ECO Pair PLUS

Single Room Energy Recovery Ventilator

New Control Panel

Wireless Pairing Operation

Multiple Linkage Control

WIFI Function

ECO Pair PLUS

Content
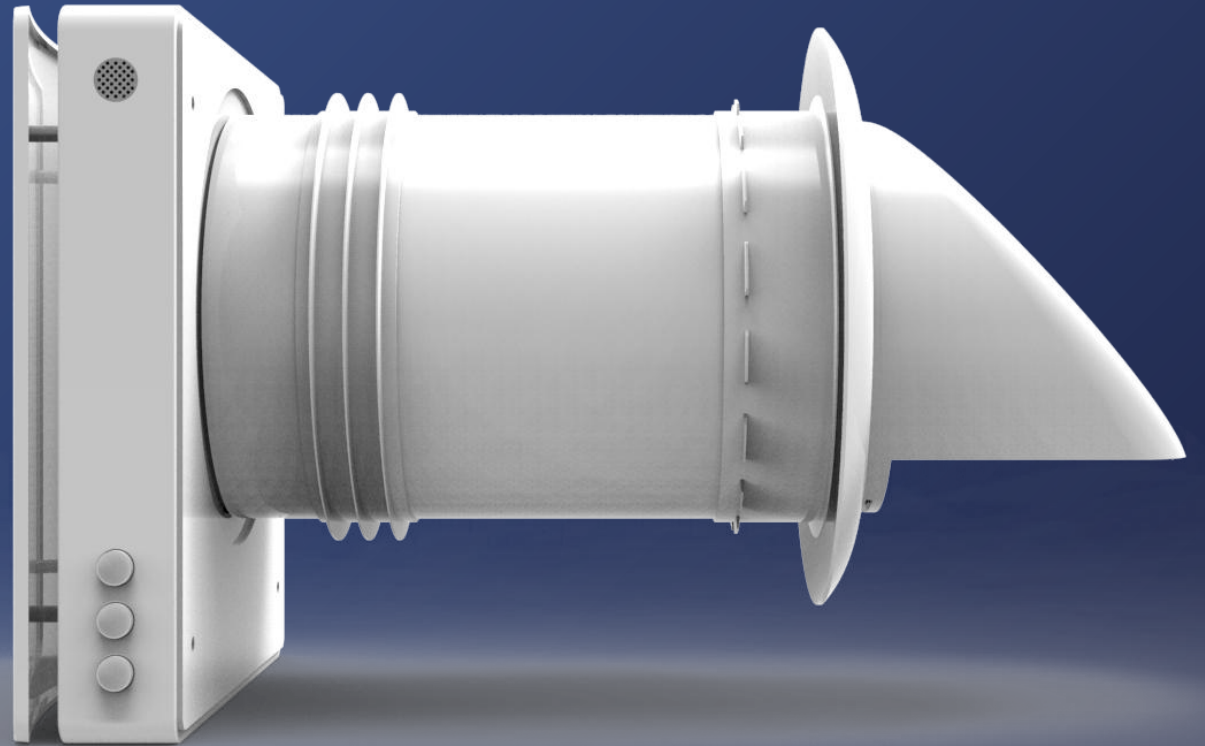
ECO Pair PLUS
Product Features

MOLD PREVENTION

The ceramic energy regenerators cover with anti bacteria and anti-mildew coating.

The efficient ventilation can prevent excessive indoor humidity and mold build-up.

SAFE

Auto shutter can prevent the insects entering and the cold air flowing backward when the unit stops. The outer hood can prevent rain draining back and birds nesting.

INDOOR AIR QUALITY MONITORING

Equipped with CO2 sensor as standard, humidity sensor optional for indoor air quality monitoring.

FLEXIBLE
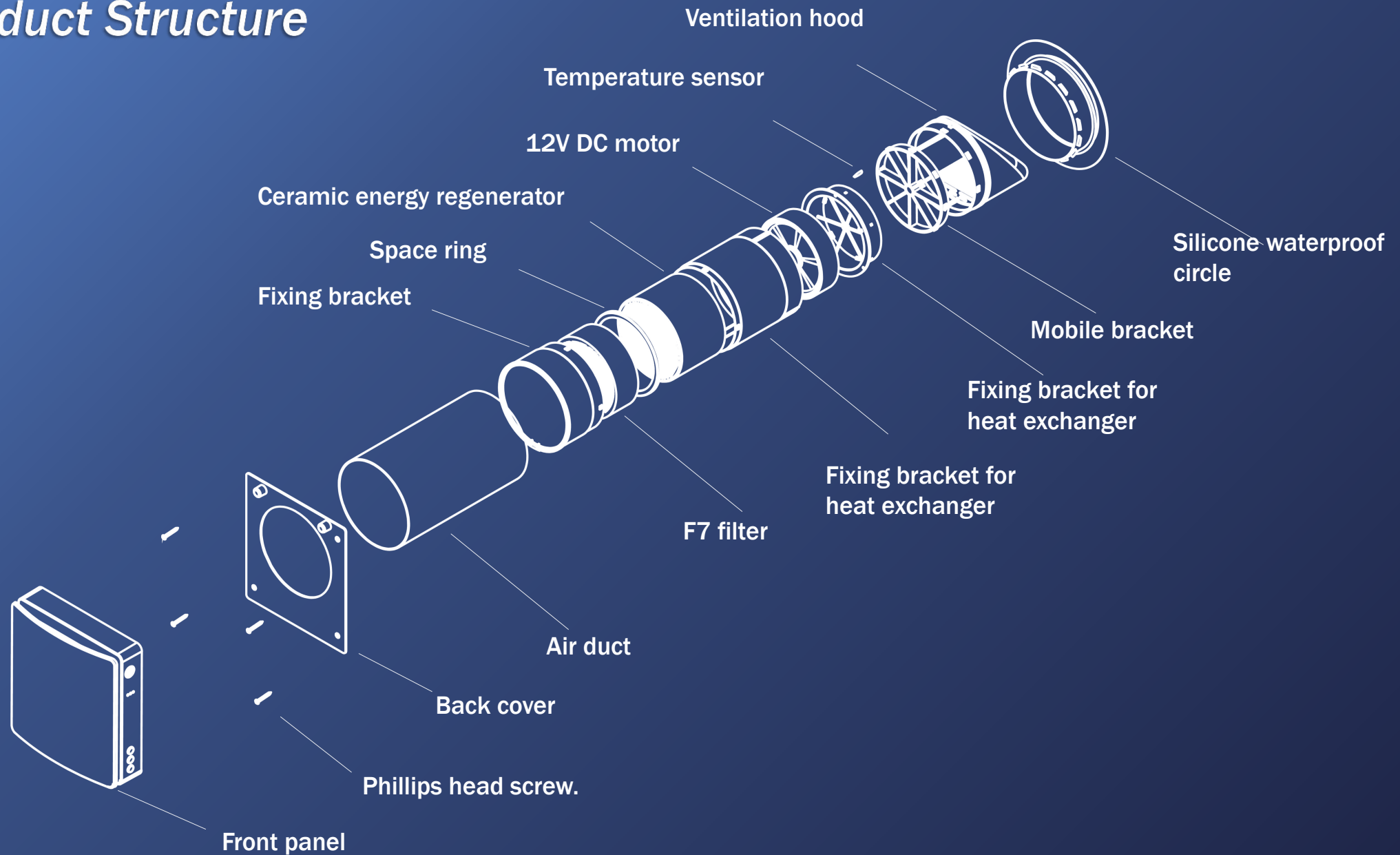
Unit can work individually or in pairs.

EASY INSTALLATION

One-stop install through internal wall with a single hole.

EFFICIENT

High heat recovery efficiency of up to 97% is achieved due to the use of a cellular regenerator.

ECO Pair PLUS
Product Structure

Ventilation hood

Temperature sensor

12V DC motor

Ceramic energy regenerator

Space ring

Fixing bracket

Silicone waterproof circle

Mobile bracket

Fixing bracket for heat exchanger

Fixing bracket for heat exchanger

F7 filter

Air duct

Back cover

Phillips head screw.

Front panel

ECO Pair PLUS
Specification

ECO Pair PLUS
Specification

TECHNICAL DATA
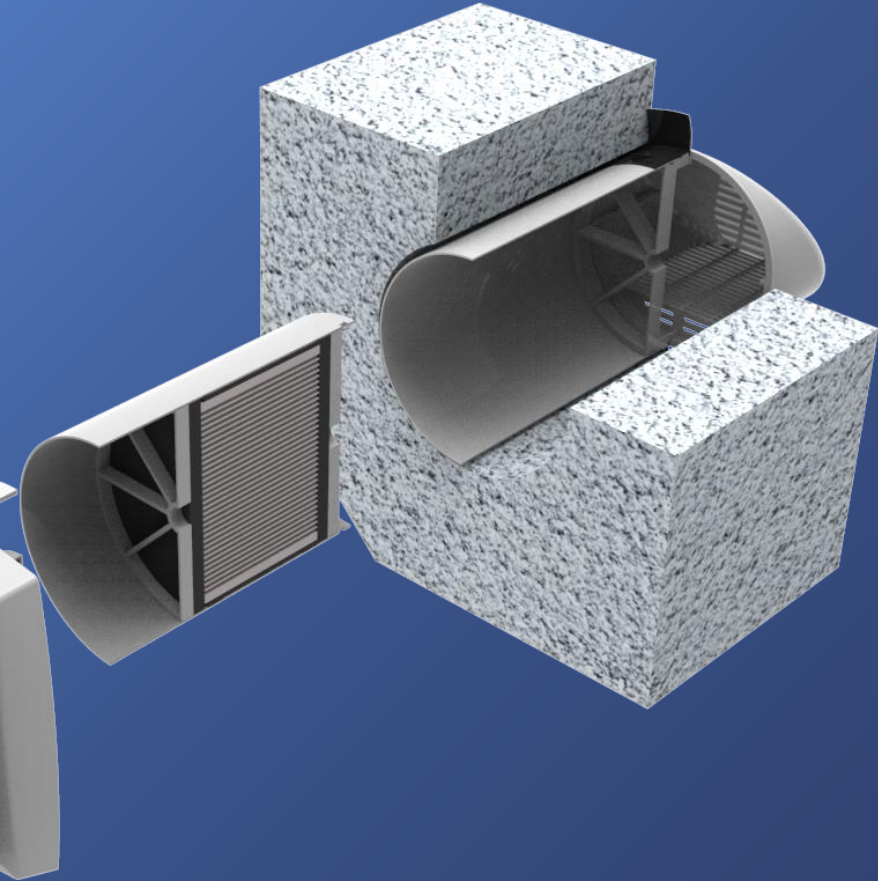
Model No.	AV-TTW5-W		
Voltage	100V~240V AC /50-60Hz		
Power [W]	6	7	7.8
Current [A]	0.04	0.05	0.06
Air flow in supply/exhaust mode [m^3/h]	20	40	50
Sound pressure level [dBA] 32.7	32.7		
Regeneration Efficiency	Up to 97%		
SEC	Class A		
Transported air temperature [°C]	-20~50		
Ingress Protection Rating	IPX4		
RPM	2200 (max)		
Diameter of duct [mm]	158mm		
Type of installation	Wall mounting		
Net Weight	4.2kg		

ECO Pair PLUS
Dimensions
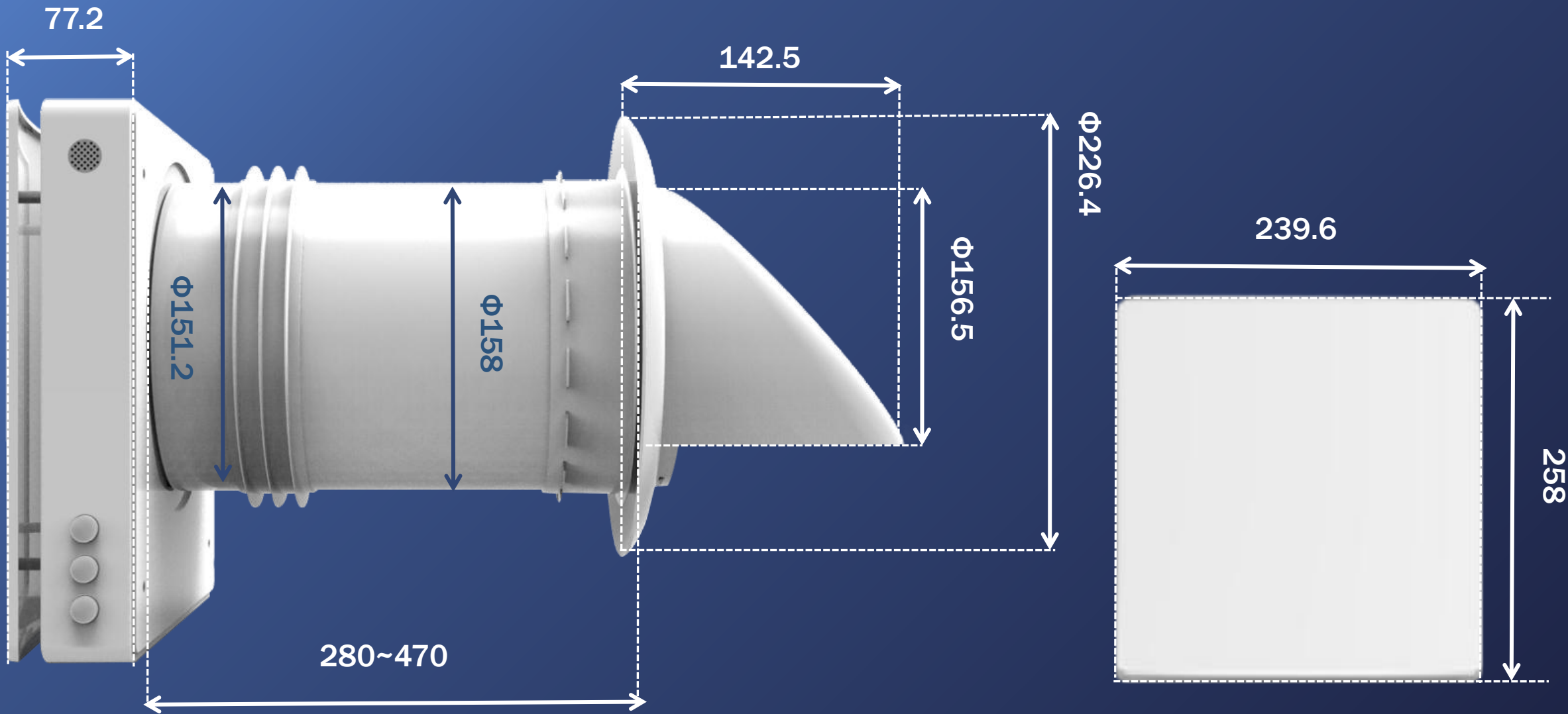
77.2

142.5

Φ226.4

239.6

Φ151.2

Φ158

Φ156.5

258

280~470

ECO Pair PLUS
Control Functions

1.CONTROL PANEL

- Using radio signal for communication.
- Longer distances communication up to 15m without barrier.
- Wider control area, multiple devices can be controlled at the same time.
- Accurate control to avoid controlling the wrong device.

| ON/OFF | Regeneration mode | Supply mode | Exhaust mode | Fan speed increase | Fan speed decrease | LED light switch |

2. WIFI CONTROL

- On/off setting
- Fan speed control
- Working mode selection
- LED lights on/off
- CO2 value display and setting
- Optional humidity value display and setting
- 7*24 hours timer setting
- Error display
- Online/offline display
- Linkage status display
- Smart control according to local weather
- Linkage control with other appliances with Tuya IoT

ECO Pair PLUS
Paring Operation

WIRELESS OPERATION IN PAIR TO ENSURE BALANCED VENTILATION

One ERV supplies fresh air for 75s, while the other ERV extracts indoor stale air for 75s, to achieve a balanced ventilation system.

Wireless connection of master and slave unit, No Wiring or Dialing Needed

30 meters ultra long distance transmission.

* 30 meters was tested without barrier and interference. In practical application, it is recommended to install within 8-15 meters.

ECO Pair PLUS
Energy Regeneration

WHEN IT'S COOL OUTSIDE
ENERGY SAVING

The ventilator operates in the heat recovery mode with two cycles can **save energy by over 30%** compared with the normal exhaust fan. **The heat recovery efficiency is up to 97%** when the air first entering the heat regenerator. It can recover the energy in the room and reduce the load on the heating system in winter.
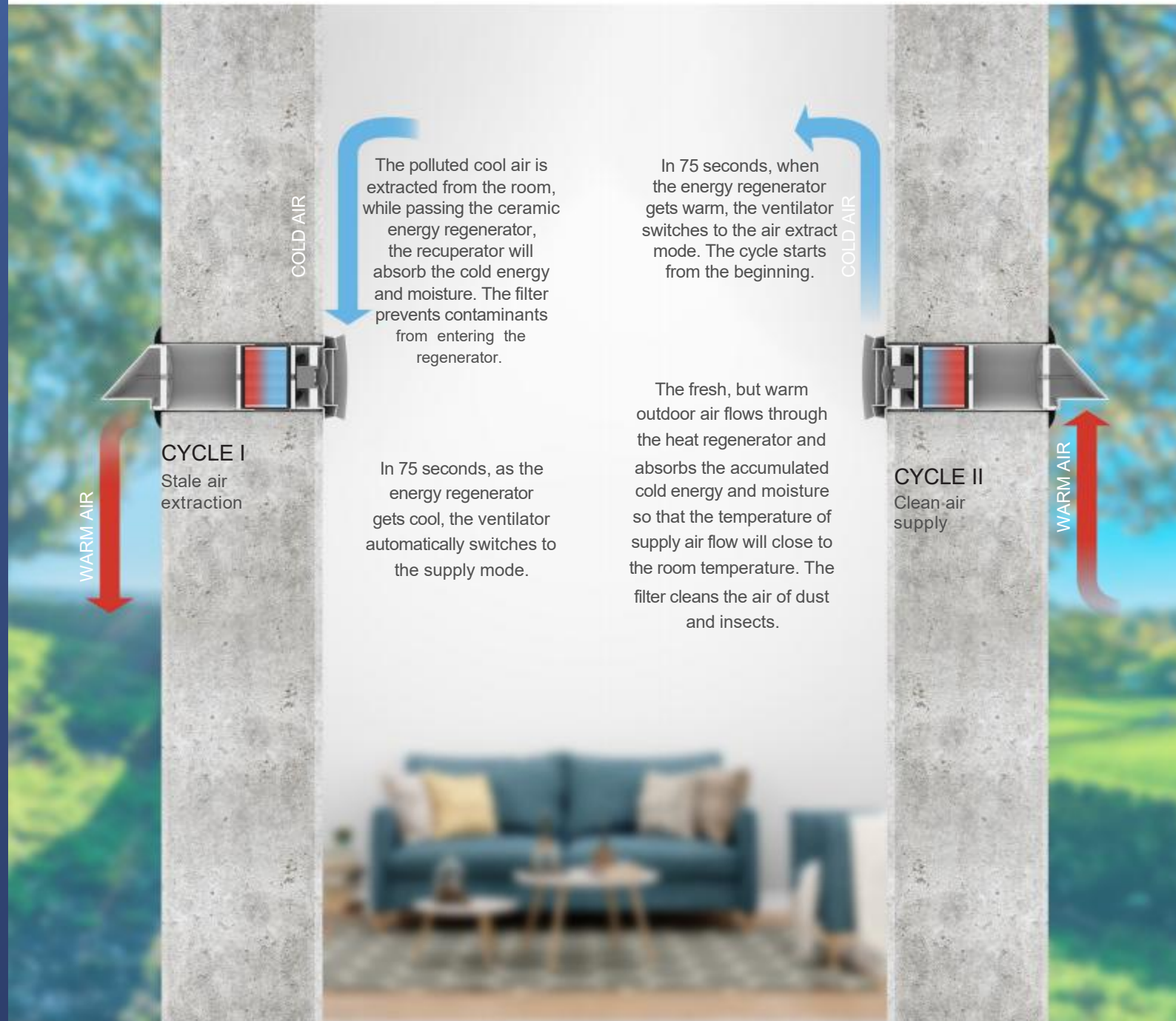
The polluted warm air is extracted from the room, while passing the ceramic energy regenerator, the recuperator will absorb the heat and moisture. The filter prevents contaminants from entering the regenerator.

In 75 seconds, when the energy regenerator gets cold, the ventilator switches to the air extract mode. The cycle starts from the beginning.

CYCLE I
Stale air extraction

In 75 seconds, as the energy regenerator gets warmed, the ventilator automatically switches to the supply mode.

The fresh, but cold outdoor air flows through the heat regenerator and absorbs the accumulated heat and moisture so that the temperature of supply air flow will close to the room temperature. The filter cleans the air of dust and insects.

CYCLE II
Clean air supply

COLD AIR

COLD AIR

ECO Pair PLUS
Energy Regeneration

WHEN IT'S HOT OUTSIDE

ENERGY RECOVERY

The ventilator operates in the heat recovery mode with two cycles. Two units intake/exhaust air alternately at the same time to **achieve balance ventilation**. It will increase the indoor comfort and make ventilation more effective. The heat and humidity in the room can be recovered during ventilating and the load on cooling system can be reduced in summer.

COLD AIR

The polluted cool air is extracted from the room, while passing the ceramic energy regenerator, the recuperator will absorb the cold energy and moisture. The filter prevents contaminants from entering the regenerator.

In 75 seconds, when the energy regenerator gets warm, the ventilator switches to the air extract mode. The cycle starts from the beginning.

COLD AIR

WARM AIR

CYCLE I
Stale air extraction

In 75 seconds, as the energy regenerator gets cool, the ventilator automatically switches to the supply mode.

The fresh, but warm outdoor air flows through the heat regenerator and absorbs the accumulated cold energy and moisture so that the temperature of supply air flow will close to the room temperature. The filter cleans the air of dust and insects.

CYCLE II
Clean air supply

WARM AIR

ECO Pair PLUS
Operation modes

Regeneration Mode

Supply Mode

Exhaust Mode

Under regeneration model, the ventilators work in pair, one will extract air and the other will supply air. The fans rotate in different direction.

Under supply mode, two ventilators will run simultaneously to supply air to the room.

Under exhaust mode, two ventilators will exhaust air simultaneously.

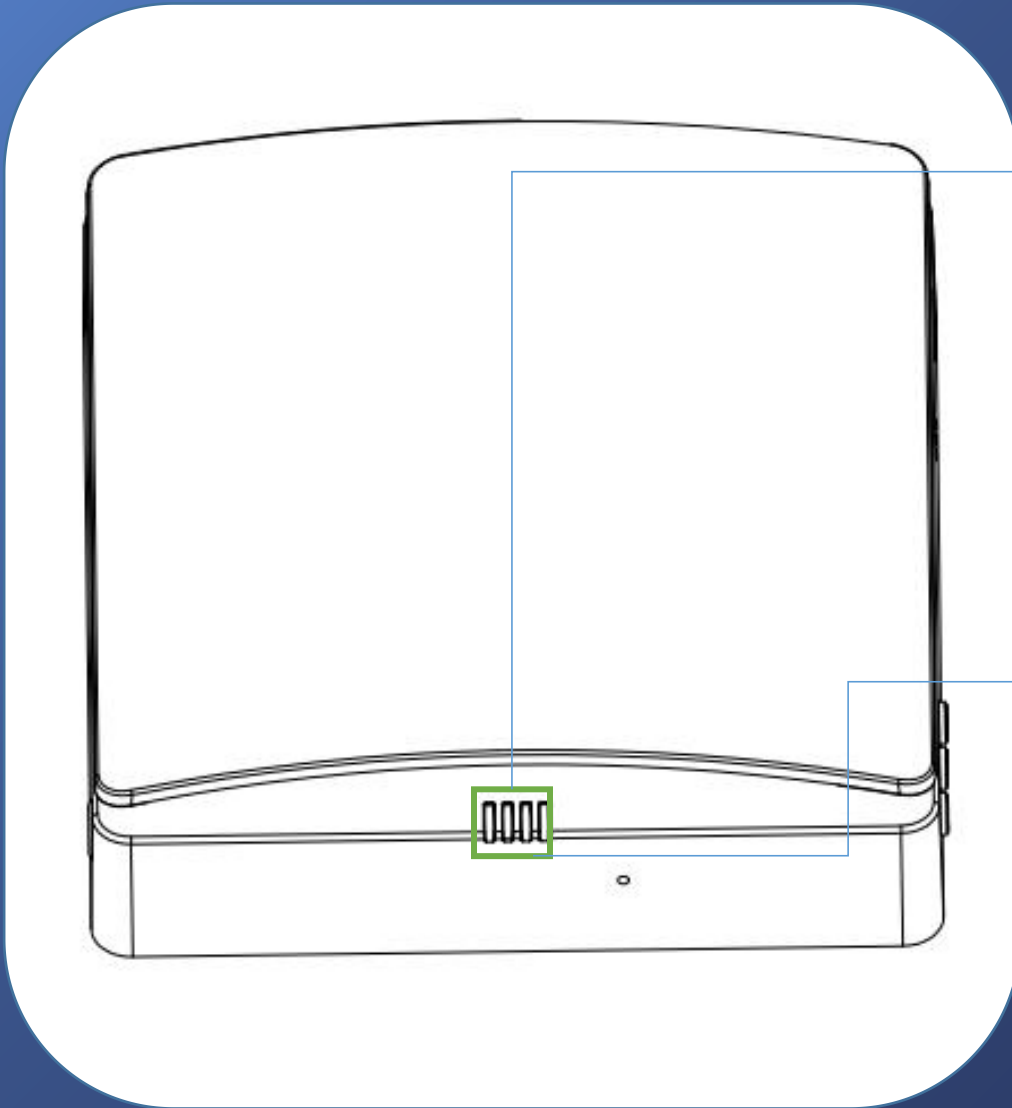Mode button: when the ERV is on, selectable from

Speed button:when the ERV is on, selectable from speed 1 - 3

ON/OFF button

Statues indicator - ERV ON statues:

- Long blue indicator: paring mode is activated, master ERV and slave ERV can be linked now.
- Long green indicator: IoT function is activated, WIFI connection is done.
- Long red indicator: the filter needs a replacement.
- Long purple indicator: the ERV is in master role and its IoT function is activated allows to be controlled by APP.
- Flashing green: AUTO Oxygen mode is running.
- Flahsing blue: free-cooling function is running.
- Red flashes 3 times: filter clean is completed.

Function indicator:

- 3 indicator refers to 3 speed;
- The green refers to supply mode;
- The red refers to extraction mode;
- The yellow refers to regeneration mode which is switched from supply mode to exhaust mode every 75s repeatedly;

Statues indicator - ERV OFF statues:

- Slow flashing blue: the ERV is under paring to be master ERV.
- Slow flashing green: the ERV is under paring to be slave ERV.
- Slow flashing red: entering into WIFI mode

ECO Pair PLUS
WIFI function

1. ERV name

2. Master status or slave status

3. The outdoor real-time temperature

4. Filter alarm

5. Free-Cooling function：customized temperature range, if the ERV is under detects the outdoor temperature is within ±1℃ of your setting temperature, the ERV will switch to be supply mode for bringing more fresh air automactically.

6. CO_2 concentration setting: customized exceeding CO_2 concentration value, when the ERV works under regeneration mode, if the indoor CO_2 exceeds the setting CO_2 values, the ERV enters to Supply mode automatically until the CO_2 value lower than the setting value.

7. Indoor real-time CO_2 concentration

8. 12hrs timer

9. The remaining time after the scheduled shutdown

ECO Pair PLUS

WIFI function

10. ERV switch On/off

11. Running mode: supply mode, extraction mode, regeneration mode

12. 3 speed

13. Ultra strong mode: the ERV runs at highest power to supply and extract air

14. Auto oxygenetion function ON/OFF

15. Free cooling function ON/OFF

16. Negative ion socket ON/OFF

17. Indicator lights ON/OFF

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.
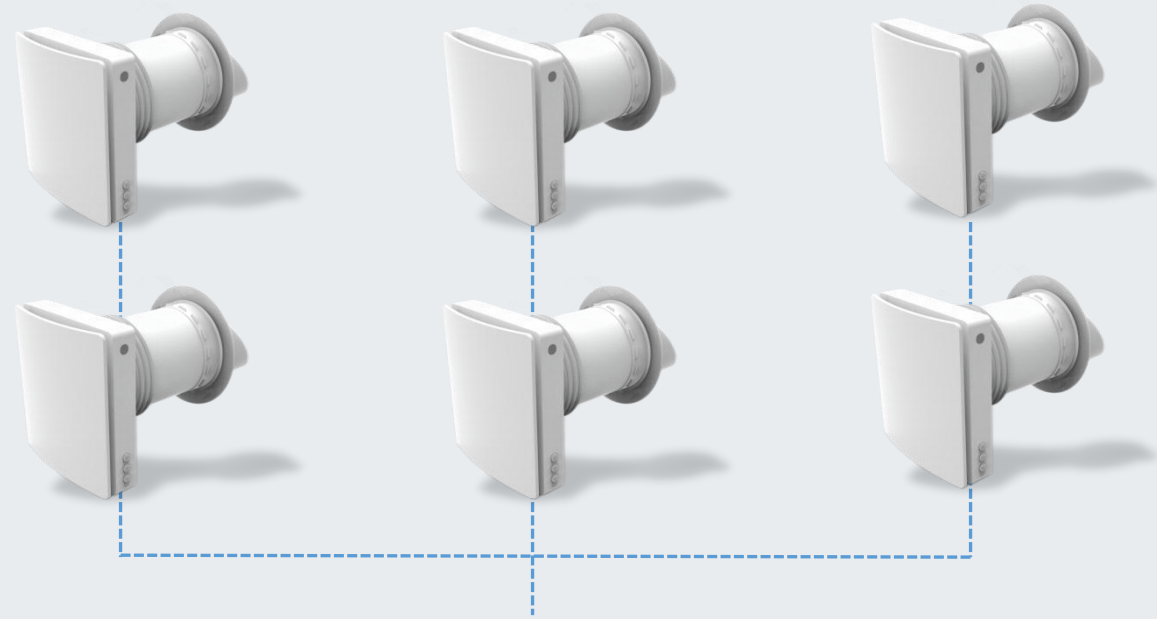
Paring CONTROL

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.

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 or run at exhaust mode, to prevent the outdoor humidity coming inside. The unit will run according to the setting automatically.
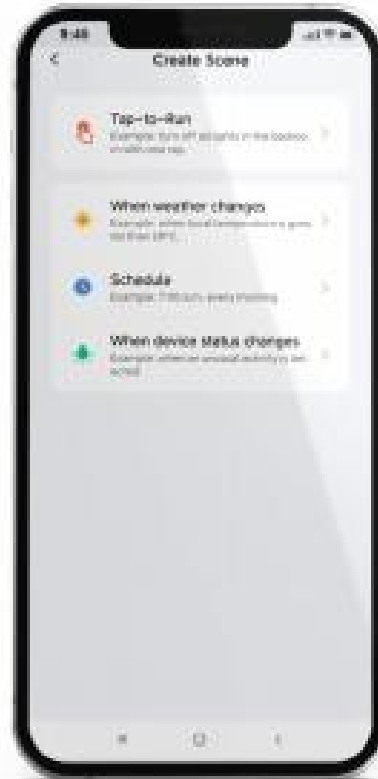
85 %

Exhaust Mode
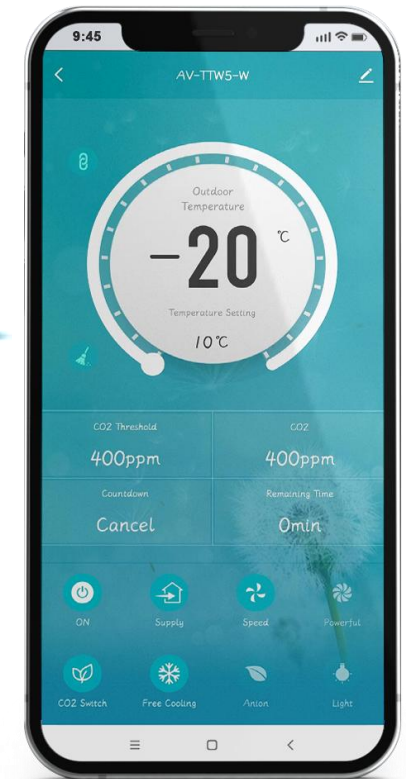
ECO PAIR ERV, EASIER ACCESS TO HEALTHY BREATH