CFA500C(11)**

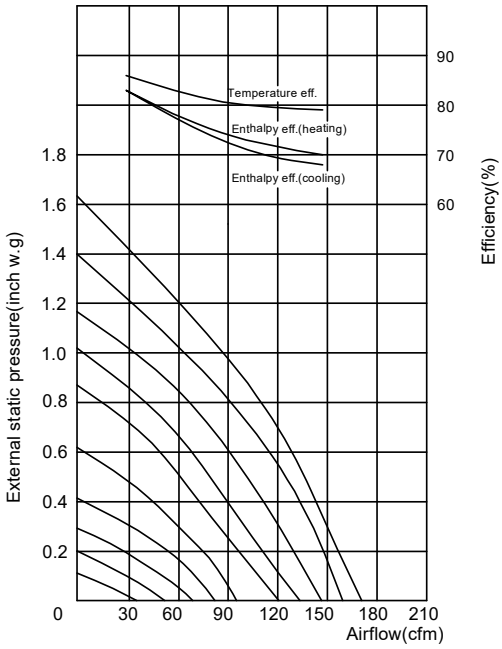
Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency (%)	Apparent Sensible Effectiveness	Net Moisture Transfer
°F	°C	L/S	CFM				
Heating							
32	0	55.5	117.6	31	82.6	83.7	36.5
32	0	97.1	205.9	73	76.5	78	45.8
32	0	138.7	294.1	180	71.2	73.5	41.7
Cooling					Total Recovery Efficiency		
95	35	138.7	294.1	180	50.1		

PERFORMANCE CHARTS

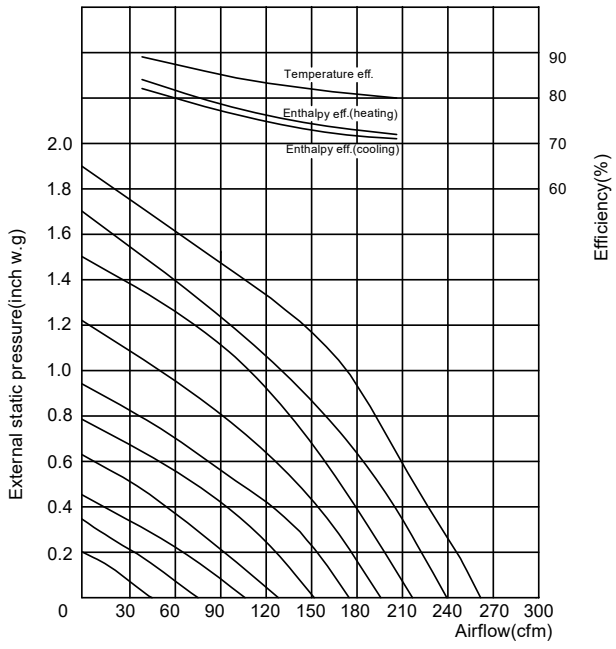
CFA150C(11)



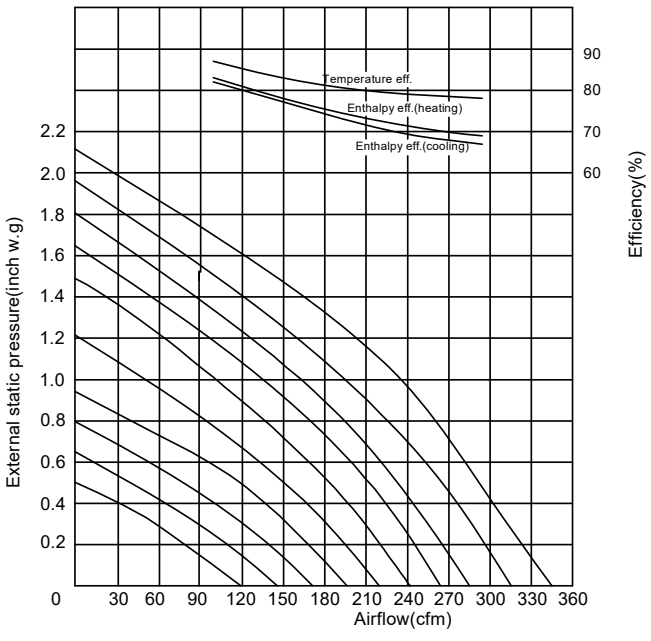
CFA250C(11)



CFA350C(11)

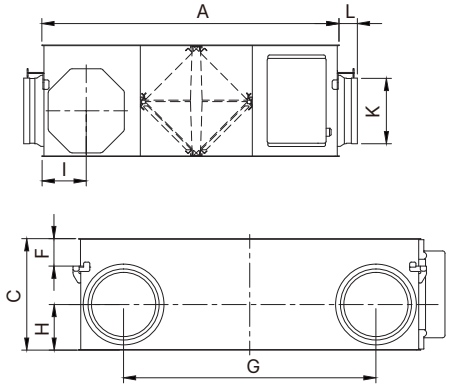


CFA500C(11)

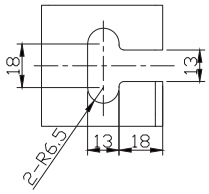


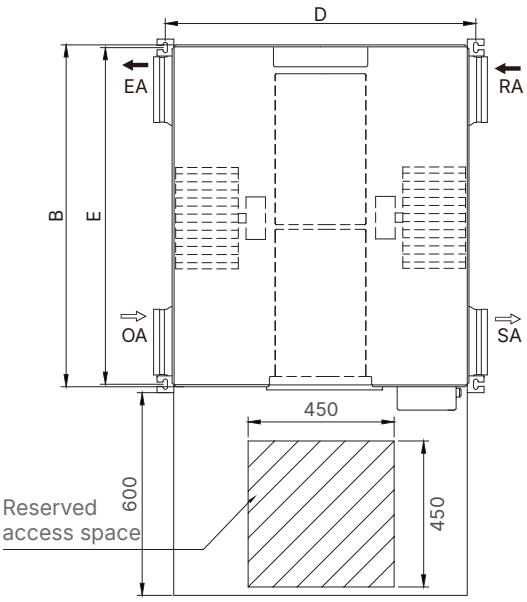
DIMENSIONS

CFA150C(H11)-500C(H11)



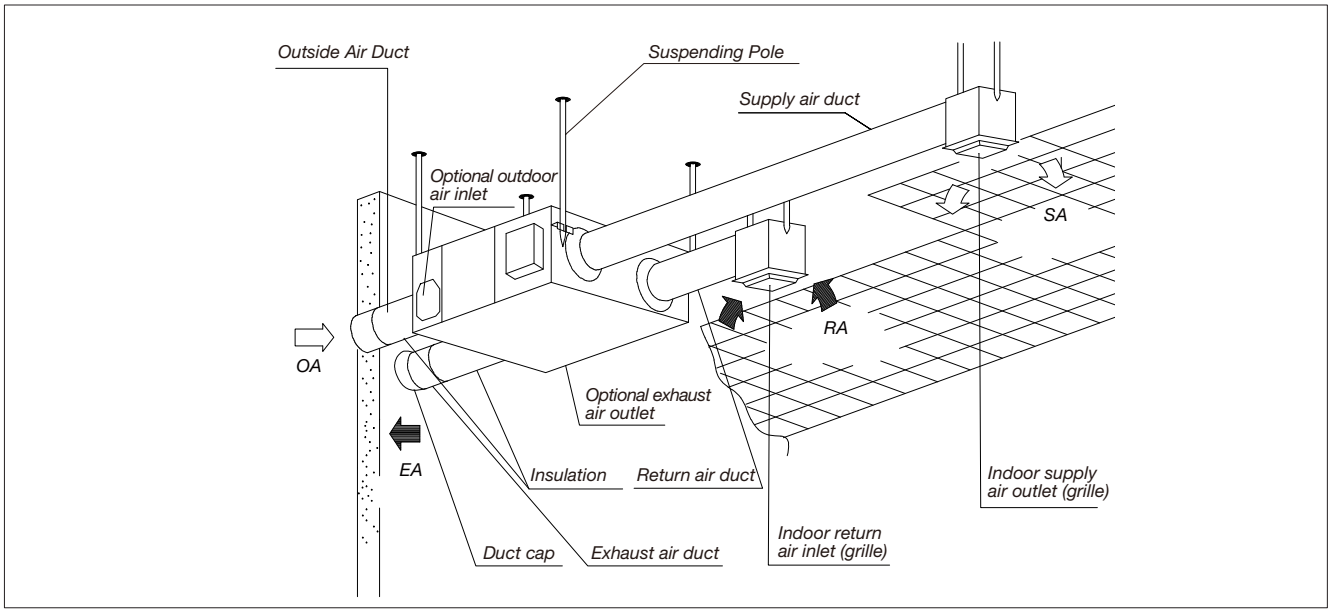
Lifting lug size, suitable for CFA150C(H11)-500C(H11)





Model	Dimension			Lifting lug size			Duct distance			Air inlet/outlet size	
	A	B	C	D	E	F	G	H	I	K	L
CFA150C(H11)	780	610	289	819	594	78	450	95	116	95	53
CFA250C(H11)	780	735	289	819	719	78	526	95	116	144	58
CFA350C(H11)	884	874	331	922	858	81	650	135	132	144	58
CFA500C(H11)	884	1016	331	922	1000	81	750	135	132	195	61

INSTALLATION DIAGRAM



CFA150C(H11)-500C(H11)

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

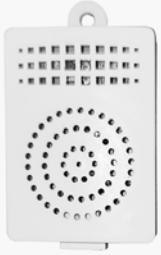
Model	Rated Airflow (m^3/h)	Power Consumption (kw)	Heating power (kw)	Temp. rise (°F)	Current (A)	Volt (V)	Frequency (Hz)	Size L*W * H (mm)	Connected air duct diameter (mm)
AS-EC35	150/250/350	1.1	1	69.8/55.4/48.2	4.78	230	50	350*250*250	145
AS-EC65	500	1.7	1.6	50	7.39	230	50	350*280*270	196

OTHER ACCESSORIES

Humidity Sensor

CO_2 Sensor

Smart Air Quality Detector



Wifi Module

APPLICATIONS

PROVIDES COMFORTABLE BREATHING ENVIRONMENT IN VARIOUS PREMISES

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

HOW TO SELECT THE RIGHT MODEL FOR YOUR HOUSE?

To select the right ventilation model for your house based on the 2010 ASHRAE 62.2 standard, you need to consider several factors to ensure proper indoor air quality (IAQ) and adequate ventilation. The ASHRAE 62.2 standard defines the minimum ventilation rates required for residential buildings, focusing on both whole-house ventilation and local exhaust in key areas like bathrooms and kitchens. Here's how you can select the right model for your house:

Determine Minimum Ventilation Rate.

The standard specifies a formula for calculating the minimum airflow rate (in cubic feet per minute, CFM) required for your home's whole-house ventilation:

CFM = 0.01 x floor area (sq. ft) + 7.5 x (number of bedrooms + 1)

For example, if you have a 2,000 square foot home with 3 bedrooms:

CFM = 0.01 × 2,000 + 7.5 x (3 + 1)
CFM = 20 + 30 = 50 CFM

This means your whole-house ventilation system should provide at least 50 CFM of airflow to meet the standard's minimum requirements.

ASHRAE 62.2-2010
Required Continuous Ventilation Rate (CFM)

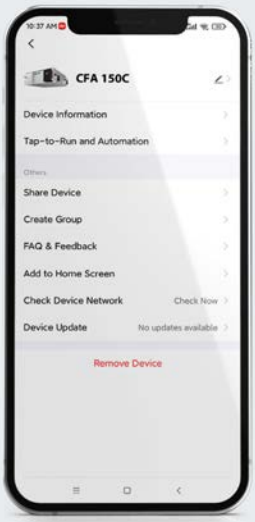
Floor Area Sq. Ft	0-1 BR	2-3 BR	4-5 BR	6-7 BR	>7 BR
<1,500	30	45	60	75	90
1,501-3,000	45	60	75	90	105
3,001-4,500	60	75	90	105	120
4,501-6,000	75	90	105	120	135
6,001-7,500	90	105	120	135	150
>7,500	105	120	135	150	165

In addition to ASHRAE 62.2, local building codes might have additional requirements, particularly in areas with extreme weather conditions.

By following the ASHRAE 62.2 guidelines and considering your home's size, layout, climate, and specific ventilation needs, you can choose the right model to ensure healthy indoor air quality.

GROUP CONTROL

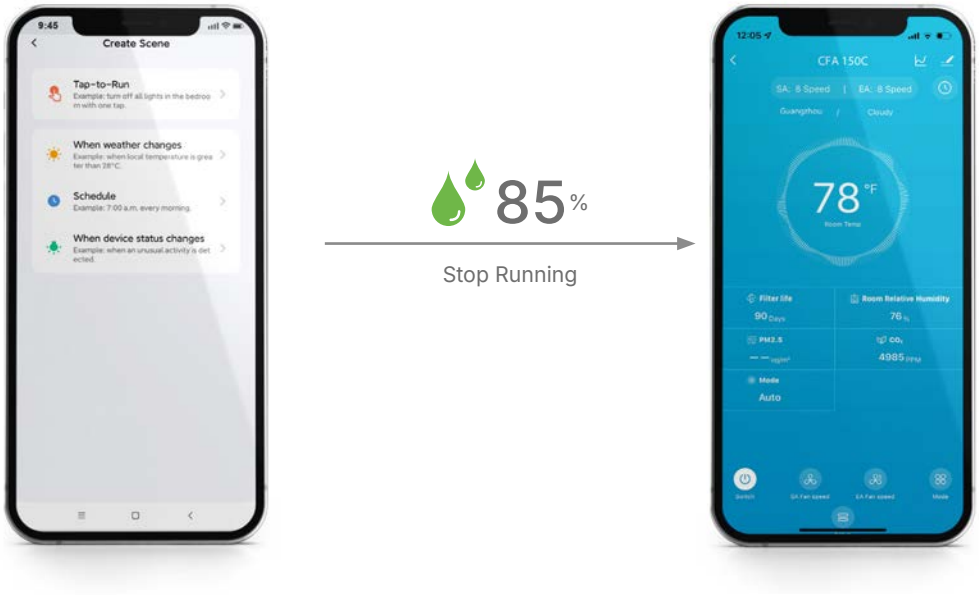
The ventilator can create group control at the APP, the quantity is not limited. User can control all the ventilators in the group easily.



SCENE CONTROL

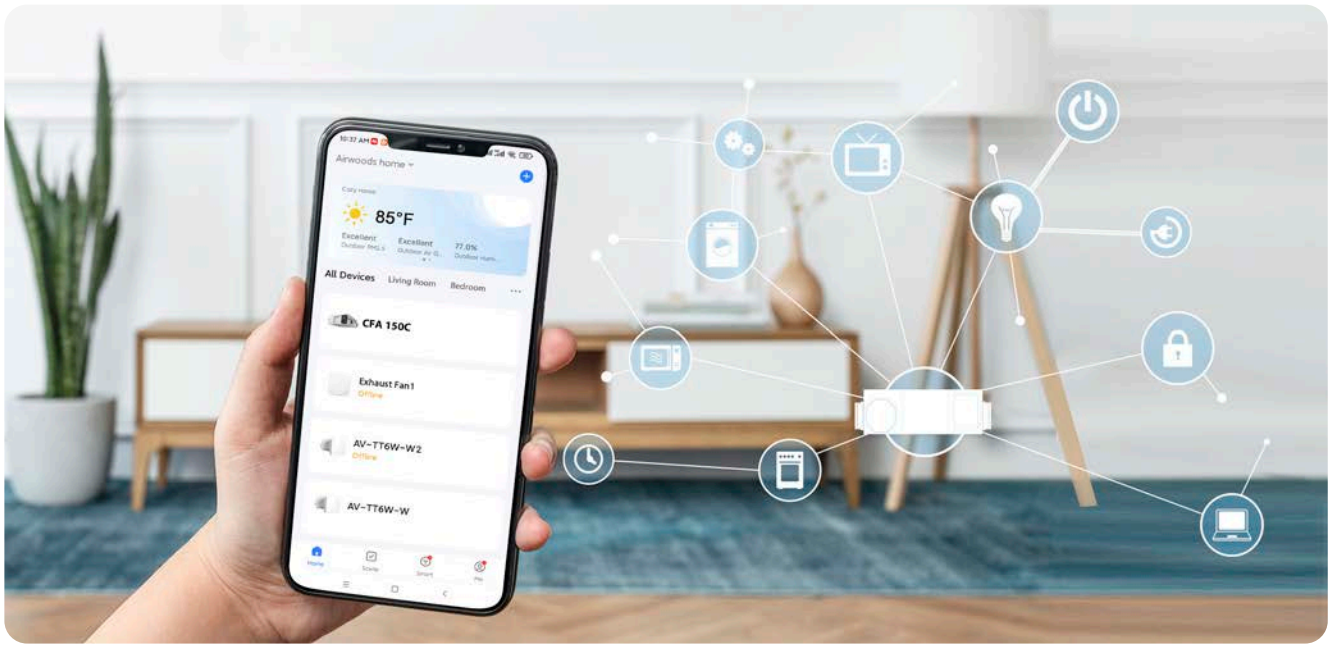
User can create the scene according to the weather changes, schedule or the device status changes.

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.



BEIJING HOLTOP AIR CONDITIONING CO., LTD.

No. 5 Yard, 7th Guanggu Street, Badaling Economic Development Zone, Yanqing District, Beijing, China

INTERNATIONAL MARKETING CENTER

Room 2101, Headquarter Center No. 25, Tian An Hi-Tech Ecological Park, No. 555 Panyu Ave, Guangzhou, China

Tel: 86-20-39388201-8023
Website: www.holtop.com
Skype: susanwoo08
E-mail: info@holtop.com

** Data is subject to changes without notification due to product improvement.*