



In God We Trust



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# VRF CATALOGUE

YOUR HVAC SOLUTION SPECIALIST

## THEAIR1

Website: [www.theair1.com](http://www.theair1.com)

Email: [munishkochhar68@gmail.com](mailto:munishkochhar68@gmail.com)

Phone: +918476000009

**ZTVM-8**  
INDOOR UNIT

# APPLICATION SOLUTIONS

## Office Complexes

### Enjoy comfort while working

ZERO VRF provides solutions for office buildings of all sizes and its smart control solutions streamline the management of VRF. It offers a wide variety of indoor units that are suitable for all designs.



## Hotels & Shopping Malls

### Increase your business, not your bills

The high efficiency and reliability of ZERO VRF make it an ideal idea for commercial applications. Intelligent control solutions like hotel key cards and touch screen controllers make management easy.



## Residential Apartments

### One for every home

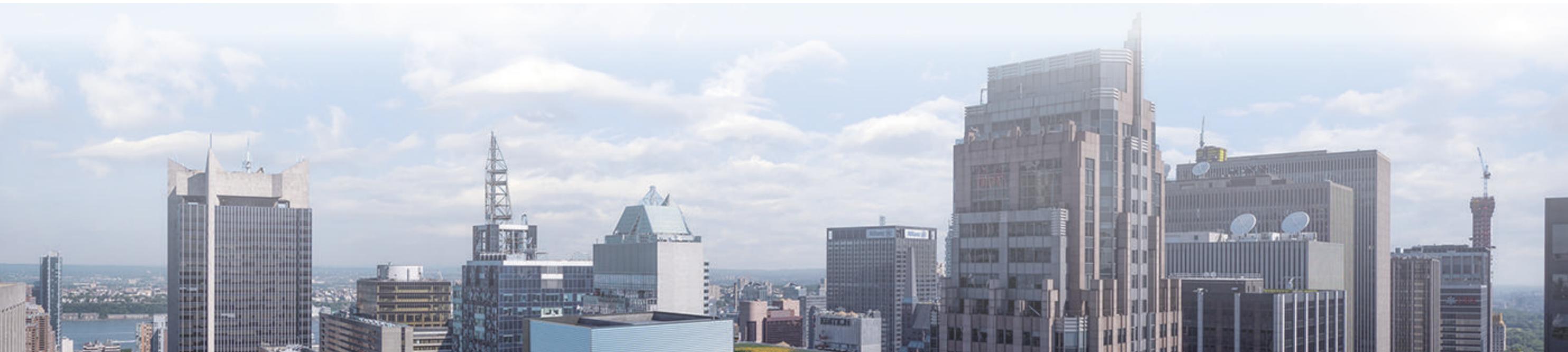
A compact size and high efficiency make ZERO VRF suitable for all residential homes.



## Hospitals/ Schools/ Airports

### Meeting all expectations

The innovative design and variety of indoor unit options make ZERO VRF suitable for all kinds of applications. The newly designed puro-air kit is perfect for modern hospitals.





## Indoor Unit

One-Way Cassette

New One-Way Cassette

Two-Way Cassette

Compact Four-Way Cassette

Four-Way Cassette

Arc Duct

Medium Static Pressure Duct

High Static Pressure Duct

Wall Mounted

Floor Standing

Ceiling&Floor

Fresh Air Processing

Small Airflow Rate Fresh Air Processing

HRV

## Indoor Unit Lineup

### ■ One-Way Cassette



- Automatic anti-condensation
- Multiple Steps Vertical Swing
- Built-in 1200mm high-lift drain pump(Digital feedback DC water pump)

### ■ New One-Way Cassette

- The fuselage thickness is only 130mm
- Vertical swing and horizontal swing
- Built-in 1200mm high-lift drain pump
- With high ceiling function, install different heights



### ■ Two-Way Cassette



- Automatic anti-condensation
- Multiple Steps Vertical Swing
- Built-in 1200mm high-lift drain pump(Digital feedback DC water pump)

### ■ Compact Four-Way Cassette

- 575mm compact body size
- 360° airflow
- Individual louver control
- 3.5m high ceiling installation
- Built-in 1200mm high-lift drain pump
- Optional medium efficiency filter



### ■ Four-Way Cassette



- 360° airflow, uniform air flow and temperature distribution
- Individual louver control
- Built-in 1200mm high-lift drain pump

### ■ Arc Duct

- 199mm ultra-thin height (all models)
- 450mm ultra-narrow depth (all models)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump
- Optional medium efficiency filter
- Optional Positive and Negative Ion Sterilization Module



### ■ Medium Static Pressure Duct



- ESP up to 160Pa (all models)
- 245mm ultra-thin height (all models)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump
- Optional HEPA filter with H12 rating
- Optional medium to high efficiency filter
- Optional Positive and Negative Ion Sterilization Module

### ■ High Static Pressure Duct

- 5.6kW-16kW ESP up to 250Pa
- 20kW-56kW ESP up to 400Pa
- 299mm ultra-thin height (5.6kW-16kW)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump
- Optional HEPA filter with H13 rating
- Optional medium to high efficiency filter



## ■ Wall Mounted

- Supports installation close to the ceiling to free up space
- Bi-directional Coanda airflow, enhanced comfort
- Quiet operation
- Optional built-in 1200mm high-lift drain pump



## ■ Floor Standing



- ESP up to 60Pa(F3 concealed model)
- Three appearance options to meet different installation requirement
- DC fan creates a more quiet and comfortable environment
- 0.5°C/1°C Setting Temperature Adjustment

## ■ Ceiling&Floor

- A sleek design suits installation either on the ceiling or floor
- DC fan motor creates a more quiet and comfortable environment
- Optional 600mm high-lift drain pump (When the unit is installed on the ceiling)



## ■ Fresh Air Processing



- 20kW-56kW ESP up to 400Pa
- 550mm ultra-thin height (20kW-56kW)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump

## ■ Small Airflow Rate Fresh Air Processing

- 9kW-28kW ESP up to 300Pa
- 310mm ultra-thin height (9kW-28kW) Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump



## ■ HRV



- Multiple operation modes: Auto, Bypass, Heat recovery, Free cooling mode.
- Optional CO<sub>2</sub> Sensor
- Optional Multi-functional Expansion Board



# Indoor Unit Functions

		Functions ●: equipped as standard; ○: customization option; ×: without this function			One-Way Cassette	New One-Way Cassette	Two-Way Cassette	Ceiling&Floor	Compact Four-Way Cassette	Four-Way Cassette	Arc Duct	Medium Static Pressure Duct	High Static Pressure Duct	Wall Mounted	Floor Standing	Fresh Air Processing	Small Airflow Rate Fresh Air Processing	
COMFORT & HEALTH	Quiet operation	All indoor units are quiet operation			●	●	●	●	●	●	●	●	●	●	●	×	×	
	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature			●	●	●	●	●	●	●	●	●	●	●	●	●	
	Cold air prevention	When starting to warm up, the fan speed is automatically adjusted according to coil temperature to prevent cold air discharge After warming up, fan speed is set as desired			●	●	●	●	●	●	●	●	●	●	●	●	●	
	Digital display on/off	Indoor unit displays can be shut off at night, creating a better environment for rest			●	●	●	●	●	●	●	●	●	●	●	●	●	
	Buzzer sound on/off	The buzzer sound of the indoor unit can be turned off to create a quieter environment			●	●	●	●	●	●	●	●	●	●	●	●	●	
	EEV automatic adjustment	When in heating standby mode, the indoor unit automatically adjusts the EEV opening according to the load to eliminate noise of refrigerant flowing.			●	●	●	●	●	●	●	●	●	●	●	●	●	
	Indoor temperature detection control	The indoor temperature of multiple indoor units is obtained from a designated indoor unit, and multiple indoor units in a large space are controlled uniformly through this designated indoor unit.			●	●	●	●	●	●	●	●	●	●	●	×	×	
	0.5°C/1°C setting temperature adjustment	Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control			●	●	●	●	●	●	●	●	●	●	●	●	●	
	Home leave mode	During absence, the indoor temperature can be maintained at a certain level			●	●	●	●	●	●	●	●	●	●	●	×	×	
	Independent power supply	This feature allows the shutdown of some indoor units without shutting down the whole VRF system			●	●	●	●	●	●	●	●	●	●	●	●	●	
	Sleep mode	The smart sleep mode can realize sleep is not easy to catch a cold and wake up refreshing			●	●	●	●	●	●	●	●	●	●	●	×	×	
	Mildew proof of heat exchanger	After the unit is shutdown, the fan is delayed shutdown to dry the heat exchanger and prevent the heat exchanger from mildew			●	●	●	●	●	●	●	●	●	●	●	×	×	
	Air filter	Removes airborne dust particles to ensure a steady supply of clean air			pre-filter ●	pre-filter ●	pre-filter ●	pre-filter ●	G1 ● G3 ○ F6 ○	G1 ●	G1 ● F6 ○	G1 ● G3+F7○ G3+H12 ○	pre-filter ● F7 ○ H13○	pre-filter ●	G1 ●	pre-filter ● F7 ○ H13○	pre-filter ● F7 ○ H13○	
	Fresh air intake	A reserved outside air intake port allows outdoor air to be introduced directly into the unit			4.5-7.1kW ●	4.5-7.1kW ●	●	●	●	●	●	●	●	×	×	×	●	●
	Visualization of dirty blockage rate	Dirty blockage rate can be accurately identified and displayed on the controller			×	×	×	×	×	×	●	●	●	×	×	●	●	
	Silver Ions drain pan	Slow-released nano-silver ions can keep the drain pan free of mold for a long time.			×	×	×	×	○	○	○	○	○	○	○	×	○	○
	Heat exchanger self- cleaning*	Wash the dirt on the heat exchanger through freezing frost, and then high temperature sterilization.			●	●	●	●	●	●	●	●	●	●	●	×	×	
	Humidity control	Additional humidity sensor can achieve humidity control in 35~75%			×	×	×	○	○	○	○	○	○	○	○	×	×	
Puro-air kit	Powered by OSRAM's UVC lamps, can effectively kill bacteria, viruses and odors of indoor air			×	×	×	×	×	×	×	○	○	×	×	○	○		
Sterilization device	Positive and Negative Ion Sterilization Module can effectively kill bacteria, viruses and odors of indoor air			×	×	×	×	×	×	○	○	×	×	×	×	×		
AIRFLOW	Vertical swing	Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution			5 steps + auto	5 steps + auto	5 steps + auto	5 steps + auto	5 steps + auto	5 steps + auto	×	×	×	5 steps + auto	×	×	×	
	Horizontal swing	Possibility to select automatic horizontal moving of the air discharge louvre, for uniform air flow and temperature distribution			×	●	×	●	×	×	×	×	×	○	×	×	×	
	Fan speed steps	Multiple fan speeds can be selected to optimize comfort levels			7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	
	Auto fan speed	Automatically controls rotation speed of fan depending on indoor load to achieve efficiency and comfort simultaneously			●	●	●	●	●	●	●	●	●	●	●	×	×	
	Individual louver control	Individual louver control via the wired remote controller makes it simple to fix the position of each flap individually			×	×	×	×	●	●	×	×	×	×	×	×	×	
	Soft wind mode	Supplies air against the ceiling to create windless environment			●	●	●	●	●	●	×	×	×	●	×	×	×	
	Adaptive ESP	ESP adapts to duct resistance to ensure constant airflow			×	×	×	×	×	×	●	●	●	×	×	●	●	

\* Heat exchanger self-cleaning function can be available only when V8 Mini is connected. There is no AHU-Kit and 2<sup>nd</sup> generation indoor units in the system.

# Indoor Unit Functions

●: equipped as standard; ○: customization option ; ×: without this function			One-Way Cassette	New One-Way Cassette	Two-Way Cassette	Ceiling&Floor	Compact Four-Way Cassette	Four-Way Cassette	Arc Duct	Medium Static Pressure Duct	High Static Pressure Duct	Wall Mounted	Floor Standing	Fresh Air Processing	Small Airflow Rate Fresh Air Processing
ENERGY SAVING	META mode	Triple variable control maximizes energy saving operation	●	●	●	●	●	●	●	●	●	●	●	×	×
	ECO mode	The set temperature will automatically increase by 1°C per hour (in cooling mode) or decrease by 1°C per hour (in heating mode), with a maximum change of 2°C.	●	●	●	●	●	●	●	●	●	●	●	×	×
	Full DC electronic components	The fan motor and water pump are DC power supply	●	●	●	●	●	●	●	●	●	●	●	●	●
	Human Detect Sensor	Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.	×	×	×	×	○	○	○ <sup>(1)</sup>	○ <sup>(1)</sup>	○ <sup>(1)</sup>	○	×	×	×
EASY Installation & Service	Program upgrade <sup>(2)</sup>	All indoor units can be upgraded on outdoor unit of the same system, more easy program upgrade.	●	●	●	●	●	●	●	●	●	●	●	●	●
	Long distance air delivery	Provides adequate airflow and capacity under high ceiling conditions	×	×	×	×	●3.5m	●3m ○ 4.5m	×	×	×	×	×	×	×
	High-lift drain pump	Facilitates condensation draining from the indoor unit	●	●	●	○ <sup>(3)</sup>	●	●	●	●	●	○	×	●	●
	Water level switch	When the drain pipe is blocked or the drain pipe is poor, the water level switch is turned off, and there is no need to worry about overflowing the ceiling.	●	●	●	○	●	●	●	●	●	○	×	●	●
	Ceiling anti-dirt setting	The air discharge is specially designed to prevent air blowing against the ceiling to prevent ceiling dirty	●	●	●	×	●	●	×	×	×	×	×	×	×
	Air baffle fittings for irregular rooms	Some air discharge ports can be blocked with air baffle to optimize air distribution in irregular shaped rooms	×	×	×	×	●	●	×	×	×	×	×	×	×
	2-core non-polarity communication wiring	Simplifies installation and reduces wiring failures	●	●	●	●	●	●	●	●	●	●	●	●	●
	Long communication wiring	Communication wiring up to 1200m makes installation more flexible	●	●	●	●	●	●	●	●	●	●	●	●	●
	3 digit 7-segment display	3 digit 7-segment display can display more parameters and error information	●	●	●	●	●	●	●	●	●	●	●	●	●
	Error codes are further refined	Simplifies maintenance by refined error code	●	●	●	●	●	●	●	●	●	●	●	●	●
EASY CONTROL	Timer	Timer can be set to start and stop operation anytime on a daily or weekly basis	●	●	●	●	●	●	●	●	●	●	●	●	●
	Infrared remote control	Infrared remote control with LCD to remotely control your indoor unit	○	○	○	○	○	○	○	○	○	○	○	○	○
	Wired remote control	Wired remote control to remotely control your indoor unit	●	●	●	●	●	●	●	●	●	●	●	●	●
	Group control	Up to 16 indoor units can be in a group control system	●	●	●	●	●	●	●	●	●	●	●	●	●
	Centralized control	Centralized control to control several indoor units from one single point	●	●	●	●	●	●	●	●	●	●	●	●	●
	Auto-restart	The unit restarts automatically at the original settings after power failure	●	●	●	●	●	●	●	●	●	●	●	●	●
	°C/°F setting	Temperature unit °C or °F can be set according to your usage habits	●	●	●	●	●	●	●	●	●	●	●	●	●
	Long-distance on/off function	Long-distance startup or shutoff the system by weak electricity external devices	●	●	●	●	●	●	●	●	●	●	●	●	●
EXTENDED FUNCTIONS	Humidifier connection	Additional expansion board can achieve third-party humidifier connection	×	×	×	○	○	○	○	○	○	○	○	×	×
	Dehumidifier connection	Additional expansion board can achieve third-party dehumidifier connection	×	×	×	○	○	○	○	○	○	○	○	×	×
	Electric heater connection	Additional expansion board can achieve third-party electric heater connection	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	Refrigerant leak sensor connection	Additional expansion board can achieve refrigerant leak sensor connection	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	CO2 sensor connection	Additional expansion board can achieve CO2 sensor connection	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	PM2.5 sensor connection	Additional expansion board can achieve PM2.5 sensor connection	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	Third-party controller connection	Third party controller can realize mode, fan speed and temperature control	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	Long-distance on/off function	Long-distance startup or shutoff the system by strong electricity external devices	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	Long-distance alarm function	Long-distance alarm when an error occurs	○ <sup>(4)</sup>	○ <sup>(4)</sup>	×	○	○	○	○	○	○	○	○	○	○
	Multiple protections	Multiple protections make the unit run more reliably	●	●	●	●	●	●	●	●	●	●	●	●	●

Note:

- (1). Use the display box which is equipped with a human detect sensor.
- (2). The program upgrade function needs to be implemented through Bluetooth Module or Data Cloud Gateway. The Bluetooth Module and Data Cloud Gateway needs to be purchased separately.
- (3). Only when the unit is installed on the ceiling.
- (4). To achieve these functions for the One-Way Cassette unit, you need to purchase function expansion modules and install them locally.



Free drainage



Quiet operation



High-lift drain pump



## One-Way Cassette



## COMFORT

### Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.



Digital display

### Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



Buzzer

### Quiet Operation

By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 22dB(A), creating a quieter and more comfortable environment



## HEALTH

### Automatic anti-condensation

The One-way Cassette can automatically enter and exit the anti-condensation mode by detecting its own operation data; In the anti-condensation mode, the machine can change the outlet angle of the guide vane intermittently to prevent the local temperature difference of the guide panel from being too large and avoid the occurrence of condensation.



### 0.5°C/1°C Setting Temperature Adjustment

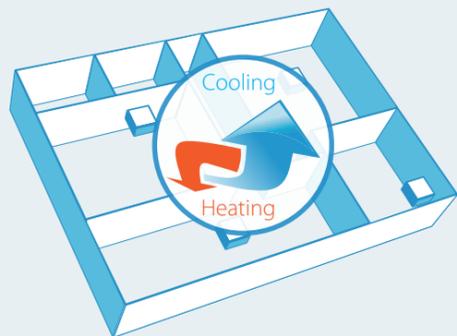
Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



## WIDER APPLICATION

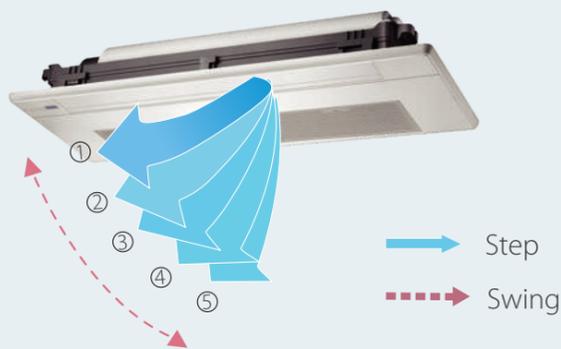
### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



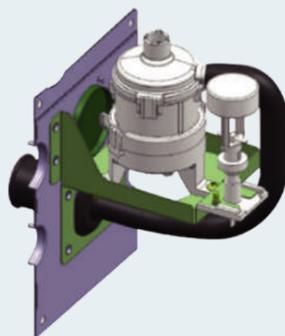
### Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs. Air supply angle 25-80°.



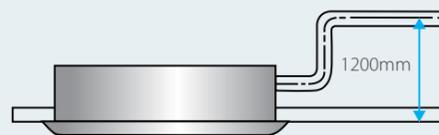
### Digital feedback DC water pump

Digital feedback DC water pump: actively sense the pump speed and water flow to determine whether there is jamming attenuation or damage, and give early warning to avoid water leakage.



### High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



-  Free drainage
-  Quiet operation
-  High-lift drain pump

## New One-Way Cassette



## COMFORT

### Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.



### Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



### Quiet Operation

By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 23dB(A), creating a quieter and more comfortable environment



## HEALTH

### Automatic anti-condensation

The One-way Cassette can automatically enter and exit the anti-condensation mode by detecting its own operation data; In the anti-condensation mode, the machine can change the outlet angle of the guide vane intermittently to prevent the local temperature difference of the guide panel from being too large and avoid the occurrence of condensation.



### 0.5°C/1°C Setting Temperature Adjustment

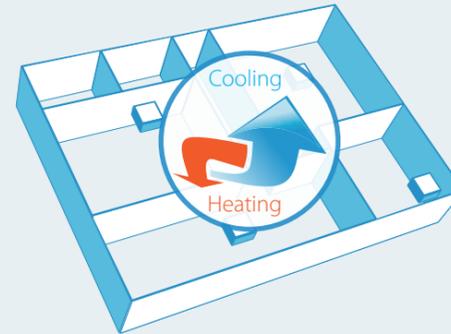
Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



## FEATURES

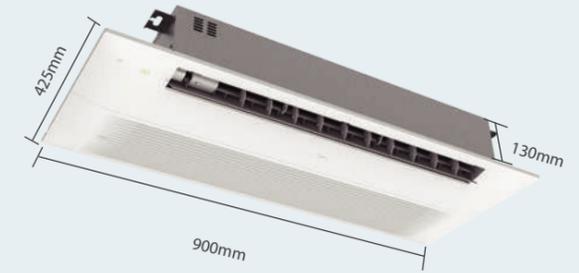
### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



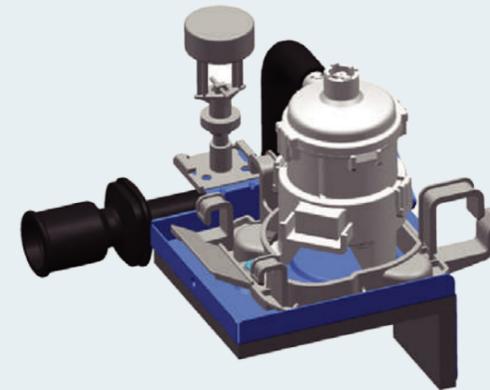
### Ultra-thin Body Design

Ultra-thin body design, the body height of the whole series is only 130mm, greatly saving space and more flexible installation.



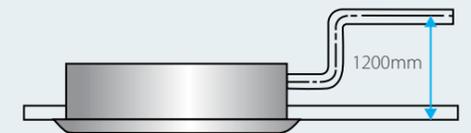
### Digital feedback DC water pump

Digital feedback DC water pump: actively sense the pump speed and water flow to determine whether there is jamming attenuation or damage, and give early warning to avoid water leakage.



### High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.





Free drainage



Quiet operation



High-lift drain pump



## Two-Way Cassette



## COMFORT

### Digital Display On/Off

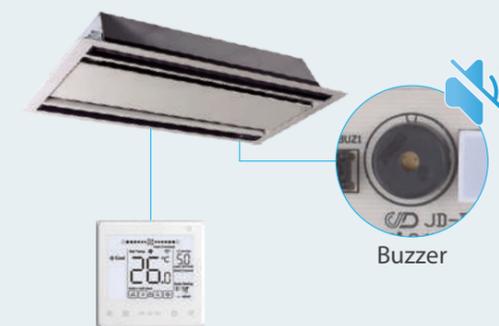
Indoor unit displays can be shut off at night, creating a better environment for rest.



Digital display

### Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



Buzzer

### Quiet Operation

The fan motor and water pump are DC power supply, which is more energy-saving and silent than AC power supply, creating a more quiet and comfortable environment



Fan Motor



Drain Pump

## HEALTH

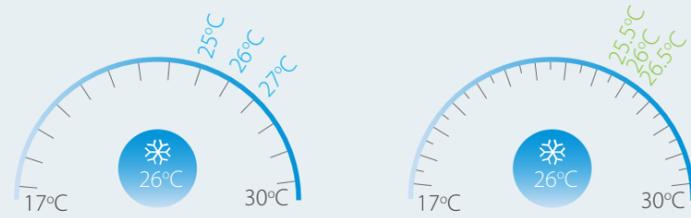
### Automatic anti-condensation

The Two-way Cassette can automatically enter and exit the anti-condensation mode by detecting its own operation data; In the anti-condensation mode, the machine can change the outlet angle of the guide vane intermittently to prevent the local temperature difference of the guide panel from being too large and avoid the occurrence of condensation.



### 0.5°C/1°C Setting Temperature Adjustment

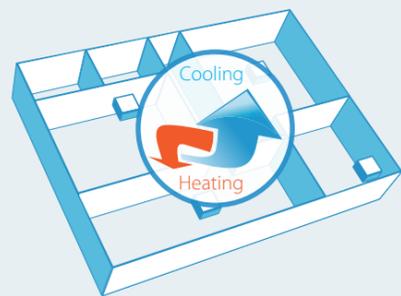
Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



### WIDER APPLICATION

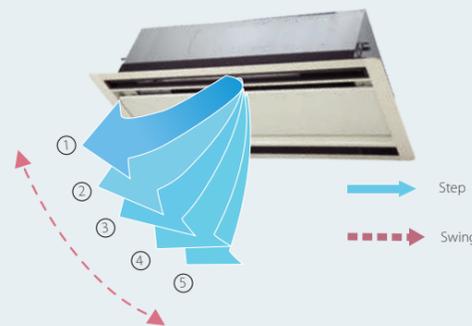
#### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



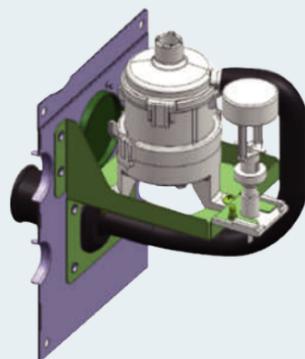
#### Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs. Air supply angle 35-65 °.



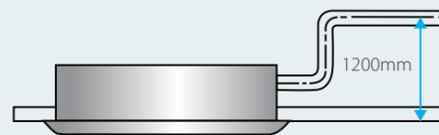
#### Digital feedback DC water pump

Digital feedback DC water pump: actively sense the pump speed and water flow to determine whether there is jamming attenuation or damage, and give early warning to avoid water leakage.



#### High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



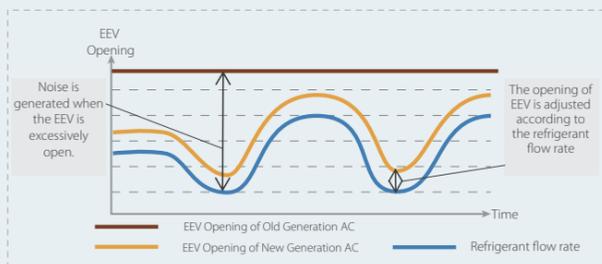
- Compact design
- 360° airflow
- High ceiling installation
- Individual louver control
- Healthy air supply

## Compact Four-Way Cassette

## COMFORT

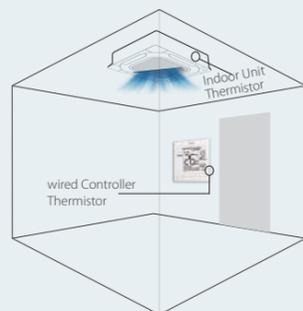
### EEV automatic adjustment

When in heating standby mode, the indoor unit automatically adjusts the EEV opening according to the load to eliminate noise of refrigerant flowing.



### Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit.



### Human Detect Sensor\*

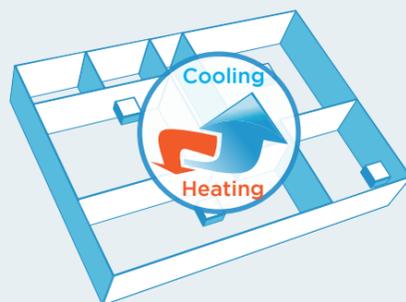
Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.



\*This function is available as a customization option for V8 Compact Four Way Cassette.

### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



## AIR FLOW

### 360° Airflow

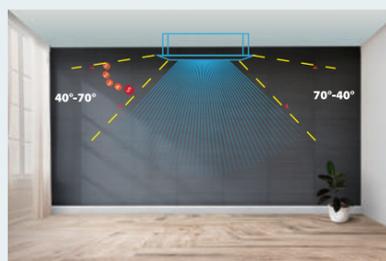
New design, round airflow path ensures uniform airflow and temperature distribution.



The continuous air supply port air supply area increases by 20%

### Multiple Steps Vertical Swing

The Compact Four-way Cassette unit has a wide range of airflow angles from 40° to 70° and is equipped with a 5-step louver control and auto swing mode to better meet the needs of different customers



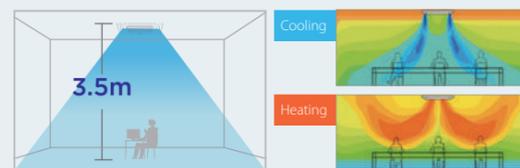
### 7 Fan Speeds

7 indoor fan speed options to meet the needs of different indoor conditions.



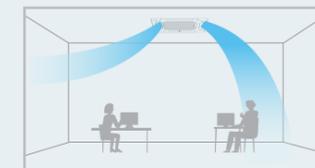
### Long Distance Air Delivery

The Compact Four-way Cassette has an additional 30Pa static pressure for long airflow delivery and is capable of being used in spaces up to 3.5m in floor height.



### Individual Louver Control

The Individual louver control can control the motors separately, making it possible to control all four louvers independently.



### Soft Wind Mode

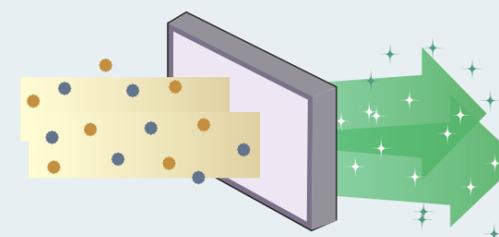
Supplies air against the ceiling to create windless environment.



## HEALTH

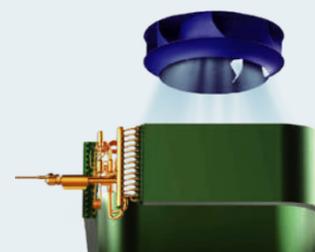
### Optional F6-class Air Filter

The Compact Four-way Cassette supports 30Pa external static pressure for the F6-class filter installation. Filtering effect of the F6-class filter reaches up to 80% against particles (particle size > 1µm), creating a cleaner living environment.



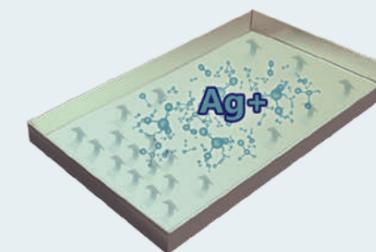
### Mildew proof of heat exchanger

When the indoor unit is turned off in cooling mode, the fan is still on, and dry the heat exchanger to avoid mold on the heat exchanger.



### Silver Ions drain pan (optional)

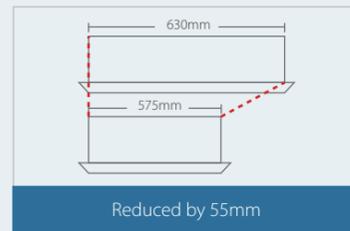
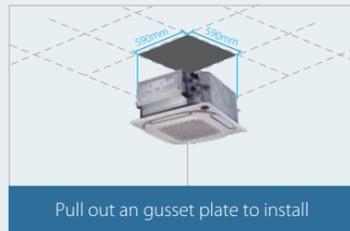
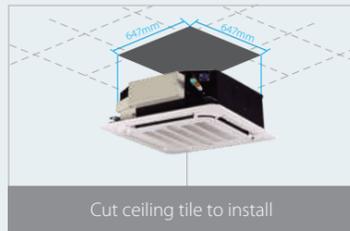
Slow-released nano-silver ions can keep the drain pan free of mold for a long time.



# EASY INSTALLATION

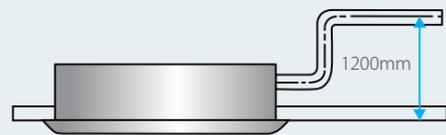
## Compact and stylish design

New Compact Four-way Cassette panel size is fit into the ceiling tile(620mm × 620mm), making installation easier.



## High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



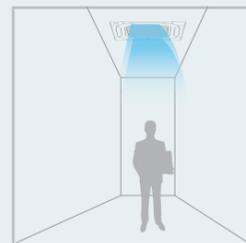
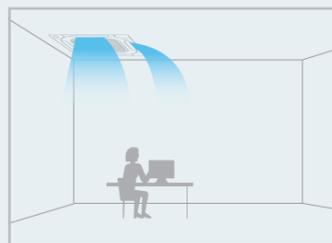
## Water level switch

When the drain pipe is blocked or the drain pipe is poor, the water level switch is turned off, and there is no need to worry about overflowing the ceiling.



## Air baffle fittings for irregular rooms

Some air discharge ports can be blocked with air baffle to optimize air distribution in irregular shaped rooms. Air outlets can be blocked with accessories, which can be found in the packing material.



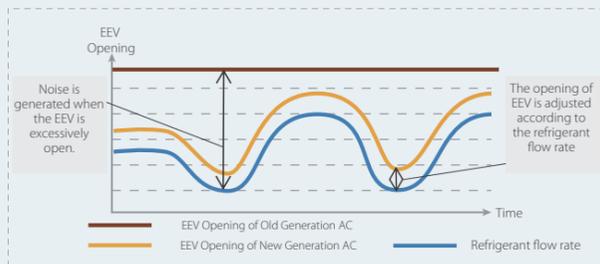
# Four-Way Cassette



## COMFORT

### EEV automatic adjustment

When in heating standby mode, the indoor unit automatically adjusts the EEV opening according to the load to eliminate noise of refrigerant flowing.



### Human Detect Sensor\*

Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.



The indoor unit automatically runs when detecting human body

The indoor unit automatically stops when detecting absence

\*This function is available as a customization option for V8 Four Way Cassette.

## AIR FLOW

### 360° Airflow

New design, round airflow path ensures uniform airflow and temperature distribution.



The continuous air supply port air supply area increases by 20%

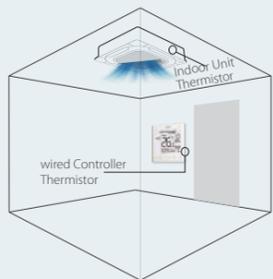
### 7 Fan Speeds

7 indoor fan speed options to meet the needs of different indoor conditions.



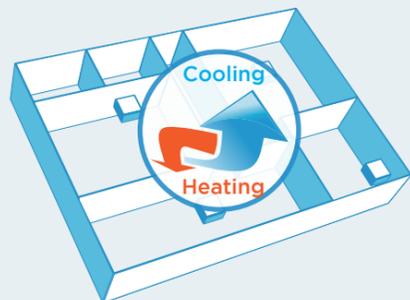
### Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit



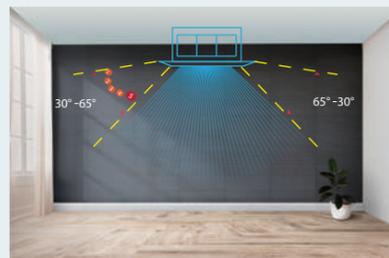
### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



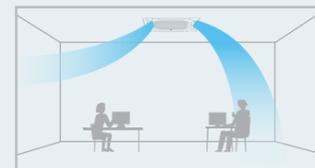
### Multiple Steps Vertical Swing

The Four-way Cassette unit has a wide range of airflow angles from 30° to 65° and is equipped with a 5-step louver control and auto swing mode to better meet the needs of different customers



### Individual Louver Control

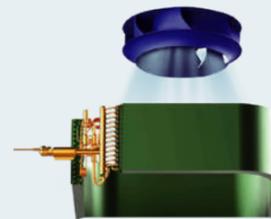
The Individual louver control can control the motors separately, making it possible to control all four louvers independently.



## HEALTH

### Mildew proof of heat exchanger

When the indoor unit is turned off in cooling mode, the fan is still on, and dry the heat exchanger to avoid mold on the heat exchanger.



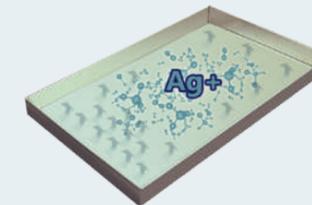
### Soft Wind Mode

Supplies air against the ceiling to create windless environment.



### Silver Ions drain pan (optional)

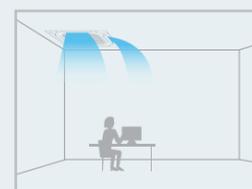
Slow-released nano-silver ions can keep the drain pan free of mold for a long time.



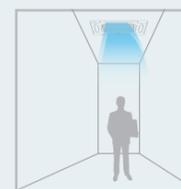
## EASY INSTALLATION

### Air baffle fittings for irregular rooms

Some air discharge ports can be blocked with air baffle to optimize air distribution in irregular shaped rooms. Air outlets can be blocked with accessories, which can be found in the packing material.



At the corner



In the narrow room

### High-lift drain pump

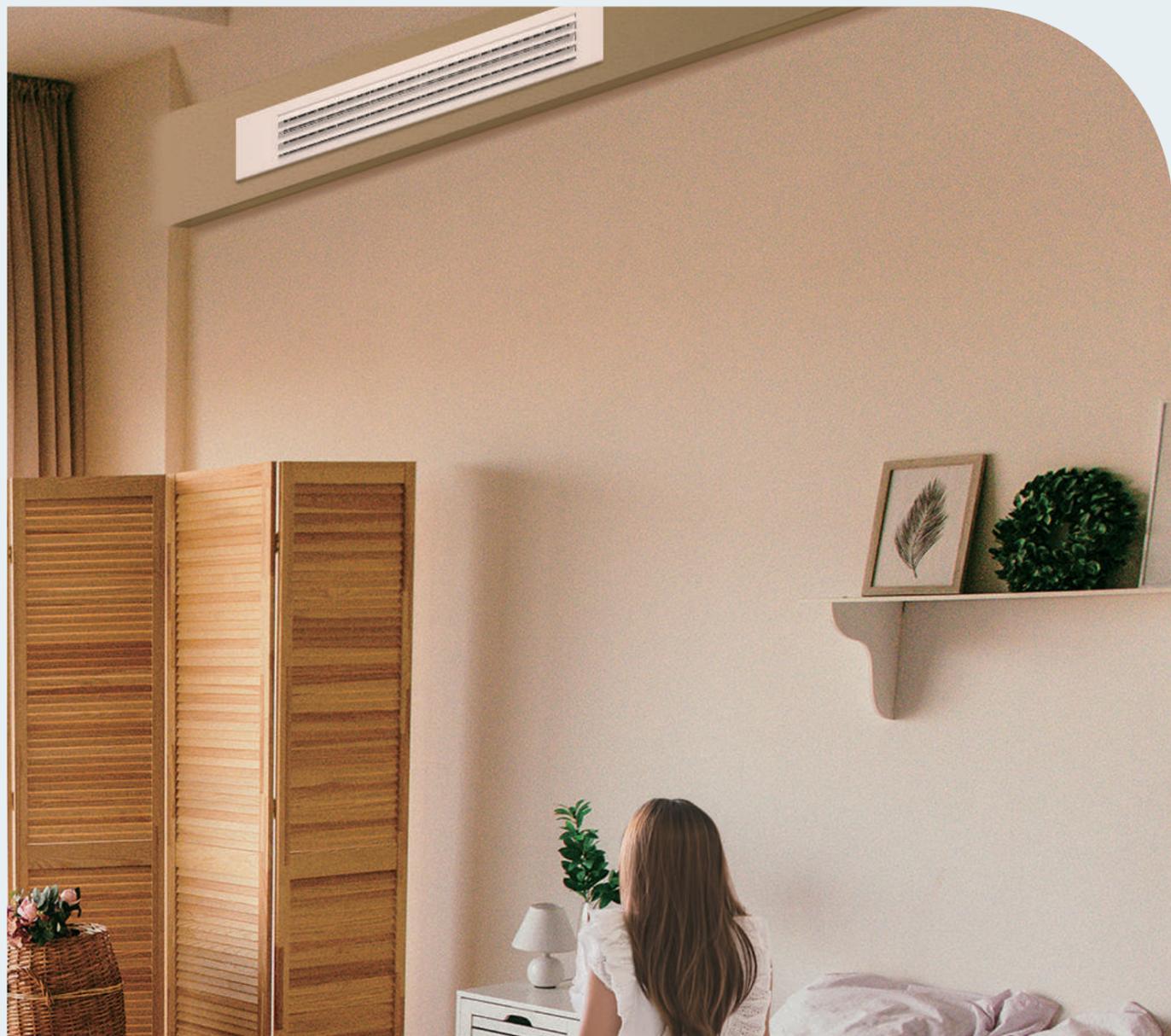
A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



### Water level switch

When the drain pipe is blocked or the drain pipe is poor, the water level switch is turned off, and there is no need to worry about overflowing the ceiling.





-   
 Ultra-thin height
-   
 Quiet operation
-   
 Healthy air supply
-   
 Constant air volume



## Arc Duct



## COMFORT

### Quiet Operation

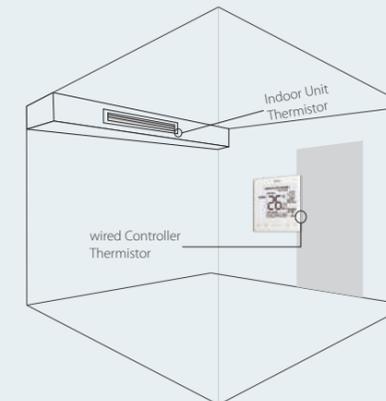
By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 22dB(A), creating a quieter and more comfortable environment.



- Fan motor noise reduction
- Air duct noise reduction
- Heat exchanger noise reduction

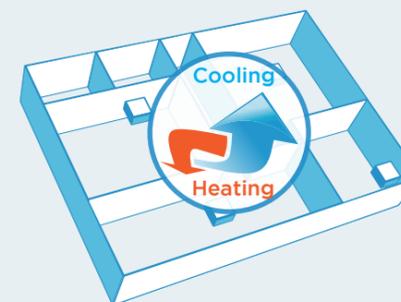
### Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit



### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



## AIR FLOW

### Constant Airflow

Constant airflow technology can realize the airflow output is not affected by installation conditions and use conditions, ensuring the constant airflow supply.



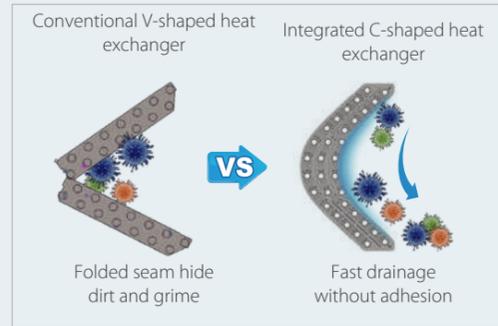
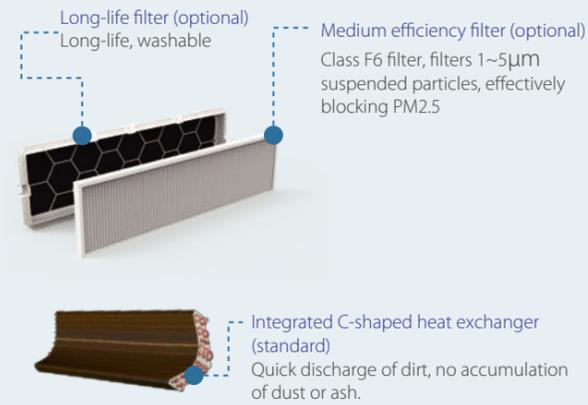
\*Data measured in the UX lab of ZERO



# HEALTH

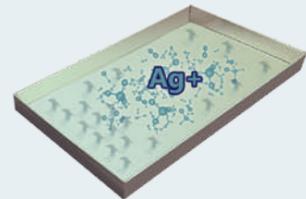
## Healthy Air Supply

The Arc Duct unit adopts an integrated C-shaped heat exchanger that allows for fast drainage and no dust or ash accumulation. The optional long-life filter, medium-life filter further enhance the air quality of the air supply and create a healthy environment.



## Silver Ions drain pan (optional)

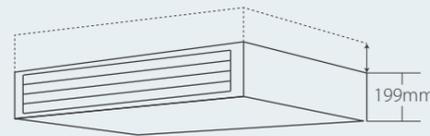
Slow-released nano-silver ions can keep the drain pan free of mold for a long time.



# EASY INSTALLATION

## Ultra-thin Body

Ultra-thin body design, the body height of the whole series is only 199mm, greatly saving space and more flexible installation.



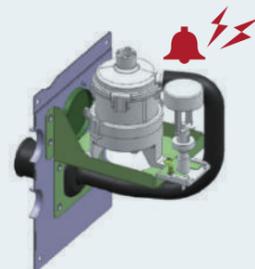
## High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



## Fault Feedback

Early warning of drain pump fault.



- Compact design
- Healthy air supply
- Constant air volume
- Flexible installation



# Medium Static Pressure Duct

# COMFORT

## Quiet Operation

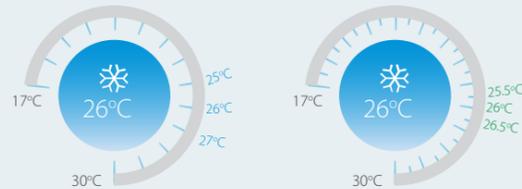
By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 22dB(A), creating a quieter and more comfortable environment.



22dB(A)

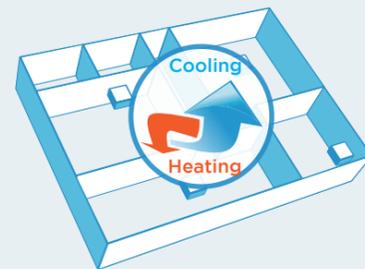
## 0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



## Auto Cooling-heating Changeover

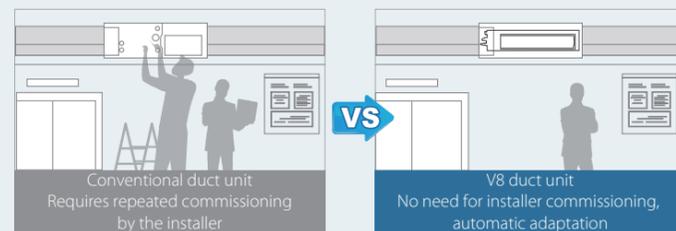
Automatically selects cooling or heating mode to achieve the set temperature.



# AIR FLOW

## Adaptive Duct Length and Filter Resistance

By digital fan motor and a specially designed independent drive chip enables precise control and output on demand. It can automatically adapt to duct lengths from 10 to 160 Pa equivalent static pressure without intervention from the installer.



# HEALTH

## Optional High Efficiency HEPA Filter\*

A static pressure of up to 160 Pa enables the application of medical-grade HEPA filters, and even small capacity models can be equipped with high-efficiency filters, efficiently filtering fine particles of 0.5 microns with an efficiency of over 99%.

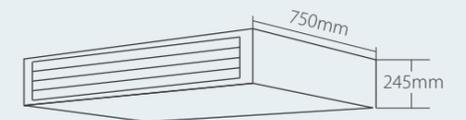
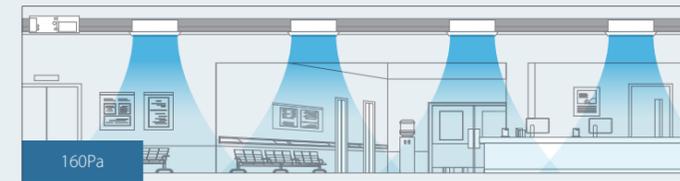


\* This function is available as a customization option.

# EASY INSTALLATION

## Thin Body with High ESP

All models have a static pressure of 160 Pa and a thickness of only 245 mm. The high static pressure allows air to be delivered over longer distances without loss of cooling and heating effect. Especially suitable for long and narrow spaces.



## 3 Way flexible installation\*

It is possible to install and connect the outdoor unit in 3 different ways for Duct, providing flexibility to accommodate a wide range of room designs.



\*Hanging the Wall and Against the Wall are available as customization options.

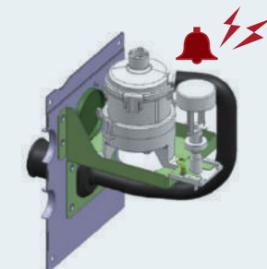
## High-lift drain pump

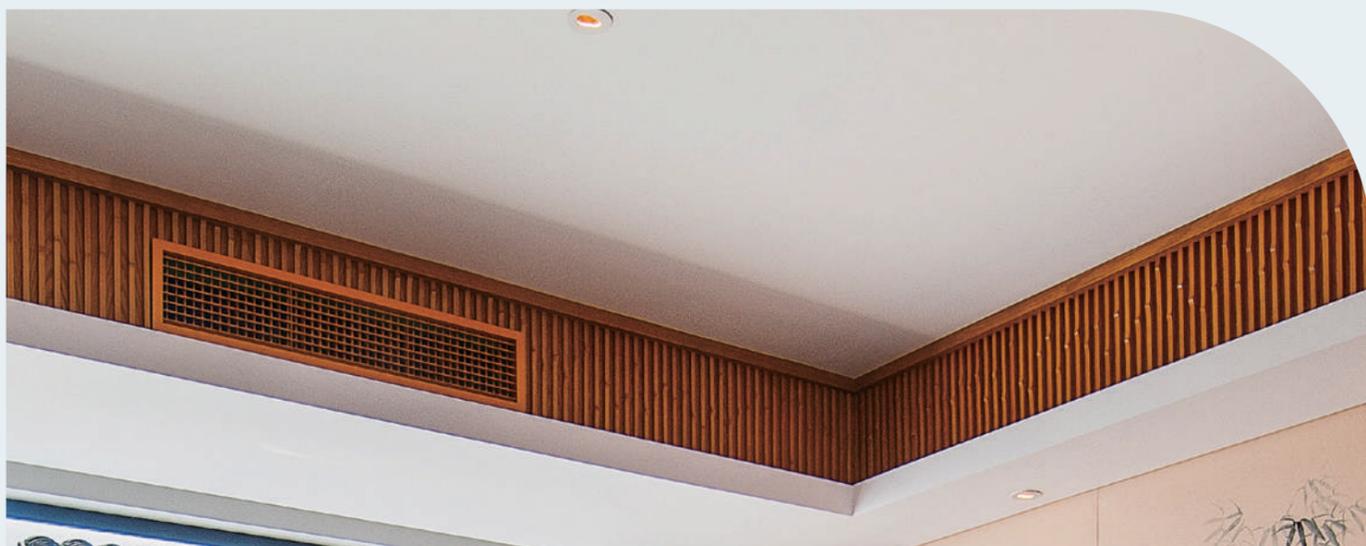
A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



## Fault Feedback

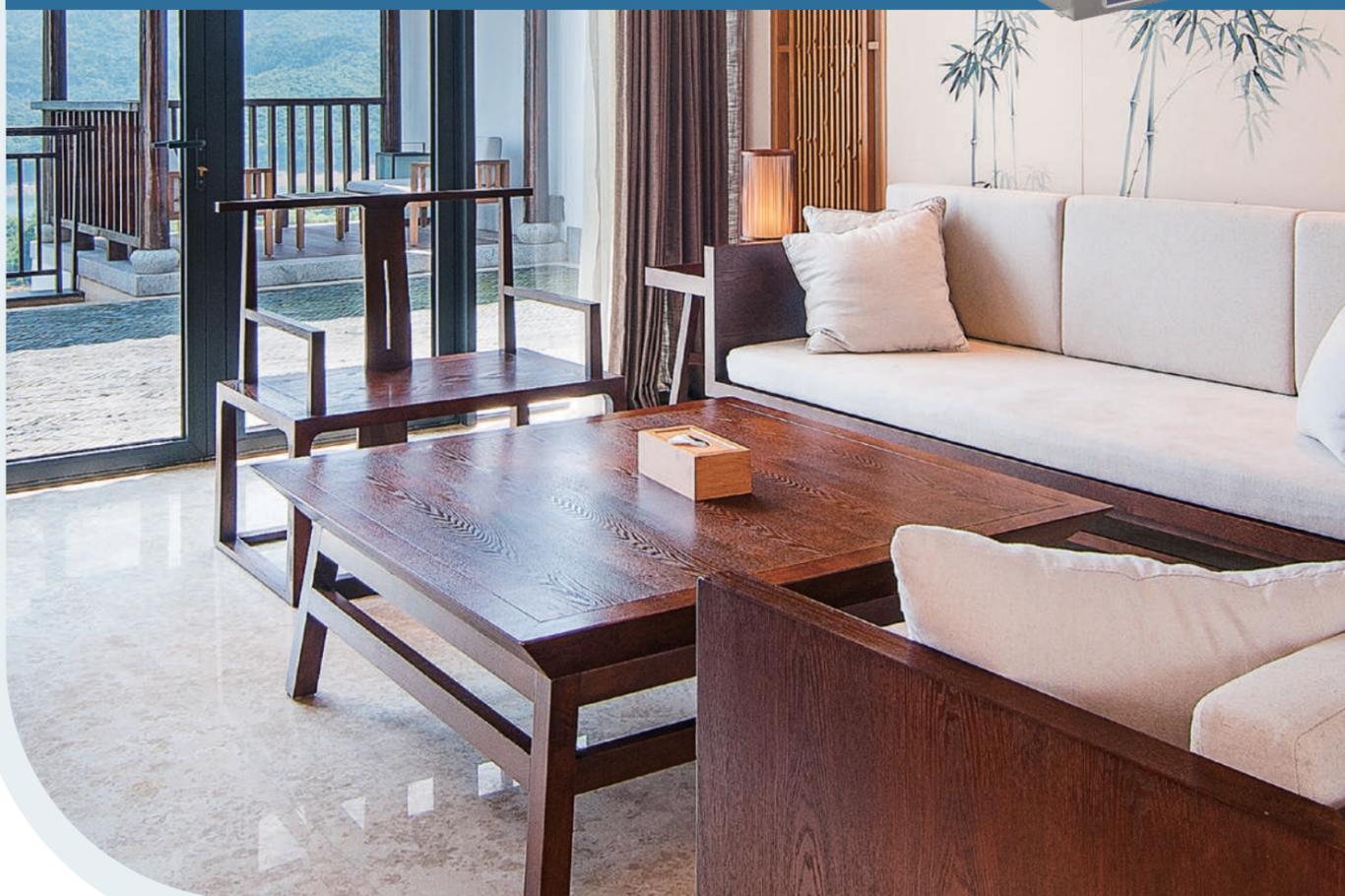
Early warning of drain pump fault.





- Compact design
- Healthy air supply
- Constant air volume
- Flexible installation

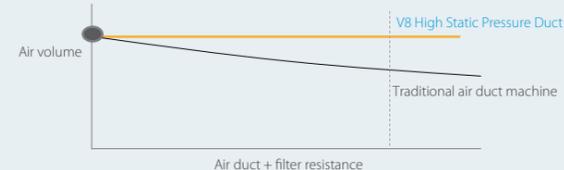
## High Static Pressure Duct



## AIR FLOW

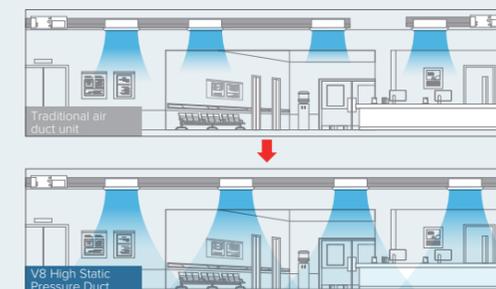
### Constant Airflow Technology

Through the independent constant air volume digital fan technology, the air volume is independently detected and adjusted to realize constant air volume and no attenuation in the whole life.



### Ultra-high static pressure

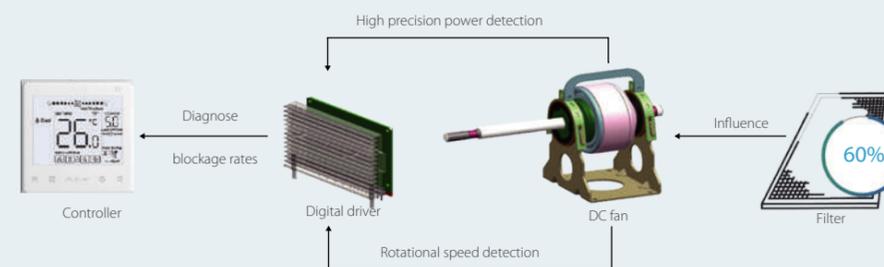
The static pressure can reach 250Pa(5.6-16kW) or 400Pa(20-56kW), so the air supply distance is longer. Especially in long and narrow spaces such as corridors, it can reduce the number of units used and save investment costs..



## HEALTH

### Visualization of dirty blockage rate

Built-in self-learning model can detect the real-time resistance of the filter screen and restore the true state of the filter screen. 10 levels blockage rates can be accurately identified and displayed on the controller, reminding the user to clean the filter in time.



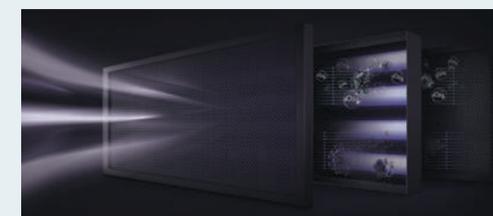
### Innovative Puro-air Kit

Protectors of health and safety

From Germany -OSRAM quality UV light source

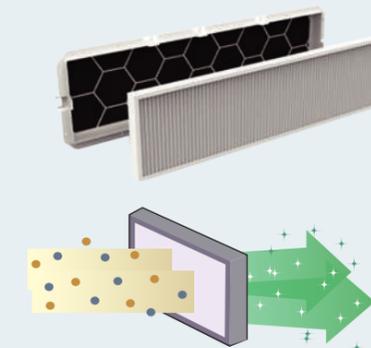
**Ozone-Free**  
**UV leakage-Free**

\*The indoor unit needs to be customized in order to use the Puro-air Kit.



### Efficiency filter screen

Optional F7 or H13-class air filter, Equipped with H13 HEPA high-efficiency filter screen, it can filter 0.5 micron extremely fine particles, and the primary filtration efficiency is more than 99.95%.

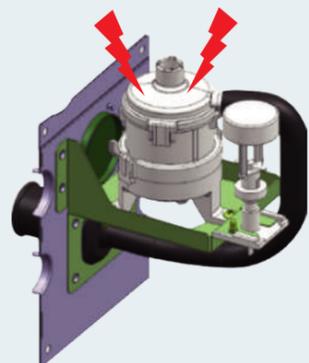


## WIDER APPLICATION

### Intelligent leak feedback

Digital feedback DC water pump, Take the initiative to sense the pump speed and water flow, judge whether there is jamming attenuation or damage, and give early warning to avoid water leakage

Integrated drainage pipe design reduces the sealing points of traditional design from 6 to 2, reduces breakpoints and reduces leakage risks



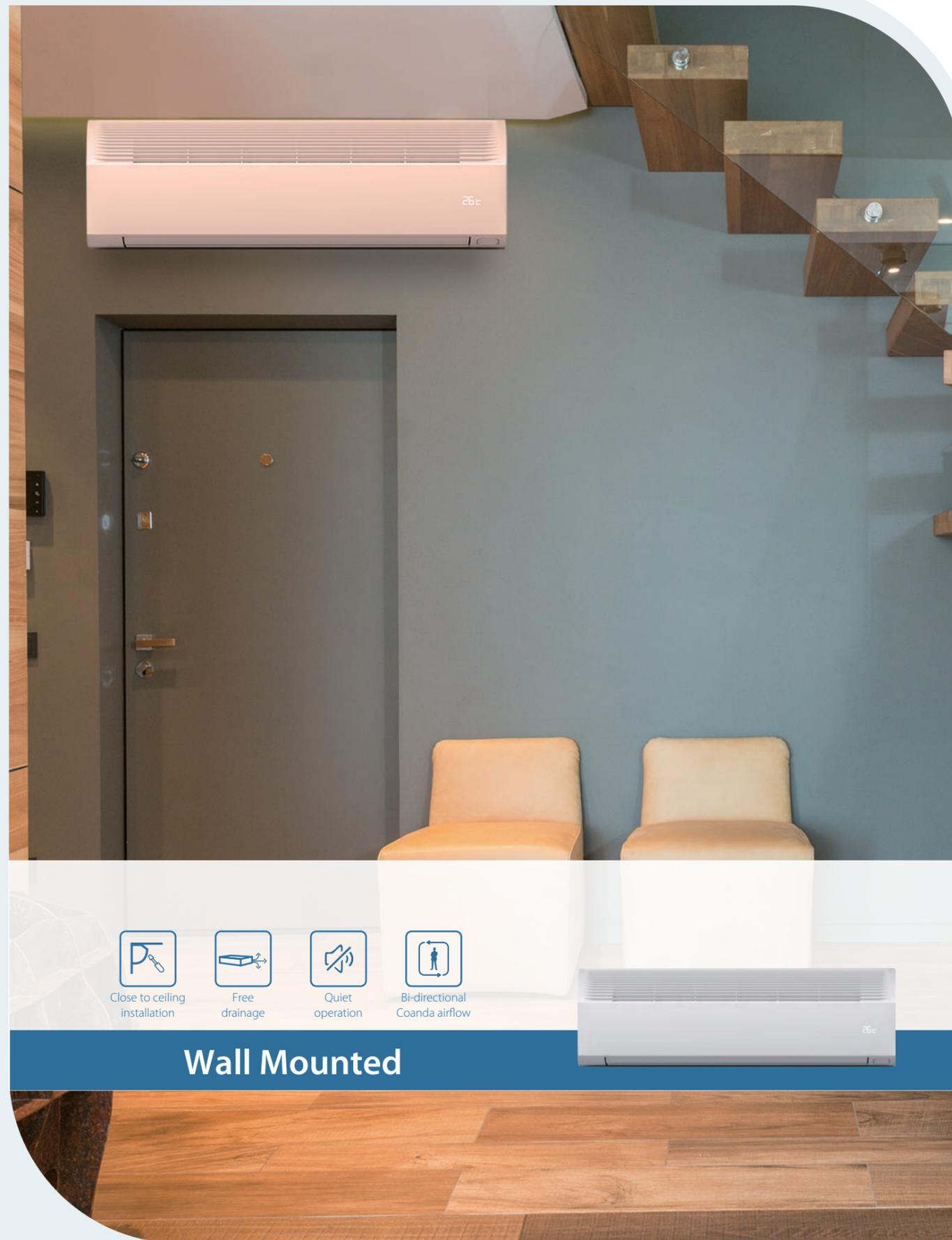
### Ultra-thin fuselage

For High static pressure duct(5.6-16kW), the fuselage thickness is only 299mm, the height required for ceiling installation is greatly reduced which leads to be able to cope with more installation situations.



### High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



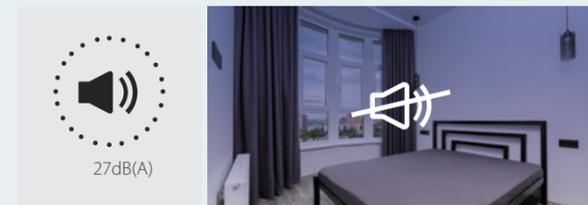
- Close to ceiling installation
- Free drainage
- Quiet operation
- Bi-directional Coanda airflow

## Wall Mounted

# COMFORT

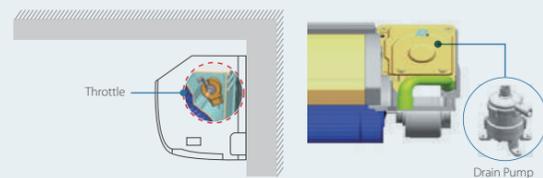
## Quiet Operation

The minimum noise level of Wall Mounted is as low as 27dB(A), idea for hotels and other noise-sensitive locations.



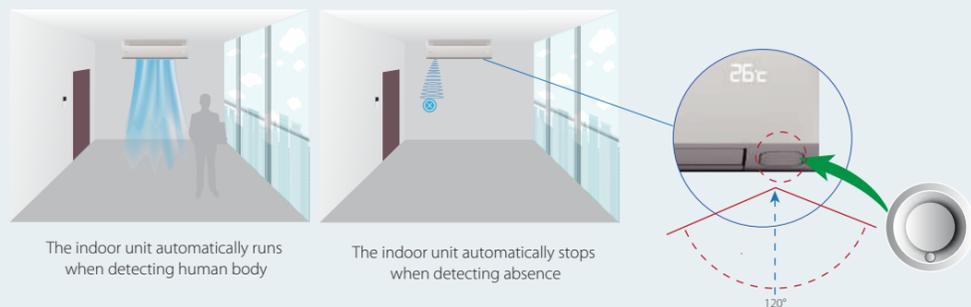
## Enclosed design

For Wall Mounted throttling parts and drain pumps adopt closed design, reducing noise.



## Human Detect Sensor\*

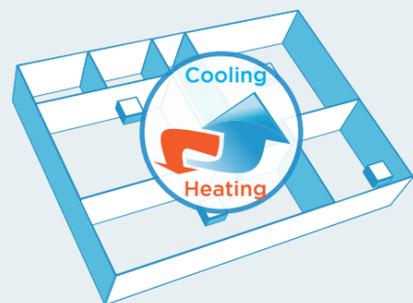
Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.



\*This function is available as a customization option for V8 Wall Mounted.

## Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



## Sleep Mode

The smart sleep mode provides a comfortable sleep period and a refreshing wake up time.



\*Temperature on left is for reference.

# AIR FLOW

## 3D Air Flow\*

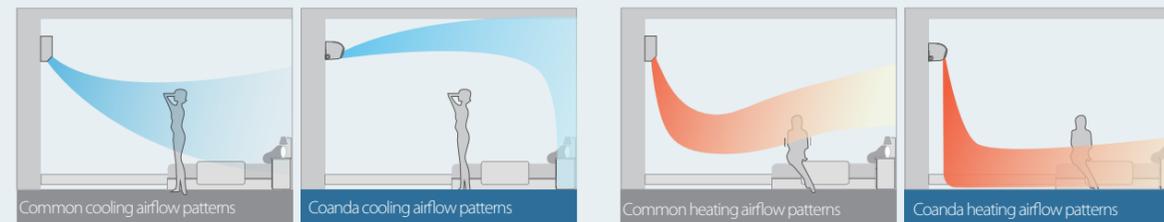
Possibility to select automatic vertical and horizontal moving of the air discharge louvre, for uniform air flow and temperature distribution.



\*Horizontal Swing function is available as a customization option for Wall Mounted.

## Bi-directional Coanda Airflow

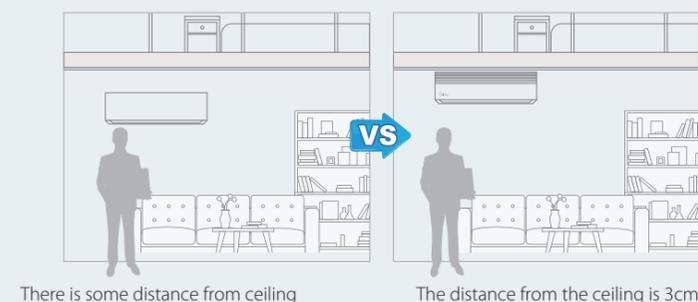
With bi-directional Coanda airflow delivery technology, the cold air does not blow directly on people and the hot air warms up evenly from the feet for better comfort.



# EASY INSTALLATION

## Ceiling Mounting

The Wall Mounted new heat exchanger is designed to meet the installation requirements close to the ceiling, and the minimum distance from the ceiling is 3cm.



## Free Drainage without Space Restrictions

The Wall Mounted can realize horizontal drainage, downward drainage, upward drainage, making installation more flexible.



## High-lift drain pump\*

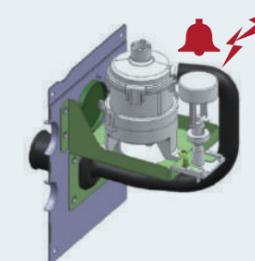
A drain pump with a 1200mm raise height is fitted as a customization option, simplifying installation of the drain piping.



\*The drain pump is available as a customization option.

## Fault Feedback

Early warning of drain pump fault.





Healthy air supply



Multi-functional Expansion



Flexible installation



## Floor Standing F3-F4-F5



## COMFORT

### Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.



Digital display

### Quiet Operation

The fan motor is DC power supply, which is more energy-saving and silent than AC power supply, creating a more quiet and comfortable environment



Fan Motor

### Buzzer Sound On/Off

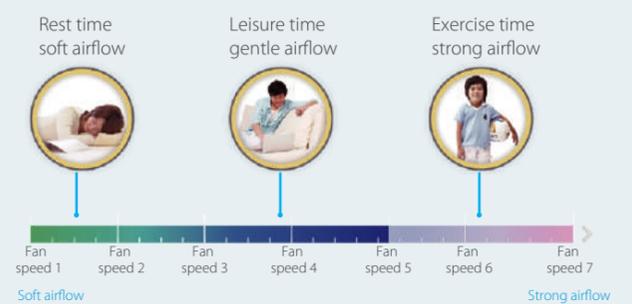
Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



Buzzer

### Multiple Fan Speeds

7 indoor fan speeds provide control flexibility to meet the needs of different indoor conditions.



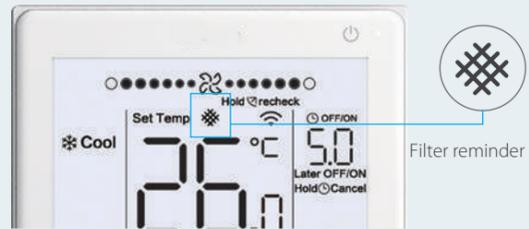
Soft airflow

Strong airflow

# HEALTH

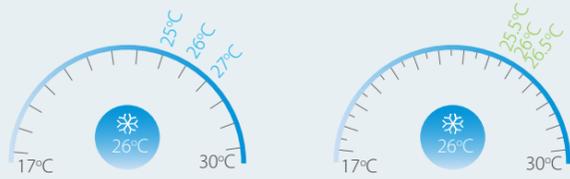
## Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



## 0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



# WIDER APPLICATION

## Multiple Appearance Options

The Floor Standing Unit has three appearance options to meet different installation requirement, the F3 (concealed) unit is designed to be concealed in walls while the F4 (front air intake) and F5 (underside air intake) offer a choice of air intake options.



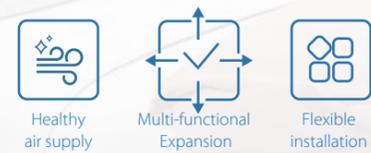
F3 (concealed)



F4 (front air intake)



F5 (underside air intake)



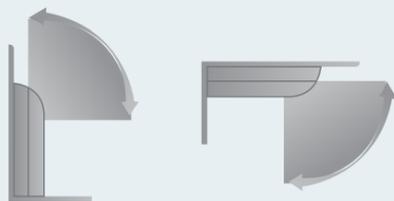
## Ceiling&Floor



## Feature

### Two Installation Options

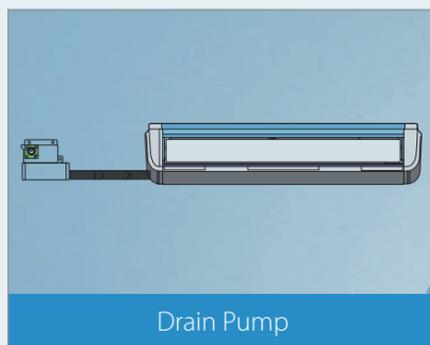
A sleek design suits installation either on the ceiling or floor, providing flexibility to accommodate a wide range of room designs.



The unit can be installed either horizontally on the ceiling or vertically against the wall.

### Quiet Operation

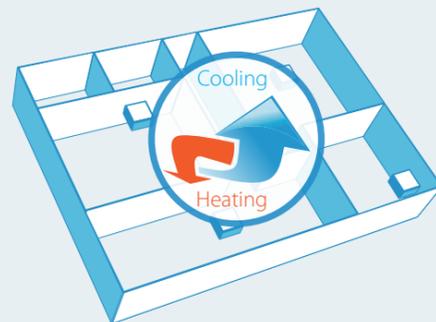
The fan motor and water pump\* are DC power supply, which is more energy-saving and silent than AC power supply, creating a more quiet and comfortable environment



\*External drain Pump is available as a customization option for unit

### Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.



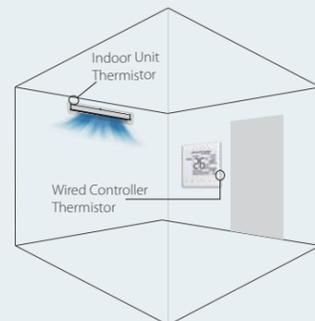
### Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs. Air supply angle 35-65°.



### Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit



-  Compact design
-  Healthy air supply
-  Constant air volume
-  Flexible installation



## Fresh Air Processing Unit



## AIR FLOW

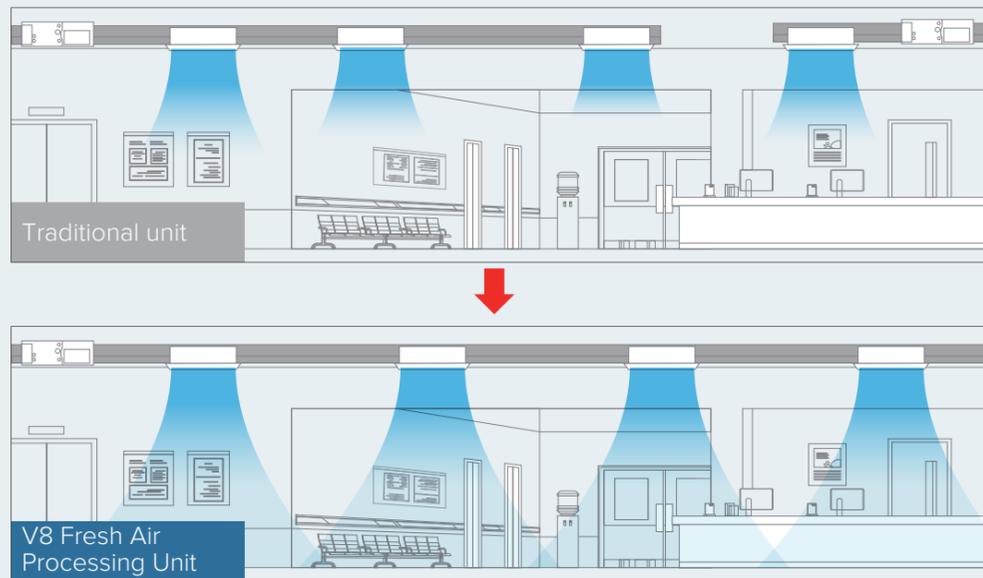
### Constant Airflow Technology

Through the independent constant air volume digital fan technology, the air volume is independently detected and adjusted to realize constant air volume and no attenuation in the whole life.



### Ultra-high static pressure

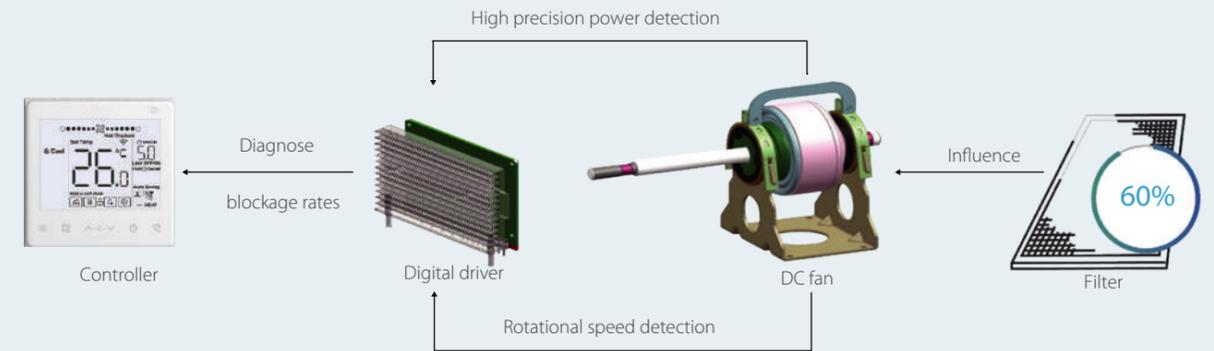
The static pressure can reach 400Pa(20-56kW), so the air supply distance is longer. Especially in long and narrow spaces such as corridors, it can reduce the number of units used and save investment costs.



## HEALTH

### Visualization of dirty blockage rate

Built-in self-learning model can detect the real-time resistance of the filter screen and restore the true state of the filter screen. 10 levels blockage rates can be accurately identified and displayed on the controller, reminding the user to clean the filter in time.



### Innovative Puro-air Kit

Protectors of health and safety

 From Germany -OSRAM quality UV light source

\*The indoor unit needs to be customized in order to use the Puro-air Kit.

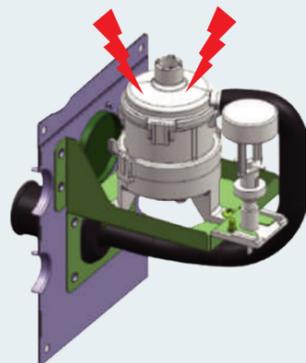


## WIDER APPLICATION

### Intelligent leak feedback

Digital feedback DC water pump, Take the initiative to sense the pump speed and water flow, judge whether there is jamming attenuation or damage, and give early warning to avoid water leakage

Integrated drainage pipe design reduces the sealing points of traditional design from 6 to 2, reduces breakpoints and reduces leakage risks



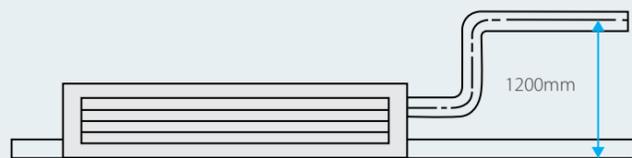
### Ultra-thin fuselage

20 -56 kW model, the fuselage thickness is only 550mm, the height required for ceiling installation is greatly reduced which leads to be able to cope with more installation situations.



### High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



Compact design



Healthy air supply



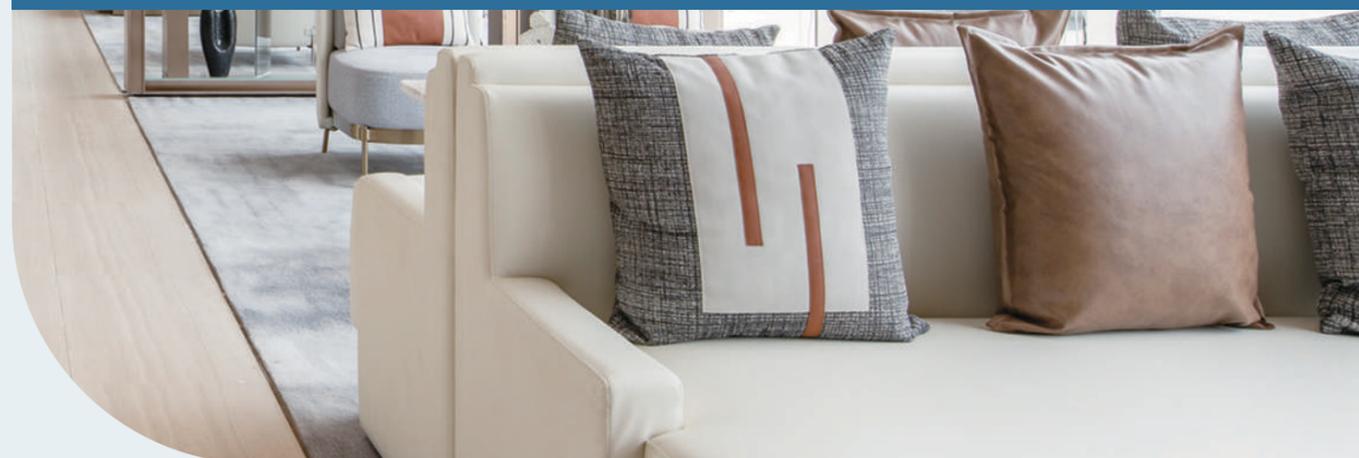
Constant air volume



Flexible installation



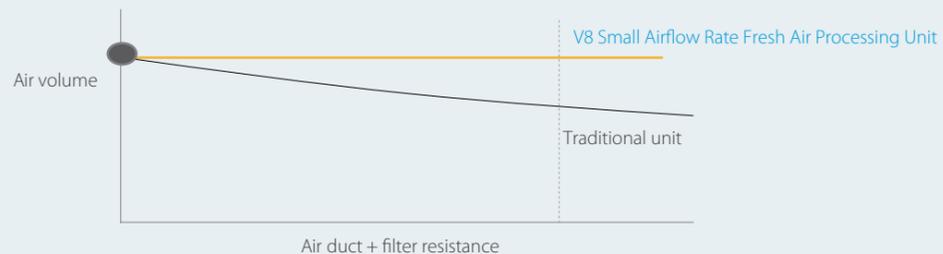
## Small Airflow Rate Fresh Air Processing



## AIR FLOW

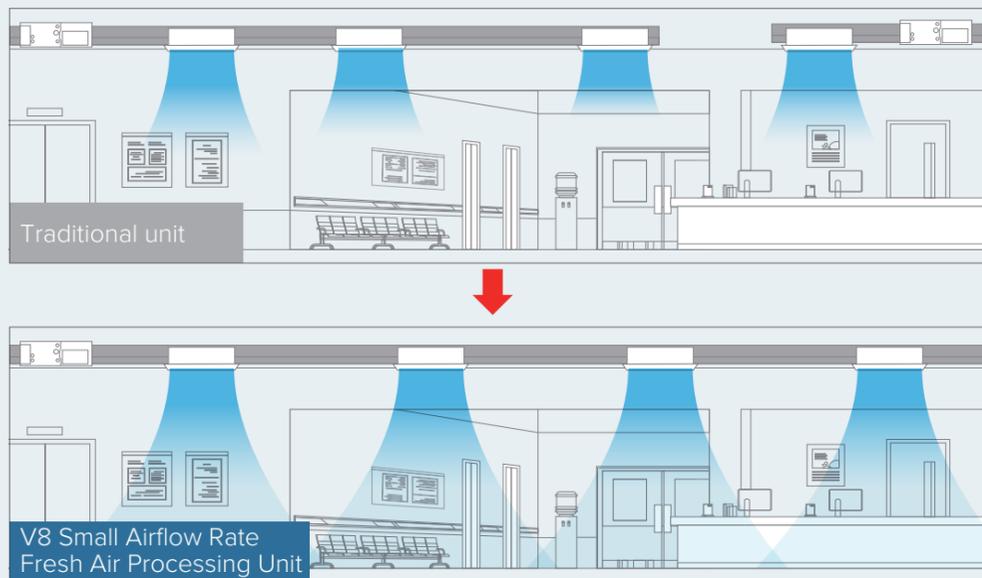
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### Ultra-high static pressure

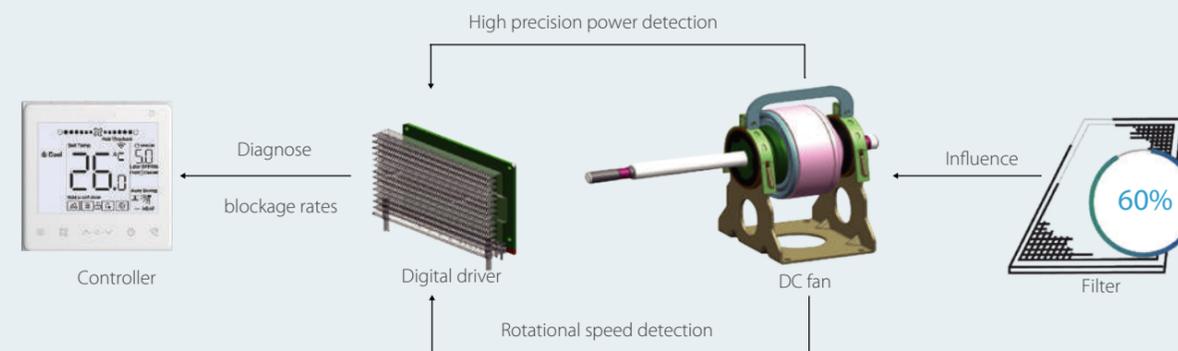
The static pressure can reach 300Pa(9-28kW), so the air supply distance is longer. Especially in long and narrow spaces such as corridors, it can reduce the number of units used and save investment costs..



## HEALTH

### Visualization of dirty blockage rate

Built-in self-learning model can detect the real-time resistance of the filter screen and restore the true state of the filter screen. 10 levels blockage rates can be accurately identified and displayed on the controller, reminding the user to clean the filter in time.

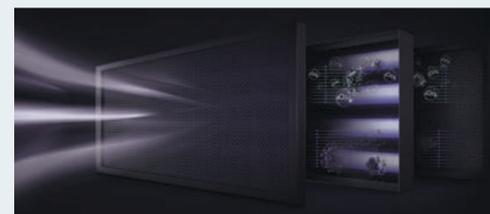


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\*The indoor unit needs to be customized in order to use the Puro-air Kit.

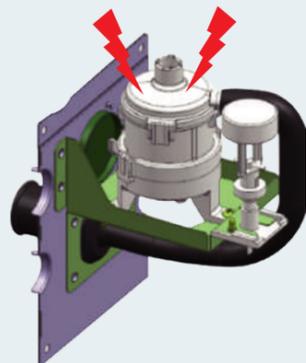


## WIDER APPLICATION

### Intelligent leak feedback

Digital feedback DC water pump, Take the initiative to sense the pump speed and water flow, judge whether there is jamming attenuation or damage, and give early warning to avoid water leakage

Integrated drainage pipe design reduces the sealing points of traditional design from 6 to 2, reduces breakpoints and reduces leakage risks



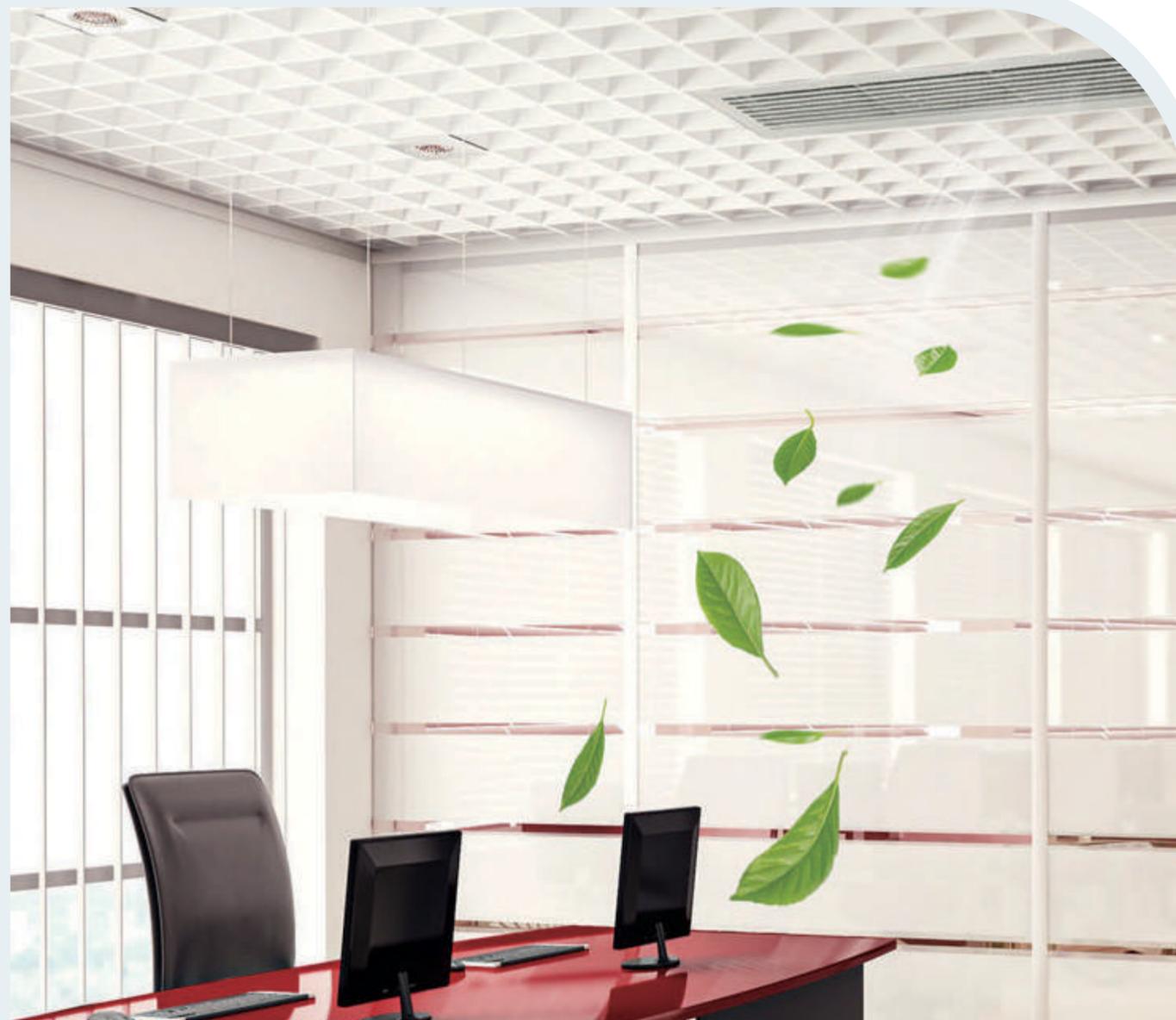
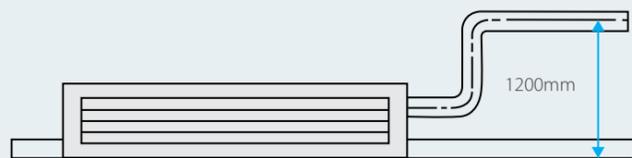
### Ultra-thin fuselage

9-28 kW model, the fuselage thickness is only 310mm, the height required for ceiling installation is greatly reduced which leads to be able to cope with more installation situations.



### High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



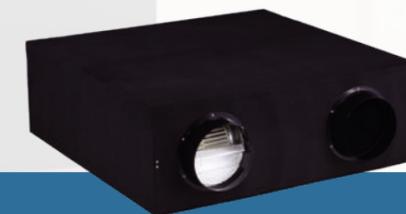
Compact design



Healthy air supply



Energy Saving



## V8 HRV

## Features

### Wide Capacity Range

The airflow is from 200m<sup>3</sup>/h to 2000m<sup>3</sup>/h which can meet the requirements of most scenarios.



200-400m<sup>3</sup>/h



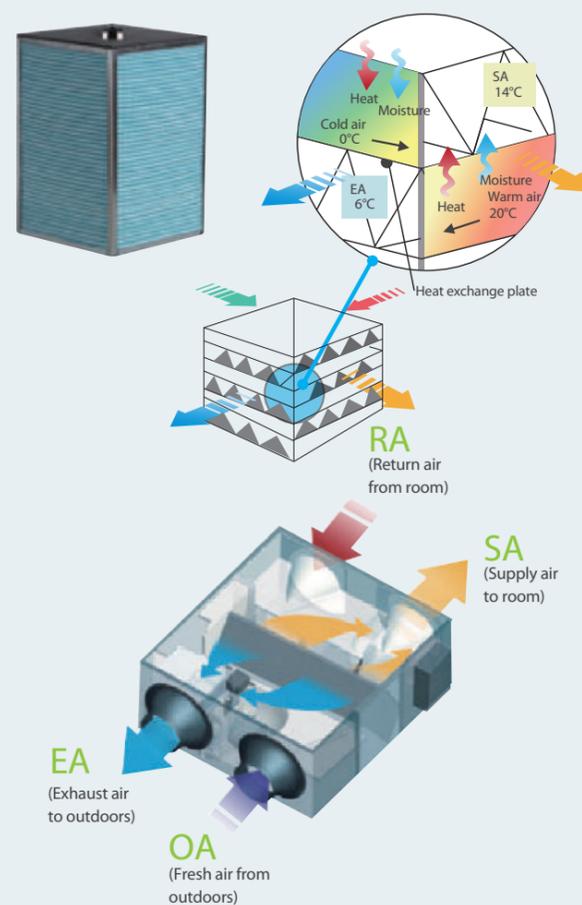
500-1000m<sup>3</sup>/h



1500-2000m<sup>3</sup>/h

### Energy Saving, Heat Recovery for Both Heat and Humidity

The heat recovery ventilator (HRV) can greatly reduce energy loss and room temperature fluctuations caused by the ventilation process. The ZERO HRV's strong performance is a result of the advanced technology incorporated into its design. The heat exchanger core is made of specially filter material which gives enhanced temperature and humidity control. It prevents energy being wasted by recovering waste heat from the outgoing air, thus offering much greater levels of efficiency, while improving comfort levels too.

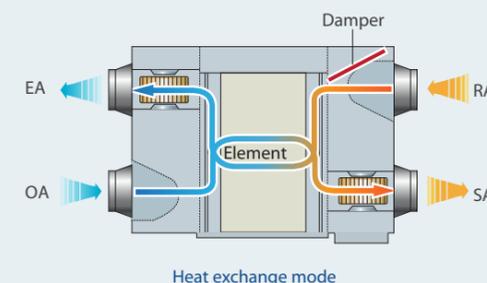


### Multiple Operation Modes

Multiple operation modes: Auto, Bypass, Heat recovery, Free cooling mode.

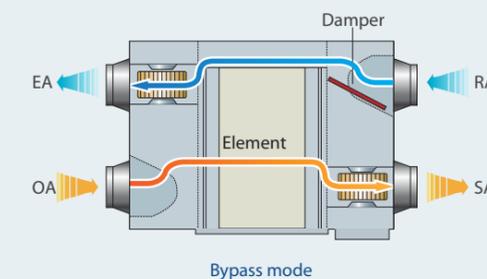
#### Heat exchange mode

The flows of incoming and outgoing air pass close to each other, allowing heat transfer between the two channels. During summer, incoming air is cooled by the indoor air being exhausted and in winter, incoming air is warmed.



#### Bypass mode

In mild climates or seasons, where temperature and humidity differences between indoors and outdoors are small, the HRV can work as a conventional ventilation fan. In standard bypass mode the supply and exhaust fans run at the same speed.

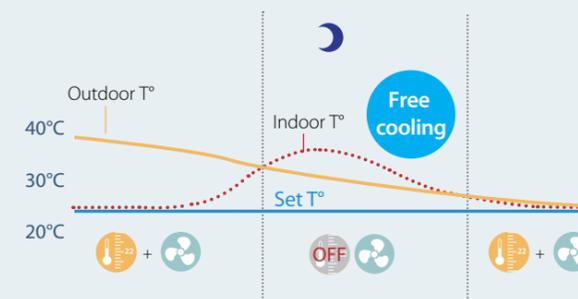


#### Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoors and indoors. Both fans are set to run at low speed.

#### Free Cooling Mode\*

Free cooling mode is only available for DC Series HRV. Free cooling operation is an energy saving function operating when outdoor ambient temperature is below indoor ambient temperature, it uses low temperature fresh air to cool down indoor temperature, reducing the running costs.



\*The function is only enabled when connected to the centralized control

### High Efficiency Filter

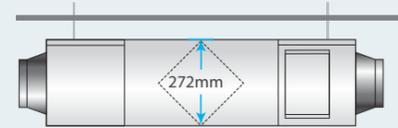
Standard Built-in G4-class dust filter, optional F7-class filter for air supply side and M5-class filter for exhaust air side in line with EU legislations can be customized.



F7-class filter



M5-class filter



### Easy Installation

Slim and compact design of units, making the installation more convenient.

### Wide Range of Controllers.

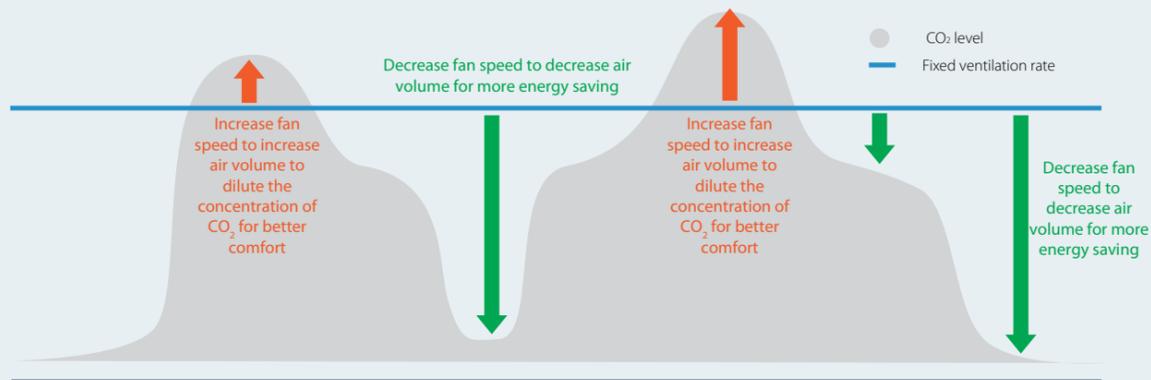
The HRV has its special wired controller ZTWDC3-86S2. It also can be centralized control with VRF system through centralized controller and network control with VRF system through ZERO gateways.



\*The centralized control will be available in December 2023.  
The gateway will be available in March 2024

### CO<sub>2</sub> Sensor Option

Enough fresh air is needed to create an enjoyable environment, but ventilating constantly is leading to energy waste. Therefore, an optional CO<sub>2</sub> sensor can be installed which switches off the ventilation system when there is enough fresh air in the room, thus saving energy.





# Specifications

One-Way Cassette

Two-Way Cassette

Compact Four-Way Cassette

Four-Way Cassette

Arc Duct

Medium Static Pressure Duct

High Static Pressure Duct

Wall Mounted

Floor Standing

Ceiling&Floo

Fresh Air Processing

Small Airflow Rate Fresh Air Processing

HRV

## Specifications

### One-Way Cassette

Model		ZTVM-ECS18BZ	ZTVM-ECS22BZ	ZTVM-ECS28BZ	ZTVM-ECS36BZ	ZTVM-ECS45BZ	ZTVM-ECS56BZ	ZTVM-ECS71BZ					
Power supply		1-phase, 220-240V, 50/60Hz											
Cooling <sup>1</sup>	Capacity	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1				
		kBut/h	6.1	7.5	9.6	12.3	15.4	19.1	24.2				
	Input	W	25	25	30	30	40	48	60				
Heating <sup>2</sup>	Capacity	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0				
		kBut/h	7.5	8.9	10.9	13.6	17.1	21.5	27.3				
	Input	W	25	25	30	30	40	48	60				
Airflow rate <sup>3</sup>	m <sup>3</sup> /h	380/355/330/300/286/263/240		460/440/410/380/355/330/300		693/662/638/600/556/510/476		792/763/728/688/643/589/549		933/873/815/749/689/637/592			
Sound pressure level <sup>4</sup>	dB(A)	30/28/27/26/25/24/22		37/36/35/34/32/31/30		38/37/35/34/32/31/30		39/37/36/35/34/32/31		41/39/38/37/36/35/33		43/41/40/39/37/36/35	
sound power level	dB(A)	44/42/41/40/39/38/36		51/50/49/48/46/45/44		52/51/49/48/46/45/44		53/51/50/49/48/46/45		55/53/52/51/50/49/47		57/55/54/53/51/50/49	
indoor unit	Net dimensions <sup>5</sup> (WxHxD)	mm	1054x153x428				1275x189x452						
	Net dimensions( no water tray) (WxHxD)	mm	1054x141x428				1275x176x452						
	Packed dimensions (WxHxD)	mm	1155x245x490				1370x295x505						
	Net/Gross weight	kg	11.5/14.5		11.8/14.8		15.8/20.2		16.9/21.4				
Panel	Net dimensions (WxHxD)	mm	1180x25x465				1350x25x505						
	Packed dimensions (WxHxD)	mm	1232x107x517				1410x95x560						
	Net/Gross weight	kg	3.5/4.7				4/5.6						
Refrigerant type		R410A/R32	R410A/R32	R410A/R32	R410A/R32	R410A/R32	R410A/R32	R410A/R32					
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7						Φ9.52/Φ15.9				
	Drain pipe	mm	OD Φ25										

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Each model's 7 airflow rate options are listed in order, from highest to lowest.
- Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3). Sound pressure level is measured 1.4m below the unit in a anechoic chamber.
- Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
- These products are under development and the specifications are always subject to change.

### Two-Way Cassette

Model		ZTVM-ECD22BZ	ZTVM-ECD28BZ	ZTVM-ECD36BZ	ZTVM-ECD45BZ	ZTVM-ECD56BZ	ZTVM-ECD71BZ		
Power supply		1-phase, 220-240V, 50/60Hz							
Cooling <sup>1</sup>	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	
		kBut/h	7.5	9.6	12.3	15.4	19.1	24.2	
	Input	W	35	40	40	50	69	98	
Heating <sup>2</sup>	Capacity	kW	2.6	3.2	4	5	6.3	8	
		kBut/h	8.9	10.9	13.6	17.1	21.5	27.3	
	Input	W	35	40	40	50	69	98	
Airflow rate <sup>3</sup>	m <sup>3</sup> /h	654/612/571/530/488/449/410	654/612/571/530/488/449/410	725/679/641/591/554/509/458	850/792/731/670/631/592/550	980/925/855/800/755/702/670	1200/1115/1068/1000/921/808/770		
Sound pressure level <sup>4</sup>	dB(A)	33/31/30/29/27/25/24	33/31/30/29/27/25/24	35/33/32/30/29/27/25	37/36/35/34/32/31/30	39/37/36/35/33/31/30	44/42/41/40/38/36/34		
sound power level	dB(A)	49/47/46/45/43/41/40	49/47/46/45/43/41/40	51/49/48/46/45/43/41	53/52/51/50/48/47/4	55/53/52/51/49/47/46	60/58/57/56/54/52/50		
indoor unit	Net dimensions <sup>5</sup> (WxHxD)	mm	1172x299x591						
	Packed dimensions (WxHxD)	mm	1355x400x675						
	Net/Gross weight	kg	29.7/36.3			31.6/38.2			
Panel	Net dimensions (WxHxD)	mm	1430x53x680						
	Packed dimensions (WxHxD)	mm	1525x130x765						
	Net/Gross weight	kg	11/15			11/15			
Refrigerant type		R410A/R32	R410A/R32	R410A/R32	R410A/R32	R410A/R32	R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7						Φ9.52/Φ15.9
	Drain pipe	mm	OD Φ32						

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

## Specifications

### Compact Four-Way Cassette

Model			ZTVM-ECFC15BZ	ZTVM-ECFC22BZ	ZTVM-ECFC28BZ	ZTVM-ECFC36BZ
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	1.5	2.2	2.8	3.6
		kBtu/h	5.1	7.5	9.6	12.3
	Power input	W	14	14	16	18
Heating <sup>2</sup>	Capacity	kW	1.8	2.4	3.2	4.0
		kBtu/h	6.1	8.2	10.9	13.7
	Power input	W	14	14	16	18
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	450/425/400/370/345/320/295		510/480/455/425/395/370/340	530/500/470/440/405/375/345
Sound pressure level <sup>4</sup>		dB(A)	29/28/27/27/26/26/25		30/29/28/27/26/26/25	31/30/29/28/27/26/25.5
Sound power level		dB(A)	40/39/39/39/38/38/38		42/41/40/39/39/38/38	42/40/39/38/38/38/38
Main body	Net dimensions <sup>5</sup> (W×H×D)	mm	575×235×638			
	Packed dimensions (W×H×D)	mm	690×285×690			
	Net/Gross weight	kg	13.0/15.5		14.0/16.5	
Panel	Net dimensions <sup>6</sup> (W×H×D)	mm	620×65×620			
	Packed dimensions (W×H×D)	mm	680×80×665			
	Net/Gross weight	kg	2.3/3.0			
Refrigerant type			R410A/R32			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7			
	Drain pipe	mm	OD Ø25			

### Compact Four-Way Cassette

Model			ZTVM-ECFC45BZ	ZTVM-ECFC56BZ	ZTVM-ECFC63BZ	
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	4.5	5.6	6.3	
		kBtu/h	15.4	19.1	21.5	
	Power input	W	25	35	50	
Heating <sup>2</sup>	Capacity	kW	5.0	6.3	7.1	
		kBtu/h	17.1	21.5	24.2	
	Power input	W	25	35	50	
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	640/605/570/530/495/460/425	810/765/720/670/625/580/535	905/855/805/755/705/655/605	
Sound pressure level <sup>4</sup>		dB(A)	36.5/35/33/31/29/28/26.5	39/38/37/36/35/34/32	43/42/40/38/36/35/33.5	
Sound power level		dB(A)	44/44/43/42/41/41/41	48/46/45/43/42/42/41	51/50/48/46/45/44/42	
Main body	Net dimensions <sup>5</sup> (W×H×D)	mm	575×235×638			
	Packed dimensions (W×H×D)	mm	690×285×690			
	Net/Gross weight	kg	14.0/16.5	15.0/17.5		
Panel	Net dimensions <sup>6</sup> (W×H×D)	mm	620×65×620			
	Packed dimensions (W×H×D)	mm	680×80×665			
	Net/Gross weight	kg	2.3/3.0			
Refrigerant type			R410A/R32			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		Ø9.52/Ø15.9	
	Drain pipe	mm	OD Ø25			

#### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- Exposed height of the panel after being installed on the ceiling.

## Specifications

### Four-Way Cassette

Model			ZTVM-ECF28BZ	ZTVM-ECF36BZ
Power supply			1-phase, 220-240V, 50/60Hz	
Cooling <sup>1</sup>	Capacity	kW	2.8	3.6
		kBtu/h	9.6	12.3
	Power input	W	17.0	17.0
Heating <sup>2</sup>	Capacity	kW	3.2	4.0
		kBtu/h	10.9	13.7
	Power input	W	17.0	17.0
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	790/740/691/641/591/542/492	790/740/691/641/591/542/492
Sound pressure level <sup>4</sup>		dB(A)	30/29/28/27.5/27/26/25	30/29/28/27.5/27/26/25
Sound power level		dB(A)	44/43/42/42/41/40/39	44/43/42/42/41/40/39
Main body	Net dimensions <sup>5</sup> (W×H×D)	mm	840×204×840	
	Packed dimensions (W×H×D)	mm	940×250×940	
	Net/Gross weight	kg	18/20.8	
Panel	Net dimensions <sup>6</sup> (W×H×D)	mm	950×53×950	
	Packed dimensions (W×H×D)	mm	1030×95×1030	
	Net/Gross weight	kg	5.6/8.0	
Refrigerant type			R410A/R32	
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	
	Drain pipe	mm	OD Ø25	

### Four-Way Cassette

Model			ZTVM-ECF45BZ	ZTVM-ECF56BZ	ZTVM-ECF71BZ	
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	4.5	5.6	7.1	
		kBtu/h	15.4	19.1	24.2	
	Power input	W	36.0	23.0	32.0	
Heating <sup>2</sup>	Capacity	kW	5.0	6.3	8.0	
		kBtu/h	17.1	21.5	27.3	
	Power input	W	36.0	23.0	32.0	
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	910/840/770/701/631/561/491	840/791/741/692/642/593/543	1000/943/886/829/772/715/658	
Sound pressure level <sup>4</sup>		dB(A)	37/35/34/32/30/29/27	33/32/31/30/29/28/27	37/36/34/33/31/30/28	
Sound power level		dB(A)	52/51/49/47/45/43/40	49/48/47/47/46/45/44	52/51/50/48/47/45/44	
Main body	Net dimensions <sup>5</sup> (W×H×D)	mm	840×204×840			
	Packed dimensions (W×H×D)	mm	940×250×940			
	Net/Gross weight	kg	18/20.8	19.5/22.4	19.5/22.4	
Panel	Net dimensions <sup>6</sup> (W×H×D)	mm	950×53×950			
	Packed dimensions (W×H×D)	mm	1030×95×1030			
	Net/Gross weight	kg	5.6/8.0			
Refrigerant type			R410A/R32			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		Ø9.52/Ø15.9	
	Drain pipe	mm	OD Ø25			

#### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- Exposed height of the panel after being installed on the ceiling.

# Specifications

## Four-Way Cassette

Model			ZTVM-ECF80BZ	ZTVM-ECF90BZ	ZTVM-ECF100BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	8.0	9.0	10.0
		kBtu/h	27.3	30.7	34.1
	Power input	W	41.0	43.0	74.0
Heating <sup>2</sup>	Capacity	kW	9.0	10.0	11.2
		kBtu/h	30.7	34.1	38.2
	Power input	W	41.0	43.0	74.0
Air flow rate <sup>3</sup>	m <sup>3</sup> /h	1100/1019/939/858/777/697/616	1330/1239/1148/1057/965/874/783	1470/1360/1250/1141/1031/921/811	
Sound pressure level <sup>4</sup>	dB(A)	42.5/40/38/36/34/32/30	38/37/35/34/32/31/29	43/41/40/38/36/35/33	
Sound power level	dB(A)	57/55/53/51/49/47/45	55/54/52/51/50/48/47	58/57/55/53/51/49/47	
Main body	Net dimensions <sup>5</sup> (W×H×D)	mm	840×204×840	840×246×840	840×246×840
	Packed dimensions (W×H×D)	mm	940×250×940	940×295×940	940×295×940
	Net/Gross weight	kg	19.5/22.4	21.5/25.4	21.5/25.4
	Panel	Net dimensions <sup>6</sup> (W×H×D)	mm	950×53×950	950×53×950
Panel	Packed dimensions (W×H×D)	mm	1030×95×1030	1030×95×1030	1030×95×1030
	Net/Gross weight	kg	5.6/8.0	5.6/8.0	5.6/8.0
	Refrigerant type		R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9	Ø9.52/Ø15.9	Ø9.52/Ø15.9
	Drain pipe	mm	OD Ø25		

## Four-Way Cassette

Model			ZTVM-ECF112BZ	ZTVM-ECF140BZ	ZTVM-ECF160BZ	ZTVM-ECF180BZ
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	11.2	14.0	16.0	18.0
		kBtu/h	38.2	47.8	54.6	61.4
	Power input	W	61.0	118.0	110.0	145.0
Heating <sup>2</sup>	Capacity	kW	12.5	16.0	18.0	20.0
		kBtu/h	42.7	54.6	61.4	68.2
	Power input	W	61.0	118.0	110.0	145.0
Air flow rate <sup>3</sup>	m <sup>3</sup> /h	1600/1497/1393/1290/1186/1083/979	1900/1787/1673/1560/1446/1333/1219	2100/1900/1760/1630/1500/1380/1270	2300/2140/1960/1770/1600/1430/1270	
Sound pressure level <sup>4</sup>	dB(A)	41/40/38/37/36/34/33	47.5/46/44/42/40/38/36.5	48/46/44/43/41/39/37	52/49/47/45/42/39/38	
Sound power level	dB(A)	57/56/55/54/53/52/51	64/63/61/60/58/56/54	57/56/54/52/50/47/46	60/58/56/54/52/49/46	
Main body	Net dimensions <sup>5</sup> (W×H×D)	mm	840×288×840	840×288×840	950×300×950	950×300×950
	Packed dimensions (W×H×D)	mm	940×335×940	940×335×940	1050×350×1050	1050×350×1050
	Net/Gross weight	kg	24/27.7	24/27.7	32.6/37.2	32.7/37.3
	Panel	Net dimensions <sup>6</sup> (W×H×D)	mm	950×53×950	950×53×950	1050×55×1050
Panel	Packed dimensions (W×H×D)	mm	1030×95×1030	1030×95×1030	1115×100×1115	1115×100×1115
	Net/Gross weight	kg	5.6/8.0	5.6/8.0	7.4/9.7	7.4/9.7
	Refrigerant type		R410A/R32			
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9	Ø9.52/Ø15.9	Ø9.52/Ø15.9	Ø9.52/Ø19.1
	Drain pipe	mm	OD Ø25			

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- Exposed height of the panel after being installed on the ceiling.

# Specifications

## Arc Duct

Model			ZTVM-EDL15BZ	ZTVM-EDL22BZ
Power supply			1-phase, 220-240V, 50/60Hz	
Cooling <sup>1</sup>	Capacity	kW	1.5	2.2
		kBtu/h	5.1	7.5
	Power input	W	21	22
Heating <sup>2</sup>	Capacity	kW	1.8	2.5
		kBtu/h	6.1	8.5
	Power input	W	21	22
Air flow rate <sup>3</sup>	m <sup>3</sup> /h	340/335/329/320/307/298/290	370/347/339/322/314/ 306/295	
External static pressure <sup>4</sup>	Pa	10 (10-50)		
Sound pressure level <sup>5</sup>	dB(A)	27/26/25.5/24.5/23.5/ 22.5/22	28/27.5/26.5/25.5/24.5/23.5/22.0	
Sound power level	dB(A)	43.5/43/42.5/42/41.5/41/40		46/45/44/43/42/41/40
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	550×199×450	
	Packed dimensions (W×H×D)	mm	715×255×525	
	Net/Gross weight	kg	11.5/13.5	
Refrigerant type		R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	
	Drain pipe	mm	OD Ø25	

## Arc Duct

Model			ZTVM-EDL28BZ	ZTVM-EDL36BZ	ZTVM-EDL45BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	2.8	3.6	4.5
		kBtu/h	9.6	12.3	15.4
	Power input	W	28	31	43
Heating <sup>2</sup>	Capacity	kW	3.2	4	5
		kBtu/h	10.9	13.7	17.1
	Power input	W	28	31	43
Air flow rate <sup>3</sup>	m <sup>3</sup> /h	460/431/413/380/351/ 323/300	605/557/508/453/414/ 365/320	800/770/701/629/557/ 506/435	
External static pressure <sup>4</sup>	Pa	10 (10-50)			
Sound pressure level <sup>5</sup>	dB(A)	30/29.5/28.5/27.5/26/24.5/22	30/29.5/28.5/27.5/ 26.5/25.5/25	33/32.5/32/30.5/29/ 27.5/26	
Sound power level	dB(A)	50.5/49/47/45.5/43.5/42/40		50.5/49.5/48/47/45.5/44.5/43	52/50.5/49/47.5/46/44.5/43
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	550×199×450	700×199×450	900×199×450
	Packed dimensions (W×H×D)	mm	715×255×525	865×255×525	1065×255×525
	Net/Gross weight	kg	11.5/13.5	13.0/15.5	16.5/19.5
Refrigerant type		R410A/R32			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		
	Drain pipe	mm	OD Ø25		

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

# Specifications

## Arc Duct

Model			ZTVM-EDL56BZ	ZTVM-EDL71BZ	ZTVM-EDL80BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	5.6	7.1	8
		kBtu/h	19.1	24.2	27.3
	Power input	W	58	65	108
Heating <sup>2</sup>	Capacity	kW	6.3	8	9
		kBtu/h	21.5	27.3	30.7
	Power input	W	58	65	108
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	900/800/761/682/603/ 549/470	1145/1033/957/860/763/671/580	1400/1327/1249/1175/1095/1026/960
External static pressure <sup>4</sup>		Pa	10 (10-50)	10 (10-50)	20(10-80)
Sound pressure level <sup>5</sup>		dB(A)	36/34.5/33.5/32.5/ 31/29/27	37/35/34/32.5/31/30/29	36.5/35.5/34.5/33/ 32/31.5/30.5
Sound power level		dB(A)	56/54/52/50/48/46/44	57/55.5/54/52/50.5/49/47	57/56/54.5/53.5/52/51/49.5
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	900×199×450	1100×199×450	1600×199×450
	Packed dimensions (W×H×D)	mm	1065×255×525	1300×255×525	1780×250×525
	Net/Gross weight	kg	16.5/19.5	20/23.5	28/32.5
Refrigerant type			R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø9.52/Ø15.9	Ø9.52/Ø15.9
	Drain pipe	mm	OD Ø25		

## Arc Duct

Model			ZTVM-EDL90BZ	ZTVM-EDL112BZ
Power supply			1-phase, 220-240V, 50/60Hz	
Cooling <sup>1</sup>	Capacity	kW	9	11.2
		kBtu/h	30.7	38.2
	Power input	W	108	128
Heating <sup>2</sup>	Capacity	kW	10	12.5
		kBtu/h	34.1	42.7
	Power input	W	108	128
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	1400/1327/1249/1175/1095/1026/960	1620/1522/1433/1343/1254/1170/1080
External static pressure <sup>4</sup>		Pa	20(10-80)	
Sound pressure level <sup>5</sup>		dB(A)	36.5/35.5/34/33/ 32/31.5/30.5	39.5/38/36.5/35/34/ 32.5/31.5
Sound power level		dB(A)	57/56/54.5/53.5/52/51/49.5	60.5/59/57.5/55.5/54/52.5/50.5
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	1600×199×450	1600×199×450
	Packed dimensions (W×H×D)	mm	1780×250×525	1780×250×525
	Net/Gross weight	kg	28/32.5	
Refrigerant type			R410A/R32	
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9	
	Drain pipe	mm	OD Ø25	

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

# Specifications

## Medium Static Pressure Duct

Model			ZTVM-EDM15BZ	ZTVM-EDM22BZ	ZTVM-EDM28BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	1.5	2.2	2.8
		kBtu/h	5.1	7.5	9.6
	Power input	W	33	36	40
Heating <sup>2</sup>	Capacity	kW	1.8	2.5	3.2
		kBtu/h	6.1	8.5	10.9
	Power input	W	33	36	40
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	470/438/407/375/343/312/280	500/467/433/400/367/333/300	540/503/467/430/393/357/320
External static pressure <sup>4</sup>		Pa	30 (10-160)		
Sound pressure level <sup>5</sup>		dB(A)	26.5/26/25/24/23/22.5/22	26.5/26/25/24/23/22.5/22	26.5/26/25/24/23/22.5/22
Sound power level		dB(A)	46/44.5/43/41.5/40/38.5/37	47/45.5/44/42.5/41/39.5/38	47/45.5/44/42.5/41/39.5/38
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	600×245×750		
	Packed dimensions (W×H×D)	mm	765×305×885		
	Net/Gross weight	kg	18.5/21	18.5/21	18.5/21
Refrigerant type			R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		
	Drain pipe	mm	OD Ø25		

## Medium Static Pressure Duct

Model			ZTVM-EDM36BZ	ZTVM-EDM45BZ	ZTVM-EDM56BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	3.6	4.5	5.6
		kBtu/h	12.3	15.4	19.1
	Power input	W	50	70	70
Heating <sup>2</sup>	Capacity	kW	4	5	6.3
		kBtu/h	13.7	17.1	21.5
	Power input	W	50	70	70
Air flow rate <sup>3</sup>		m <sup>3</sup> /h	575/535/495/455/415/375/335	665/623/580/538/495/453/410	970/904/838/773/707/641/575
External static pressure <sup>4</sup>		Pa	30 (10-160)		
Sound pressure level <sup>5</sup>		dB(A)	29/28/27/26/25/23/22	33/32/29.5/28/26.5/25/24	33/32/31/30/27.5/26/25
Sound power level		dB(A)	50/48.5/47/45/43/41/39	53/51/49/47/45/43/41	55/53/51/49/47/45/43
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	600×245×750		
	Packed dimensions (W×H×D)	mm	765×305×885		
	Net/Gross weight	kg	18.5/21	19.5/22	24/27.5
Refrigerant type			R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		
	Drain pipe	mm	OD Ø25		

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

## Specifications

### Medium Static Pressure Duct

Model			ZTVM-EDM71BZ	ZTVM-EDM80BZ	ZTVM-EDM90BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	7.1	8	9
		kBtu/h	24.2	27.3	30.7
	Power input	W	96	102	110
Heating <sup>2</sup>	Capacity	kW	8	9	10
		kBtu/h	27.3	30.7	34.1
	Power input	W	96	102	110
Air flow rate <sup>3</sup>	m <sup>3</sup> /h		1150/1068/986/904/822/740/660	1355/1263/1172/1080/988/897/805	1420/1323/1225/1128/1030/933/835
External static pressure <sup>4</sup>	Pa		30 (10-160)	40 (10-160)	40(10-160)
Sound pressure level <sup>5</sup>	dB(A)		35/33.5/32/30.5/29/27.5/26	37/35.5/34/32.5/31/29.5/28	37/35.5/34/32.5/31/29.5/28
Sound power level	dB(A)		58/56/54/51.5/48/47/45	59/57/55/53/51/49/47	59/57/55/53/50.5/48/46
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	800×245×750		
	Packed dimensions (W×H×D)	mm	965×305×885		
	Net/Gross weight	kg	25/28.5	30/34.0	31/35.0
Refrigerant type			R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9		
	Drain pipe	mm	OD Ø25		

### Medium Static Pressure Duct

Model			ZTVM-EDM112BZ	ZTVM-EDM140BZ	ZTVM-EDM160BZ
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	11.2	14	16
		kBtu/h	38.2	47.8	54.6
	Power input	W	138	172	210
Heating <sup>2</sup>	Capacity	kW	12.5	16	18
		kBtu/h	42.7	54.6	61.4
	Power input	W	138	172	210
Air flow rate <sup>3</sup>	m <sup>3</sup> /h		1950/1817/1683/1550/1417/1283/1150	2105/1971/1837/1703/1568/1434/1300	2350/2160/2015/1871/1776/1533/1400
External static pressure <sup>4</sup>	Pa		40 (10-160)	50 (10-160)	
Sound pressure level <sup>5</sup>	dB(A)		39/37/35/33/31/29/28	40/38/36/34/32/30/29	42/40/38/36/34/33/31
Sound power level	dB(A)		60/58/56.5/55/53.5/52/50	64/62/61.5/59.5/57.5/55/53	65/63/61/58.5/56.5/54/52
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	1400×245×750		
	Packed dimensions (W×H×D)	mm	1565×305×885		
	Net/Gross weight	kg	37/42.0	39/44.0	39/44.0
Refrigerant type			R410A/R32		
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9		
	Drain pipe	mm	OD Ø25		

#### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

## Specifications

### High Static Pressure Duct

Model			ZTVM-EDH56BZ	ZTVM-EDH71BZ	ZTVM-EDH80BZ	ZTVM-EDH90BZ
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	5.6	7.1	8	9
		kBtu/h	19.1	24.2	27.3	30.7
	Input	W	159	159	159	196
Heating <sup>2</sup>	Capacity	kW	6.3	8	9	10
		kBtu/h	21.5	27.3	30.7	34.1
	Input	W	159	159	159	196
Airflow rate <sup>3</sup>	m <sup>3</sup> /h		1360/1281/1201/1122/1043/963/884	1360/1281/1201/1122/1043/963/884	1360/1281/1201/1122/1043/963/884	1500/1413/1325/1238/1150/1063/975
External static pressure <sup>4</sup>	Pa		80(0-250)			
Sound pressure level <sup>5</sup>	dB(A)		39/38/36/35/33/32/30	39/38/36/35/33/32/30	39/38/36/35/33/32/30	40/39/37/36/34/33/31
Sound power level	dB(A)		59/56/54/53/51/49/47	59/56/54/53/51/49/47	59/56/54/53/51/49/47	63/60/58/56/54/52/50
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	1050×299×750			
	Packed dimensions (W×H×D)	mm	1215×359×890			
	Net/Gross weight	kg	35/38.5	35/38.5	35/38.5	35/38.5
Refrigerant type			R410A/R32	R410A/R32	R410A/R32	R410A/R32
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7			
	Drain pipe	mm	Ø9.52/Ø15.9			

### High Static Pressure Duct

Model			ZTVM-EDH112BZ	ZTVM-EDH125BZ	ZTVM-EDH140BZ	ZTVM-EDH160BZ
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	11.2	12.5	14	16
		kBtu/h	38.2	42.7	47.8	54.6
	Input	W	248	252	284	339
Heating <sup>2</sup>	Capacity	kW	12.5	14	16	18
		kBtu/h	42.7	47.8	54.6	61.4
	Input	W	248	252	284	339
Airflow rate <sup>3</sup>	m <sup>3</sup> /h		2140/2015/1890/1766/1641/1516/1391	2150/2025/1899/1774/1649/1523/1398	2400/2260/2120/1980/1840/1700/1560	2600/2448/2297/2145/1993/1842/1690
External static pressure <sup>4</sup>	Pa		80(0-250)			
Sound pressure level <sup>5</sup>	dB(A)		41/40/38/37/35/34/32	41/40/39/37/36/35/33	43/42/40/39/37/36/34	44/43/41/40/38/37/35
Sound power level	dB(A)		63/61/59/57/56/54/52	66/64/62/60/58/56/54	67/64/62/60/58/57/55	68/66/64/62/60/59/57
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm	1400×299×750			
	Packed dimensions (W×H×D)	mm	1565×359×890			
	Net/Gross weight	kg	44.5/48.5	46.5/50.5	46.5/50.5	46.5/50.5
Refrigerant type			R410A/R32	R410A/R32	R410A/R32	R410A/R32
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9			
	Drain pipe	mm	OD Ø25			

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- All specifications are measured at standard external static pressure.

# Specifications

## High Static Pressure Duct

Model		ZTVM-EDH200BZ	ZTVM-EDH224BZ	ZTVM-EDH252BZ	ZTVM-EDH280BZ	
Power supply		1-phase, 220-240V, 50/60Hz				
Cooling <sup>1</sup>	Capacity	kW	20	22.4	25.2	28
		kBtu/h	68.3	76.5	86.0	95.6
	Input	W	780	780	780	780
Heating <sup>2</sup>	Capacity	kW	22.5	25	26	31.5
		kBtu/h	76.8	85.3	88.7	107.5
	Input	W	780	780	780	780
Airflow rate <sup>3</sup>	m <sup>3</sup> /h	4700/4387/4073/3760/ 3447/3133/2820	4700/4387/4073/3760/ 3447/3133/2820	4700/4387/4073/3760/ 3447/3133/2820	4700/4387/4073/3760/ 3447/3133/2820	
External static pressure <sup>4</sup>	Pa	200(0-400)				
Sound pressure level <sup>5</sup>	dB(A)	51/50/48/46/44/43/42	51/50/48/46/44/43/42	51/50/48/46/44/43/42	51/50/48/46/44/43/42	
Sound power level	dB(A)	74/72/70/68/66/64/62	74/72/70/68/66/64/62	74/72/70/68/66/64/62	74/72/70/68/66/64/62	
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm 1300×580×900				
	Packed dimensions (W×H×D)	mm 1530×730×1060				
	Net/Gross weight	kg	125/150	125/150	125/150	125/150
Refrigerant type		R410A/R32	R410A/R32	R410A/R32	R410A/R32	
Pipe connections	Liquid/Gas pipe	mm Φ9.52/Φ19.1		mm Φ12.7/Φ22.2		
	Drain pipe	mm OD Φ32				

## High Static Pressure Duct

Model		ZTVM-EDH335BZ	ZTVM-EDH400BZ	ZTVM-EDH450BZ	ZTVM-EDH560BZ	
Power supply		1-phase, 220-240V, 50/60Hz				
Cooling <sup>1</sup>	Capacity	kW	33.5	40	45	56
		kBtu/h	114.3	136.5	153.6	191.1
	Input	W	810	1850	1850	2030
Heating <sup>2</sup>	Capacity	kW	38	45	56	63
		kBtu/h	129.7	153.6	191.1	215.0
	Input	W	810	1850	1850	2030
Airflow rate <sup>3</sup>	m <sup>3</sup> /h	4700/4387/4073/3760/ 3447/3133/2820	7500/7000/6500/6000/ 5500/5000/4500	7500/7000/6500/6000/ 5500/5000/4500	8400/7840/7280/6720/ 6160/5600/5040	
External static pressure <sup>4</sup>	Pa	200(0-400)				
Sound pressure level <sup>5</sup>	dB(A)	52/51/49/48/46/44/43	58/56/54/52/50/49/48	58/56/54/52/50/49/48	59/58/56/54/53/51/49	
Sound power level	dB(A)	74/72/70/68/66/63/61	79/78/76/74/72/70/67	79/78/76/74/72/70/67	81/80/77/75/73/71/69	
Unit	Net dimensions <sup>6</sup> (W×H×D)	mm 1300×580×900		mm 1850×580×900		
	Packed dimensions (W×H×D)	mm 1530×730×1060		mm 2080×730×1060		
	Net/Gross weight	kg	128/153	166/204	166/204	170/208
Refrigerant type		R410A/R32	R410A/R32	R410A/R32	R410A/R32	
Pipe connections	Liquid/Gas pipe	mm Φ12.7/Φ25.4	mm Φ12.7/Φ25.4	mm Φ15.9/Φ28.6		
	Drain pipe	mm OD Φ32				

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.

2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.

3. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.

4. Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)

5. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a anechoic chamber.

6. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

7. All specifications are measured at standard external static pressure.

# Specifications

## Wall Mounted

Model		ZTVM-EHW15BZ	ZTVM-EHW22BZ	ZTVM-EHW28BZ	ZTVM-EHW36BZ	
Power supply		1-phase, 220-240V, 50/60Hz				
Cooling <sup>1</sup>	Capacity	kW	1.5	2.2	2.8	3.6
		kBtu/h	5.1	7.5	9.6	12.3
	Power input	W	18	21	24	27
Heating <sup>2</sup>	Capacity	kW	1.7	2.4	3.2	4
		kBtu/h	5.8	8.2	10.9	13.6
	Power input	W	18	21	24	27
Air flow rate <sup>3</sup>	m <sup>3</sup> /h	460/440/420/400/380/360/340	500/470/440/410/390/370/340	540/510/470/430/400/370/340	580/540/500/460/420/380/340	
Sound pressure level <sup>4</sup>	dB(A)	32/31/30/30/29/28/27	33/32/31/30/29/28/27	35/34/33/32/31/30/28	37/36/34/33/31/30/28	
Sound power level	dB(A)	45/44/43/43/42/41/40	46/45/44/43/42/41/40	50/49/48/47/46/44/42	54/53/51/50/48/46/44	
Unit	Net dimensions <sup>5</sup> (W×H×D)	mm	750 × 295 × 265	750 × 295 × 265	750 × 295 × 265	750 × 295 × 265
	Packed dimensions (W×H×D)	mm	875×385×360	875×385×360	875×385×360	875×385×360
	Net/Gross weight	kg	9/11.5	9/11.5	10/12.5	10/12.5
Refrigerant type		R410A/R32				
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7
	Drain pipe	mm	OD Ø16	OD Ø16	OD Ø16	OD Ø16

## Wall Mounted

Model		ZTVM-EHW45BZ	ZTVM-EHW56BZ	ZTVM-EHW71BZ	ZTVM-EHW80BZ	
Power supply		1-phase, 220-240V, 50/60Hz				
Cooling <sup>1</sup>	Capacity	kW	4.5	5.6	7.1	8
		kBtu/h	15.4	19.1	24.2	27.3
	Power input	W	30	40	50	65
Heating <sup>2</sup>	Capacity	kW	5	6.3	8	9
		kBtu/h	17.1	21.5	27.3	30.7
	Power input	W	30	40	50	65
Air flow rate <sup>3</sup>	m <sup>3</sup> /h	720/670/620/560/510/460/410	860/780/700/620/550/480/410	1220/1120/1030/940 /850/750/660	1380/1260/1140/1020 /900/780/660	
Sound pressure level <sup>4</sup>	dB(A)	37/35/33/32/31/30/29	41/39/37/35/33/31/29	44/42/40/38/36/34/32	45/43/41/39/37/35/32	
Sound power level	dB(A)	54/52/50/49/48/46/44	56/54/52/50/48/46/44	58/56/54/52/50/48/46	60/57/55/53/50/48/46	
Unit	Net dimensions <sup>5</sup> (W×H×D)	mm	950 × 295 × 265	950 × 295 × 265	1200×295×265	1200×295×265
	Packed dimensions (W×H×D)	mm	1075×385×360	1075×385×360	1315×385×360	1315×385×360
	Net/Gross weight	kg	11.5/14	11.5/14	15/18	15/18
Refrigerant type		R410A/R32				
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø9.52/Ø15.9	Ø9.52/Ø15.9
	Drain pipe	mm	OD Ø16	OD Ø16	OD Ø16	OD Ø16

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.

2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.

3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.

4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 0.8m below the unit in a anechoic chamber.

5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

# Specifications

## Floor Standing F3(concealed)

Model		ZTVM-EFSA22BZ	ZTVM-EFSA28BZ	ZTVM-EFSA36BZ	ZTVM-EFSA45BZ	ZTVM-EFSA56BZ	ZTVM-EFSA71BZ	ZTVM-EFSA80BZ	
Power supply		1-phase, 220-240V, 50/60Hz							
Cooling <sup>1</sup>	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8
		kBut/h	7.5	9.6	12.3	15.4	19.1	24.2	27.3
	Input	W	35	35	40	44	45	53	62
Heating <sup>2</sup>	Capacity	kW	2.4	3.2	4.0	5.0	6.3	8.0	9.0
		kBut/h	8.2	10.9	13.7	17.1	21.5	27.3	30.7
	Input	W	35	35	41	46	47	57	64
External static pressure <sup>4</sup>		Pa	0-60						
Airflow rate <sup>3</sup>		m <sup>3</sup> /h	473/464/454/449/439/431/426	524/503/488/471/450/427/408	636/611/584/557/533/507/483	781/756/738/717/683/651/624	928/893/865/834/803/770/739		
Sound pressure level <sup>4</sup>		dB(A)	34.5/34/33.5/32.5/32/31/30.5	36.5/35.5/34.5/34/33/32/31	37/36/35/34/33/32/30	36.5/36/35/34/33.5/32.5/31.5	40.5/39.5/38.5/37.5/36.5/36/34.5		
sound power level		dB(A)	49/48/48/47/47/46/46	51/50/49/48/47/46/46	52/51/50/49/48/47/46	51/51/50/49/48/47/46	55/54/53/52/52/51/50		
Unit	Net dimensions <sup>5</sup> (WxHxD)	mm	915x470x200		1133x470x200		1253x566x200		
	Packed dimensions (WxHxD)	mm	985x555x255		1205x555x255		1325x650x255		
	Net/Gross weight	kg	16.3/20.0	16.9/20.7	20.0/24.4	24.3/30.0	26.1/31.8		
Refrigerant type			R410A/R32						
pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7				Φ9.52/Φ15.9		
	Drain piping	mm	OD Φ18.5						

## Floor Standing F4/F5(Exposed)

Model		ZTVM-EFS22BZ	ZTVM-EFS28BZ	ZTVM-EFS36BZ	ZTVM-EFS45BZ	ZTVM-EFS56BZ	ZTVM-EFS71BZ	ZTVM-EFS80BZ	
Model		ZTVM-EFSU22BZ	ZTVM-EFSU28BZ	ZTVM-EFSU36BZ	ZTVM-EFSU45BZ	ZTVM-EFSU56BZ	ZTVM-EFSU71BZ	ZTVM-EFSU80BZ	
Power supply		1-phase, 220-240V, 50/60Hz							
Cooling <sup>1</sup>	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8
		kBut/h	7.5	9.6	12.3	15.4	19.1	24.2	27.3
	Input	W	35	35	40	44	45	53	62
Heating <sup>2</sup>	Capacity	kW	2.4	3.2	4	5	6.3	8	9
		kBut/h	8.2	10.9	13.7	17.1	21.5	27.3	30.7
	Input	W	35	35	41	46	47	57	64
External static pressure <sup>4</sup>		Pa(F4)	0-10						
		Pa(F5)	0-10						
Airflow rate <sup>3</sup>	m <sup>3</sup> /h(F4)	507/490/482/466/449/450/435	532/512/501/483/466/435/414	689/663/639/608/575/560/526	934/904/888/860/821/786/764	1054/1011/992/955/924/889/841			
	m <sup>3</sup> /h(F5)	498/486/475/464/453/441/430	508/491/474/458/441/424/407	692/665/637/610/582/555/528	811/785/759/732/706/680/653	930/895/860/825/790/755/721			
Sound pressure level <sup>4</sup>	dB(A)(F4)	36/35/34.5/34/33/32.5/32	38/37/36/35/34/33/32	43/42/41/40/39/38/37	41.5/41/40/39/38/37/36	46/45.5/45/44/43/42/41			
	dB(A)(F5)	32.5/32/31.5/31/30.5/30/29	35/34/33/32/31/30/29	38/37/36/35/34/32.5/31.5	35/34.5/34/33/32.5/32/31	39.5/39/38/37/36/35/34			
sound power level	dB(A)(F4)	52/51/51/50/50/49/49				57/56/55/54/53/53/52			
	dB(A)(F5)	51/50/49/49/48/48/48				54/53/52/51/50/50/49			
Unit	Net dimensions <sup>5</sup> (WxHxD)	mm(F4)	1020x495x200	1020x495x200	1240x495x200	1360x591x200			
		mm(F5)	1020x495x200	1020x495x200	1240x495x200	1360x591x200			
	Packed dimensions (WxHxD)	mm(F4)	1125x595x285	1125x595x285	1345x595x285	1465x695x285			
		mm(F5)	1125x595x285	1125x595x285	1345x595x285	1465x695x285			
	Net/Gross weight	kg(F4)	21.1/27.9	21.9/28.6	26.3/32.9	32.1/41.0	33.3/41.1	33.3/42.1	
	kg(F5)	21.1/26.8	21.9/27.6	26.3/32.4	32.1/39.4	33.3/41.1	33.3/41.1		
Refrigerant type			R410A/R32						
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7				Φ9.52/Φ15.9		
	Drain piping	mm	OD Φ18.5						

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest to the lowest, total 7 rates for each model.
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
- Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

# Specifications

## Ceiling&Floor

Model		ZTVM-EFC36BZ	ZTVM-EFC45BZ	ZTVM-EFC56BZ	ZTVM-EFC71BZ	ZTVM-EFC80BZ	
Power supply		1-phase, 220-240V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	3.6	4.5	5.6	7.1	8
		kBut/h	12.3	15.4	19.1	24.2	27.3
	Input	W	16	24	40	42	56
Heating <sup>2</sup>	Capacity	kW	4	5	6.3	8	9
		kBut/h	13.7	17.1	21.5	27.3	
	Input	W	16	24	40	42	56
Airflow rate <sup>3</sup>		m <sup>3</sup> /h	564/539/514/492/467/445/424	712/674/637/603/565/531/500	927/883/840/794/751/707/665	1128/1062/1024/926/860/791/729	1300/1218/1138/1057/982/904/824
Sound pressure level <sup>4</sup>		dB(A)	32/30/29/28/27/26/25	36/35/34/33/32/31/30	43/41/40/38/36/34/33	43/40/39/37/35/34/33	45/44/42/40/38/36/34
Sound power level		dB(A)	43/42/40/39/38/38/37	47/45/45/43/42/41/40	54/53/51/50/48/47/45	54/53/52/51/49/48/48	55/53/51/50/49/46/44
Unit	Net dimensions <sup>5</sup> (WxHxD)	mm	1069x674x234			1284x674x234	
	Packed dimensions (WxHxD)	mm	1190x755x313			1405x755x323	
	Net/Gross weight	kg	24.7/29.5	24.7/29.5	24.7/29.5	29.8/34.8	29.8/34.8
Refrigerant type			R410A/R32				
connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			Φ9.52/Φ15.9	
	Drain pipe	mm	OD Φ25				

## Ceiling&Floor

Model		ZTVM-EFC90BZ	ZTVM-EFC100BZ	ZTVM-EFC112BZ	ZTVM-EFC125BZ	ZTVM-EFC140BZ	
Power supply		1-phase, 220-240V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	9	10	11.2	12.5	14
		kBut/h	30.7	34.1	38.2	42.7	47.8
	Input	W	75	50	65	95	140
Heating <sup>2</sup>	Capacity	kW	10	11.2	12.5	14	16
		kBut/h	34.1	38.2	42.7	47.8	54.6
	Input	W	75	50	65	95	140
Airflow rate <sup>3</sup>		m <sup>3</sup> /h	1480/1397/1302/1218/1138/1056/979	1497/1469/1296/1200/1104/1015/918	1648/1530/1469/1292/1178/1067/956	2012/1879/1772/1649/1531/1469/1285	2206/2070/1937/1810/1677/1516/1402
Sound pressure level <sup>4</sup>		dB(A)	48/47/46/44/42/40/37	42/40/39/37/35/33/32	44/42/41/39/37/35/33	49/48/46/44/42/40/38	51.5/50/48/46/44/42/40
Sound power level		dB(A)	58/57/55/54/52/50/49	54/53/51/50/48/46/44	56/54/53/51/49/47/45	60/59/58/56/54/53/51	63/62/60/58/56/54/53
Unit	Net dimensions <sup>5</sup> (WxHxD)	mm	1284x674x234	1649x674x234			
	Packed dimensions (WxHxD)	mm	1405x755x323	1770x755x323			
	Net/Gross weight	kg	29.8/34.8	36.4/42.7	36.4/42.7	36.4/42.7	36.4/42.7
Refrigerant type			R410A/R32				
connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9				
	Drain pipe	mm	OD Φ25				

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

# Specifications

## Fresh Air Processing

Model		ZTVM EFA200BZ	ZTVM EFA224BZ	ZTVM 252FAHN18	ZTVM 280FAHN18	ZTVM 335FAHN18	ZTVM 400FAHN18	ZTVM 450FAHN18	ZTVM 560FAHN18		
Power supply		1-phase, 220-240V, 50/60Hz									
Cooling <sup>1</sup>	Capacity	kW	20.0	22.4	25.2	28	33.5	40	45	56	
		kBut/h	68.3	76.5	86.0	95.6	114.3	136.5	153.6	191.1	
	Input	W	425	425	480	540	550	900	900	1330	
Heating <sup>2</sup>	Capacity	kW	12	13.7	16	18	22	26.5	27.8	39	
		kBut/h	41.0	46.8	54.6	61.4	75.1	90.4	94.9	133.1	
	Input	W	425	425	480	540	550	900	900	1330	
Airflow rate <sup>3</sup>		m <sup>3</sup> /h	2500/2417/2333/ 2250/2167/ 2083/2000	2500/2417/2333/ 2250/2167/ 2083/2000	2800/2667/2533/ 2400/2267/ 2133/2000	3000/2833/2667/ 2500/2333/ 2167/2000	3200/3000/2800/ 2600/2400/ 2200/2000	4500/4217/3933/ 3650/3367/ 3083/2800	4500/4217/3933/ 3650/3367/ 3083/2800	6200/5833/5467/ 5100/4733/ 4367/4000	
External static pressure <sup>4</sup>		Pa	220(0-400)					300(0-400)			
Sound pressure level <sup>5</sup>		dB(A)	47/46/46/45/ 44/43/42	47/46/46/45/ 44/43/42	48/47/47/46/ 45/44/43	49/48/48/47/ 46/45/44	51/50/49/48/ 47/46/45	53/52/52/51/ 50/49/48	53/52/52/51/ 50/49/48	56/55/55/54/ 53/52/51	
Unit	Net dimensions <sup>6</sup> (WxHxD)	mm	1300x580x1050					1850x580x1050			
	Packed dimensions (WxHxD)	mm	1530x730x1060					2080x730x1060			
	Net/Gross weight	kg	117/142	117/142	117/142	117/142	121/146	161/198	161/198	164/201	
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ19.1		Φ12.7/Φ22.2		Φ12.7/Φ25.4		Φ16/Φ28.6		
	Drain pipe	mm	OD Φ32								

## Small Airflow Rate Fresh Air Processing

Model		ZTVM-EFA90BZ	ZTVM-EFA140BZ	ZTVM-EFA160BZ	ZTVM-EFA224BZ	ZTVM-EFA280BZ	
Power supply		1-phase, 220-240V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	9.0	14.0	16.0	22.4	28.0
		kBut/h	30.7	47.8	54.6	76.5	95.6
	Input	W	80	165	185	320	400
Heating <sup>2</sup>	Capacity	kW	8.1	12.5	14.0	20.0	25.0
		kBut/h	27.6	42.7	47.8	68.3	85.3
	Input	W	80	165	185	320	400
Airflow rate <sup>3</sup>		m <sup>3</sup> /h	690/633/575/518/ 460/403/345	1100/1008/917/ 825/733/642/550	1230/1128/1025/ 923/820/718/615	1740/1595/1450/ 1305/1160/1015/870	2160/1980/1800/ 1620/1440/1260/1080
External static pressure <sup>4</sup>		Pa	100 (0-300)	150 (0-300)	150 (0-300)	200 (0-300)	200 (0-300)
Sound pressure level <sup>5</sup>		dB(A)	39/37.5/36/34/ 32.5/30.5/29	44.5/42.5/40/37/ 35/33/32	44.5/43/41/38/ 36/34/32.5	49/47/45/43/ 40/38/36	51/49/47/44/ 42/39/37
Unit	Net dimensions <sup>6</sup> (WxHxD)	mm	1095x310x773	1095x310x773	1095x310x773	1445x310x773	1445x310x773
	Packed dimensions (WxHxD)	mm	1215x360x885	1215x360x885	1215x360x885	1645x360x885	1645x360x885
	Net/Gross weight	kg	37/41.5	40/43.5	40/43.5	54/59	54/59
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ19.1	Φ12.7/Φ22.2
	Drain pipe	mm	OD Φ25				

### Notes:

- Indoor temperature 33°C DB, 28°C WB; outdoor temperature 33°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 0°C DB; outdoor temperature 0°C DB, -2.9°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
- Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
- All specifications are measured at standard external static pressure.
- When fresh air processing units are installed together with standard indoor units, the total capacity of the fresh air processing units must not exceed 30% of the total capacity of the outdoor units and the total combination ratio must not exceed 100%.
- When there are only fresh air processing units in the system, the combination ratio is 50-100%.