



ZTVC

ZERO | ZTVC

# DC INVERTER VRF SYSTEM Product Catalogue



Web: [www.zerohvacr.com](http://www.zerohvacr.com)





## Production Capacity

Robotic  
Assembly Arm



Automatic  
Packing Robot



AGV System



MES System



## Quality Superiority



## Certification

ISO9001 quality management system, ISO14001 environmental management system, OHSAS18001 occupational health and safety management system, QC080000 electronic and electrical components and products harmful substances process management system certification

Main product certificated by CCC, energy-saving certification, ETL, AHRI, DOE, CE, CB, SASO, ESMA, MEW and others.





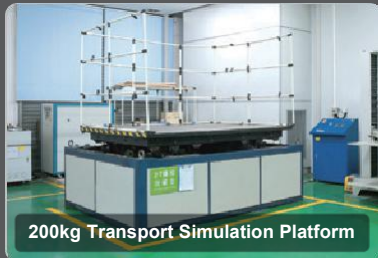


Enthalpy Difference Lab



Laboratory Control Room

## R&D Strength



200kg Transport Simulation Platform



Professional Engineers



EMC Lab



Noise Test Lab



200HP Long-term Running Lab



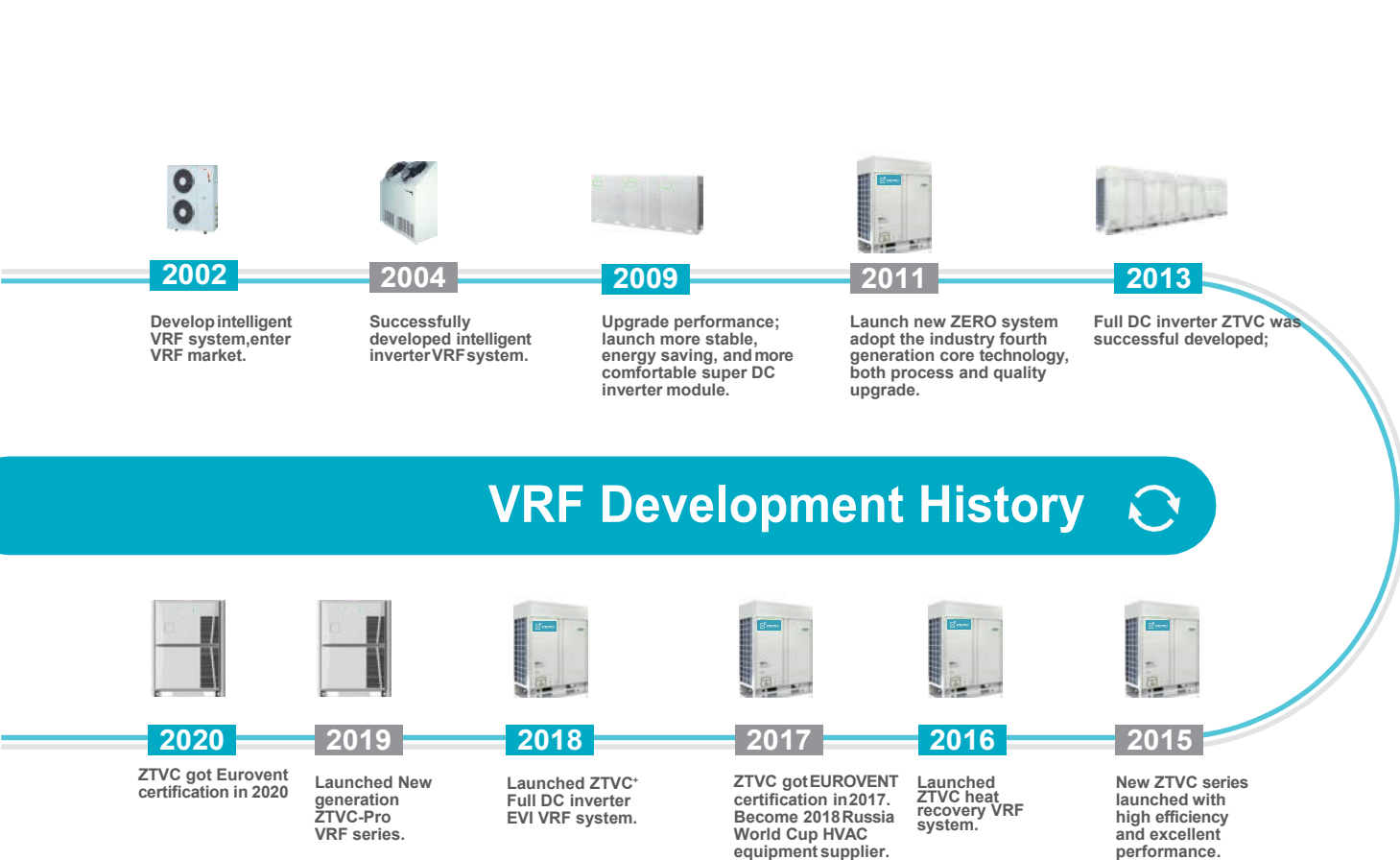
Modular Chiller Test Lab



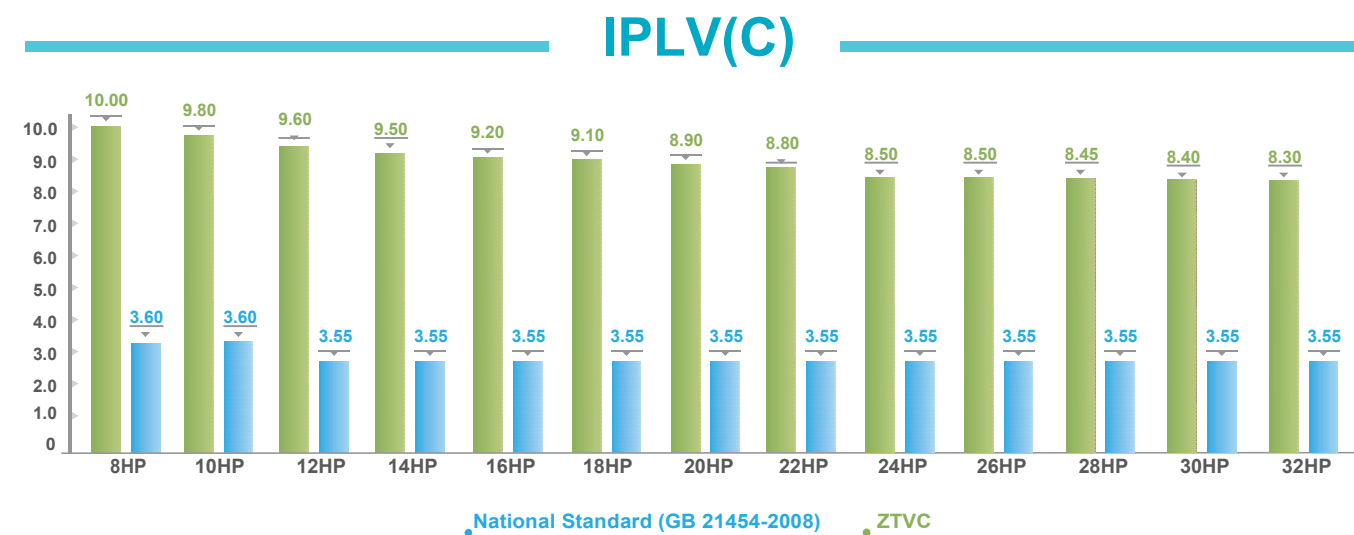
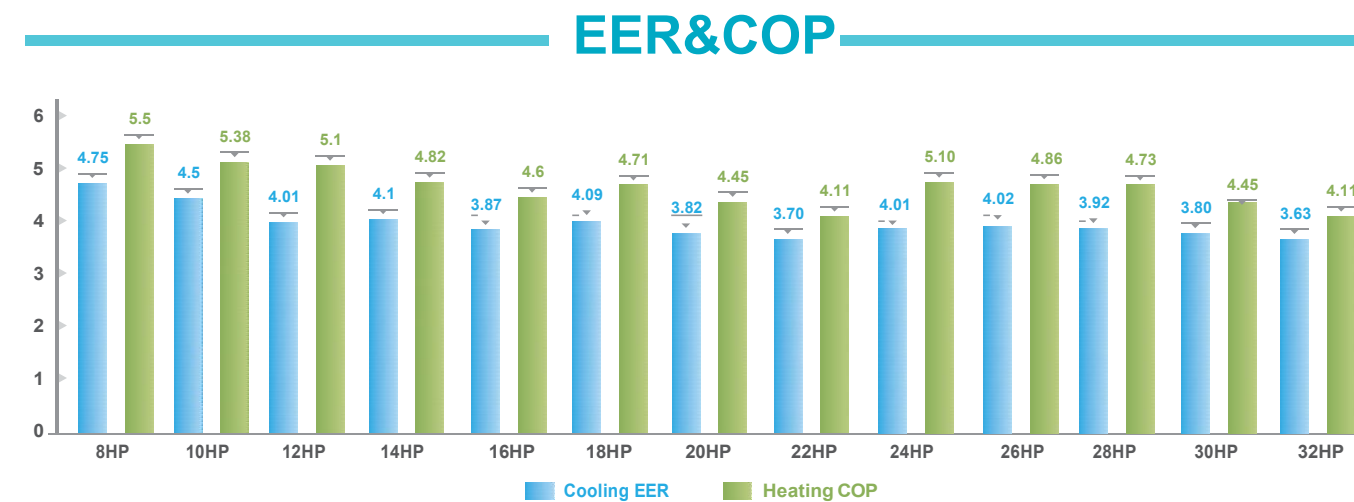
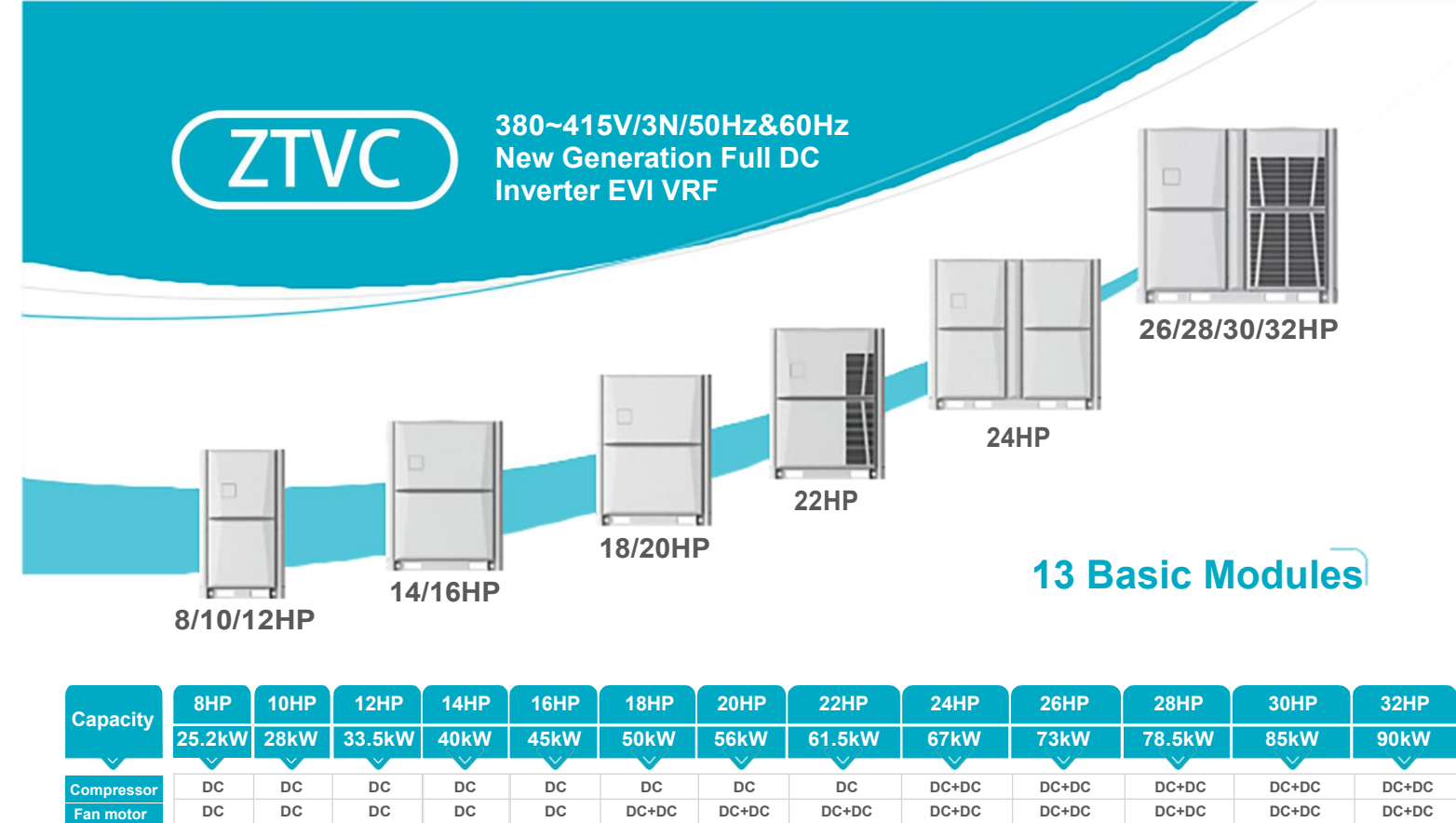
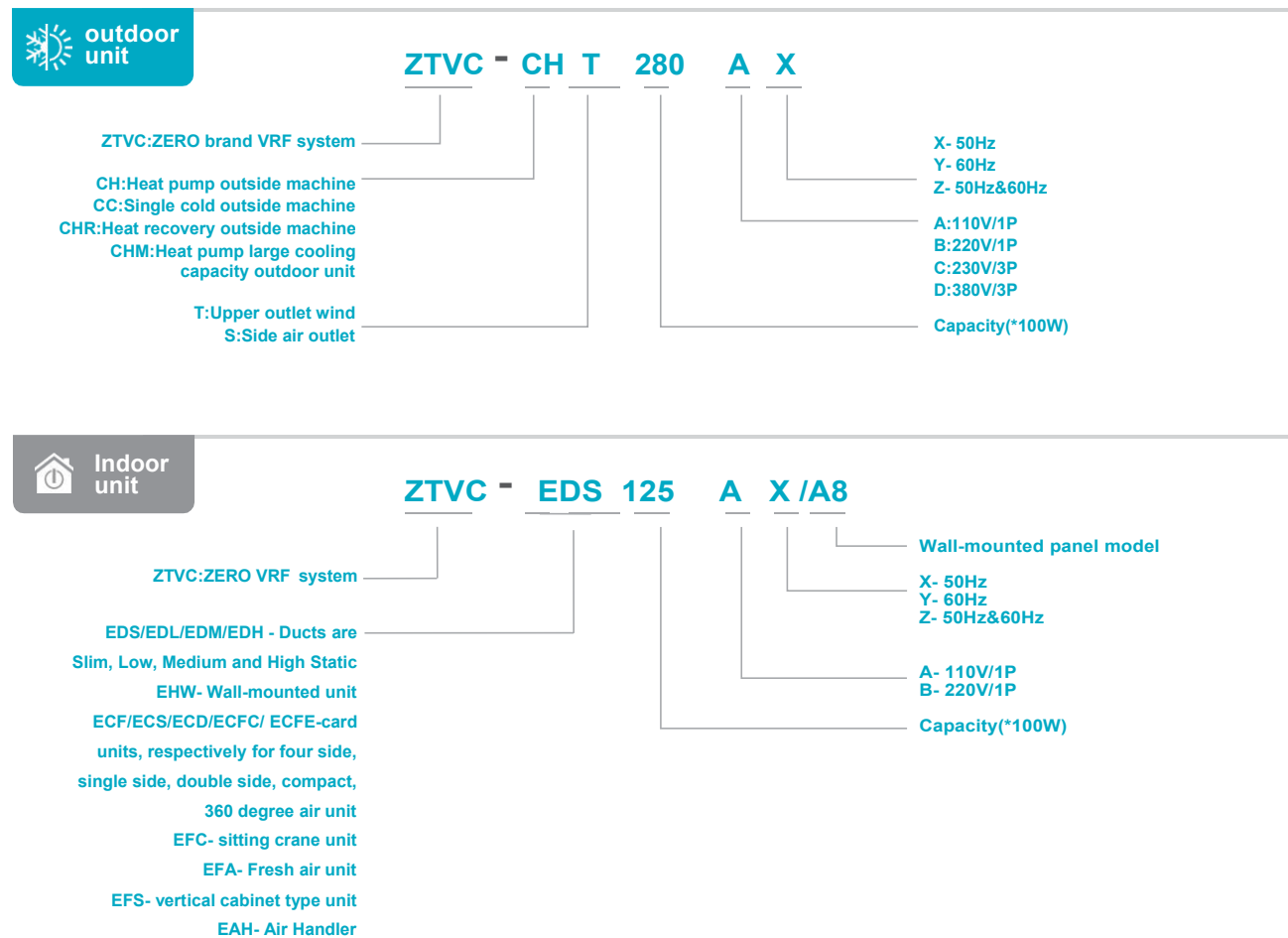
Electromagnetic Vibration Lab

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## How To Read The Model Name



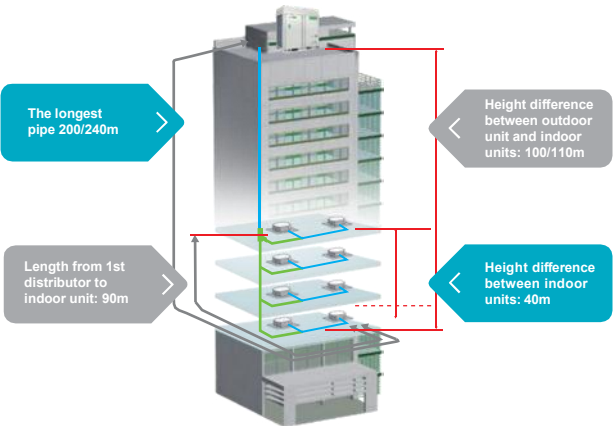
## Combination Table

HP	Cooling Cap (kW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
8	25.2	✓												
10	28		✓											
12	33.5			✓										
14	40				✓									
16	45					✓								
18	50						✓							
20	56							✓						
22	61.5								✓					
24	67									✓				
26	73										✓			
28	78.5											✓		
30	85												✓	
32	90													✓
34	95													
36	100													
38	106.5													
40	111.5													
42	117.5													
44	123													
46	128.5													
48	134													
50	140													
52	145.5													
54	152													
56	157													
58	163													
60	168.5													
62	175													
64	180													
66	184.5													
68	190													
70	195.5													
72	201.5													
74	207													
76	212.5													
78	218.5													
80	224													
82	230													
84	235.5													
86	242													
88	247													
90	253													
92	258.5													
94	265													
96	270													

\*Note:Max.4 outdoor units can be freely combined to become a larger unit,the maximum capacity of single system is 96HP, when 4 outdoor units are combined,the single unit capacity can not exceed 24HP.

## Long Piping & Height Difference

The total pipe length	1000 m
The longest pipe length	200 /240m
Height difference	Outdoor unit above <100m Outdoor unit below <110m
Height difference between indoor units	40m
Length from first indoor distributor to last indoor unit	90 m
Communication wire length	can be up to 1000m.

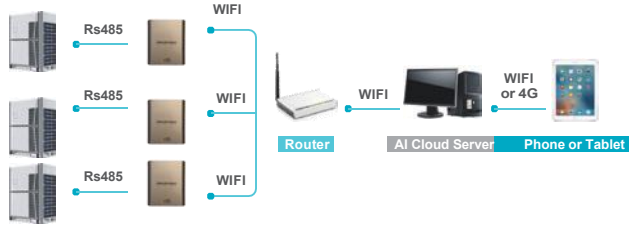


## Features



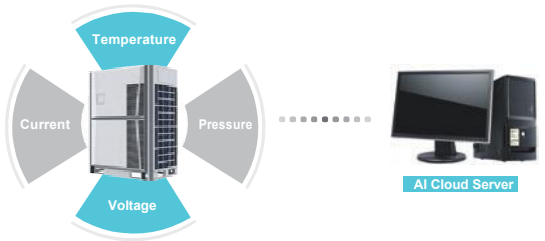
### Long Distance Remote Control

Long distance remote control by phone or tablet.



### Malfunction Forecasting

- Thanks to the AI cloud server, malfunction can be forecasted when system running parameter is abnormal.
- Technician can be sent to site to check the system before it stops.



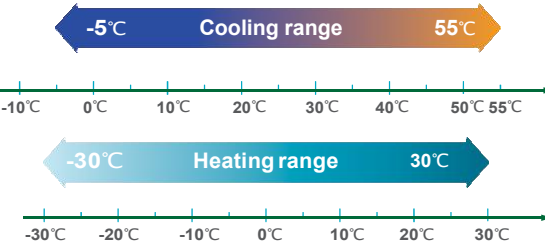
### Refrigerant Cooling Design

We use refrigerant to cool down inverter modular board to keep it in a safe condition even when outdoor temperature is up to 55°C.



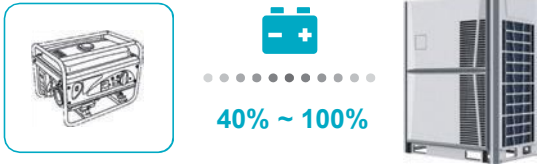
### Wide Outdoor Operation Range

- Due to EVI technology, ZTV C heating performance increased by 35% compare to conventional VRF system.
- Due to EVI technology, ZTV C still has 85% of rated capacity even in -15°C.



### Power Saving Mode

In the case of power shortage, ZTV C can run power saving mode to ease generator's pressure.



### Refrigerant Status Detection

- Built-in with smart refrigerant auto check function, which can give suggestion about refrigerant status.
- Different code means different refrigerant status:



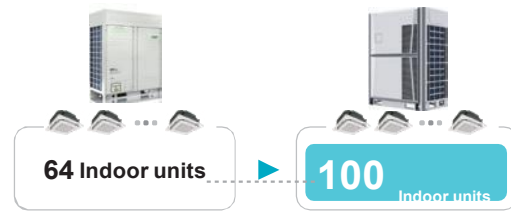
- 4 Extremely insufficient
- 12 Insufficient
- 11 Slightly insufficient
- 0 Normal
- 1 Slightly excess
- 2 Overmuch



## Features

### ② More indoor units

Max. 100 Indoor units can be connect in ONE system.



### 🔒 Electrical Lock Function(optional)

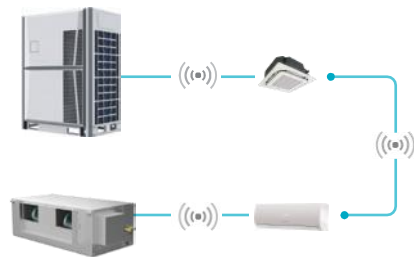


In case of end user doesn't pay as contract, electrical lock function can be used to stop VRF system, and end user can not start the system without permission.

System can be unlock with password by authorized technician.

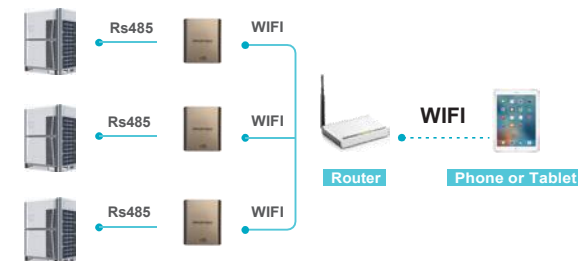
### 📶 Wireless Communication(optional)

Wireless communication between indoor units.  
Wireless communication between indoor unit and outdoor unit.



### 👂 On Site Diagnosis

Technician can do the commissioning & diagnosis by phone or tablet on site.



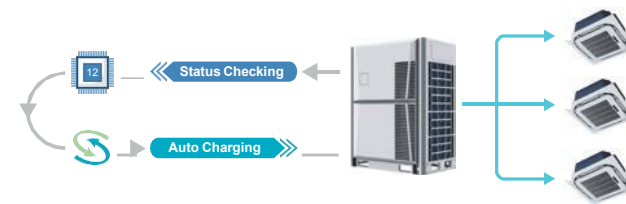
### 👉 Service Window On Front Cover

Thanks to the service window, checking outdoor units status and setting is now easy, no need to remove the front cover.



### 🔄 Auto Charging Refrigerant(optional)

ZTVC can customize with auto refrigerant charging function, additional solenoid valve will be added in gas pipe, and outdoor unit will control the valve to charge refrigerant.



Max.4 outdoor units can be freely combined to become a larger unit.the maximum capacity of single system is 96HP.

\*:when 4 outdoor units are combined,the single unit capacity can not exceed 24HP.

## 1 High Efficiency

## 2 Benefits For Users

## 3 Benefits For Installers

# Advantages

Provide You With Fresh Air

1

# High Efficiency

## Low carbon life advocate

ZTVC always focus on low-carbon energy-saving products development, and spare no effort for technological research and development, to become a practitioner and advocate of low-carbon technology!

Core Technologies Make High Efficiency

Brushless DC Motor

- High efficiency
- Low noise

180° Sine Wave Control

- High precision rotor speed control

Stepless Control

- On-demand output,high efficiency and energy saving

CCT Inner-groovedTube

- Excellent heat-exchanging efficiency

2-in-1 Refrigerant Flow Path

- Increase the liquid refrigerant volume proportion

Cross Flow Fins

- Enhance the supercool of refrigerant to increase system's efficiency

DC Inverter Compressors

- High pressure type
- Asymmetric scroll design
- Neodymium permanent magnet rotor

Supercooling Design

- Reduce air resistance
- Frosting improved

High Efficiency DC Inverter Compressor

- From Hitachi,famous inverter compressor manufacturer.
- R410a ECO friendly refrigerant.
- Small torque fluctuation,low vibration and quiet operation.
- High efficiency due to its patent internal structure design.
- Internal oil circulation structure.
- High reliability.
- Wide rotation speed range.
- Neodymium permanent magnet rotor,has powerful magnetic force,large torque and high efficiency.
- Concentrated winding,improving low frequency efficiency.
- High pressure chamber
- Has small suction superheat and high refrigerant volume efficiency
- Has large refrigerant discharge buffer volume,Low vibration and noise

Neodymium permanent magnet rotor

Powerful magnetic force,large force moment and high efficiency.

Ferrite magnet

Neodymium permanentmagnet

Concentrated winding

Magnetic efficiency is 12% higher than distributed winding

Concentrated winding

Distributed winding

High Efficiency DC Motor

High efficiency DC fan motor is from well-known brand.

Low noise and high efficiency because of high-density wire winding engineering.

Brushless with built-in sensor.

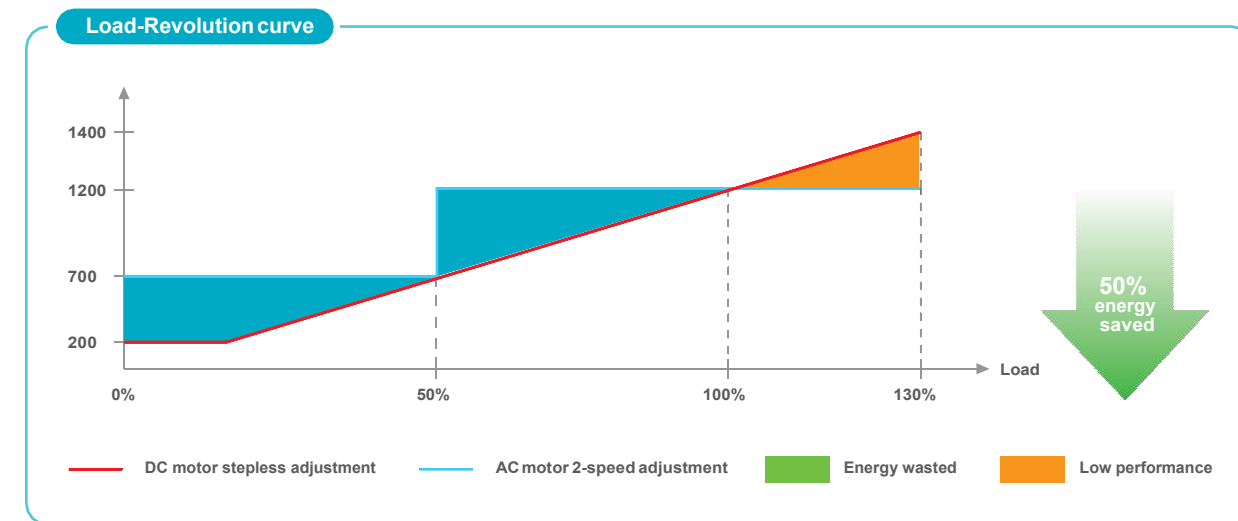
DC fan motor





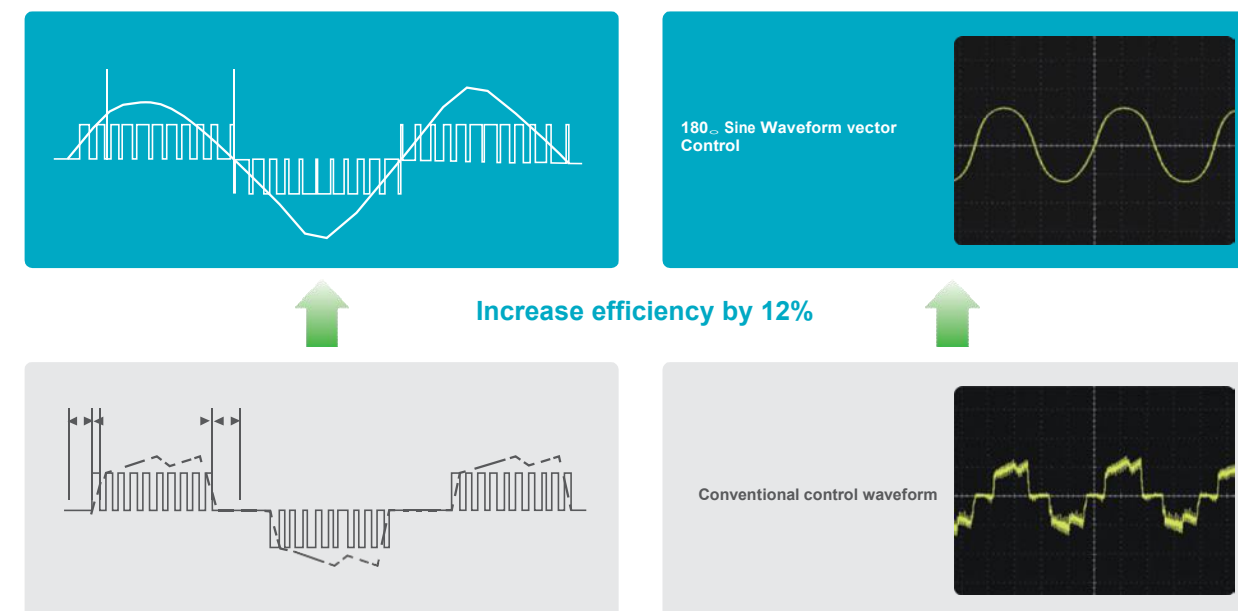
## Stepless Control

DC fan motor can be stepless controlled by outdoor PCB according to system's operating pressure. And it is able to reduce the energy consumption and maintain the system in the best performance.



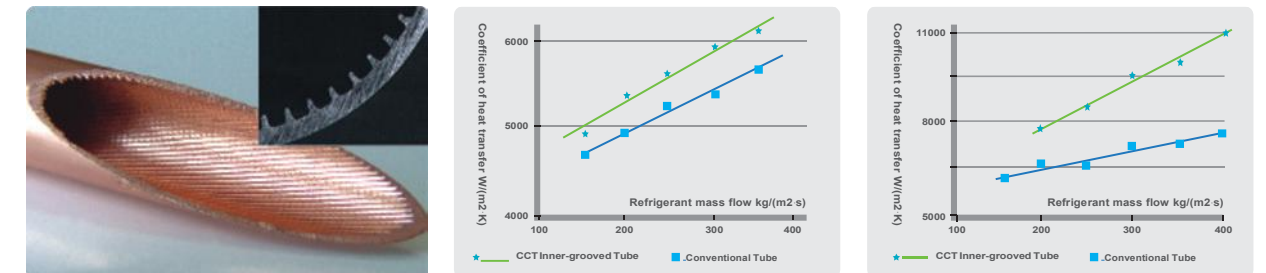
## 180° Sine Waveform Control

The perfect combination of 180° Sine waveform rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.

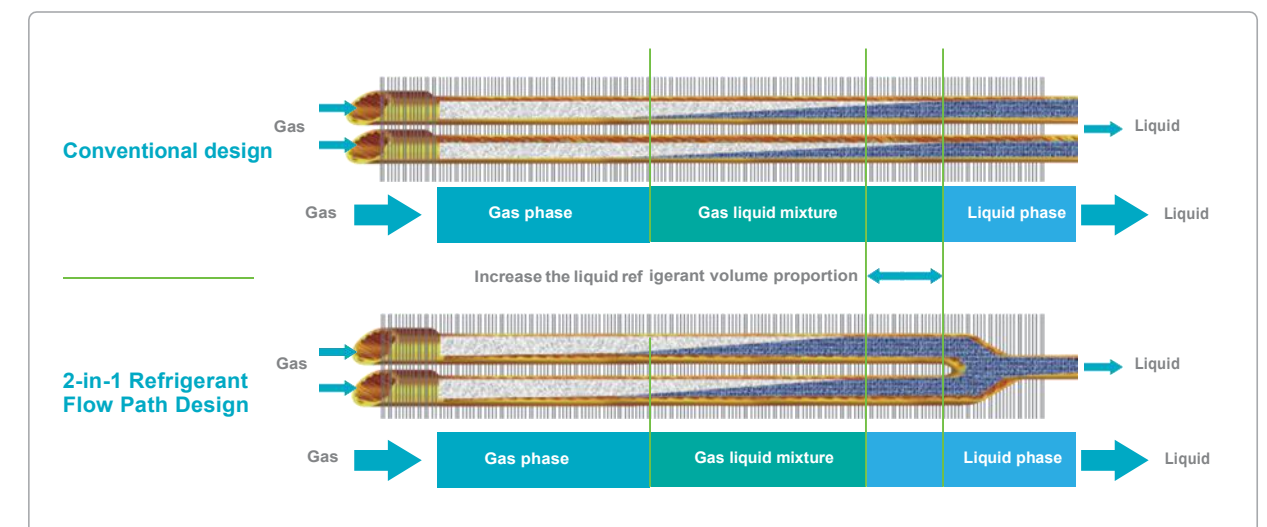
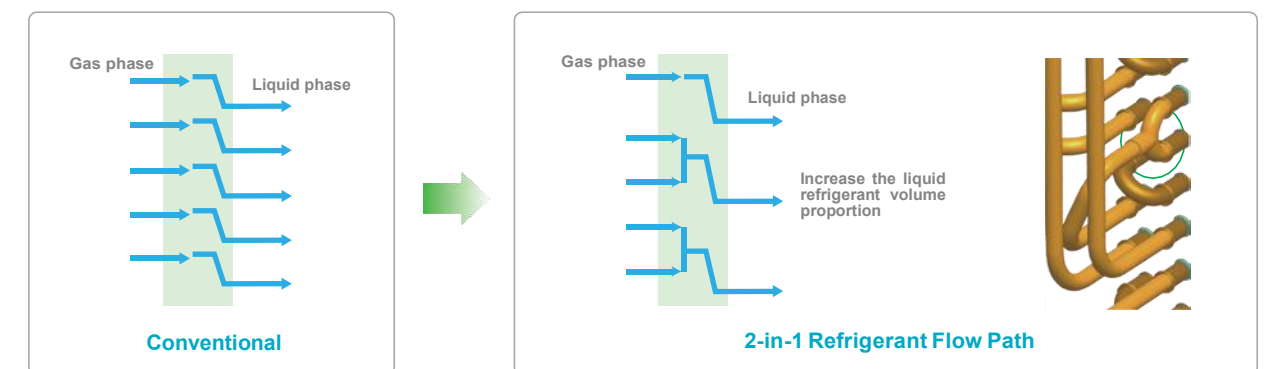


## CCT Inner-grooved Tube

CCT (Continuous Cooling Transformation) inner-grooved copper tube has high thermometric conductivity. This inner-grooved fins break the refrigerant flow boundary layer to enhance refrigerant disturbance to increase heat-exchanging efficiency.



## 2-in-1 Refrigerant Flow Path Design

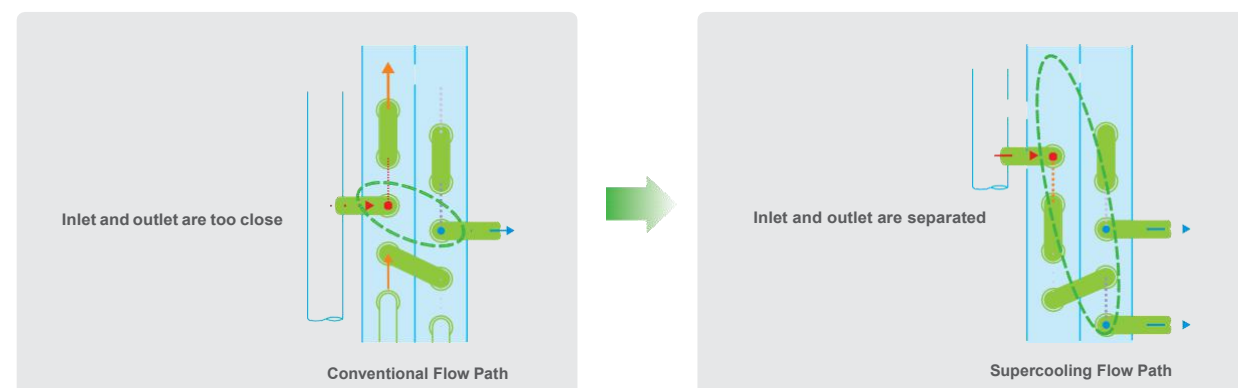






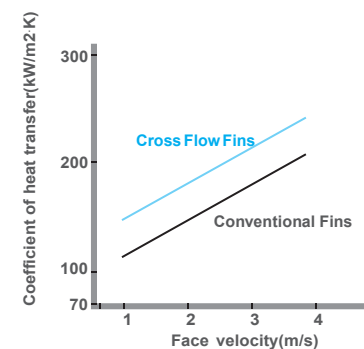
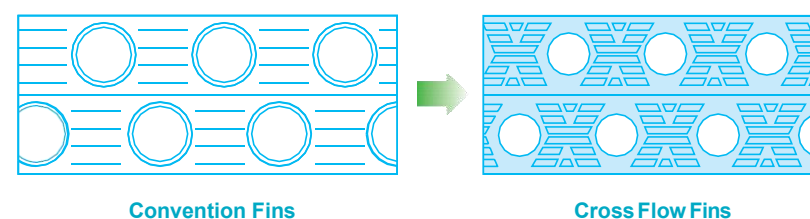
## Supercooling Flow Path Design

Supercooling flow path design, separates the refrigerant inlet and outlet, increase the supercooling degree, reduce the effect of high temperature inlet gas refrigerant to low temperature outlet liquid refrigerant, therefore, the system efficiency will be greatly increased.



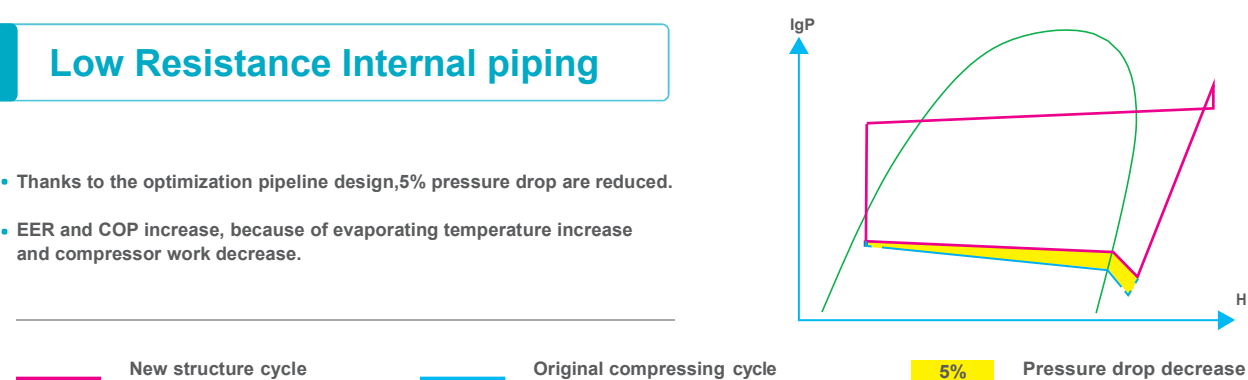
## Cross Flow Fins

- Has low air resistance and great heat transfer coefficient.
- Frosting improved, frost on the heat-exchanger will be well-distributed, easy for defrosting.



## Low Resistance Internal piping

- Thanks to the optimization pipeline design, 5% pressure drop are reduced.
- EER and COP increase, because of evaporating temperature increase and compressor work decrease.



New structure cycle

Original compressing cycle

5%

Pressure drop decrease

2

## Benefits For Users

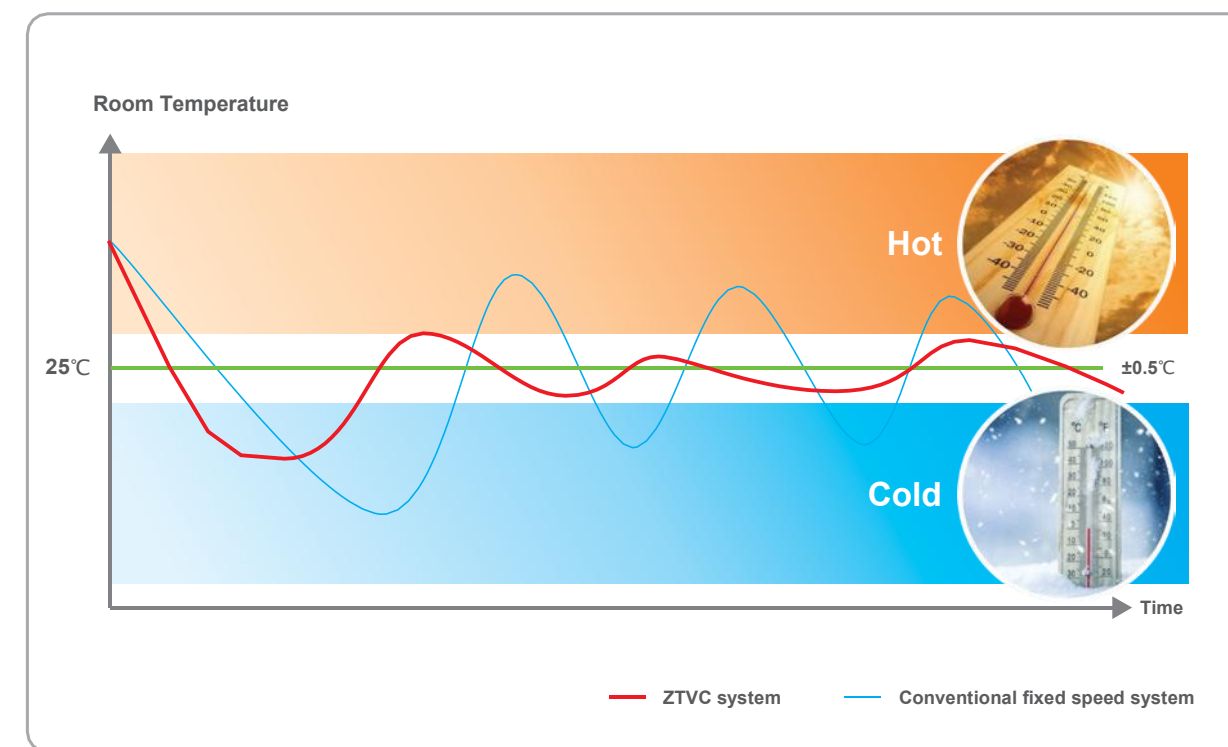
### Livable environment creator

ZTVC focuses on starting point of CAC system: create a friendly, comfortable and pleasant living environment as always. DC inverter VRF system's comfort technologies include quick cooling and heating, precise temperature control, low noise, use environmental friendly refrigerant and so on, we strive to create livable environment for users.....



## Outstanding Comfort Ability

- ZTVC system have excellent cooling&heating performance, thanks to the high efficiency DC fan motor, DC compressor and optimized refrigerant flow control logic.
- Precisely room temperature control by adopting 2000 pulse EXV. Indoor temperature fluctuation can be maintain within 0.5°C, offers outstanding comfort ability.





## Wide Operation Range

- Due to EVI technology, ZTVC's heating performance increased by 35% compare to conventional VRF system.
- Due to EVI technology, ZTVC still has 85% of rated capacity even in -15°C.



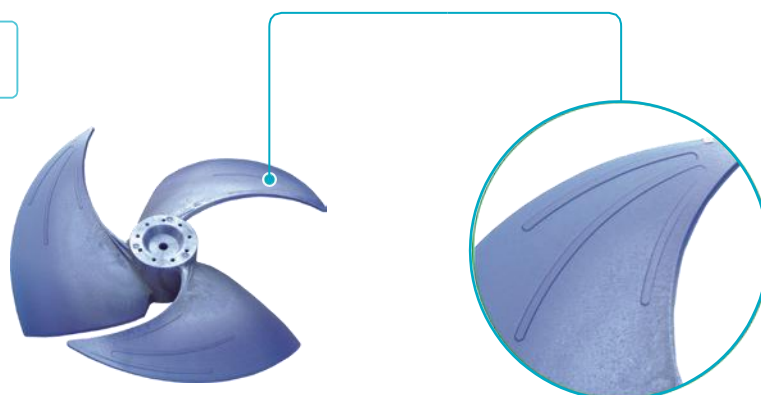
## 7 Improvements To Reduce Noise

- Maximum 10dB(A) of operating sound decrease.



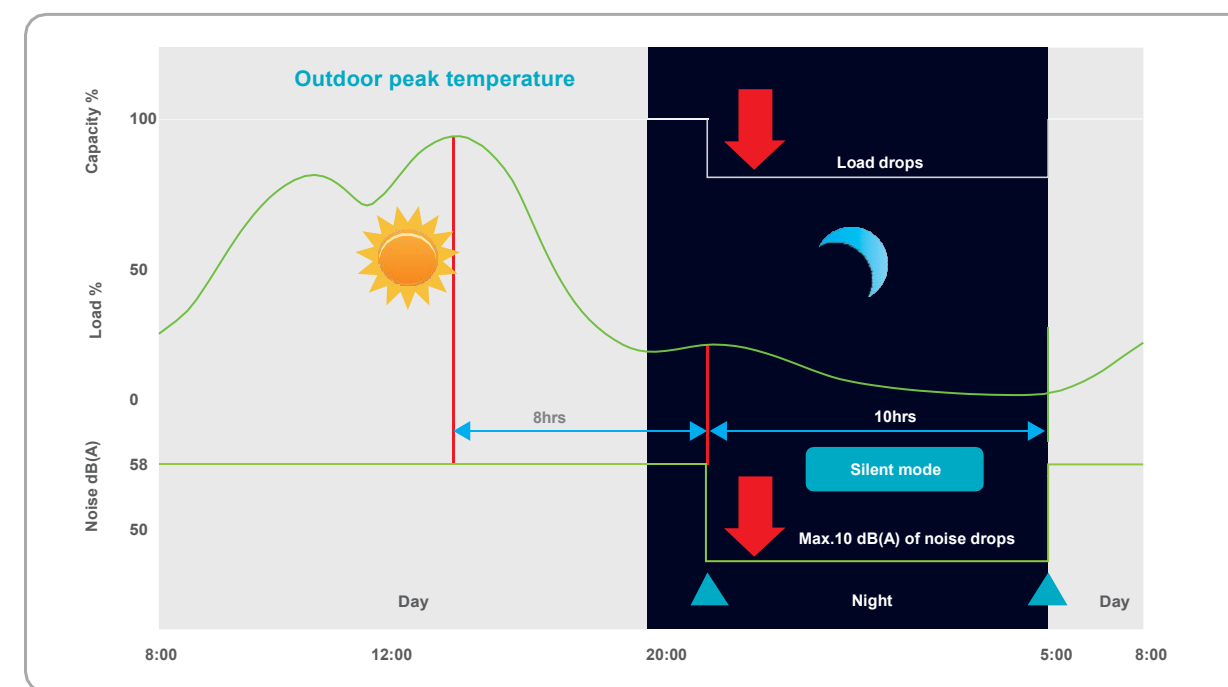
## Low Noise Fan Blade

- Anti-vibration forward fan blade.
- Special design to reduce the air vibration and disturbance



## Silent Mode, Night Time Noise Control

- Compressor and fan motor rotating speed can be reduced to lower the noise at night.
- Maximum 10dB(A) decrease.



## Snow-proof Function

- In the cold weather, outdoor fan will start to run for a while at intervals, for preventing the snow to accumulate on fan blade. Because accumulated snow will freeze and block fan blade rotating, even worse it will damage the motor.

- It only start when temperature is lower than 0°C.



## The PHE Economizer

- PHE Economizer technology provide an additional sub cooling.
- Improved heat exchanger+PHE economizer+Optimized control logic.
- Heating performance highly increased.



◀ PHE Economizer

The PHE economizer need customization.





## 3-stage Back Up Function

### Module back up function.

When some modules are failure, the others can keep running by simply settings.



### Compressor back up function

When one compressor is failure, the other one can keep running by simply settings.

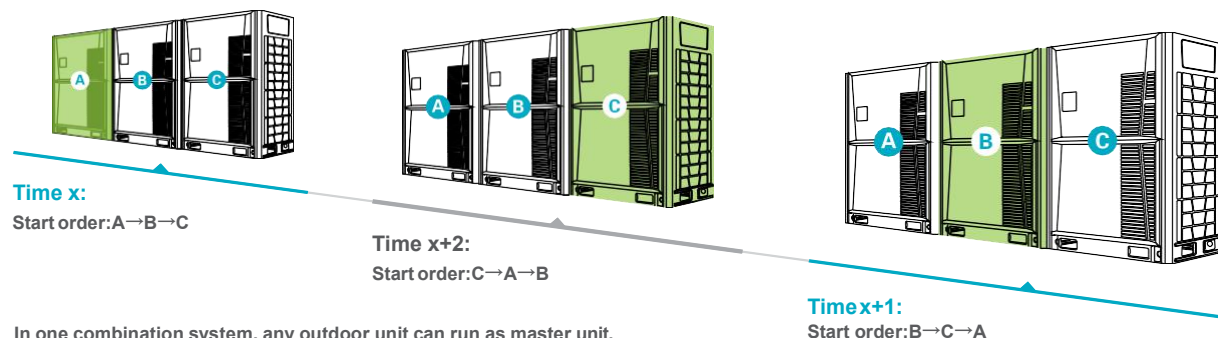


### Fan motor back up function.

When one fan motor is failure, the other one can keep running by simply settings.



## All Outdoor Units Cycle Operation



- In one combination system, any outdoor unit can run as master unit.
- Balance the lifespan among outdoor units in one system.

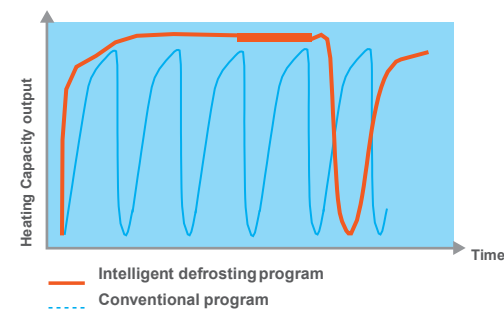


## Intelligent Defrosting Program

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.

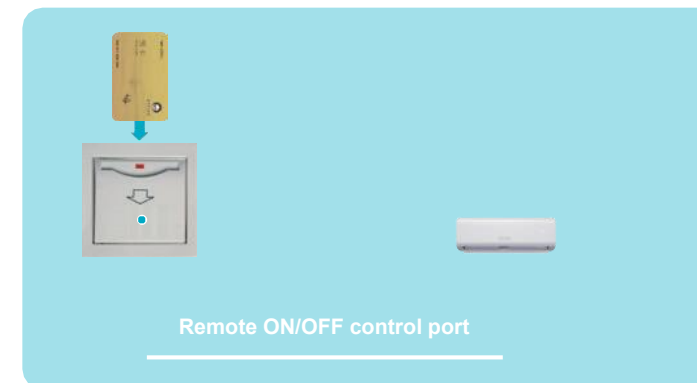
### Defrost Curve

- Conventional unit's defrosting timing & duration is fixed
- Intelligent defrosting program starts according to heat exchanging efficiency & capacity change due to the frost. Less temperature fluctuations, people feel more comfortable



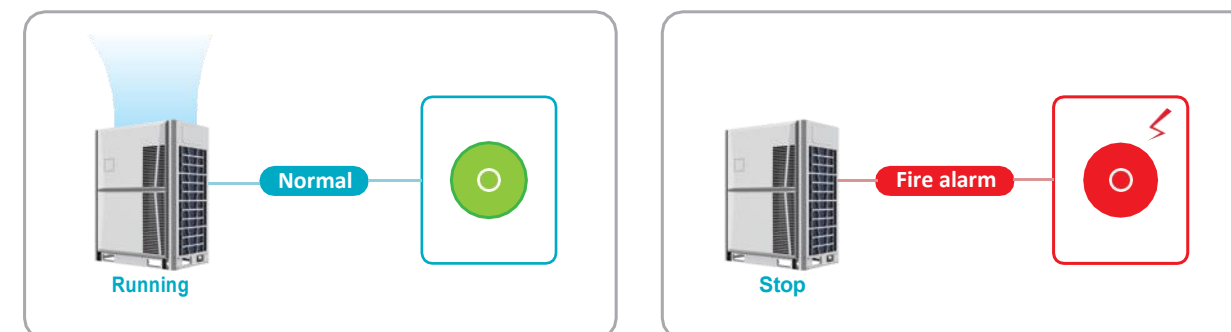
## Remote ON/OFF Control Function

- Indoor units standard build in with ON/OFF control port.
- It can be used for hotel card control and also can be used for long distance remote ON/OFF control. And no need additional hotel VRF indoor unit control module.
- When contactor is open(card pulled out),indoor unit will be off can not be controlled, current running parameters will be saved in indoor PCB.
- When contactor is close(card insert),indoor unit will recover previous running state.



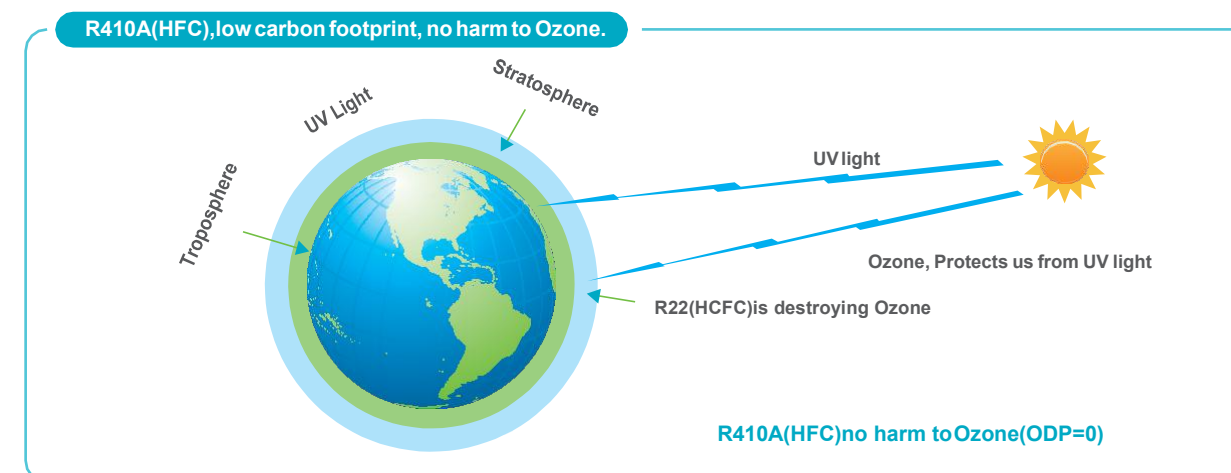
## Emergency Stop Operation Function

Outdoor unit have a fire alarm linkage signal control function. When emergency situation can stop the whole AC system.



## Environment Friendly

Refrigerant R410A(HFC),low carbon footprint, no harm to Ozone.





### 3 Benefits For Installers

#### Optimization for designer and installer

ZTVC DC inverter VRF system is designed with flexible modular combination concept,we keep optimizing the module size,reduce equipment on space occuptied to meet the demand of designer and installer.Some unique technologies are used for our installers to reduce their working load,installation is becoming easier and easier!



## Adjustable Outdoor Fan Static Pressure



- Thanks to DC fan motor, the external static pressure of outdoor fan is adjustable.
- Outdoor units can be installed in the service floor or facility room.
- Maximum ESP 85Pa.



## Touch Screen Wired Controller



- Air filter cleaning reminding function.
- Touch screen with black background and white light
- Ultra thin body and stylish design meet high-end environments.
- On/off,temperature setting, fan speed setting, mode setting,timer and check function.



## Addressing Methods

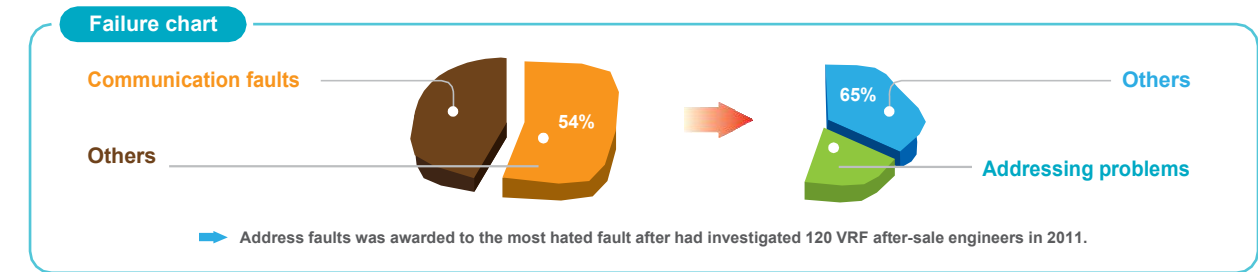


- 2 addressing methods:
  - Automatically addressing: system will distribute address to indoor unit automatically.
  - Manually setting by wireless remote controller.
- Addressing method can be selected easily by adjusting the switch on outdoor PCB.



## Automatic Addressing

- Automatic addressing will reduce artificial faults by 35% and 5% manual works.
- 54% system failure were caused by communication faults.
- 65% communication faults were caused by address problems.
- Most of the address problems were: address setting forgotten, wrong settings, address repeat.





## New Wired Controller

- Bidirectional communication. Indoor unit's operating parameters(error code, temperature, address)can be inquired and displayed on the controller.
- Compact design.
- Timer function.



Indoor unit operation state  
Indoor unit control order



Easy

Safe

Convenient




User can check the error code and inquiry unit status very easy, safe and convenient.



## LED Display On The PCB

- LED display on the PCB, it can show system's operation status and error codes.



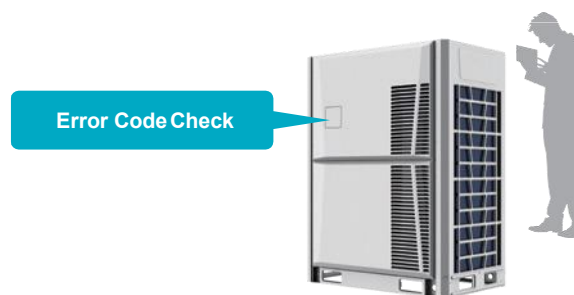
- Record error code list at main PCB chip, easy for service people to check.





## Service Window

Thanks to the service window, checking outdoor unit's status and setting is now easy, no need to remove the electric control box cover.



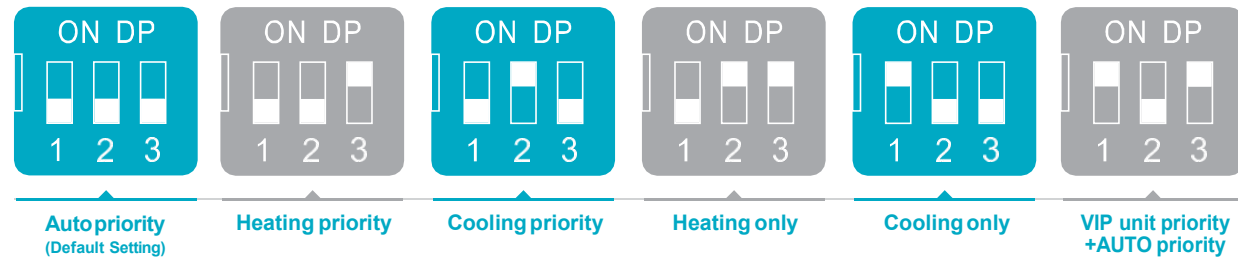




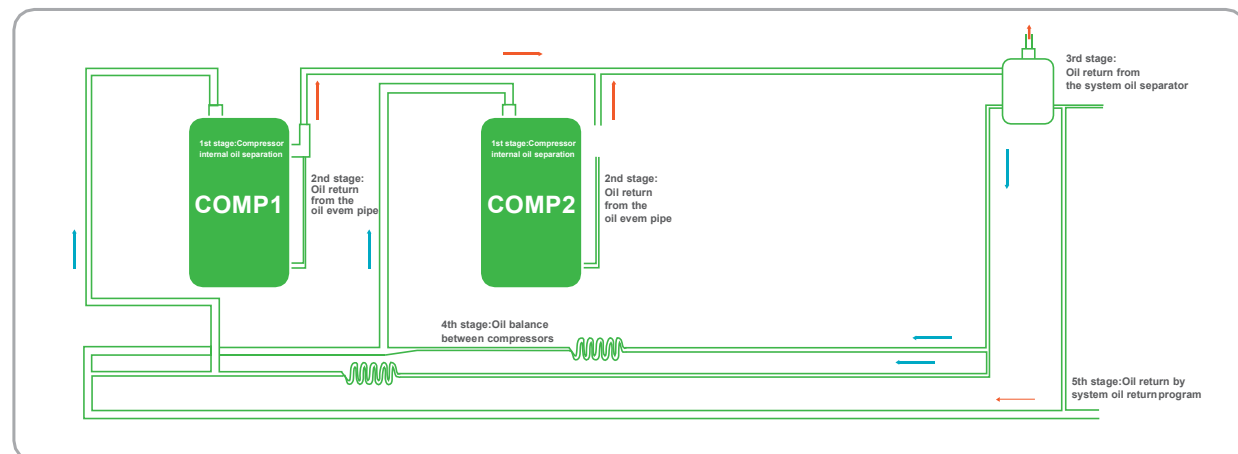
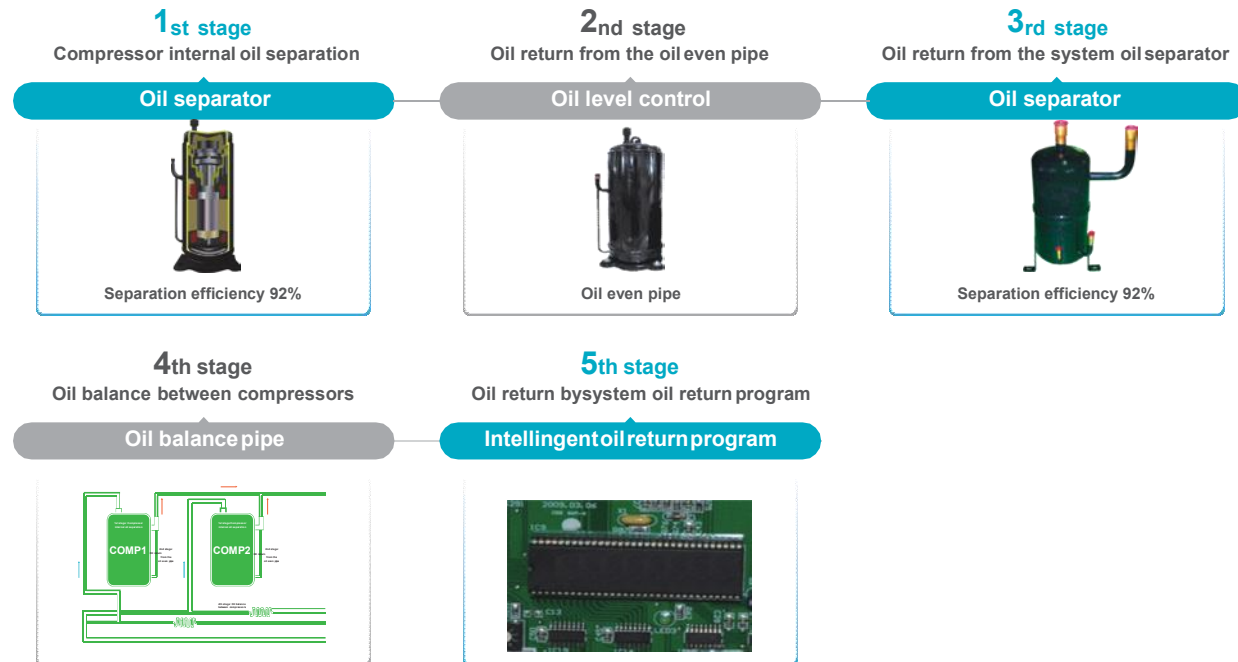
## Mode Restriction

- 6 kinds of mode restriction
  - Auto priority(Default Setting)
  - Cooling(or heating)priority mode.
  - Cooling only(or heating only)mode.
  - VIP unit priority+AUTO priority mode

• Mode restriction function can be selected on the outdoor PCB.



## 5-Stage Oil Control



## Humanized Internal Structure

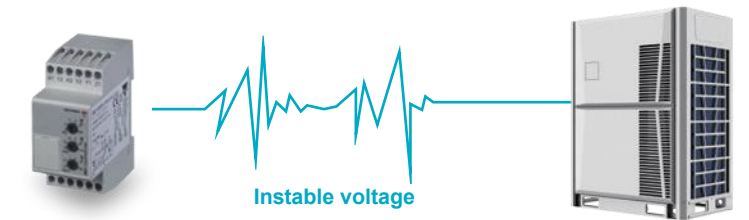


- All key components are designed to close to outside, it is convenient for repair and replacement.
- Thanks to the new balance technology, gas balance pipe does no longer exist, brazing points and leaking risk are decreased.



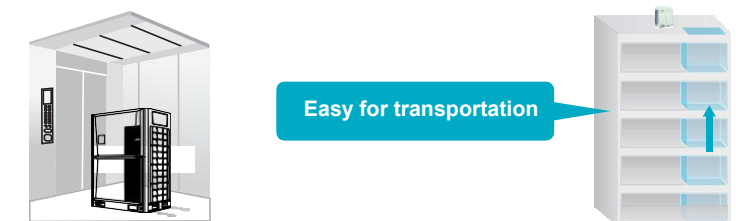
## 3-Phase Power Protector(Optional)

Protect the outdoor unit from instable voltage.



## Easy Installation

- Easy for the outdoor unit to transport to roof floor by elevator due to its compact size.
- Communication wire length can be up to 1000m.



## Use 2-Core Shielded Wire As Signal Wire

- Save installation cost.
- Reduce manual works.



ZTVC Pro

380-415V/3N/50&60Hz  
NEW DC INVERTER EVI VRF SYSTEM

Model Name			ZTVC-CHT252DZP	ZTVC-CHT280DZP	ZTVC-CHT335DZP	ZTVC-CHT400DZP	ZTVC-CHT450DZP					
Power Supply			380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz					
Performance Data												
Cooling	Capacity	HP	8HP		10HP		12HP		14HP		16HP	
		kW	T1:25.2/T3:22.2		T1:27.9/T3:24.6		T1:33.3/T3:28.2		T1:39.9/T3:33.6		T1:45/T3:37.2	
		Btu/h	T1:86000/T3:76000		T1:95000/T3:84000		T1:114000/T3:96000		T1:136000/T3:114000		T1:154000/T3:126000	
		RT	T1:7.2/T3:6.4		T1:8.0/T3:7.03		T1:9.5/T3:8.06		T1:11.4/T3:9.6		T1:12.8/T3:10.6	
	Rated current	A	T1:10.9/T3:12.0		T1:12.2/T3:13.6		T1:14.7/T3:16.1		T1:17.6/T3:19.4		T1:20.6/T3:21.8	
	Power input	kW	T1:6.8/T3:7.5		T1:7.6/T3:8.5		T1:9.2/T3:10.05		T1:11.0/T3:12.10		T1:13.0/T3:13.60	
	EER	W/W	T1:3.71/T3:2.97		T1:3.66/T3:2.89		T1:3.63/T3:2.80		T1:3.62/T3:2.75		T1:3.47/T3:2.71	
Heating	Capacity	kW	27.4		31.5		37.5		45.0		50.0	
		Btu/h	93500		107500		128000		153500		170600	
		RT	7.8		9.0		10.7		12.8		14.2	
	Rated current	A	8.93		11.25		14.34		18.00		20.25	
	Power input	kW	4.98		5.86		7.35		9.34		10.87	
COP	W/W	5.5 0		5.38		5.10		4.82		4.60		
Max. input consumption		kW	13.4		14.3		14.8		18.3		18.8	
Max. Current		A	23.1		24.7		25.5		30.8		31.7	
Capacity adjustment range		50%~130%										
Compressor Data												
Compressor	Quantity	1										
	Type	Scroll Compressor										
	Brand	HITACHI										
Physical Data												
Refrigerant	Type	R410a										
	Volume	kg	9			11			14			
	Throttle type	EXV										
Dimension (WxHxD)	Net	mm	990x1740x840					1340x1740x840				
	Packing	mm	1060x1900x910					1410x1900x910				
Weight	Net	kg	228			230			275			
	Gross	kg	240			242			293			
Outdoor sound level		dB(A)	58			60			60		61	
Max. operating range		Mpa	4.5									
Piping Data												
Pipe size	Liquid pipe	mm	Φ12.7					Φ15.88				
	Gas pipe	mm	Φ22.2					Φ28.6				
Max. pipe length	Total pipe length	m	1000					1000				
	ODU to farthest IDU (Acual length)	m	200					200				
	ODU to farthest IDU (Equivalent length)	m	240					240				
	1st IDU distributor to farthest IDU	m	40/90					40/90				
Max. vertical length	Between ODU & IDU (ODU above IDU)	m	100					100				
	Between ODU & IDU (ODU below IDU)	m	110					110				
	Between IDUs	m	40					40				
	Between ODUs	m	0					0				
Operation Temperature Range												
Cooling	Outdoor side	℃	-5~55					-5~55				
	Indoor side	℃	16~32					16~32				
Heating	Outdoor side	℃	-30~30					-30~30				
	Indoor side	℃	16~32					16~32				

Note

1. Cooling operating temperature range is from -5℃ to 55℃(It can be customized down to -10℃). Heating operating temperature range from -30℃ to 30℃.

2. The cooling conditions: indoor side 27℃(80.6℉) DB, 19℃(60℉)WB outdoor side 35℃(95℉) DB.

3. The heating conditions: indoor side 20℃(68℉) DB, 15℃(44.6℉)WB outdoor side 7℃(42.8℉) DB.

4. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

5. The above data may be changed without notice for future improvement on quality and performance.

ZTVC-CHT500DZP	ZTVC-CHT560DZP	ZTVC-CHT615DZP	ZTVC-CHT670DZP	ZTVC-CHT730DZP	ZTVC-CHT785DZP	ZTVC-CHT850DZP	ZTVC-CHT900DZP										
380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz										
18HP		20HP		22HP		24HP		26HP		28HP		30HP		32HP			
T1:50/T3:41.5		T1:56/T3:46		T1:61.5/T3:49		T1:67/T3:53.4		T1:73/T3:57.9		T1:78.5/T3:61.8		T1:85/T3:66.7		T1:90/T3:70.4			
T1:170000/T3:142000		T1:192000/T3:156000		T1:208000/T3:168000		T1:228600/T3:182000		T1:249100/T3:197700		T1:267800/T3:21090		T1:290000/T3:227500		T1:307100/T3:240000			
T1:14.3/T3:11.6		T1:16/T3:13.1		T1:17.6/T3:14		T1:19.1/T3:15.10		T1:20.8/T3:16.5		T1:22.3/T3:17.6		T1:24.2/T3:19.0		T1:25.6/T3:20			
T1:22.9/T3:24.6		T1:25.7/T3:27.3		T1:28.2/T3:28.9		T1:34.3/T3:35.6		T1:37.4/ T3:38.7		T1:40.0/T3:41.4		T1:43.5/T3:44.9		T1:46.3/T3:47.5			
T1:14.3/T3:15.5		T1:16.2/T3:17.05		T1:17.55/T3:18.16		T1:21.48/T3:22.3		T1:23.43/T3:24.26		T1:25.2/ T3:25.9		T1:27.2/ T3:28.1		T1:28.97/T3:29.7			
T1:3.49/T3:2.68		T1:3.47/T3:2.68		T1:3.47/T3:2.71		T1:3.12/T3: 2.39		T1:3.11/T3: 2.39		T1:3.11/T3:2.39		T1:3.10/T3: 2.37		T1:3.10/T3: 2.37			
56.0		63.0		69.0		75.0		81.5		87.5		95.0		100.0			
191000		214900		235400		255900		278100		298600		324100		341200			
16.0		18.0		19.7		21.3		23.2		24.86		27.0		28.4			
22.61		25.70		28.40		28.65		30.28		33.38		38.52		43.9			
11.89		14.16		16.80		14.72		16.78		18.50		21.35		24.33			
4.71		4.45		4.11		5.10		4.86		4.73		4.45		4.11			
22.0		24.4		25.0		26.2		30.7		30.7		35.8		37.7			
37.4		41.1		42.1		43.2		50.8		51.8		60.4		63.6			
50%~130%																	
1								2									
Scroll Compressor								Scroll Compressor									
HITACHI								HITACHI									
R410a																	
15		16				20				23							
EXV						EXV											
1340x1740x840						1990x1740x840											
1410x1900x910						2060x1900x910											
285		290		297		388		433				480					
303		308		315		406		452				498					
62		63				62		63				64					
4.5																	
Φ15.88								Φ22.2									
Φ28.6								Φ35.0									
1000								1000									
200								200									
240								240									
40/90								40/90									
100								100									
110								110									
40								40									
0								0									
-5~55								-5~55									
16~32								16~32									
-30~30								-30~30									
16~32								16~32									



Model Name			ZTVC-CCT252DZP	ZTVC-CCT280DZP	ZTVC-CCT335DZP	ZTVC-CCT400DZP	ZTVC-CCT450DZP
Power Supply			380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
Performance Data							
Cooling	Capacity	HP	8HP	10HP	12HP	14HP	16HP
		kW	T1:25.2/T3:21.5	T1:28/T3:23.8	T1:33.5/T3:28.4	T1:40/T3:34.1	T1:45/T3:38.3
		Btu/h	T1:86000/T3:73106	T1:95500/T3:81229	T1:114000/T3:97184	T1:136500/T3:116041	T1:153500/T3:130546
		RT	T1:7.2/T3:6.09	T1:8/T3:6.77	T1:9.5/T3:8.10	T1:11.4/T3:9.67	T1:12.8/T3:10.9
	Power input	kW	T1:5.86/T3:6.46	T1:6.79/T3:7.59	T1:9.18/T3:10.01	T1:10.50/T3:11.55	T1:12.20/T3:12.76
EER	W/W	T1:4.3/T3:3.31	T1:4.12/T3:3.13	T1:3.65/T3:2.85	T1:3.8/T3:2.94	T1:3.68/T3:3.00	
Rated. input consumption		kW	13.90	14.10	14.60	17.96	18.34
Rated. current		A	24.0	24.5	25.2	30.2	31.0
Capacity adjustment range		50%~130%					
Compressor Data							
DC Inverter compressor	Quantity	1					
	Type	DC /Twin-rotary					
	Brand	Mitsubishi					
	Frequency range	Hz	20~102	20~106	20~108	20~106	20~108
Physical Data							
Refrigerant	Type	R410a					
	Volume	kg	10		12.5		
Dimension (DxHxW)	Net	mm	840x1740x990			840x1740x1340	
	Packing	mm	910x1900x1060			910x1900x1410	
Weight	Net	kg	210			260	
	Gross	kg	220			278	
Outdoor sound level		dB(A)	58		60		61
Maximum operating pressure		MPa	4.5				
Piping & Wiring Data							
Pipe size	Liquid pipe	mm	Φ12.7			Φ15.9	
	Gas pipe	mm	Φ22.2			Φ28.6	
Max. pipe length	Total pipe length	m	1000				
	From OU to farthest IU(Actual length)	m	200				
	From OU to farthest IU (Equivalent length)	m	240				
	From 1st indoor distributor to farthest IU	m	90				
Max. Vertical length	Between OU & IU (OU above IU)	m	100				
	Between OU & IU (OU below IU)	m	110				
	Between IUs	m	40				
	Between Ous	m	0				
Operation Temperature Range							
Cooling	Outdoor side	℃	-15~55				
	Indoor side	℃	16~32				

Note

\*The above data may be changed without noitce for future improvement.

ZTVC-CCT500DZP	ZTVC-CCT560DZP	ZTVC-CCT615DZP	ZTVC-CCT670DZP	ZTVC-CCT730DZP	ZTVC-CCT800DZP	ZTVC-CCT850DZP
380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
18HP	20HP	22HP	24HP	26HP	28HP	30HP
T1:50/T3:42.4	T1:56/T3:47.7	T1:61.5/T3:52.28	T1:67/T3:57	T1:73/T3:62	T1:78.5/T3:66.73	T1:85/T3:72.3
T1:170600/T3:145051	T1:191000/T3:162457	T1:209800/T3:178413	T1:228600/T3:194369	T1:249100/T3:211775	T1:267800/T3:227730	T1:290000/T3:246587
T1:14.2/T3:12.08	T1:16/T3:13.53	T1:17.5/T3:14.86	T1:19.1/T3:16.19	T1:20.8/T3:17.64	T1:22.3/T3:18.97	T1:24.2/T3:20.54
T1:15.1/T3:16.37	T1:17.6/T3:18.52	T1:20.36/T3:21.09	T1:20.80/T3:21.60	T1:23.10/T3:23.92	T1:25.49/T3:26.19	T1:29.11/T3:30.07
T1:3.31/T3:2.60	T1:3.18/T3:2.57	T1:3.02/T3:2.48	T1:3.22/T3:2.64	T1:3.16/T3:2.59	T1:3.08/T3:2.55	T1:2.92/T3:2.40
18.74	25.90	27.80	29.50	32.00	32.00	36.50
32.0	46.6	47.5	51.0	53.00	53.00	63.00
50%~130%						
1			2			
DC /Twin-rotary						
Mitsubishi						
20~110		20~106		20~110		
R410a						
12.5	16.5		18.0	20.0		25.0
840x1740x1340				840x1740x1990		
910x1900x1410				910x1900x2060		
260	298		306	358		410
278	316		324	376		428
62	63		65	66		67
4.5						
Φ15.9			Φ22.2			
Φ28.6					Φ35	
1000						
200						
240						
90						
100						
110						
40						
0						
-15~55						
16~32						

Model Name			ZTVC-CCT252CYP	ZTVC-CCT280CYP	ZTVC-CCT335CYP	ZTVC-CCT400CYP
Power Supply			208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
Performance Data						
Cooling	Capacity	HP	8HP	10HP	12HP	14HP
		kW	25.2	28	33.5	40
		Btu/h	86000	95500	114000	136500
		RT	7.2	8	9.5	11.4
	Power input	kW	5.82	6.83	8.57	10.08
	EER	W/W	4.33	4.10	3.91	3.97
Rated. input consumption		kW	13.50	14.10	14.20	16.90
Rated. current		A	40.0	42.0	45.0	50.0
Capacity adjustment range			50%~130%			
Compressor Data						
DC Inverter compressor	Quantity		1			
	Type		DC /Twin-rotary			
	Brand		Mitsubishi			
	Frequency range		10-120			
Physical Data						
Refrigerant	Type		R410a			
	Volume	kg	10		12	
Dimension (DxHxW)	Net	mm	840x1740x990			840x1740x1340
	Packing	mm	910x1900x1060			910x1900x1410
Weight	Net	kg	208			260
	Gross	kg	218			278
Outdoor sound level		dB(A)	58		60	
Maximum operating pressure		MPa	4.5			
Piping & Wiring Data						
Pipe size	Liquid pipe	mm	Φ12.7			Φ15.9
	Gas pipe	mm	Φ25.4			Φ31.8
Max. pipe length	Total pipe length	m	1000			
	From OU to farthest IU(Actual length)	m	190			
	From OU to farthest IU (Equivalent length)	m	220			
	From 1st indoor distributor to farthest IU	m	90			
Max. Vertical length	Between OU & IU (OU above IU)	m	90			
	Between OU & IU (OU below IU)	m	110			
	Between IUs	m	30			
	Between Ous	m	0			
Operation Temperature Range						
Cooling	Outdoor side	℃	-5~50			
	Indoor side	℃	16~32			

Note

\*The above data may be changed without noitce for future improvement.

ZTVC-CCT450CYP	ZTVC-CCT500CYP	ZTVC-CCT560CYP	ZTVC-CCT615CYP	ZTVC-CCT670CYP
208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
16HP	18HP	20HP	22HP	24HP
45	50.0	56.0	61.5	67.0
153500	170600	191000	209800	228600
12.8	14.2	16.0	17.5	19.0
11.75	13.37	15.73	18.25	19.59
3.83	3.74	3.56	3.37	3.42
17.30	24.00	26.50	27.00	27.00
53.0	70.0	78.0	80.0	80.0
50%~130%				
1		2		
DC /Twin-rotary				
Mitsubishi				
10~120				
R410a				
12	13	14	14	15
840x1740x1340				
910x1900x1410				
260	288	296	296	306
278	306	314	314	324
61	62	63	63	63
4.5				
Φ15.9				
Φ31.8				
1000				
190				
220				
90				
90				
110				
30				
0				
-5~50				
16~32				



# ZTVC-Mini

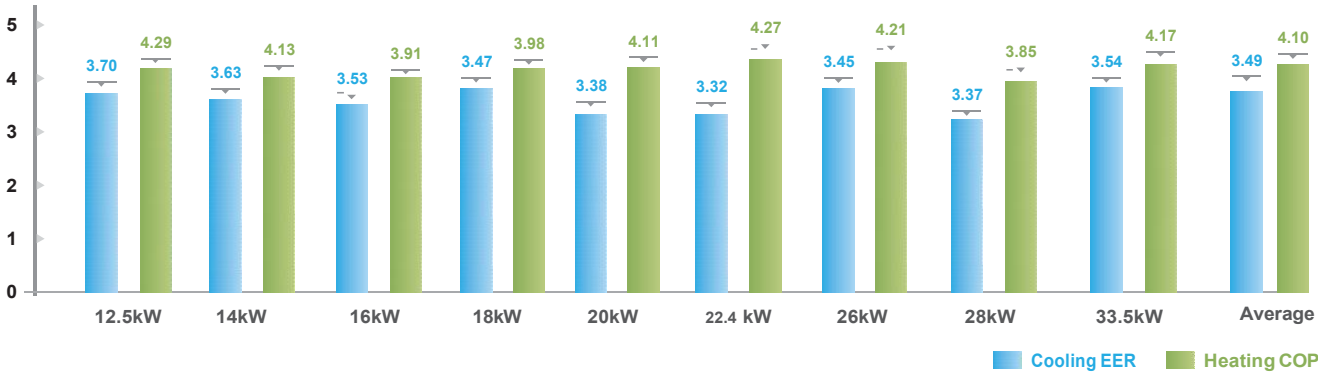
Small Capacity Full DC  
Inverter VRF Unit



9 Models

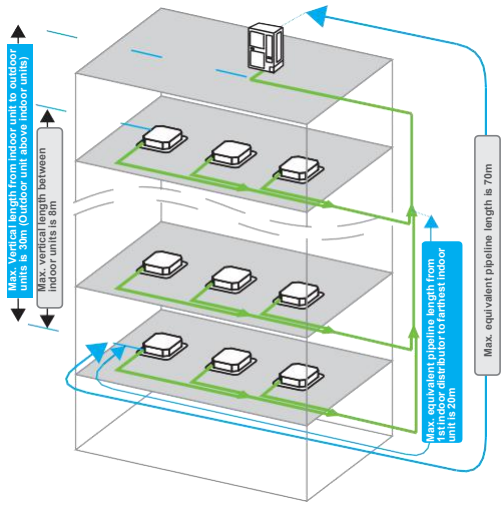
Capacity	12.5kW	14kW	16kW	18kW	20kW	22.4kW	26kW	28kW	33.5kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC
Fan motor	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

## EER&COP



## Long Piping & Height Difference

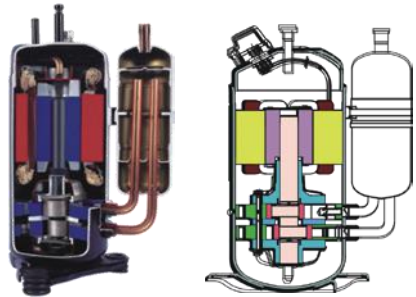
The total pipe length	100m(12.5-18kW), 120m(22.4-33.5kW)
The longest pipe length	Actual length 60m Equivalent length 70m
Equivalent length from first indoor distributor to last indoor unit	20m
Height difference between indoor and outdoor unit:	Outdoor unit above<30m Outdoor unit below<20m
Height difference between indoor units	8m



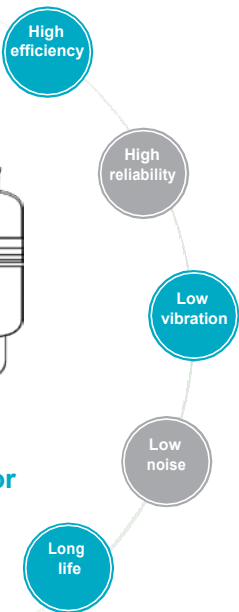
## Advantage ZTVC-Mini



### High Efficiency DCInverter Compressor



Twin-rotary invertercompressor



#### Twin-rotary DC inverter compressor/

- Use high efficiency and reliability compressor
- Has very good efficiency in part load condition

#### High Efficiency, Low Noise

- Optimized the efficiency and noise during operation with the latest technology.

#### Environmental Protection

- Developed the compressor with alternativere frigerant which can protect environment.

#### Low Vibration

- Reduced the vibration during compressor start and operation by using 2CYL Structure, simplified the match of air-conditioning.

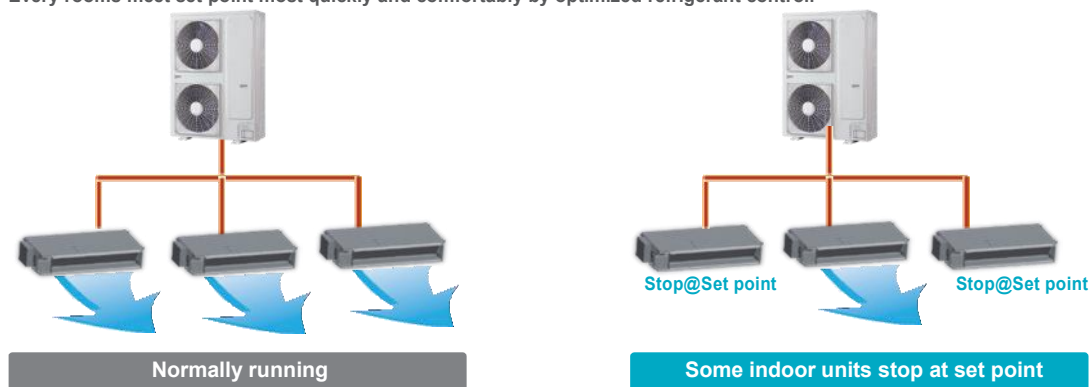
## High Efficiency DC Motor



- ◆ High efficiency DC fan motor
- ◆ Low noise and high efficiency because of high-density wire winding engineering
- ◆ Brushless with built-in sensor

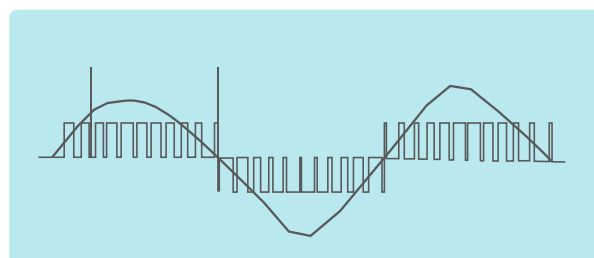
## Fast Cooling And Heating

Every rooms meet set point most quickly and comfortably by optimized refrigerant control.

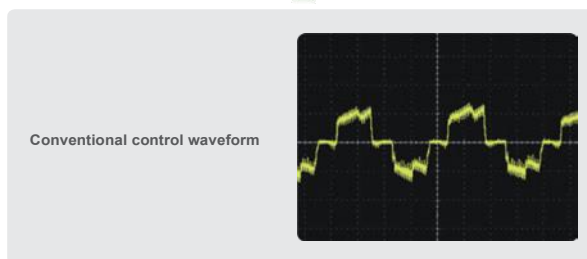
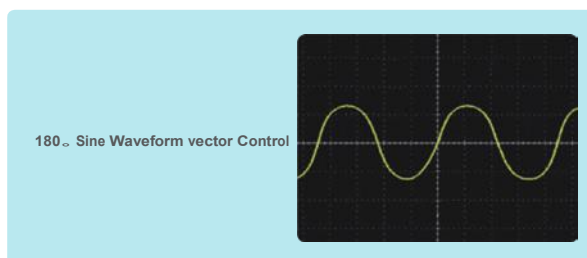
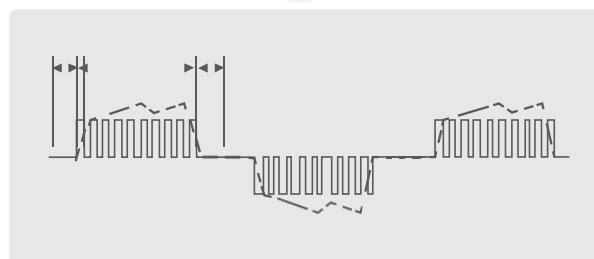


## 180° Sine Wave Control

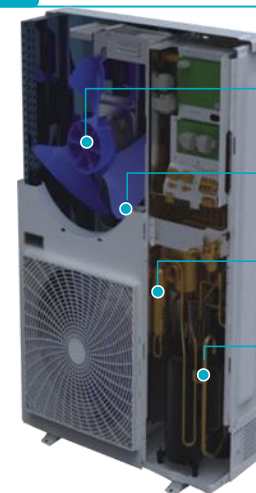
The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.



Increase efficiency by 12%



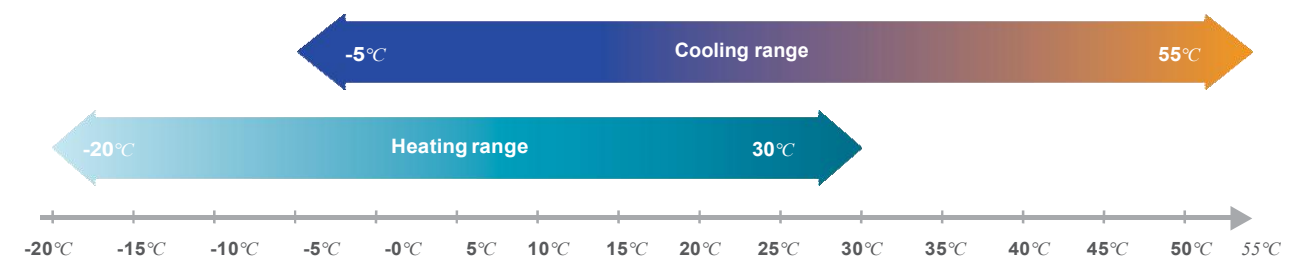
## Silent Technology



- Brushless DC motor: Adopting permanent magnet rotor, low vibration and low noise.
- Forward-curve fan blade: Unique design to increase air flow, reducing the return air resistance, reducing vibration.
- Pipeline silencer: To reduce the refrigerant flow noise.
- Optimized design by CFD: To reduce refrigerant flow resistance and vibration.

## Wide Outdoor Operation Range

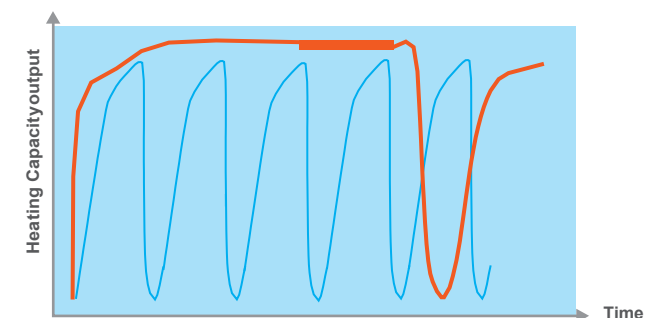
Because global warming is getting worse, Max. cooling operating temperature is designed up to 50°C. Heating operating temperature is down to -20°C. In the cold winter, system can heat the room continuously.



Outdoor unit running at temperature above 50°C need customized in factory, please consult to sales engineer.

## Intelligent Defrosting Program

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.

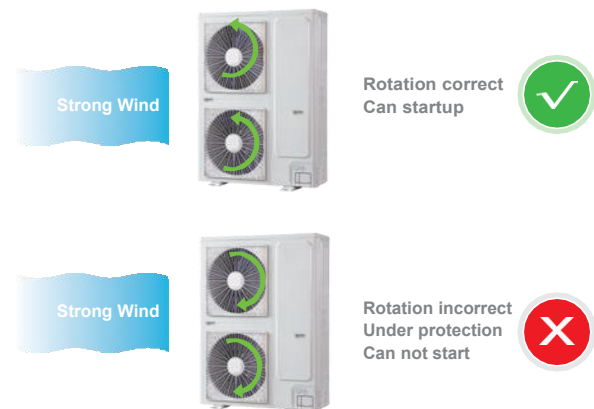


### Defrost curve

- Conventional unit's defrosting timing & duration is fixed.
- Intelligent defrosting program starts according to heat exchanging efficiency & capacity change due to the frost. Less temperature fluctuations, people feel more comfortable.

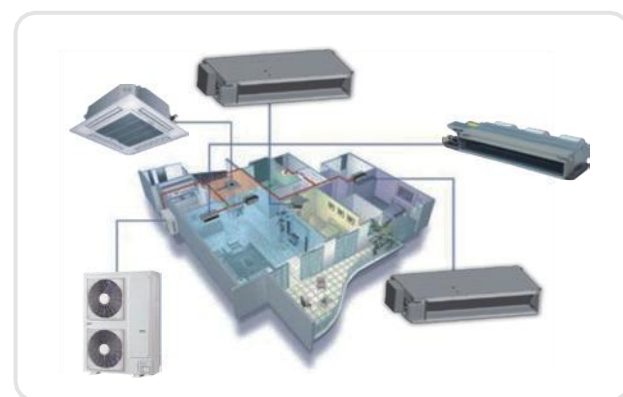
— Intelligent defrosting program  
 ..... Conventional program

## Fan Reversal Protection




## Space Saving Installation

- Multiple indoor units can be connected to 1 outdoor unit, and long piping connection is also possible.
- Compare to one-drive-one type, the outdoor unit can be installed in various places to realize the space-saving installation.



## High Efficiency



**Refrigerant cooling technology for PCB**

- The radiation fin is made of aluminum panels fitting together seamlessly.
- This helps to cool down the IPM, it has better performance compared to air cooling for PCB.
- The outdoor unit has capability to run in max. 55°C ambient temperature.

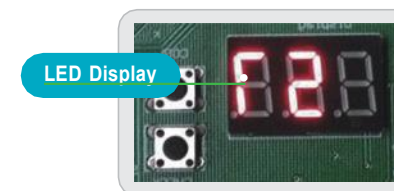
**NEW TECHNOLOGY**

## Automatically Addressing

- Automatically addressing: system will distribute address to indoor unit automatically
- Automatic addressing will reduce artificial faults and manual works.



## LED Display On PCB

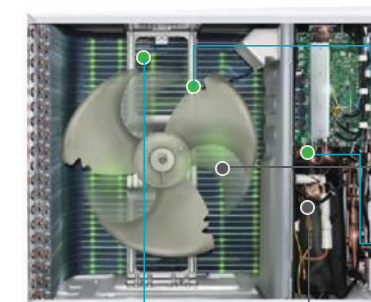


LED display on the PCB, it can show system's operation status and error codes.

## Lower Noise

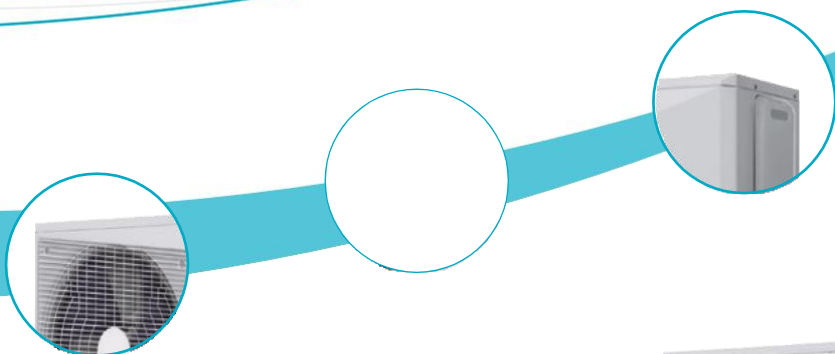
### 5 Major Technology Leads to Lower Noise

The Min. noise level is 54 dB(A)



- Streamline optimization for fan blade
- CFD simulation improvements to eliminate most of the turbulence
- Silent EXV
- Low noise compressor
- DC motor





8 / 10 / 12.5 / 14 / 16kW  
Smaller size, higher efficiency



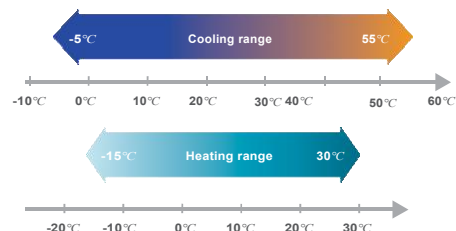
#### Compact appearance

- The center of gravity has been reduced
- The vibration level is smaller
- It is suitable to be installed on terrace due to its compact appearance



#### Wide Outdoor Operation Range

Due to global warming, cooling ambient temperature is designed up to 55°C.  
Heating ambient temperature is down to -15°C. In cold weather, ZTVC Mini VRF has capability to heat the room continuously.



#### Easy Maintenance Window

LED display on the PCB:  
this is available to show operation status  
and error codes of the system.



## ZTVC-Mini

Model name	Power type (V/N/Hz)	Cooling(T1/T3)				Heating				Refrigerant	Sound pressure Level	Dimension (WxHxD)		Weight		Connecting		Max Con- nected indoor units quantity		
		Capacity		Power input	EER	Capacity		Power input	COP			Type	Volume kg	Packing mm	Body mm	Net kg	Gross kg		Gas mm	Liquid mm
		kW	kBtu/h	kW		kW	kBtu/h	kW												
ZTVC-CHS125DXP-050D	380-415/3/50	T1:12.5/T3:10	T1:42/T3:33.6	T1:3.38/T3:3.48	T1:3.70/T3:2.87	14	47	3.26	4.29	R410a	3.45	56	1010 x 1445 x 415	975 x 1335 x 400	86.6	96.4	Φ15.88	6		
ZTVC-CHS140DXP-050D	380-415/3/50	T1:14/T3:11.48	T1:47.8/T3:39.2	T1:3.80/T3:4.04	T1:3.68/T3:2.84	16	54	3.97	4.03		3.8				7					
ZTVC-CHS160DXP-050D	380-415/3/50	T1:16/T3:13.12	T1:54/T3:44.3	T1:4.53/T3:4.69	T1:3.53/T3:2.80	18	61	4.61	3.91		3.8				8					
ZTVC-CHS180DXP-050D	380-415/3/50	T1:18/T3:14.76	T1:61/T3:50	T1:5.18/T3:5.37	T1:3.47/T3:2.75	20	68	5.02	3.98		4.2	Φ9.52	9							
ZTVC-CHS200DXP-080	380-415/3/50	T1:20/T3:16.4	T1:68.2/T3:55.9	T1:5.92/T3:6.13	T1:3.38/T3:2.70	22	75	5.35	4.11		5.3			Φ19.05	10					
ZTVC-CHS224DXP-080	380-415/3/50	T1:22.4/T3:19	T1:76.4/T3:64.8	T1:6.85/T3:7.05	T1:3.27/T3:2.69	24	81.8	5.62	4.27		5.3					Φ12.7	12			
ZTVC-CHS260DXP-100	380-415/3/50	T1:26/T3:21	T1:88.7/T3:70.9	T1:7.72/T3:7.95	T1:3.37/T3:2.72	28.5	97.2	6.77	4.21		6.1	Φ22.2	15							
ZTVC-CHS280DXP-100	380-415/3/50	T1:28/T3:23.4	T1:95.5/T3:79.3	T1:8.54/T3:8.66	T1:3.28/T3:2.70	31.5	107.5	8.18	3.85		8			60	1278 x 1703 x 560			1120 x 1549 x 528	154 x 174 x 174	15
ZTVC-CHS335DXP-100	380-415/3/50	T1:33.5/T3:27.5	T1:114.3/T3:93.3	T1:9.77/T3:10.05	T1:3.43/T3:2.75	37.5	128	8.99	4.17		8					154 x 174 x 174	18			

#### Note

- 1.Cooling Operation Conditions:  
Indoor Air Inlet Temperature: 27°C DB / 19°C WB, T1: Outdoor Air Inlet Temperature: 35°C DB, T3: Outdoor Air Inlet Temperature: 46°C DB
- 2.Heating Operation Conditions:  
Indoor Air Inlet Temperature: 20.0°C DB, Outdoor Air Inlet Temperature: 7°C DB / 6°C WB

## ZTVC-Mini

Model name	ZTVC-CHS080BXP	ZTVC-CHS100BXP	ZTVC-CHS125BXP	ZTVC-CHS125DXP-D01	ZTVC-CHS140BXP	ZTVC-CHS140DXP-F01	ZTVC-CHS160BXP	ZTVC-CHS160DXP-F01
	ZTVC-CHS080BYP	ZTVC-CHS100BYP	ZTVC-CHS125BYP	ZTVC-CHS125DYP-D01	ZTVC-CHS140BYP	ZTVC-CHS140DYP-F01	ZTVC-CHS160BYP	ZTVC-CHS160DYP-F01
Power supply	220~240V/1N/50Hz	220~240V/1N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz
	220~240V/1N/60Hz	220~240V/1N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz

Performance data			T1		T3		T1		T3		T1		T3		T1		T3		T1		T3	
Operation condition			8	7.2	10	9.0	12.5	11.3	12.5	11.3	14	12.7	14	12.7	16	14.5	16	14.5	16	14.5	16	14.5
Cooling	Capacity	kW	27300	24570	34100	30690	42600	38340	42600	38340	47800	43020	47800	43020	54600	49140	54600	49140	54600	49140	54600	49140
	Power input (T1/T3)	kW	2.60	2.81	3.00	3.25	3.20	3.46	3.20	3.46	3.75	4.06	3.75	4.06	4.75	5.14	4.75	5.14	4.75	5.14	4.75	5.14
	Rated current(T1/T3)	A	11.8	14.2	13.6	16.4	14.5	17.5	6.0	7.2	17.0	20.5	7.0	8.4	21.8	25.96	8.8	10.5	8.8	10.5	8.8	10.5
	EER (T1/T3)	W/W	3.08	2.56	3.33	2.77	3.91	3.27	3.91	3.27	3.73	3.13	3.73	3.13	3.37	2.82	3.37	2.82	3.37	2.82	3.37	2.82
Heating	Capacity	kW	9		11		14		14		16		16		17		17		17		17	
		Btu/h	30700		37500		47800		47780		54600		54600		58000		58020		58000		58020	
	Power input	kW	2.65		3.1		3.52		3.52		4		4		4.4		4.4		4.4		4.4	
	Rated current	A	12		14		16.1		16.1		18.2		18.2		20		20		20		20	
	COP	W/W	3.40		3.55		3.98		3.98		4.00		4.00		3.86		3.86		3.86		3.86	
Compressor data			1		1		1		1		1		1		1		1		1		1	
DC Inverter compressor	Quantity		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary		Twin-rotary	
	Type		Mitsubishi		GMCC		Mitsubishi		Highly		Mitsubishi		Highly		Mitsubishi		Mitsubishi		Mitsubishi		Mitsubishi	
Fan data			DC		DC		DC		DC		DC		DC		DC		DC		DC		DC	
Fan motor	Type		1		1		1		1		1		1		1		1		1		1	
	Quantity		75		90		180		90		180		180		180		180		180		180	
	Power output	W	1		1		1		1		1		1		1		1		1		1	
Fan blade	Fan Quantity		3300		4000		5500		5500		5500		5500		5500		5500		5500		5500	
	Air flow	m³/h	Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil		Hydrophilic Foil	
Physical data			3		2		2		3		3		3		3		3		3		3	
Outdoor coil	Fin type		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube		Inner-grooved copper tube	
	Number of rows		R410a		R410a		R410a		R410a		R410a		R410a		R410a		R410a		R410a		R410a	
Refrigerant	Type		2.00		2.60		3.00		3.00		3.45		3.45		3.80		3.80		3.80		3.80	
	Volume	kg	935x702x383		1032x810x445		1100x870x528		1032x810x445		1100x870x528		1100x870x528		1100x870x528		1100x870x528		1100x870x528		1100x870x528	
Dimension (WxHxD)	Net	mm	975x770x420		1075x875x495		1140x965x540		1075x875x495		1140x965x540		1140x965x540		1140x965x540		1140x965x540		1140x965x540		1140x965x540	
	Packing	mm	47		60		85		67.4		90		90		90		90		90		90	
Weight	Net	kg	50		65		95		72.2		100		100		100		100		100		100	
	Gross	kg	≤54		≤56		≤56		≤56		≤57		≤57		≤57		≤57		≤57		≤57	
ODU sound level		dB(A)	-5~55		-5~55		-5~55		-5~55		-5~55		-5~55		-5~55		-5~55		-5~55		-5~55	
Operation temperature range			-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30	
Cooling	Outdoor side	℃	-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30		-15~30	
Heating	Outdoor side	℃																				



# INDOOR UNITS

Provide you with fresh air



## Indoor Units line Up

Capacity (kW)	1-way cassette	2-way cassette	Round flow cassette	4-way cassette (Compact type)	Air Handler
2.2	●			●	
2.8	●			●	
3.6	●			●	
4.5	●	●		●	
5.6	●	●	●		
7.1	●	●	●		●
8.0		●	●		
9.0			●		
10.0			●		●
11.2			●		
12.0					
12.5			●		
14.0			●		
15.0					
16.0			●		●

Capacity (kW)	Wall-mounted	Floor Ceiling	Short ceiling concealed ducted unit	Medium ESP ducted unit	High ESP ducted unit	Fresh air processor
2.2	●		●			
2.8	●		●			
3.6	●	●	●			
4.5	●	●	●			
5.6	●	●	●			
7.1	●	●	●	●	●	
8.0		●		●	●	
9.0		●		●	●	
10.0		●		●	●	
11.2		●		●	●	
12.0		●		●	●	
14.0		●		●	●	●
15.0				●	●	
16.0		●			●	
20.0					●	●
22.4					●	●
25.0					●	●
28.0					●	●
45.0					●	●
56.0					●	●

# 1-way Cassette



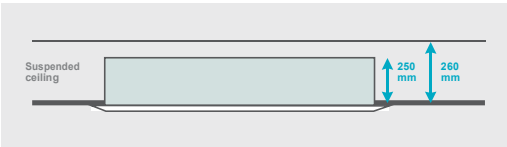
## Features

### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Standard(built-in)	Standard	/

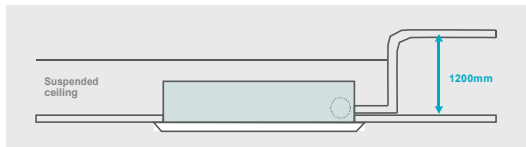
### Slim body, easy to install

Has slim body with 250mm height, it is specially suitable for low suspended ceiling rooms.



### Built-in with drainage pump

Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.



## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller		
		Cooling		Heating							Net	Gross	Gas	Liquid	Drain							
		kW	KBtu/h	kW	KBtu/h		kW	M³/h	CFM	DB(A)						Pa	Packing mm	Body mm	Panel packing mm		Panel mm	kg
ZTVC-ECS22BX	50Hz	2.2	7.5	2.5	8.5	0.04	520	306	32~36	/	1160	994	1090	1070	24/3.6	30/5.0	φ9.53	φ6.35	ODφ25	Remote controller		
ZTVC-ECS28BX	50Hz	2.8	9.5	3.2	10.9						x 275	x 250	x 65	x 50								
ZTVC-ECS36BX	50Hz	3.6	12.2	4.0	13.6						x 655	x 532	x 540	x 520								
ZTVC-ECS45BX	50Hz	4.5	15.3	5.0	17.0	0.05	610	360	36~41		1160	994	1090	1070	26/3.6	32/5.0	φ12.7				ODφ25	Remote controller
ZTVC-ECS56BX	50Hz	5.6	19.1	6.3	21.4	0.07	750	440	35~41		x 315	x 290	x 65	x 50								
ZTVC-ECS71BX	50Hz	7.1	24.2	8.0	27.2	0.09	950	550	38~45	x 655	x 532	x 540	x 520									
											1470	1304	1390	1380	34/3.6	39/5.0	φ15.9	φ9.53				
											x 305	x 290	x 70	x 50								
											x 690	x 572	x 560	x 520								

Notes:

- Power supply: 220~240V/1N for 50Hz;
- Cooling test condition: indoor side 27℃ DB, 19℃ WB outdoor side 35℃ DB. Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB
- Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality and performance.

# 2-way Cassette



## Features

### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Standard(built-in)	Standard	/

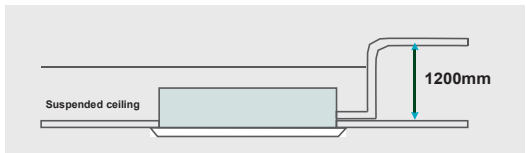
### 2 way air direction

Two direction air flow, flexibly install in various rooms or hallway



### Built-in with drainage pump

Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.



## Specification

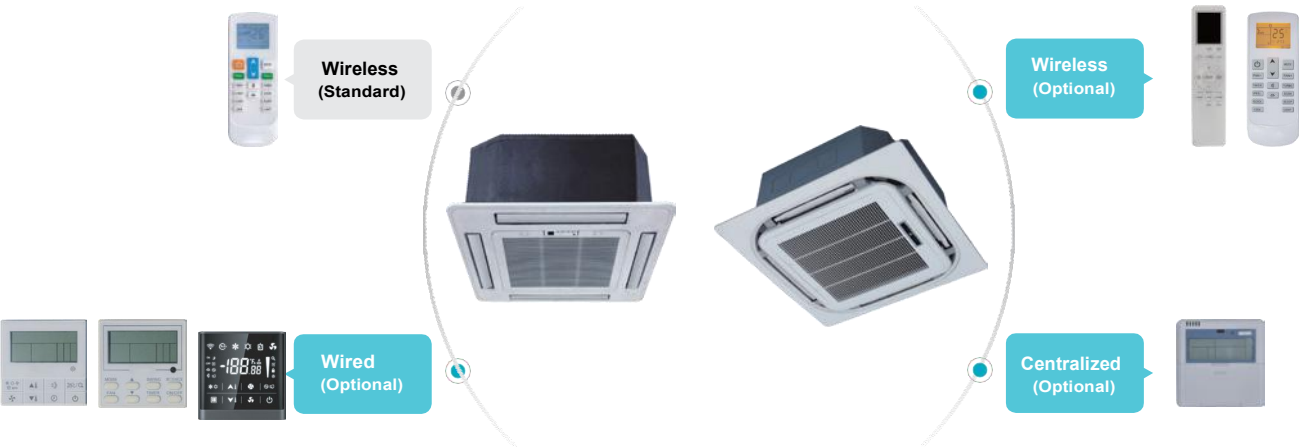
Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller		
		Cooling		Heating			M3/h	CFM			DB(A)	Pa	Packing	Body	Panel packing	Panel	Net	Gross	Gas		Liquid	Drain
		kW	KBtu/h	kW	KBtu/h																	
ZTVC-ECD45BX	50Hz	4.5	15.3	5.0	17	0.07	800	470	36~42	/	1215 x 365 x 630	1068 x 310 x 517	1235 x 70 x 655	1205 x 50 x 630	33/6.5	36/8.5	φ12.7	φ6.35	ODφ25	Remote controller		
ZTVC-ECD56BX	50Hz	5.6	19.1	6.3	21.4						1455 x 365 x 630	1308 x 310 x 517	1475 x 70 x 655	1445 x 50 x 630								
ZTVC-ECD71BX	50Hz	7.1	24.2	8.0	27.2	0.10	1120	650	40~46		1455 x 365 x 630	1308 x 310 x 517	1475 x 70 x 655	1445 x 50 x 630	40/7.5	47/10.0	φ15.9	φ9.53				
ZTVC-ECD80BX	50Hz	8.0	27.2	9.0	30.7																	

Notes:

- Power supply: 220~240V/1N for 50Hz;
- Cooling test condition: indoor side 27℃ DB, 19℃ WB outdoor side 35℃ DB. Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB.
- Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality and performance.



4-way Cassette(Compact Type)/Round-flow Cassette



Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Standard(built-in)	Standard	Optional

4 way air delivering

Air flow is soft and smooth, air can be delivered to every corner without dead angle, it makes the room temperature distribution more balance.



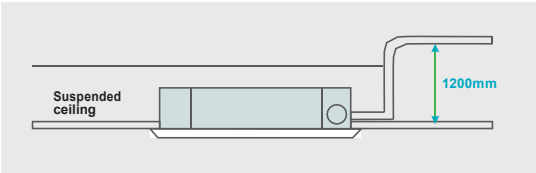
360° round panel is standard.



Built-in with drainage pump

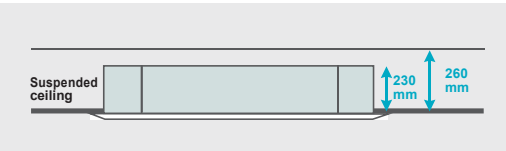
Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.

Note: The pumping head of 4-way cassette unit (compact type) is 700mm.



Slim body, easy to install

Has slim body with 230mm height, it is specially suitable for low suspended ceiling rooms.



DC fan motor is optional

Specification

4-way Cassette Unit(Compact type)

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling		Heating			M³/h	CFM			DB(A)	Pa	Packing	Body	Panel packing	Panel	Net	Gross	Gas		Liquid
		kW	KBtu/h	kW	KBtu/h	kW															
ZTVC-ECF22BX	50Hz	2.2	7.5	2.5	8.5	0.038	447	263	22~34	/	745 x 375 675	653 x 267 585	750 x 95 750	650 x 30 650	17.5	25	ø9.53	ø6.35	ODø25	Remote controller	
ZTVC-ECF22BY	60Hz														17.5	25					
ZTVC-ECF28BX	50Hz	2.8	9.5	3.2	10.9	0.038	447	263	22~34						17.5	25					
ZTVC-ECF28BY	60Hz														17.5	25					
ZTVC-ECF36BX	50Hz	3.6	12.2	4.0	13.6	0.040	515	303	27~38						17.5	25	ø12.7				
ZTVC-ECF36BY	60Hz																				
ZTVC-ECF45BX	50Hz	4.5	15.3	5.0	17	0.040	515	303	27~38						17.5	25					
ZTVC-ECF45BY	60Hz																				

Round-flow Cassette

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller					
		Cooling		Heating			M³/h	CFM			Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain						
		kW	KBtu/h	kW	KBtu/h	kW		M³/h	CFM	DB(A)										Pa	mm	mm	mm	mm	kg
ZTVC-ECF56BX	50Hz	5.6	19.1	6.3	21.4	0.09	860	500	32~39	/	920 x 265 x 985	833 x 232 x 900			24	30	Φ12.7	Φ6.5	Φ25	Remote controller					
ZTVC-ECF56BY	60Hz																								
ZTVC-ECF71BX	50Hz	7.1	24.2	8.0	27.2		1200	700	35~39												24	30			
ZTVC-ECF71BY	60Hz																								
ZTVC-ECF80BX	50Hz	8.0	27.2	8.8	30										24	30									
ZTVC-ECF80BY	60Hz																								
ZTVC-ECF90BX	50Hz	9.0	30.7	10	34.1	0.18									28.5	30									
ZTVC-ECF90BY	60Hz																								
ZTVC-ECF100BX	50Hz	10	34.1	11	37.5										28.5	35									
ZTVC-ECF100BY	60Hz						1400	820	37~41								Φ15.9	Φ9.52							
ZTVC-ECF112BX	50Hz	11.2	38.2	12.5	42.6							920 x 310 x 985	833 x 286 x 900			28.5	35								
ZTVC-ECF112BY	60Hz																								
ZTVC-ECF125BX	50Hz	12.5	42.6	14	47.7										28.5	35									
ZTVC-ECF125BY	60Hz																								
ZTVC-ECF140BX	50Hz	14	47.7	15	51.1										28.5	35									
ZTVC-ECF140BY	60Hz					0.27	1800	1050	38~42																
ZTVC-ECF160BX	50Hz	16	54.5	17	58										28.5	35									
ZTVC-ECF160BY	60Hz																								

Notes:  
1. Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz  
2. Cooling test condition: indoor side 27℃ DB,19℃ WB outdoor side 35℃ DB.Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB  
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4.The above data may be changed without notice for future improvement on quality and performance.

Short Ceiling Concealed Ducted Unit



Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Optional	Standard(built-in)	Optional	Standard	Optional

**Short body, easy to install.**

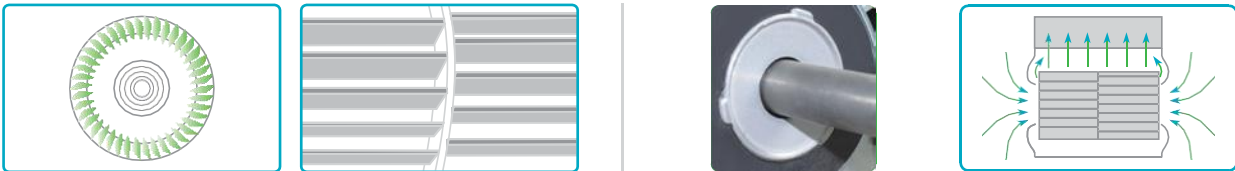
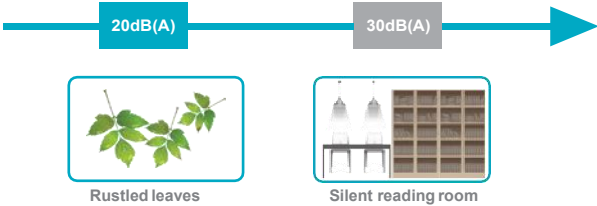
Has short body, minimum 700mm width. It is specially suitable for installation location in entrance ceiling of hotel room. Low noise and light Weight.

**Drain pump is optional**

Pumping head is 700mm.

Big air flow low noise centrifugal fan wheel

Big air flow low noise centrifugal fan blade with special air tunnel system, and the unique shock absorption measures, making this series ducted units' running noise is as low as 24 dB(A),let users to enjoy the comfort, sleep without any disturbance.



Special resin material fan wheel.

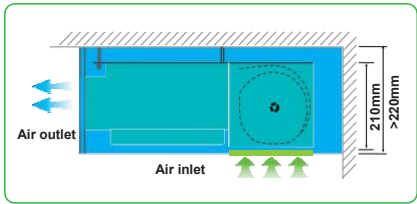
All vanes are dislocation distribution to offset sound wave, so that the noise can be reduced.

High efficiency low noise motor, motor and support frame with rubber ring isolation, can absorb vibration and reduce noise.

Air inlet of fan wheel casing is arch curved design; it can reduce air flow's disturbance, make if flow smoother to reduce noise.

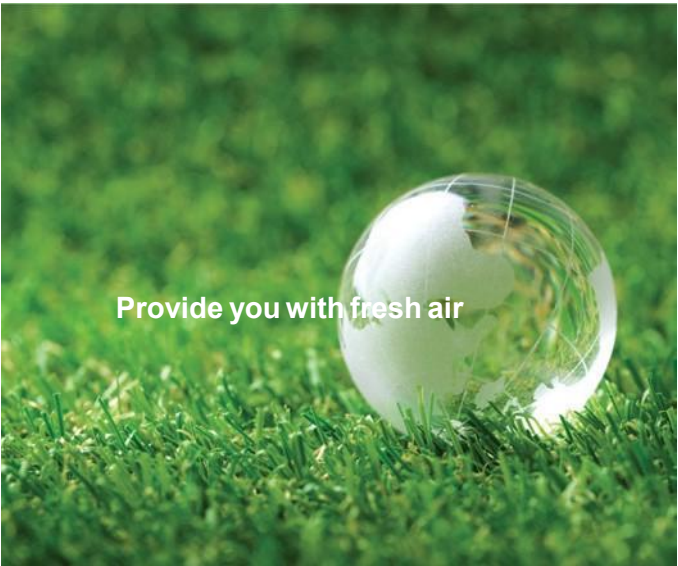
**Slim body, easy to install**

Has slim body with 210mm height, it is specially suitable for low suspended ceiling rooms.



**DC fan motor is optional**

**Integrated design of motor and motor bracket, lower noise**



Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling	Heating	Heating	Heating		M³/h	CFM			Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
ZTVC-EDL22BX	50Hz	2.2	7.5	2.5	8.5										16	18.5				
ZTVC-EDL22BY	60Hz					0.05	450	260	24~29								Φ9.53			
ZTVC-EDL28BX	50Hz	2.8	9.5	3.2	10.9										16	18.5				
ZTVC-EDL28BY	60Hz																			
ZTVC-EDL36BX	50Hz	3.6	12.2	4	13.6	0.07	550	324	25~32						16.5	19				
ZTVC-EDL36BY	60Hz																			
ZTVC-EDL45BX	50Hz	4.5	15.3	5	17	0.08	620	360	32~37						16.5	19				
ZTVC-EDL45BY	60Hz																			
ZTVC-EDL56BX	50Hz	5.6	19.1	6.3	21.4	0.09	800	520	28~38						21	24				
ZTVC-EDL56BY	60Hz																			
ZTVC-EDL71BX	50Hz	7.1	24.2	8	27.2	0.11	1000	640	30~39						25.5	28.5	Φ15.9	Φ9.53		
ZTVC-EDL71BY	60Hz																			

Notes:

1. Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz

2. Cooling test condition: indoor side 27℃ DB,19℃ WB outdoor side 35℃ DB.Heating test condition: indoor side 20℃ DB,15℃ WB outdoor side 7℃ DB

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

4.The above data may be changed without notice for future improvement on quality and performance.

Medium Static Pressure Ducted Unit

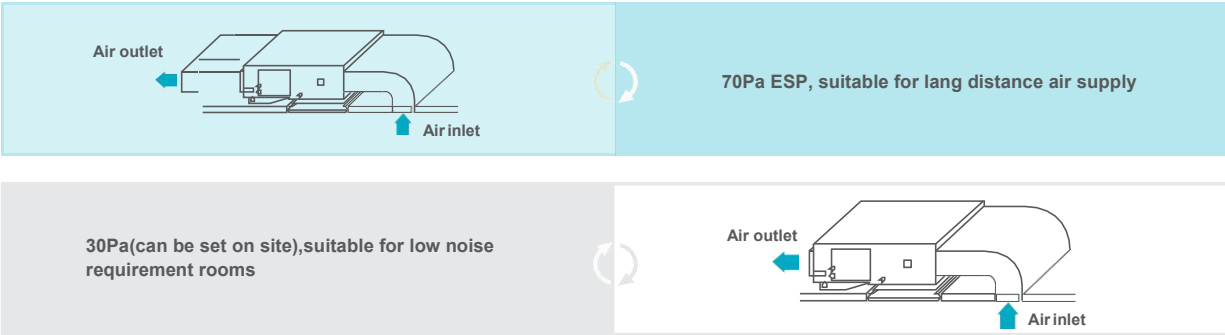


Features

Accessories

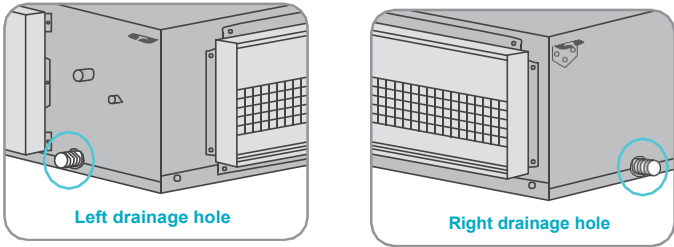
Plenumbox	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Standard	Standard(built-in)	Optional	Standard	Optional

Standard ESP is 70Pa , 30Pa can be customized



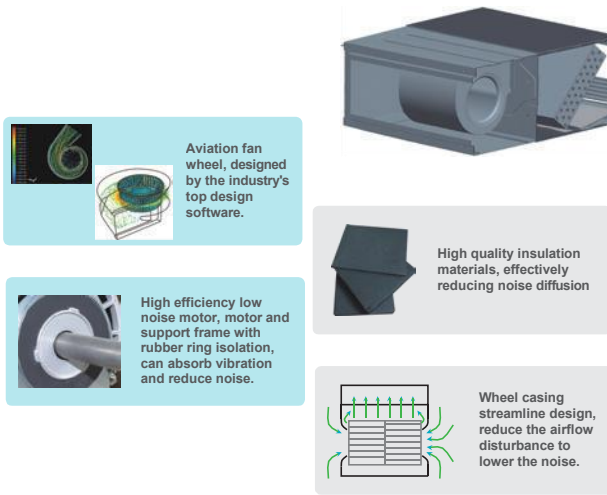
Convenient in drainage pipe install ation

Reserved drainage pipe outlet holes on left side and right side, installer can choose the outlet holes on site as per actual conditions, flexible for drainage pipe installation.



Whole unit low noise design, silent operation

Using multiple noise reduction technology, including the design of high efficiency low noise motor, aviation fan wheel, low vibration wheel casing, unique design, the inner wall configuration with high quality insulation materials, and so on, to make the units running in a low noise condition.

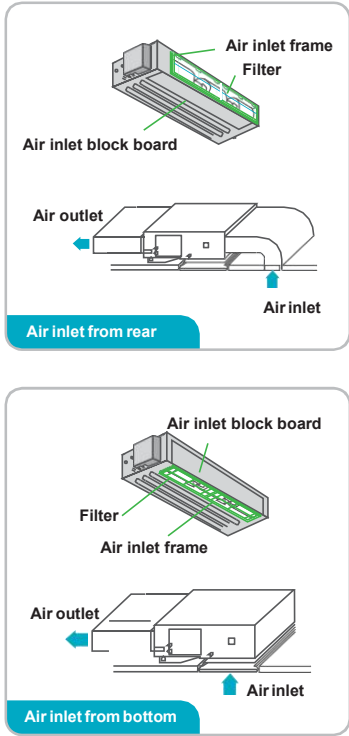


DC fan motor is optional

Integrated design of motor and motor bracket, lower noise

Two air return installation methods

Air return from rear or bottom is easy to change on site, convenient for installation.



Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling kW	Heating kW	Cooling kBTu/h	Heating kBTu/h		M³/h	CFM			Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm	
ZTVC-EDM71BX	50Hz	7.1	24.2	8.0	27.2	0.30	1220	710	36~41	70	1255 x 325 x 720	1209 x 260 x 680			33	37				
ZTVC-EDM71BY	60Hz																			
ZTVC-EDM80BX	50Hz	8.0	27.2	9.0	30.7	0.34	1850	1080	38~43	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	φ15.9	φ9.53	ODφ25	Wired controller
ZTVC-EDM80BY	60Hz																			
ZTVC-EDM90BX	50Hz	9.0	30.7	10.0	34.1	0.34	2000	1170	40~44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	φ15.9	φ9.53	ODφ25	Wired controller
ZTVC-EDM90BY	60Hz																			
ZTVC-EDM100BX	50Hz	10.0	34.1	11.0	37.5	0.34	2000	1170	40~44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	φ15.9	φ9.53	ODφ25	Wired controller
ZTVC-EDM100BY	60Hz																			
ZTVC-EDM120BX	50Hz	12.0	40.9	13.0	44.3	0.34	2000	1170	40~44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	φ15.9	φ9.53	ODφ25	Wired controller
ZTVC-EDM120BY	60Hz																			
ZTVC-EDM150BX	50Hz	15.0	51.1	17.0	58	0.34	2000	1170	40~44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	φ15.9	φ9.53	ODφ25	Wired controller
ZTVC-EDM150BY	60Hz																			

Notes:  
1. Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz  
2. Cooling test condition: indoor side 27℃ DB,19℃ WB outdoor side 35℃ DB.Heating test condition: indoor side 20℃ DB,15℃ WB outdoor side 7℃ DB  
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4.The above data may be changed without notice for future improvement on quality and performance.



High Static Pressure Ducted Unit



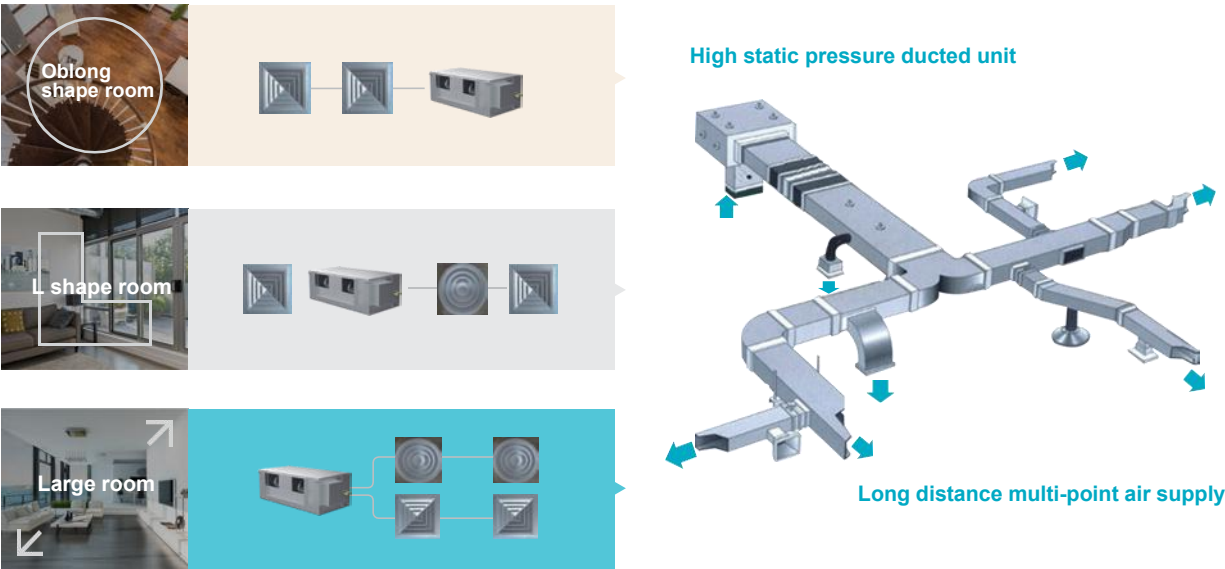
Features

Accessories

Plenumbox	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Standard	Standard(built-in)	Optional	Standard	/

High static pressure

Big air flow with high static pressure, easy for large rooms duct design. Suitable for different shape of rooms.



Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling	Heating				M³/h	CFM			Packing	Body	Net	Gross	Gas	Liquid	Drain	
		kW	KBtu/h	kV	KBtu/h	kW			DB(A)	Pa	mm	mm	kg	kg	mm	mm	mm	
ZTVC-EDH71BX	50Hz												46	50				Wired controller
ZTVC-EDH71BY	60Hz	7.1	24.2	7.8	26.6													
ZTVC-EDH80BX	50Hz																	
ZTVC-EDH80BY	60Hz	8.0	27.2	8.8	30	0.34	1500	880	40~42		1490 x 325 x 720	1445 x 260 x 680	46	50				
ZTVC-EDH90BX	50Hz																	
ZTVC-EDH90BY	60Hz	9.0	30.7	10.0	34.1								46	50				
ZTVC-EDH100BX	50Hz																	
ZTVC-EDH100BY	60Hz	10.0	34.1	11.0	37.5								47	51				
ZTVC-EDH120BX	50Hz																	
ZTVC-EDH120BY	60Hz	12.0	40.9	13.0	44.3	0.45	2300	1350	44~52		1245 x 445 x 655	1190 x 370 x 620	47	51				
ZTVC-EDH150BX	50Hz									150								
ZTVC-EDH150BY	60Hz	15.0	51.1	17.0	58.0								47	51				
ZTVC-EDH200BX	50Hz																	
ZTVC-EDH200BY	60Hz	20.0	68.2	22.0	75.0	1.2	4000	2350	45~53		1510x580x870	1465x448x811						
ZTVC-EDH200BZ-F310	50/60Hz	20.0	68.2	22.0	75.0	1.2	4000	2350	45~50		1515x885x580	1440x811x448						
ZTVC-EDH250BX	50Hz																	
ZTVC-EDH250BY	60Hz	25.0	85.3	27.5	93.8	1.2	4200	2470	45~54		1510x580x870	1465x448x811	102	113	φ22.2	φ12.7	ODφ30	
ZTVC-EDH250BZ-F310	50/60Hz	25.0	85.3	27.5	93.8	1.2	4400	2580	46~51		1515x885x580	1440x811x448						
ZTVC-EDH280BX	50Hz																	
ZTVC-EDH280BY	60Hz	28.0	95.5	30.8	105.0	1.2	4400	2580	45~55		1510x580x870	1465x448x811						
ZTVC-EDH280BZ-F310	50/60Hz	28.0	95.5	30.8	105.0	1.3	4800	2820	48~52		1515x885x580	1440x811x448						
ZTVC-EDH450BX	50Hz																	
ZTVC-EDH450BY	60Hz	45.0	153.5	50.0	170.6	1.6	6000	3520	60		2267 x 840 x 1050	2165 x 676 x 916	222	260	φ28.6	φ15.9	ODφ32	
ZTVC-EDH560BX	50Hz																	
ZTVC-EDH560BY	60Hz	56.0	191.0	63.0	214.9	2.5	8000	4700	64									

Notes:  
1. Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz  
2. Cooling test condition: indoor side 27℃ DB,19℃ WB outdoor side 35℃ DB.Heating test condition: indoor side 20℃ DB,15℃ WB outdoor side 7℃ DB  
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4. The above data may be changed without notice for future improvement on quality and performance.

Wall Mounted Unit



Features

Accessories

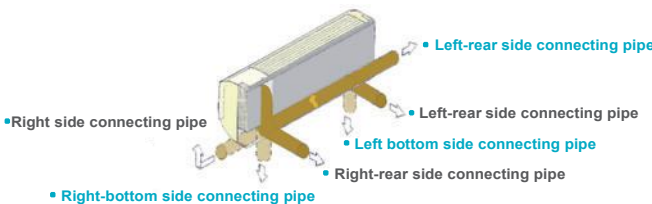
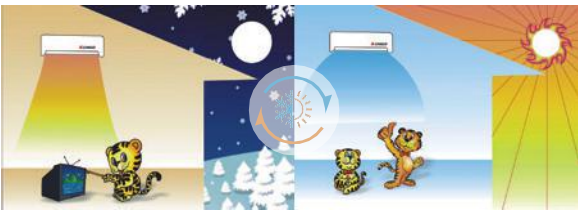
Plenumbox	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	/	/	Standard

**Air supply smoothly**  
Cross flow fan, In Cooling mode, cold air is blown from horizontal. In heating mode, warm air is blown from vertical.

**2 panels can be chosen, suitable for all kinds of decoration style**  
Simple, elegant, stylish, mirror design, suitable for all kinds of decoration style.

**Flexible in installation**  
Refrigerant pipe can be connected from 3 directions.

**Wide adjustable angle air supply**  
65° Wide angle air supply, louver angle can be fixed or set to auto-swing by controller.



Specification

Model			ZTVC-EHW22DBZ/GSB	ZTVC-EHW28DBZ/GSB	ZTVC-EHW36DBZ/GSB	ZTVC-EHW45DBZ/GSC	ZTVC-EHW56DBZ/GSC	ZTVC-EHW71DBZ/GSC
Power Supply			220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power input		W	15	15	18	20	23	35
Fan motor	Type		DC	DC	DC	DC	DC	DC
	Speed (Hi/Med/Low)	r/min	1000/900/870/850	1000/900/870/850	1100/1000/950/900	1050/950/900/850	1100/1000/950/900	1300/1200/1100/1000
Air flow		m³/h	440/380/360/350	440/380/360/350	500/440/415/380	655/610/565/525	720/645/580/560	890/805/720/645
Sound Pressure level		dB(A)	24~33	24~33	27~36	29~38	32~42	35~43
Body dimension (WxHxD)	Net	mm	864x300x200	864x300x200	864x300x200	972x320x215	972x320x215	972x320x215
	Packing	mm	945x375x290	945x375x290	945x375x290	1060x400x310	1060x400x310	1060x400x310
Body weight		kg	9.5/12	9.5/12	9.5/12	11.5/14	11.5/14	11.5/14
Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
Throttle type			EXV	EXV	EXV	EXV	EXV	EXV
Liquid pipe/Gas pipe		mm	φ6.35/φ9.53	φ6.35/φ9.53	φ6.35/φ12.7	φ6.35/φ12.7	φ6.35/φ12.7	φ9.52/φ15.88
Drainage water pipe (Outer diameter)		mm	φ20	φ20	φ20	φ20	φ20	φ20
Operation temperature		℃	16~32	16~32	16~32	16~32	16~32	16~32

Notes:  
1. Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz  
2. Cooling test condition: indoor side 27℃ DB,19℃ WB outdoor side 35℃ DB.Heating test condition: indoor side 20℃ DB,15℃ WB outdoor side 7℃ DB  
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4.The above data may be changed without notice for future improvement on quality and performance.

Wall Mounted Unit



# Floor Ceiling Unit



## Features

### Accessories

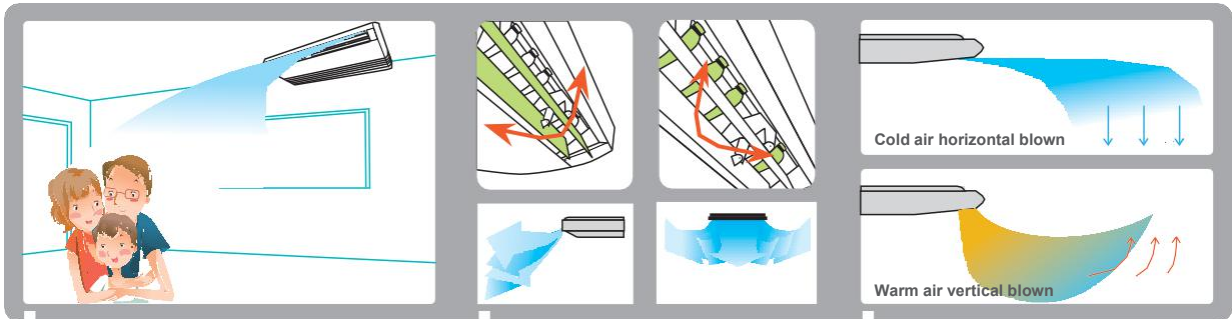
Plenumbox	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Optional	Standard	/

### Suspended installation, saves valuable floor space

- The use of ark effect: need to take up valuable floor position.
- The use of a hanging type indoor machine effect: Due to the adoption of a suspended installation, without occupying the ground position, will be valuable floor space to save up to add a set of dining table.



### Wide angle air supply

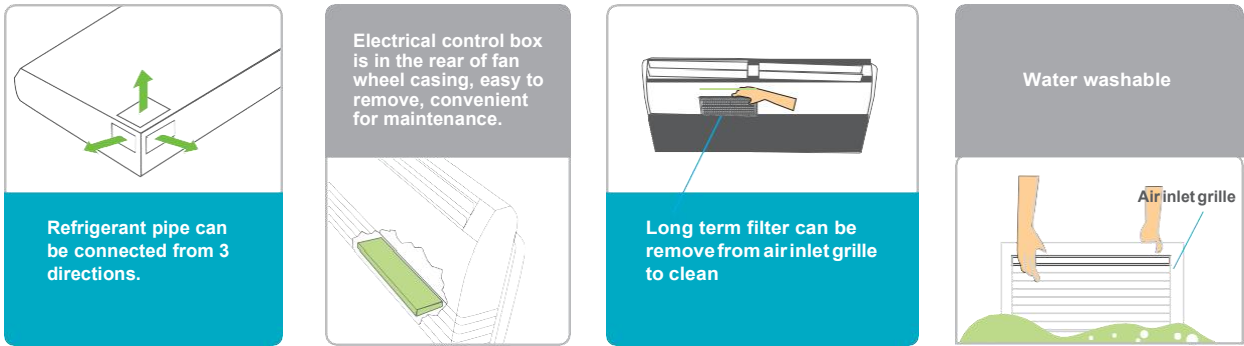


Configured with low noise high performance centrifugal fans, has big air flow and long distance air supply.

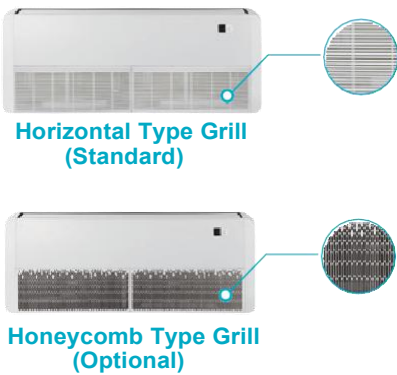
3 dimensional air supply, wide air supply angle, easily supply to every corners.

In Cooling mode, cold air is blown from horizontal. In heating mode, warm air is blown from vertical.

### Easy for installtion



### Two kinds of grilles for selection



## Floor Ceiling Unit



## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller			
		Cooling		Heating			M³/h	CFM		DB(A)	Packing	Body	Net	Gross	Gas	Liquid		Drain		
		kW	KBtu/h	kW	KBtu/h						mm	mm	kg	kg	mm	mm		mm		
ZTVC-EFC36BX-LDBA	50Hz	3.6	12.3	4.0	13.7	0.09	800	470	32~46	1130 x 765 x 330	1050 x 675 x 235	26.5	31.5	Φ12.7	Φ6.35	DN20	Remote controller			
ZTVC-EFC36BY-LDBA	60Hz																			
ZTVC-EFC45BX-LDBA	50Hz	4.5	15.3	5.0	17															
ZTVC-EFC45BY-LDBA	60Hz																			
ZTVC-EFC56BX-LDBA	50Hz	5.6	19.1	6.3	21.4	0.10	1200	706	41~48	1380 x 765 x 330	1300 x 675 x 235	32.5	37.5	Φ15.9	Φ9.52	DN20				
ZTVC-EFC56BY-LDBA	60Hz																			
ZTVC-EFC71BX-LDBB	50Hz	7.1	24.2	8.0	27.2															
ZTVC-EFC71BY-LDBB	60Hz																			
ZTVC-EFC80BX-LDBB	50Hz	8.0	27.2	8.8	30	0.20	2000	1177	38~53	1750 x 765 x 330	1670 x 675 x 235	41.0	47.0							
ZTVC-EFC80BY-LDBB	60Hz																			
ZTVC-EFC90BX-LDBC	50Hz	9.0	30.7	10.0	34.1															
ZTVC-EFC90BY-LDBC	60Hz																			
ZTVC-EFC112BX-LDBC	50Hz	11.2	38.2	12.5	42.6															
ZTVC-EFC112BY-LDBC	60Hz																			
ZTVC-ECF140BX-LDBC	50Hz	14.0	47.7	15	51.1															
ZTVC-EFC140BY-LDBC	60Hz																			
ZTVC-EFC160BX-LDBC	50Hz	16.0	54.5	17	58															
ZTVC-EFC160BY-LDBC	60Hz																			

Notes:

- Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz
- Cooling test condition: indoor side 27℃ DB,19℃ WB outdoor side 35℃ DB.Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB
- Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality and performance.

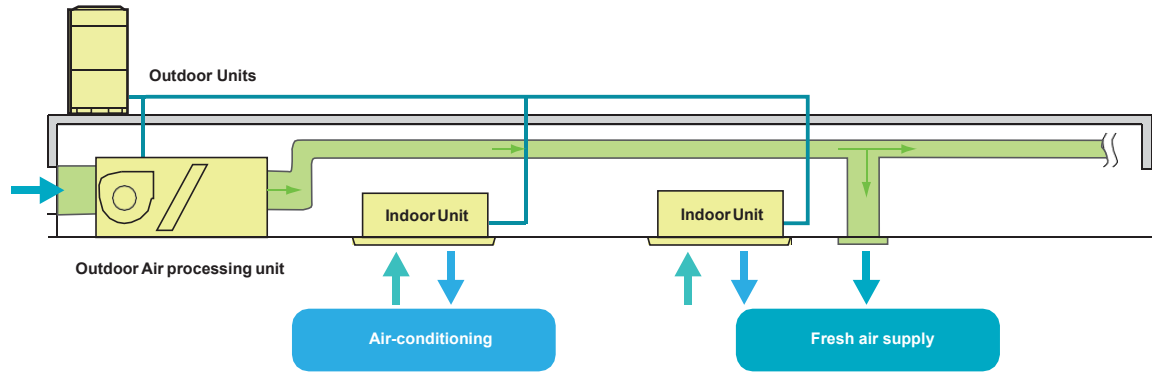


Fresh Air Processor



Innovative air supply technology for excellent room temperature control

Fresh air unit can be connected with other type indoor units(only for 14/22.4/28kw fresh air unit).  
Layout Example:



Notes:1. When VRF system connect fresh air indoor unit and other type indoor units together, the capacity combination ratio between indoor unit and outdoor unit should within 100%  
2. Fresh air unit capacity can't bigger than 30% of total indoor units capacity.

Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Optional	Standard(built-in)	Optional	Standard	/

Healthy and comfortable

Fresh air is imported, provides a healthy and comfortable living environment.

100% Fresh air processing unit

Both fresh air filtration and heating/cooling can be achieved in a single system.  
Indoor units and fresh air processing unit can be connected to the same refrigerant system, increase design flexibility and greatly reduce total system costs.

High external static pressure

External static pressure can be up to 300Pa for more flexible duct applications. The maximum distance of air supply is about 20m and the maximum height of air supply is about 6.5m.

Specification

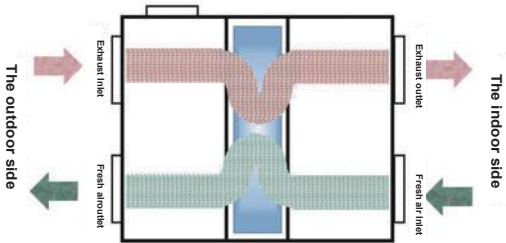
Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling	Heating				M³/h	CFM			Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h	kW			DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
ZTVC-EFA140BX	50Hz	14.0	47.7	9.0	30.7	0.45	1400	820	42~48	220	1245 x 445 x 655	1190 x 370 x 620			47	51	φ15.9	φ9.53		Wired controller
ZTVC-EFA140BY	60Hz																			
ZTVC-EFA224BX	50Hz	22.4	76.4	16.0	54.5	1.2	2000	1170	45~52	220	1510 x 580 x 870	1465 x 448 x 811			100	111			ODφ25	
ZTVC-EFA224BY	60Hz																			
ZTVC-EFA280BX	50Hz	28.0	95.5	20.0	68.2	1.2	2800	1640	45~52	220	1510 x 580 x 870	1465 x 448 x 811	/	/	100	111	φ22.2	φ12.7		Wired controller
ZTVC-EFA280BY	60Hz																			
ZTVC-EFA450BX	50Hz	45.0	153.5	31.4	107.1	1.6	4000	3520	58	300	2267 x 840 x 1050	2165 x 676 x 916			222	260				
ZTVC-EFA450BY	60Hz																			
ZTVC-EFA560BX	50Hz	56.0	191.0	39.0	133.0	2.5	6000	4700	62	300	2267 x 840 x 1050	2165 x 676 x 916			222	260	φ28.6	φ15.9	ODφ32	Wired controller
ZTVC-EFA560BY	60Hz																			

Notes:1.45kW & 56kW units' power supply are 380~415V/3N for 50Hz and 208~230V/3N for 60Hz, the others' power supply is 220~240V/1N for 50Hz and 208~230V/1N for 60Hz  
2.Cooling test condition: Indoor and outdoor side 33℃ DB, 28℃ WB.Heating test condition: Indoor and outdoor side 0℃CB, -2.9℃ WB  
3.Sound level: measured at a point 1 min front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4.The above data may be changed without notice for future improvement on quality and performance.

Heat Recovery Ventilator



Features



How it works

When air flow formed by exhaust air and outdoor air through the heat exchanged core in cross way, because of temperature difference in the two sides of flat partition board. the heat transmission is occurred.

In summer, outdoor air acquire cooling from air exhaust to decrease environment temperature; In winter, outdoor air acquire heating from air exhaust to increase temperature, that is to say, it realizing the energy recovery during air exhaust process to exchange the heating in heat exchanged core to outdoor air.

Application for: business office buildings, hotels, restaurants, meeting rooms, exhibition centres, leisure centres, workshop and otherplaces.



Specification

Supsended type specification

Model name	Air flow M³/h	ESP Pa	Power input W	Power supply (V)	Temperature exchanging efficiency(%)		Enthalpy exchanging efficiency(%)		Noise dB(A)	Body dimension (WxDxH) mm	Weight kg
					Cooling	Heating	Cooling	Heating			
ZQR-X02D	200	75	65	220V/1N/50Hz	60.0	65.0	50.0	55.0	30	666x580x264	25
ZQR-X03D	300	75	130		60.0	65.0	50.0	55.0	33	744x599x270	27
ZQR-X04D	400	80	200		60.0	65.0	50.0	55.0	35	744x804x270	30
ZQR-X05D	500	80	220		60.0	65.0	50.0	55.0	38	824x904x270	41
ZQR-X06D	600	90	242		60.0	65.0	50.0	55.0	40	824x904x270	42
ZQR-X08D	800	100	410		60.0	65.0	50.0	55.0	42	1116x884x388	68
ZQR-X10D	1000	150	510		60.0	65.0	50.0	55.0	43	1116x1134x388	82
ZQR-X13D	1300	150	530		60.0	65.0	50.0	55.0	45	1116x1134x388	82
ZQR-X15DS	1500	160	1000	380V/3N/50Hz	60.0	65.0	50.0	55.0	51	1600x1200x540	200
ZQR-X20DS	2000	170	1200		60.0	65.0	50.0	55.0	53	1650x1400x540	225
ZQR-X25DS	2500	180	2000		60.0	65.0	50.0	55.0	55	1430x1610x600	240
ZQR-X30DS	3000	200	2100		60.0	65.0	50.0	55.0	57	1600x1700x640	270
ZQR-X40DS	4000	220	2400		60.0	65.0	50.0	55.0	60	1330x1725x1050	265
ZQR-X50DS	5000	240	3000		60.0	65.0	50.0	55.0	61	1660x1820x1050	280
ZQR-X60WS	6000	290	3600		60.0	65.0	50.0	55.0	70	1660x1820x1050	310
ZQR-X70WS	7000	310	4200		60.0	65.0	50.0	55.0	73	2060x1660x1168	360
ZQR-X80WS	8000	320	6000		60.0	65.0	50.0	55.0	74	2060x1660x1168	382
ZQR-X90WS	9000	340	7500		60.0	65.0	50.0	55.0	77	2310x1900x1200	500
ZQR-X100WS	10000	400	8000		60.0	65.0	50.0	55.0	78	2310x1900x1200	534

Notes: 1.Cooling test condition: indoor side 27℃DB, 19.5 WB; outdoor fresh air 35℃DB, 28℃;  
2.Heating test condition: indoor side 21℃DB, 13 WB outdoor fresh air 5℃DB, 2℃;  
3.The above data may be changed without notice for future improvement on quality and performance.

Heat Recovery Ventilator





Air Handler Unit



Features

**Insulated cabinet**

Galvanized steel with paint on all panels. Thermal insulator cover all inside panels to reduce heat and cooling losses and prevent condensed water accumulation.

**Motor & Blower**

Direct drive motors, 3-speed, provide selections of air flow to meet desired applications.Φ10" big fan, powerful wind.

**Coil**

"A" shape coils, constructed with copper tubing and enhanced aluminum fins.

**Filter optional**

Detachable air filter for cleaning or renewal.

**Multi-position installation**

Versatile 4-way convertible design for vertical up airflow, horizontal right airflow.

Specification

Model name	Power type	Capacity				Power input	Air flow			Sound level	ESP	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling	Heating	Cooling	Heating		M³/h	CFM	DB(A)			Body	Packing	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h	W					Pa	mm	mm	kg	kg	mm	mm	mm	
ZTVC-EFC71BY	60Hz	7.1	24.1	8.0	27.2	290	1500	882.3	51-54	25		774x520x460	834x520x565	36	39	Ø15.88	Ø9.52	Ø20	Wired Controller
ZTVC-EFC105BY	60Hz	10.5	35.7	11.5	39.1	290	1500	882.3	51-54	37		774x520x460	834x520x565	36	39	Ø15.88	Ø9.52	Ø20	Wired Controller
ZTVC-EFC160BY	60Hz	16.0	54.4	18.0	61.2	517	2500	1470.6	57-60	50		970x550x500	1030x560x595	48	52	Ø15.88	Ø9.52	Ø20	Wired Controller

Notes:1.Power supply:208-230V/1N/60Hz;  
2. Cooling test condition: Indoor side 27℃ DB, 19℃ WB,outdoor side 35℃ DB .Heating test condition: Indoor side 20℃DB, 15℃ WB,Outdoor side 7℃DB;  
3. Sound level: measured at a point 1 min front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4. The above data may be changed without notice for future improvement on quality and performance.

Controllers & Software

Wireless Remote Controllers

Indoor unit address inquiry

Indoor unit address setting

Temperature setting

Operation mode setting

Fan speed setting

Timer function



## Wired Controllers



- Bidirectional communication. Indoor unit's operating parameters(error code, temperature, address)can be inquired and displayed on the controller.
- Compact design
- Timer function

## Touch Screen Wired Controller

- Air filter cleaning reminding function.
- Touch screen with black background and white light
- Ultra thin body and stylish design meet high-end environments.
- On/off, temperature setting, fan speed setting, mode setting, timer and check function.



## Simple Centralized Controller



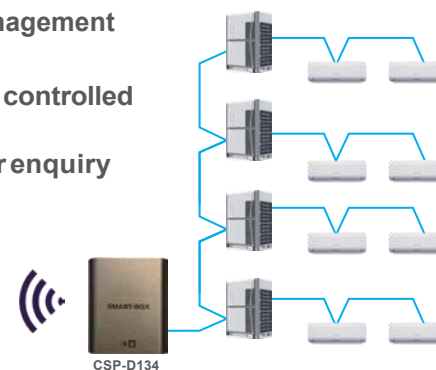
- Easy to install. Controller connects to outdoor units only.
- Able to install this controller after building decoration.
- 1 Controller can control max. 100 indoor units.
- Mode lock function, user can lock the running mode of indoor unit.
- Build in Modbus protocol.

## Smart Manager

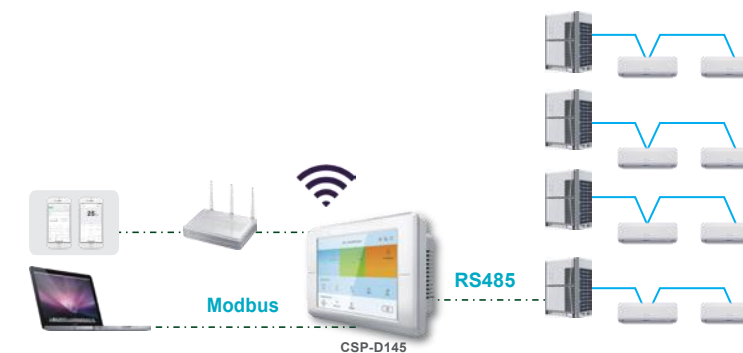
- Available on iOS and Android
- Remote control via cloud server



- Single unit controller or group control
- Weekly schedule management
- 64 indoor unit can be controlled
- Operation parameter enquiry

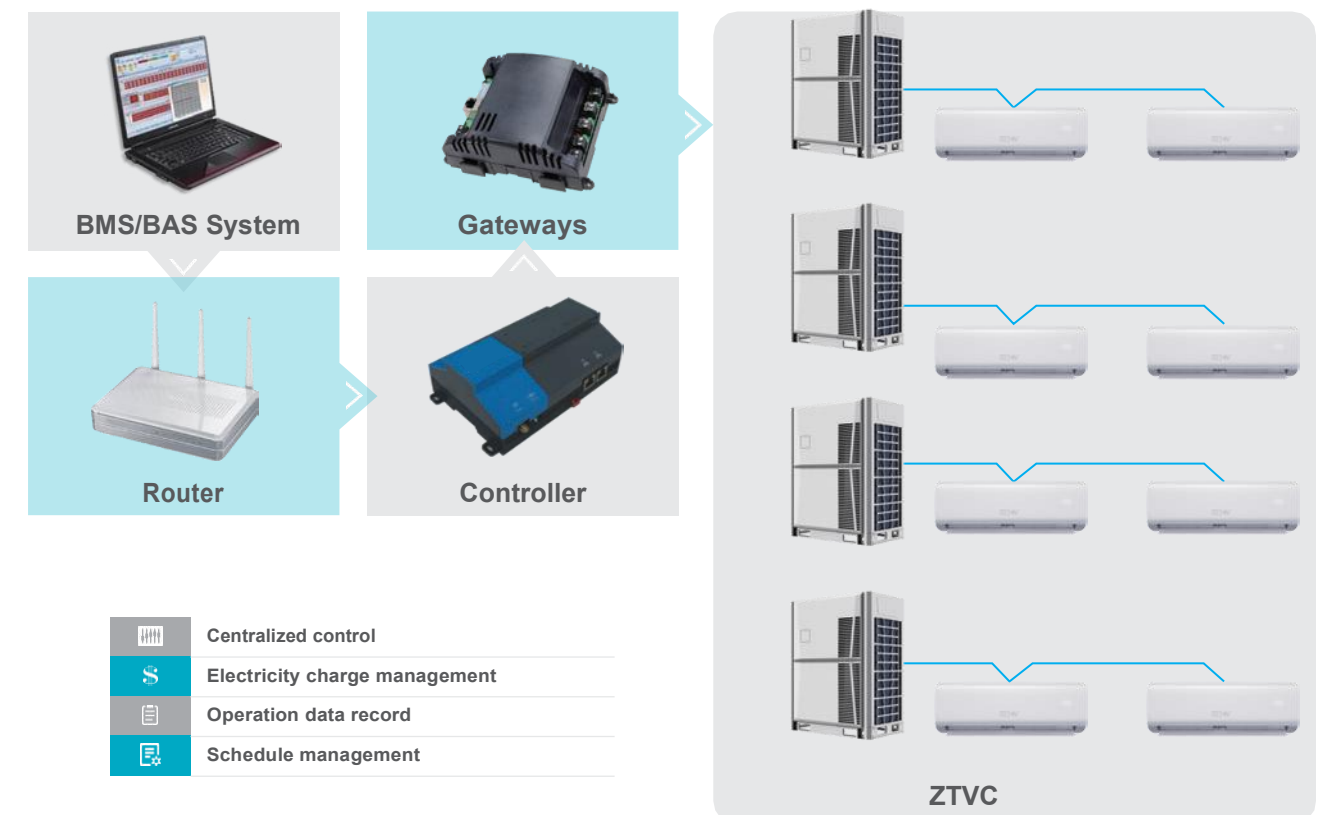


## Touch Screen Centralized Controller



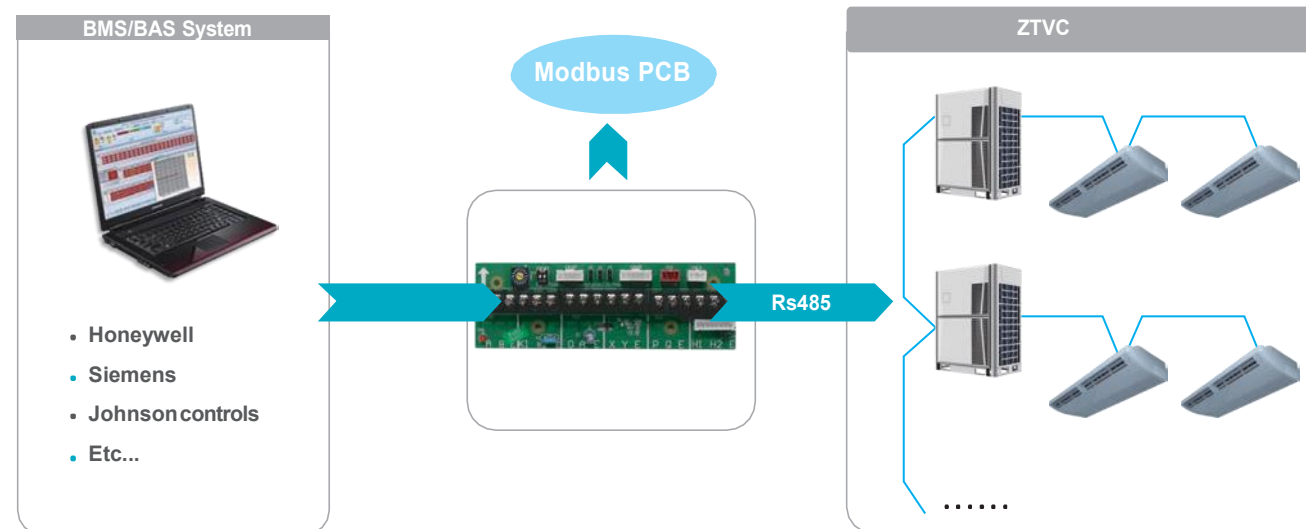
- Build in WIFI modular
- Build in Modbus protocol
- Weekly schedule management
- Operation parameter enquiry
- User friendly UI design

## ZTVC-NET (Centralized Control System)



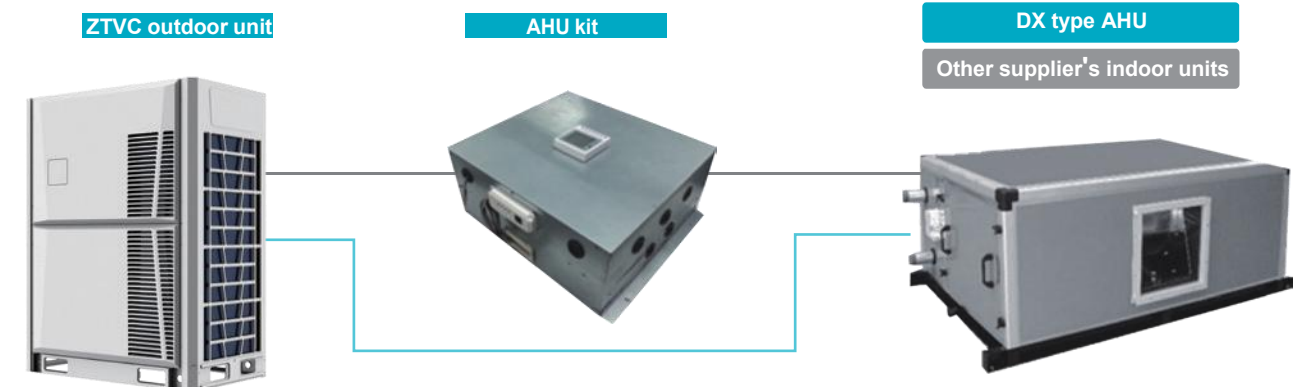
## BMS Gateway

- Modbus gateway** | Outdoor unit built in with Modbus gateway can be customized
- BACnet gateway** | Verified by BACnet International, fully compatible with all BACnet protocol product



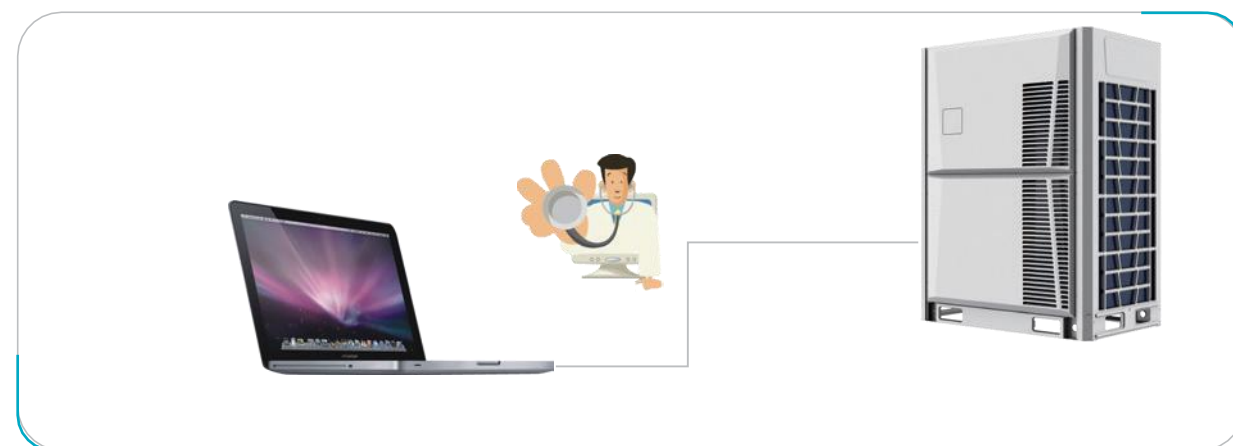
## AHU Connection Kit

- ZTVC AHU connection kit is an interface to allow 3rd party manufacturer's AHU connecting to ZTVC VRF outdoor units.
- 4 basic modules: 5HP/10HP/20HP/30HP
- Can be combined into bigger capacity.



## Doctor Kit Pro

- Fast to install, easy to use
- All indoor/outdoor units data can be enquired
- Using the computer to check the parameters



## VRF Selection Software Pro

