

DC INVERTER VRF SYSTEM Product Catalogue

T1 Condition



Giwee Company

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About Giwee Company

Giwee is a global supplier with integrated advantages in R&D, production and sales in the HVAC field, brand name is GCHV. Giwee has been deeply involved in the air-conditioning field for more than ten years with a rich product lineup and excellent market competitiveness, mainly engaged in RAC, CAC, heat pump and ventilation systems.

Giwee covers an area of 167,000 square meters, with more than 120,000 square meters of plants and 17 modern first class production lines. Annual output exceeds 2.5 million sets, includes VRF, modular chiller, tight commercial air conditioners, air source heat pumps and other products, products are in great demand on 100 more countries and regions and has accomplished thousands of reference projects worldwide.

Commercial air conditioning division established	Honored of "National high-tech enterprises"	Full DC inverter VRF CMV-X series launched	Mechanical and Electrical Installation Level 2 Qualification	Giwee Company Established
2004	2012	2014	2017	2020
Enter central air conditioning industry	CAC Company Established	New R&D office building and VRF plant put into operation	Honored of "Provincial engineering research and development center"	2018 Russia World Cup HVAC Supplier Test center certificated by CNAS
2002	2011	2013	2015	2018



Production Capacity

Giwee has 17 advanced production lines and an annual production capacity of over 2.5 million sets. Introduce lean production management, improve production efficiency. By the use of various robots, AGV system and other equipment, improving the online, offline process, optimizing the logistics distribution technology, improving product quality and production efficiency. Adopts MES system, it helps a lot in tracking production schedule, inventory status, work schedule and other operations management to improve product quality and productivity.

Quality Superiority



Giwee has established a strict and scientific quality management system with supplier quality assurance, incoming quality control, process quality control and final quality control to ensure the highest quality of the products.

The industry-leading testing center has been certified by CNAS in 2018. With a full range of professional incoming inspection labs, enthalpy difference labs, EMC labs, 27 national accredited labs for testing and verification.

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



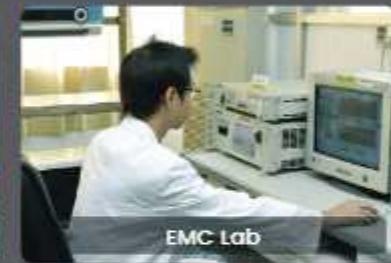
Laboratory Control Room



2000kg Transport Simulation



Professional Engineers



EMC Lab



Noise Test Lab



200HP Long-term Running Lab



Modular Chiller Test Lab



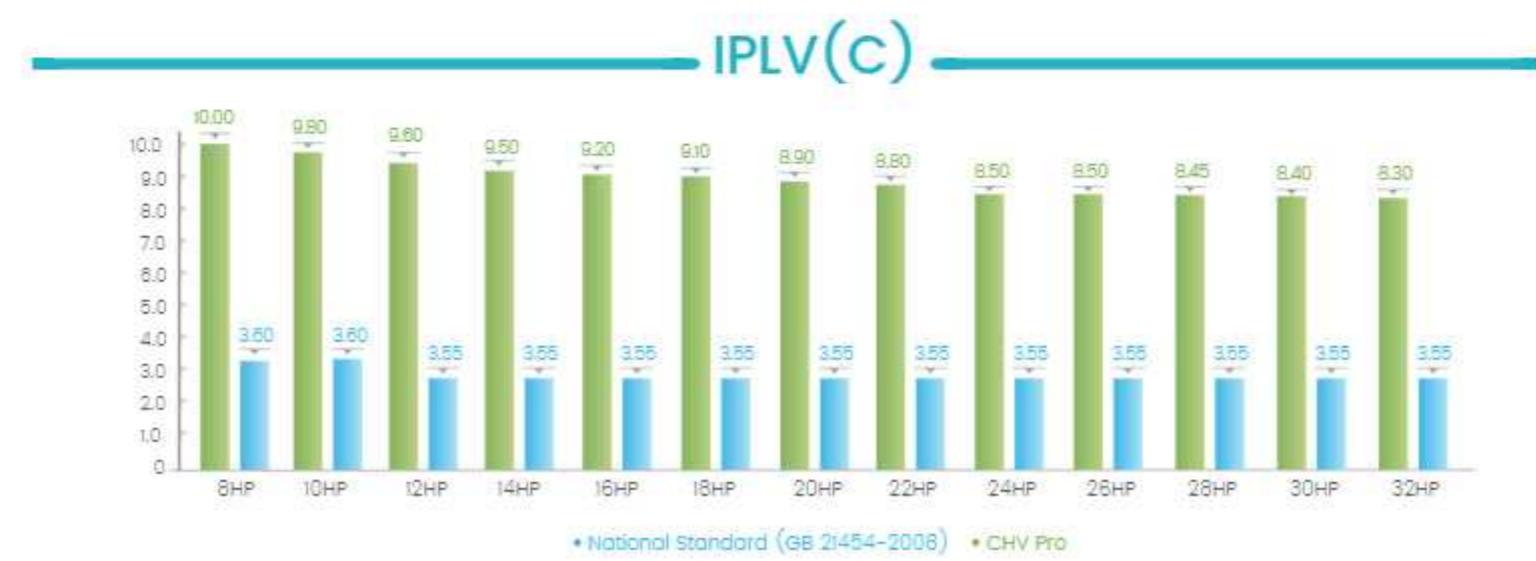
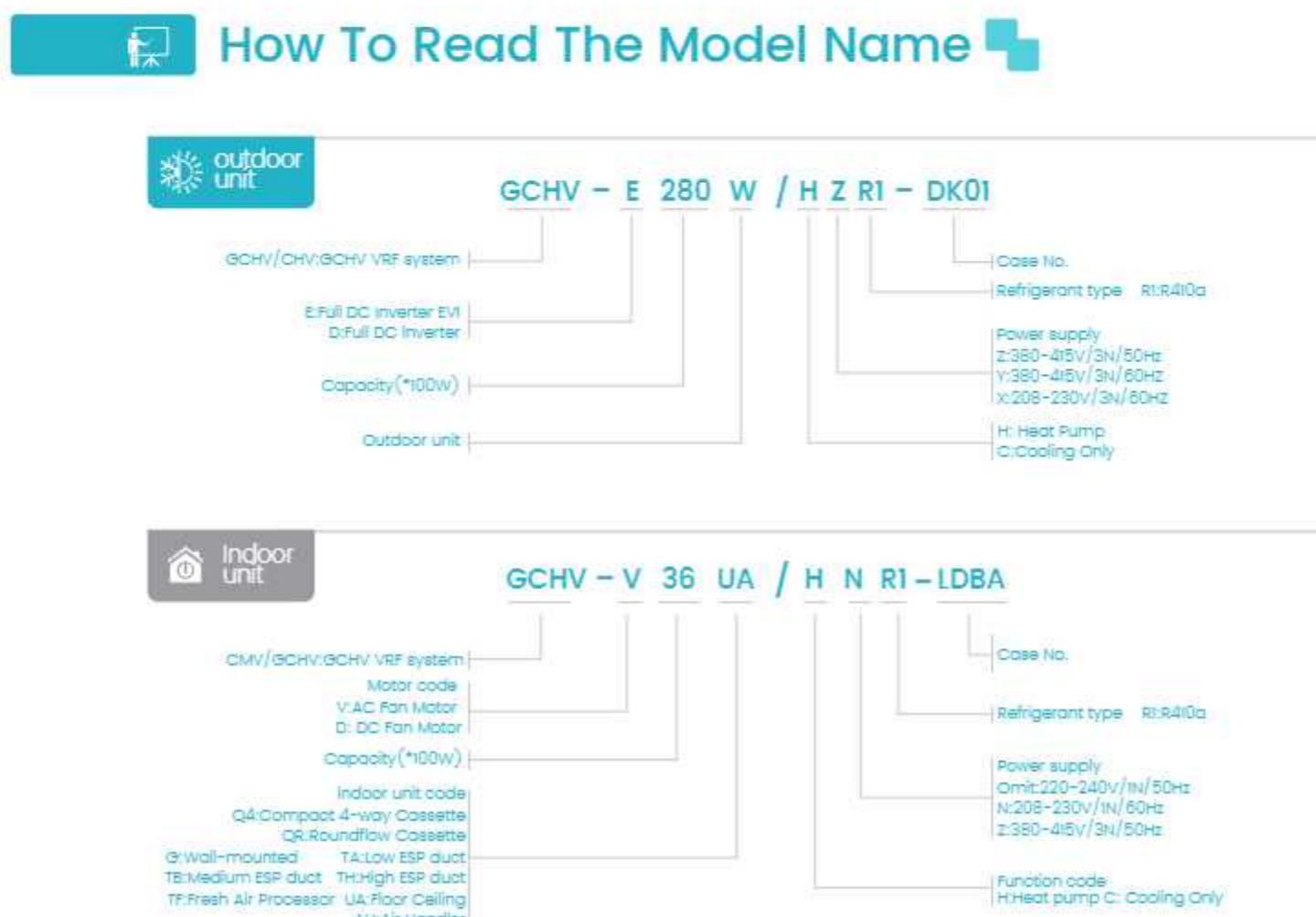
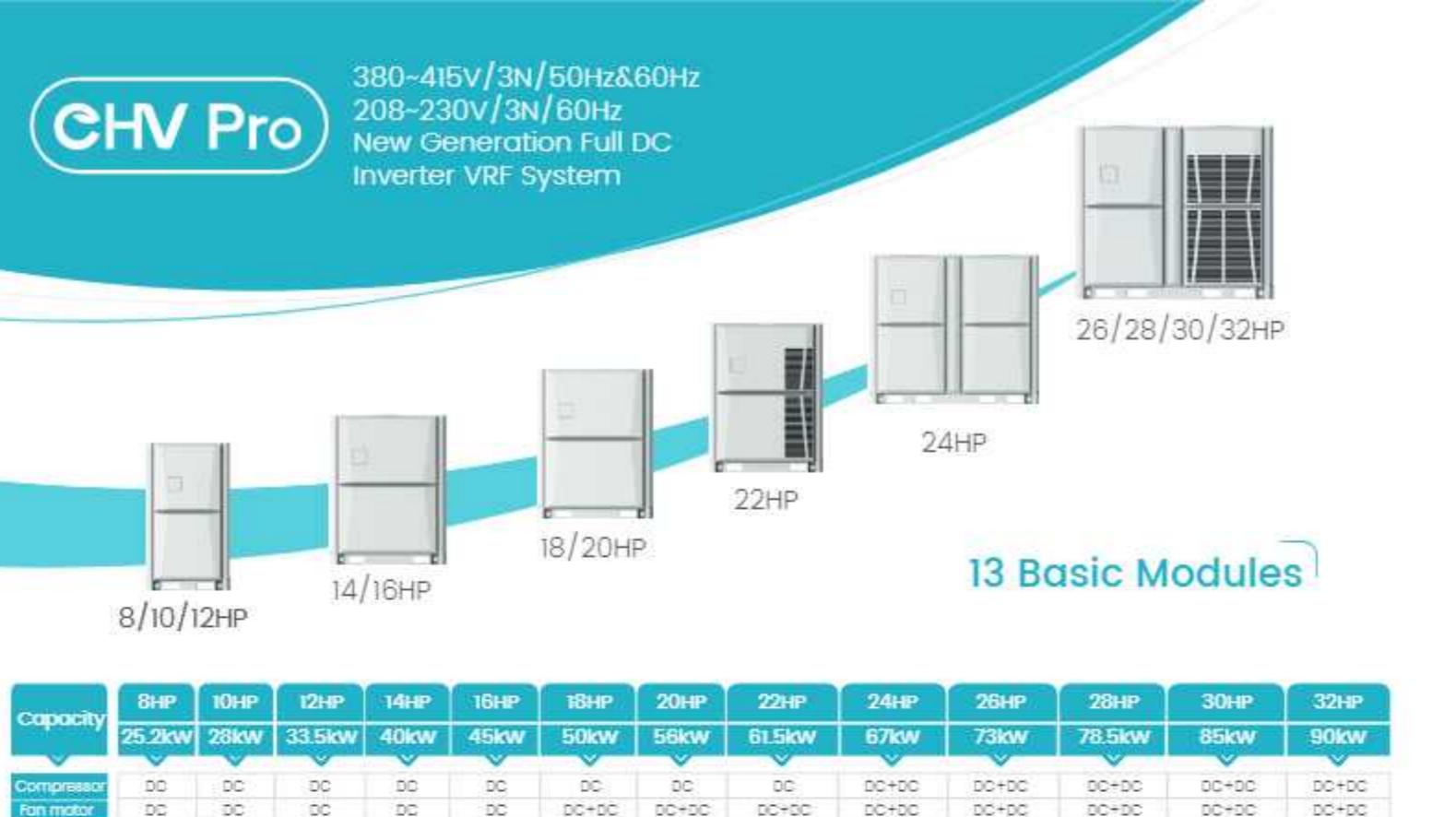
Electromagnetic Vibration Lab

The R&D center of Giwee has more than 200 technical engineers, carry out technology collaboration and joint research with postdoctoral research workstations and Guangdong enterprise workstations, at the same time, introducing senior technical experts from Japan to join Giwee and served as senior technical consultants, Giwee pay great attention in R&D and invest 4.5% of annual income every year to develop new technology, by the continuous innovation, Giwee has established a solid development foundation and strength in performance, structure, electronic control, industrial design and other professional aspects.

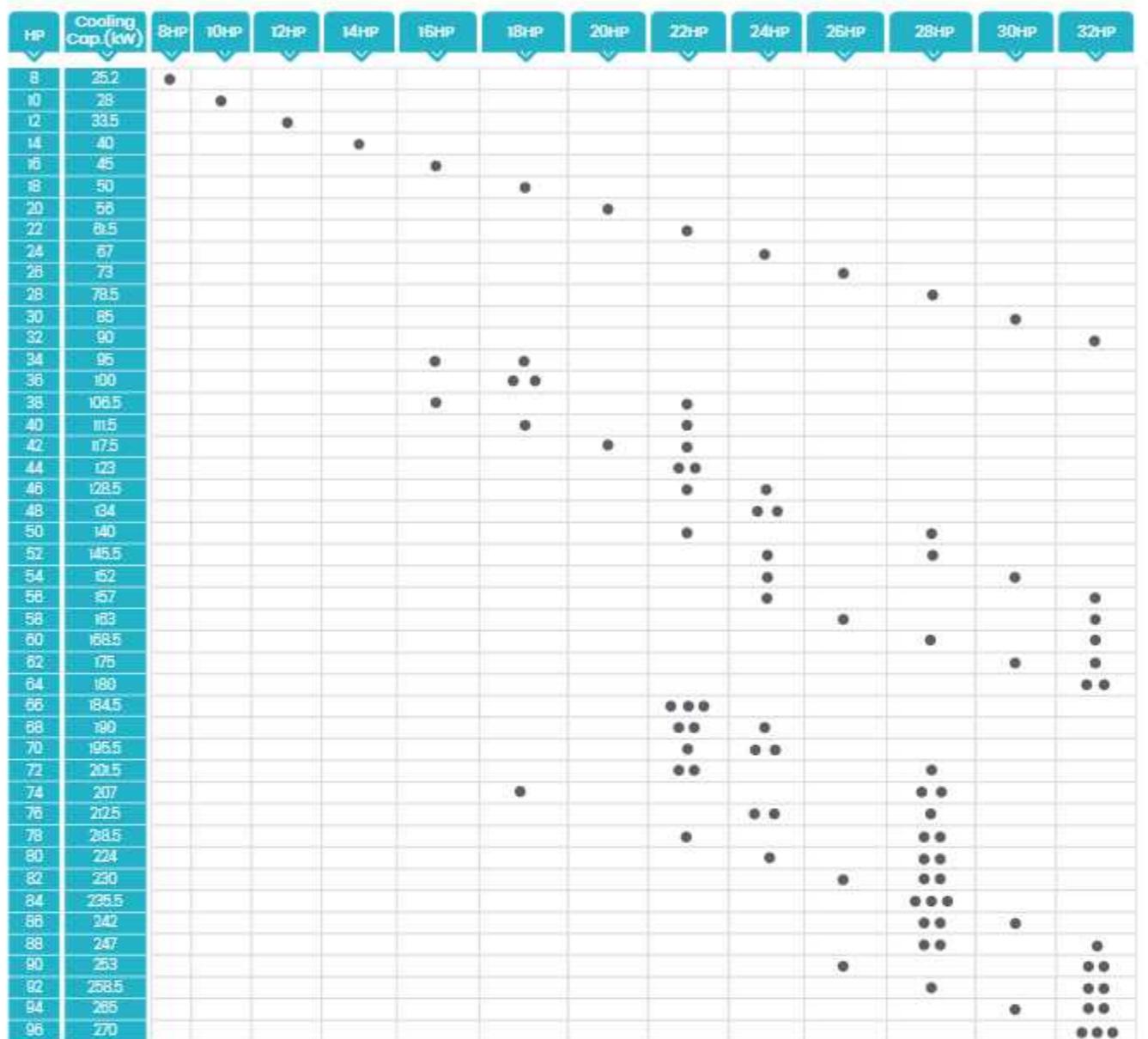
The test center covers an area of more than 6,000 square meters. It has a series of industry-leading professional laboratories. In 2010, it passed the consistency check of the National Energy Efficiency Label Management Center and obtained certificate, in 2018, the test center obtained CNAS national certification.

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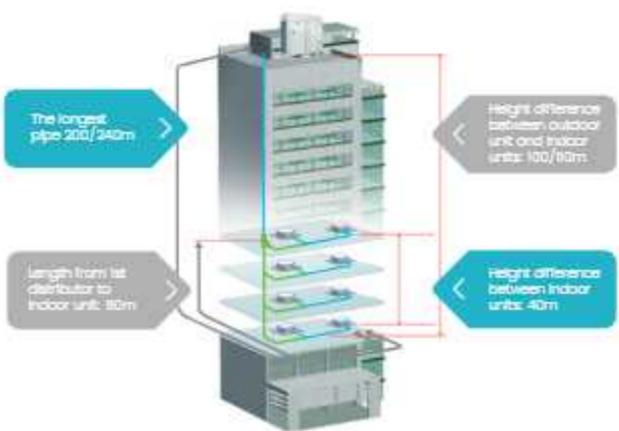
Combination Table



*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.

Refrigerant Piping

The total pipe length	1000 m
The longest pipe length	> 200/240m
Height difference	Outdoor unit: above <100m Outdoor unit: below <100m
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



*Please refer to the installation manual for detailed length description.

Features

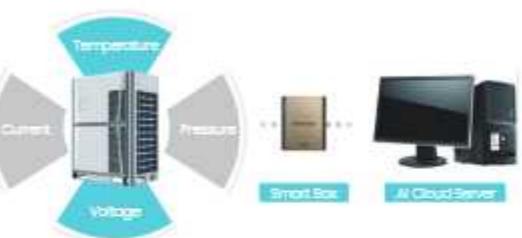
Long Distance Remote Control

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.



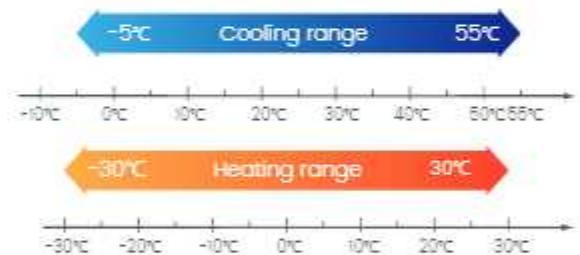
Refrigerant Cooling Design

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



*Based on GCHV internal test report

Power Saving Mode

According to power usage, realize 7-level power limit setting.



Refrigerant Status Detection

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



3	Extremely insufficient
2	Insufficient
1	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)

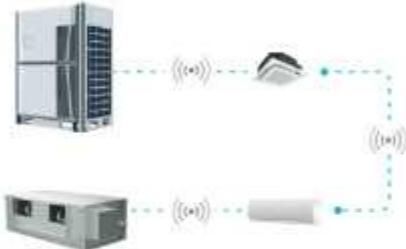


In case of end user doesn't pay as contract, electrical lock function can be used to stop VRV system, and end user can not start the system without permission.

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.



Online Diagnosis

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



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)

CHV PRO 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.



13 Basic Modules



Maximum 96HP

Max. 3 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





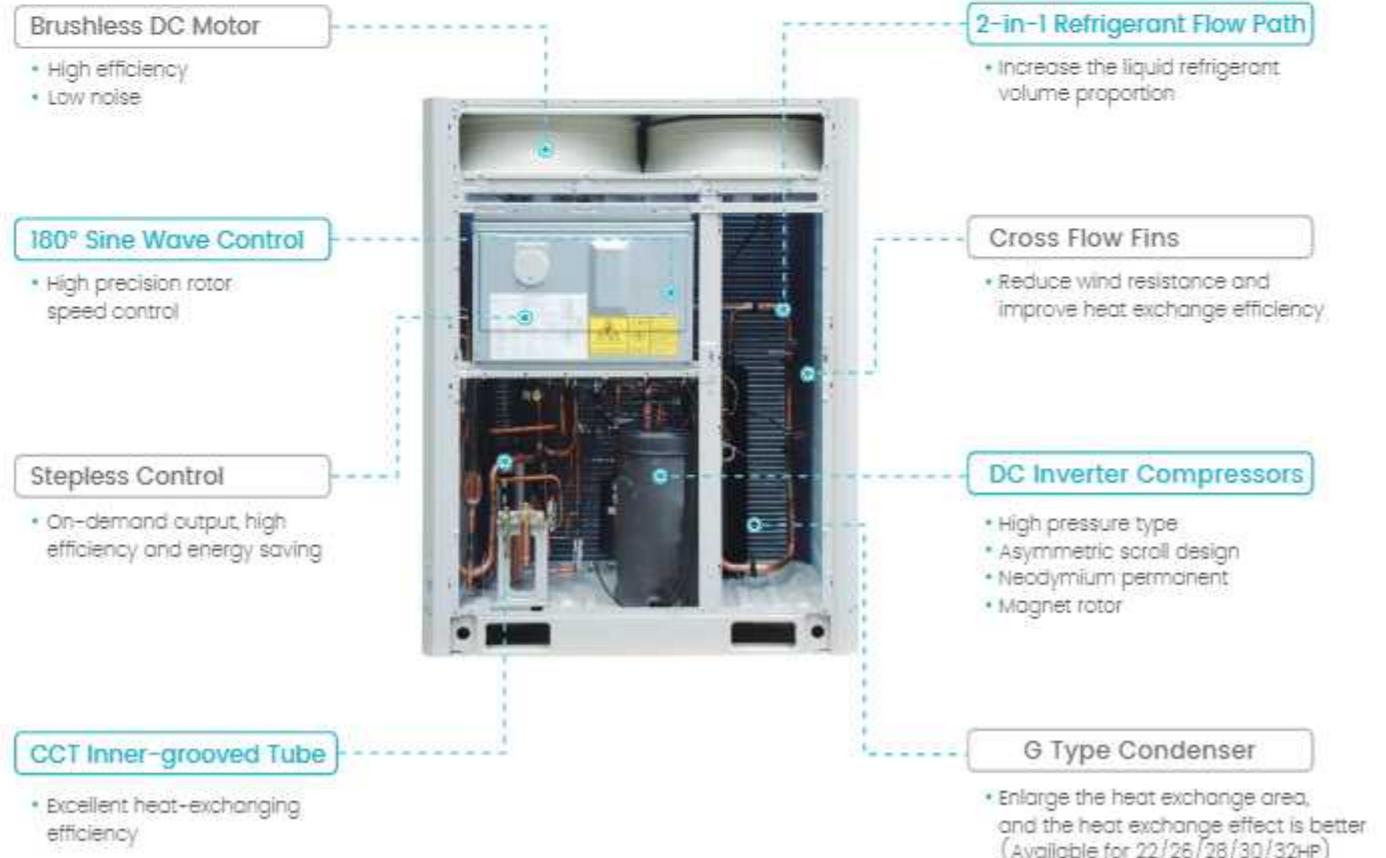
1 High Efficiency

Low carbon life advocate

Gree 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!

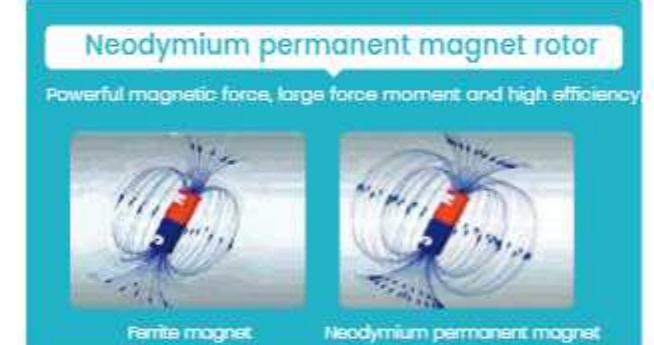
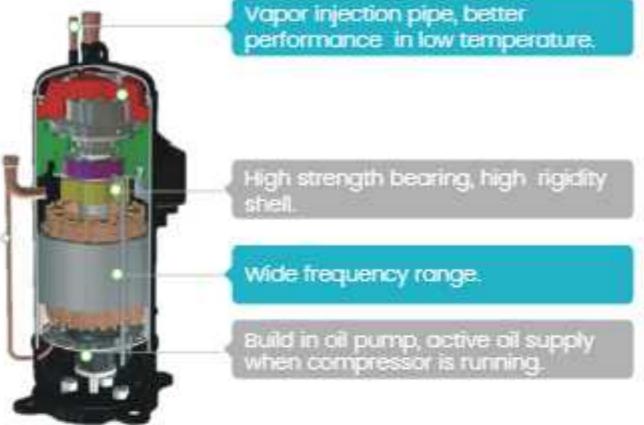


Core Technologies Make High Efficiency



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 potent 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



High Efficiency DC Motor

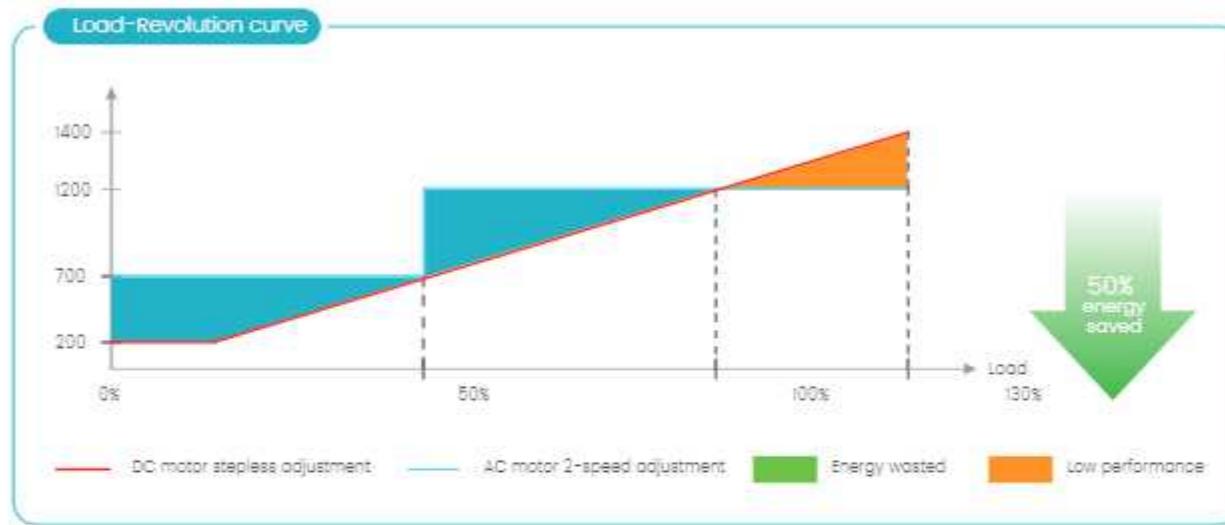
- High efficiency DC fan motor is from well-known brand.
- Low noise and high efficiency because of high-density wire winding engineering.
- Brushless with built-in sensor.





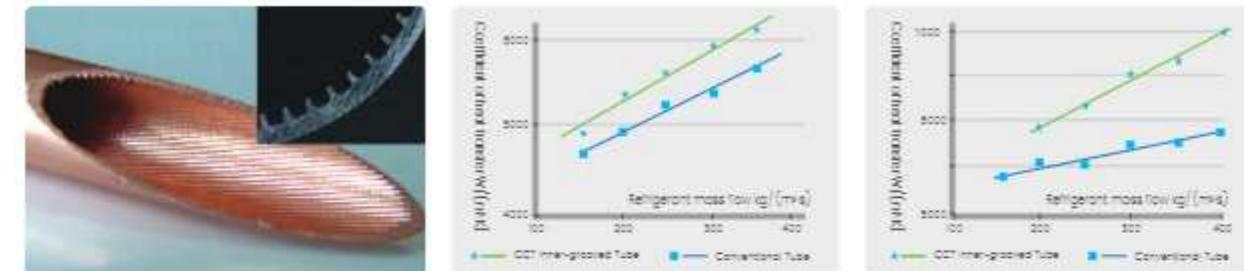
Stepless Control

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.



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.

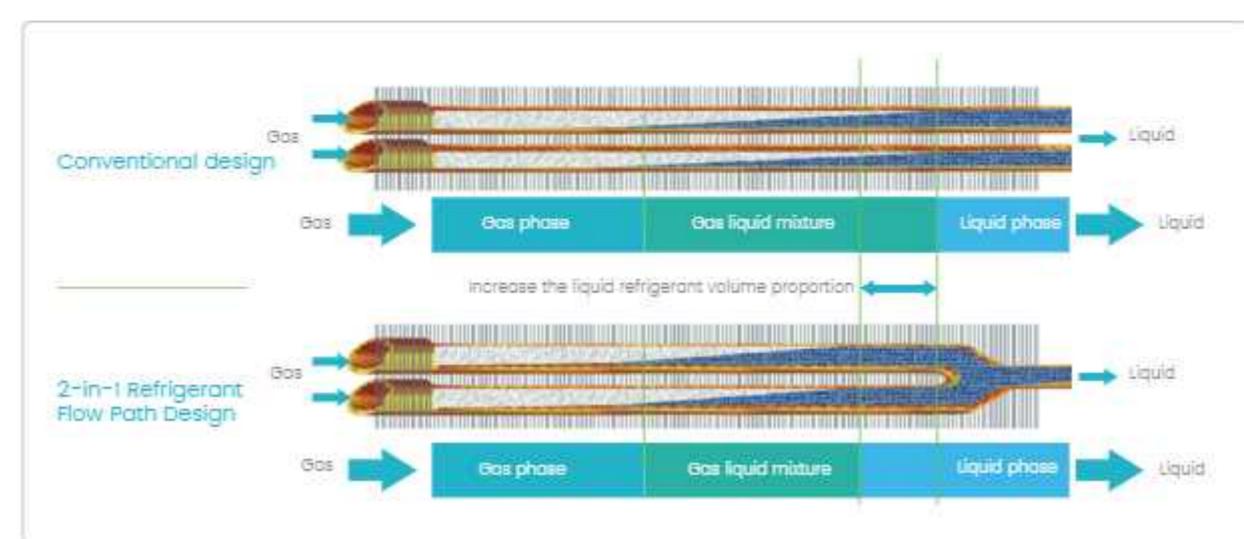
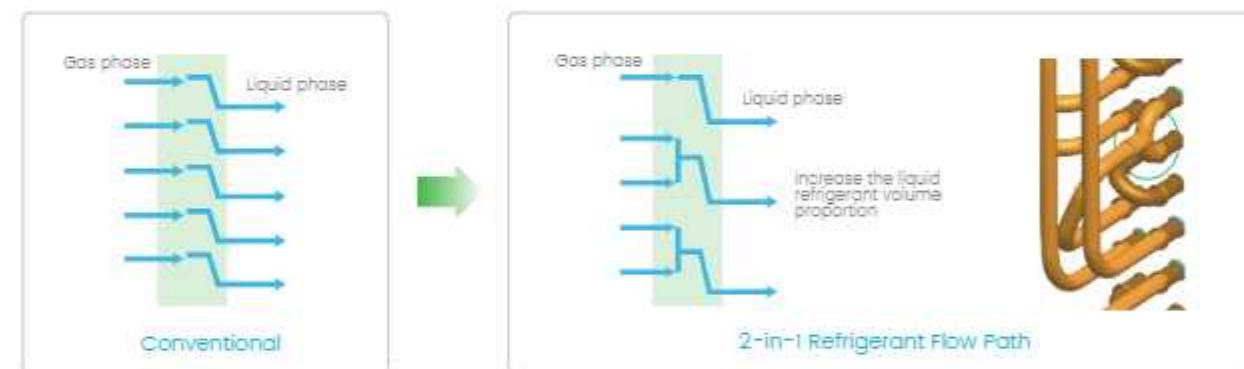


180° Sine Waveform Control

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%.



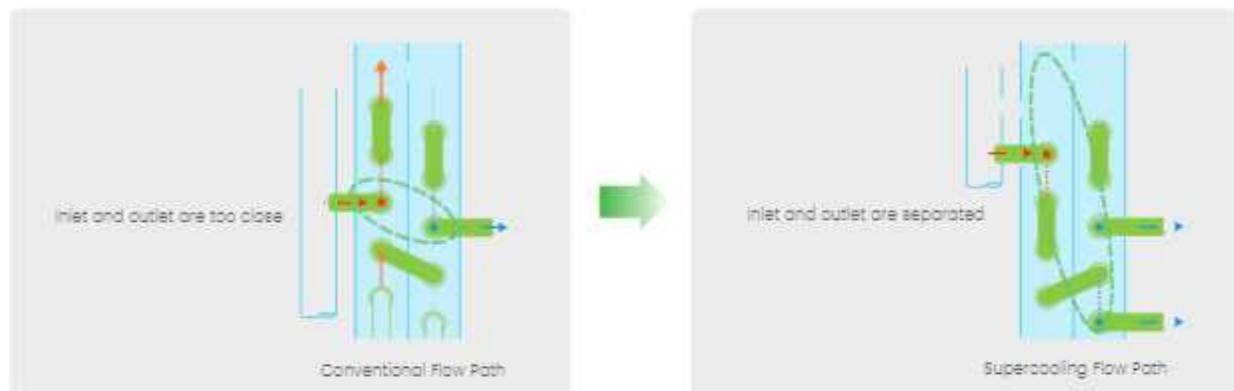
2-in-1 Refrigerant Flow Path Design





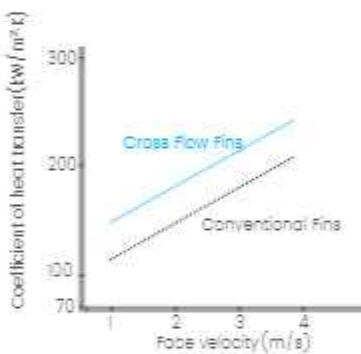
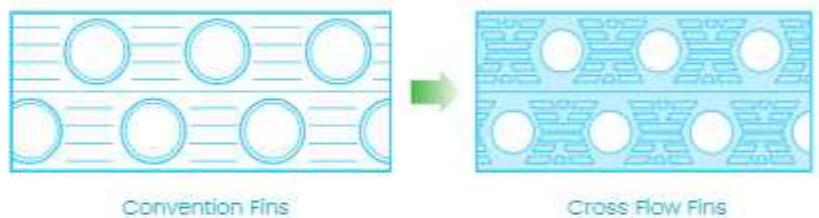
Supercooling Flow Path Design

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.



The PHE Economizer

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



2

Benefits For Users

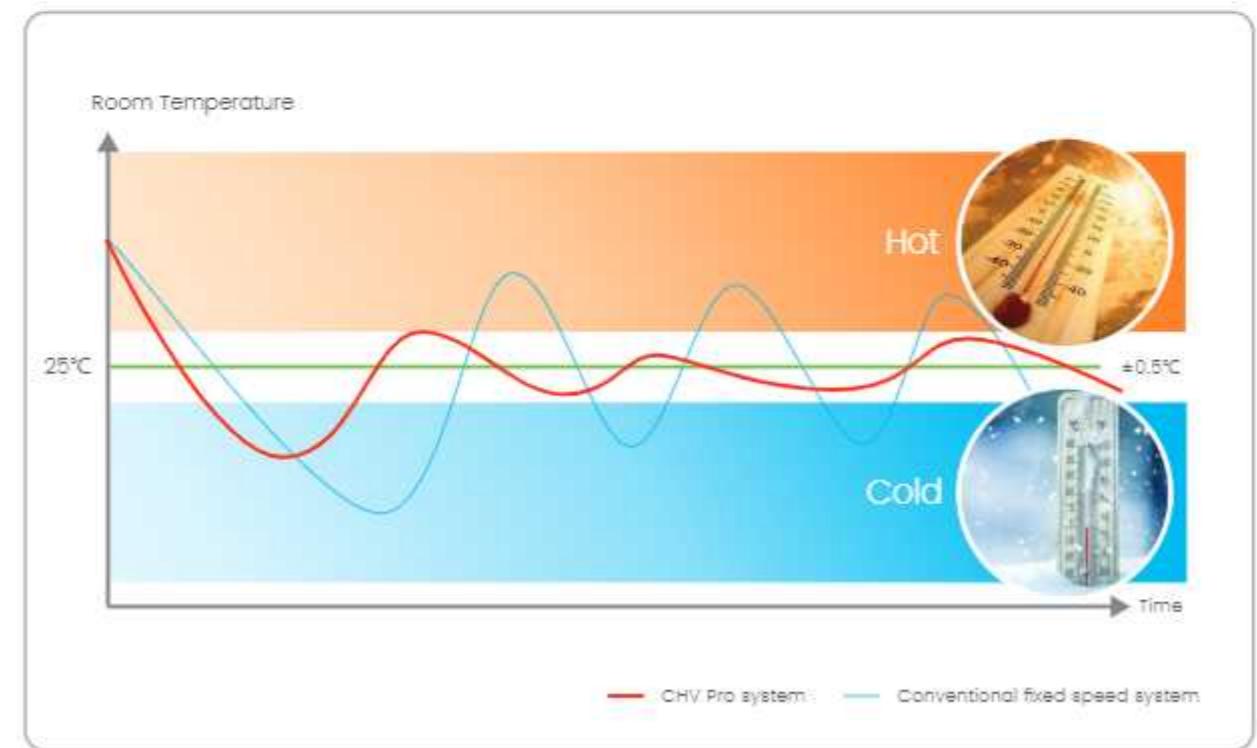
Livable environment creator

Giwee 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

- CHV Pro VRF 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

CHV pro has a wide ambient temperature operation range, cooling at -5-55°C, and heating at -30-30°C.



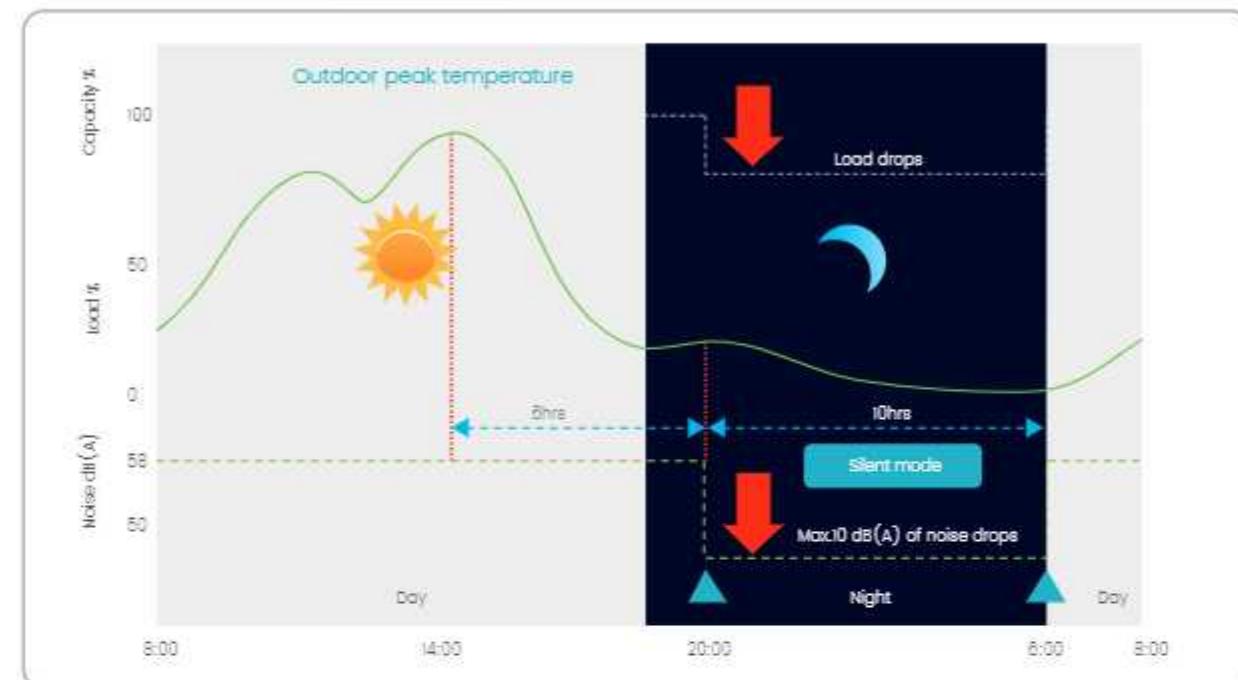
Environment Friendly

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



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 to prevent the snow to accumulate on fan blade, because accumulated snow will freeze and block fan blade rotating, even worse it will damage the motor.



Low Noise Fan Blade

Fan blade with 7 noise reduction design, effectively reduce the noise while operation.

Front edge curve design

Thickened front edge design

Outer edge turn over design

Tail edge cut design

Bionic fan blade design

Concave fan blade design

Anti-resonance design

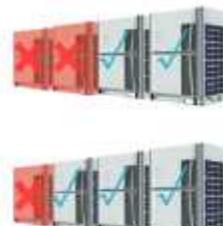




3-stage Back Up Function

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.

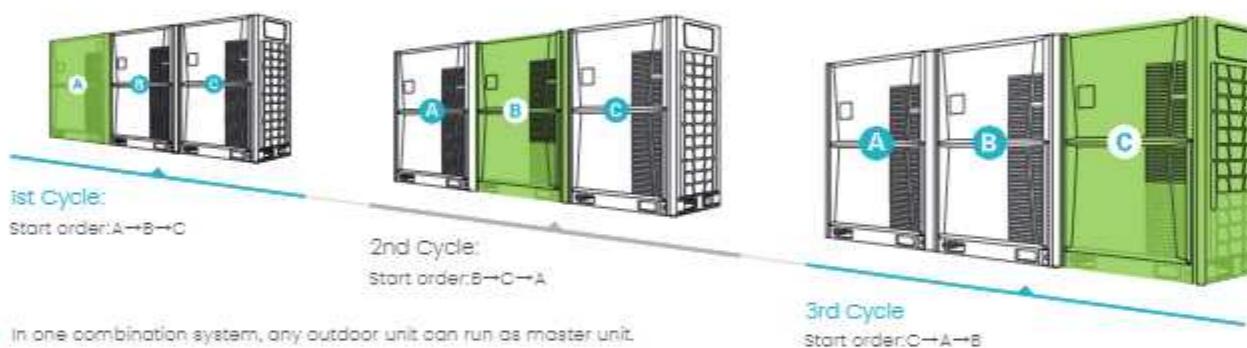


Remote ON/OFF Control Function

- 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.



All Outdoor Units Cycle Operation



- In one combination system, any outdoor unit can run as master unit.
- Cycle operation equalizes the running time of the outdoor units, greatly extending the lifespan of outdoor units in one system.



IDU and ODU Positioning Function

Turn on the positioning function through the controller, and all the IDU and ODU of the same system will beep through the built-in buzzer, which is convenient for quick positioning during system commissioning, troubleshooting and after sales maintenance.



Intelligent Defrosting Program

5 special defrosting mechanisms

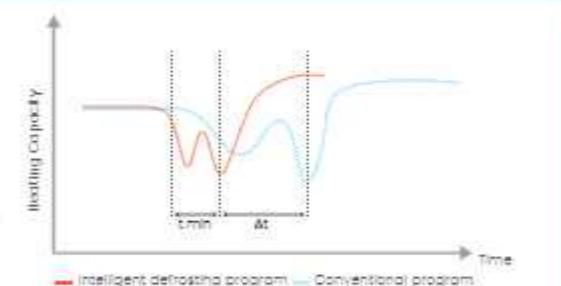
The dedicated temperature sensor monitors the temperature of the condenser coil of the outdoor unit in real time, intelligently selects the defrost mechanism and judges the timing of defrost, effectively prolongs the normal heating time, improves comfort and achieves energy-saving effects.

- Normal temperature and low humidity defrosting mechanism
- Low temperature and low humidity defrosting mechanism
- Ultra-low temperature environment defrosting mechanism
- Normal temperature and high humidity defrosting mechanism
- Low temperature and high humidity defrosting mechanism

Defrost Curve

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

- 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





3

Benefits For Installers

Optimization for designer and installer

CHV Pro DC inverter VRF system is designed with flexible modular combination concept, we keep optimizing the module size, reduce equipment on space occupied 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 80 Pa.



Touch Screen Wired Controller



- Air filter cleaning reminding function.
- Touch screen with black background and blue 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 wired controller or 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.

Failure chart

Communication faults

Others



Others

Addressing problems



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.



Easy
Safe
Convenient



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



Digital Display On The PCB

- Digital 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.

Error Code Check

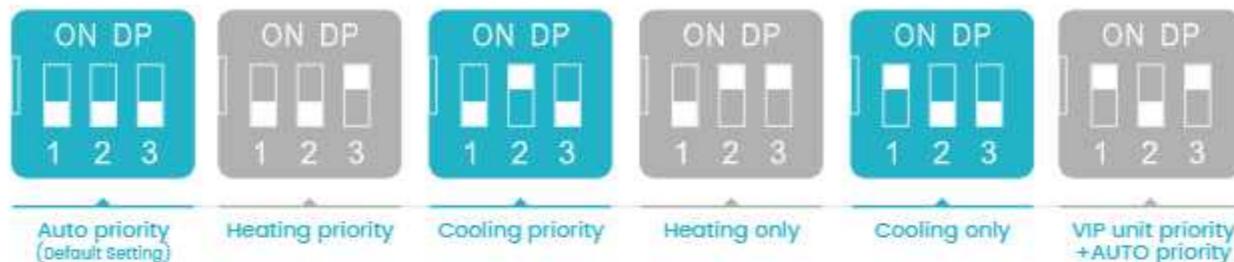




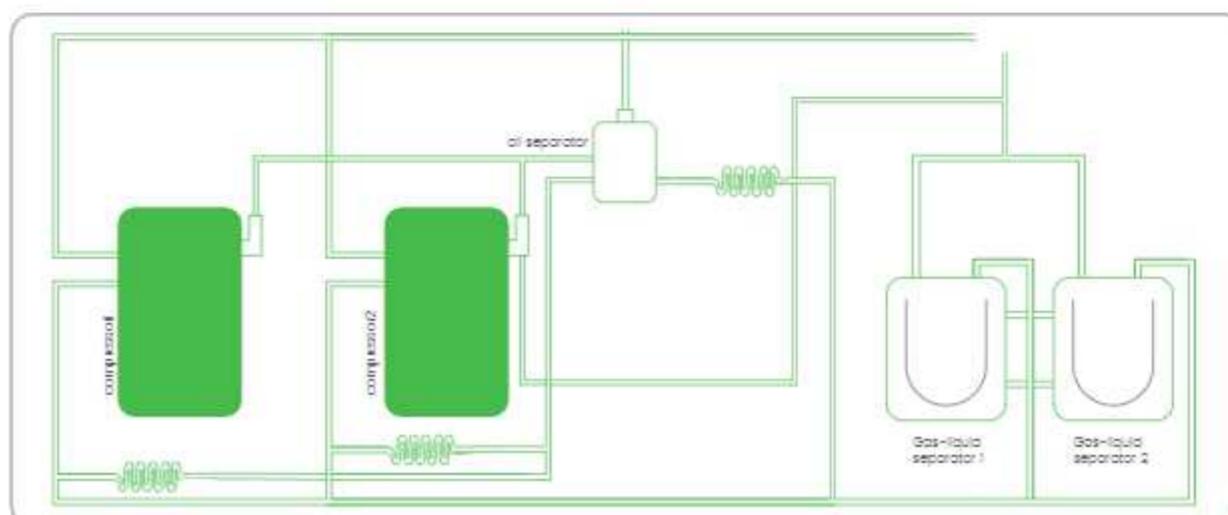
Mode Restriction

- 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)



Easy Installation

- easy for the outdoor unit to transport to roof floor by elevator due to its compact size.



Easy for transportation



360° Pipe Connection

- The outlet pipe of the outdoor unit can be extended to all directions through the bottom space;
- No outlet pipe on the front can improve the aesthetics of installation;



CHV Pro | Cooling Only

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

Model Name	echv-d280w/c28-0m01	echv-d280w/c28-0m01	echv-d390w/c28-0m01	echv-d400w/c28-0m01	echv-d400w/c28-0m01		
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	HP	8HP	10HP	12HP	14HP	16HP	
	kW	25.2	28	33.5	40	45	
	Btu/h	88000	95500	114000	136500	153500	
	RT	7.2	8	9.5	11.4	12.8	
	Power input	kW	5.86	6.79	9.18	10.50	12.20
	EER	W/W	4.30	4.12	3.65	3.80	3.68
Rated. input consumption.	kW	13.90	14.10	14.60	17.95	18.34	
Rated. current	A	24.0	24.5	25.2	30.2	31.0	
Capacity adjustment range		50%~130%				50%~130%	
Compressor Data							
DC inverter compressor	Quantity	1					
	Type	DC / Twin-rotary					
	Brand	Mitsubishi					
	Frequency range	Hz	10~120				
Physical Data							
Refrigerant	Type	R410a					
	Volume	kg	10				
Dimension (DxHxW)	Net	mm	840x740x990				
	Packing	mm	910x900x260				
Weight	Net	kg	20				
	Gross	kg	220				
Outdoor sound level	dB(A)	58	60	61			
Maximum operating pressure	MPa	4.5					
Piping & Wiring Data							
Pipe size	Liquid pipe	mm	Φ12.7				
	Gas pipe	mm	Φ22.2				
Max. pipe length	Total pipe length	m	1000				
	From CU to farthest IU (Actual length)	m	200				
	From CU to farthest IU (Equivalent length)	m	240				
	From 1st indoor distributor to farthest IU	m	90				
Max. Vertical length	Between CU & IU (CU above IU)	m	100				
	Between CU & IU (CU below IU)	m	110				
	Between IUs	m	40				
	Between Ous	m	0				
Operation Temperature Range							
Cooling	Outdoor side	°C	-5~55				
	Indoor side	°C	16~32				

Note

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

echv-d600w/c28-0m01	echv-d600w/c28-0m01	echv-d600w/c28-0m01	echv-d670/c28-0m01	echv-d730/c28-0m01	echv-d800/c28-0m01	echv-d800/c28-0m01	echv-d800/c28-0m01
380~415V/3N/50&60Hz							
18HP	20HP	22HP	24HP	26HP	28HP	30HP	
50.0	56.0	61.5	67.0	73.0	80.0	85.0	
170800	191000	209800	228600	249100	273038	290000	
14.2	16.0	17.5	19.1	20.8	22.75	24.2	
15.10	17.60	20.36	20.81	23.10	25.97	29.11	
3.31	3.18	3.02	3.22	3.16	3.08	2.92	
18.74	25.90	27.80	29.50	32.00	32.00	38.50	
32.0	46.6	47.5	51.0	53.00	53.00	63.00	
50%~130%							
1					2		
DC / twin-rotary							
Mitsubishi							
10~120							
12.5	16.5	18.0	20.0	25.0			
R410a							
280	298	306	358	410			
278	316	324	376	428			
62	63	65	66	67			
4.5							
Φ12.7			Φ15.9		Φ22.2		
Φ22.2			Φ28.6		Φ35		
1000							
200							
240							
90							
100							
110							
40							
0							

Model Name		CHV-D280W/CXH-DM01	CHV-D280W/CXR-DM01	CHV-D320W/CXH-DM01	CHV-D400W/CXH-DM01
Power Supply		208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
Performance Data					
Cooling	HP	8HP	10HP	12HP	14HP
	kW	25.2	28.0	33.5	40.0
	Btu/h	86000	95500	114000	136500
	RT	7.2	8.0	9.5	11.4
Heating	kW	5.82	6.81	9.05	10.47
	W/W	4.33	4.11	3.70	3.82
	Rated input consumption	13.50	14.10	14.20	15.90
	Rated current	A	40.0	42.0	45.0
Capacity adjustment range					
50%~130%					
Compressor Data					
DC inverter compressor	Quantity	1			
	Type	DC / Twin-rotary			
	Brand	Mitsubishi			
	Frequency range	rps	10~120		
Physical Data					
Refrigerant	Type		R410a		
	Volume	kg	8	12	
Dimension (DxHxW)	Net	mm	840x740x990	840x740x1340	
	Packing	mm	910x900x1060	910x900x1410	
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 CU to farthest IU (actual length)	m	190		190
	From CU to farthest IU (Equivalent length)	m	220		220
	From 1st indoor distributor to farthest IU	m	90		90
Max. vertical length	Between CU & IU (CU above IU)	m	90		90
	Between CU & IU (CU below IU)	m	110		110
	Between IUs	m	30		30
	Between Ous	m	0		0
Operation Temperature Range					
Cooling	Outdoor side	°C	-5~50		-5~50
	Indoor side	°C	16~32		16~32

Note

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

CHV-D480W/CXH-DM01		CHV-D600W/CXR-DM01	CHV-D800W/CXR-DM01	CHV-D100W/CXR-DM01	CHV-D120W/CXR-DM01
208~230V/3N/60Hz		208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
Performance Data					
Capacity	HP	16HP	18HP	20HP	22HP
Power input	kW	45.0	50.0	56.0	61.5
Rated input consumption	kW	153600	170800	191000	209800
Rated current	A	7.2	12.8	16.0	17.5
Capacity adjustment range		10~120	10~120	10~120	10~120
Compressor Data					
DC inverter compressor	Quantity	1	1	2	2
	Type	DC / twin-rotary	DC / twin-rotary	Mitsubishi	Mitsubishi
	Brand	Mitsubishi	Mitsubishi	10~120	10~120
	Frequency range	rps	10~120	10~120	10~120
Physical Data					
Refrigerant	Type		R410a		
	Volume	kg	12	13	14
Dimension (DxHxW)	Net	mm	840x740x990	840x740x1340	910x900x1410
	Packing	mm	910x900x1060	910x900x1410	910x900x1410
Weight	Net	kg	260	288	296
	Gross	kg	278	306	314
Outdoor sound level		dB(A)	61	62	63
Maximum operating pressure		MPa	4.5	4.5	4.5
Piping & Wiring Data					
Pipe size	Liquid pipe	mm	Φ12.7	Φ15.9	Φ15.9
	Gas pipe	mm	Φ25.4	Φ31.8	Φ31.8
Max. pipe length	Total pipe length	m	1000	1000	1000
	From CU to farthest IU (actual length)	m	190	190	190
	From CU to farthest IU (Equivalent length)	m	220	220	220
	From 1st indoor distributor to farthest IU	m	90	90	90
Max. vertical length	Between CU & IU (CU above IU)	m	90	90	90
	Between CU & IU (CU below IU)	m	110	110	110
	Between IUs	m	30	30	30
	Between Ous	m	0	0	0
Operation Temperature Range					
Cooling	Outdoor side	°C	-5~50	-5~50	-5~50
	Indoor side	°C	16~32	16~32	16~32

GCHV-Mini

Small Capacity Full DC
Inverter VRF Unit



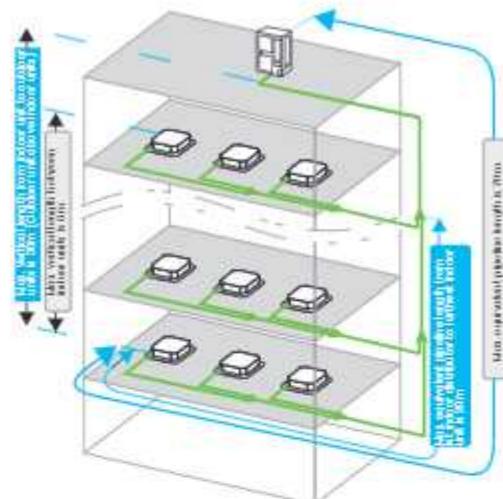
9 Models

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

Refrigerant Piping

The total pipe length	100m (12.5-22.4kW); 20m (26-33.5kW)
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 430m Outdoor unit below 20m
Height difference between indoor units	8m

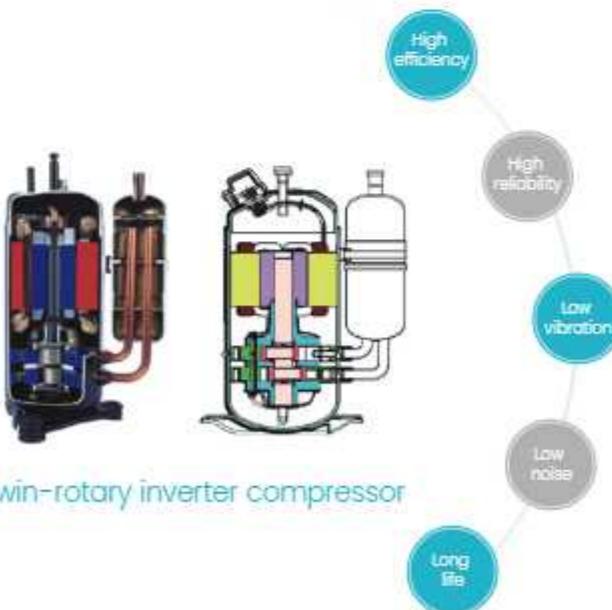
*Please refer to the installation manual for detailed length description.



Features



High Efficiency DC Inverter Compressor



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 alternative refrigerant which can protect environment.

Low Vibration

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

EER&COP





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



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.



Silent Technology

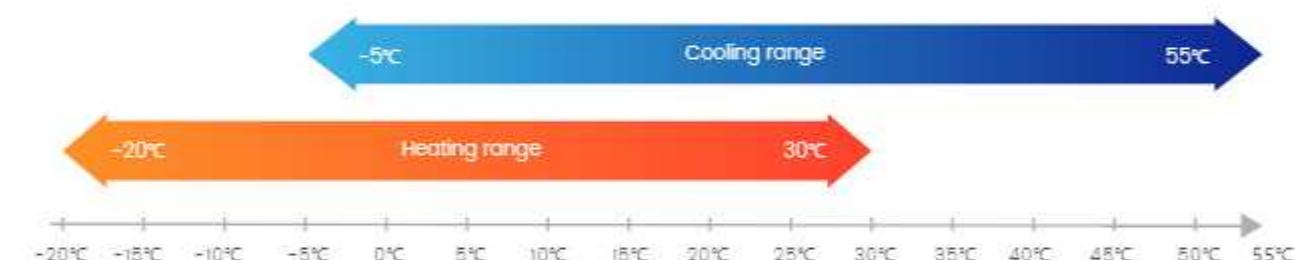


- Brushless DC motor Adopting permanent magnet rotor, low vibration and low noise.
- Forward-curve fan blade Unique design to increase air flow, reducing the return air resistance, reducing vibration.
- Pipeline silencer To reduce the refrigerant flow noise.
- Optimized design by CFD To reduce refrigerant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



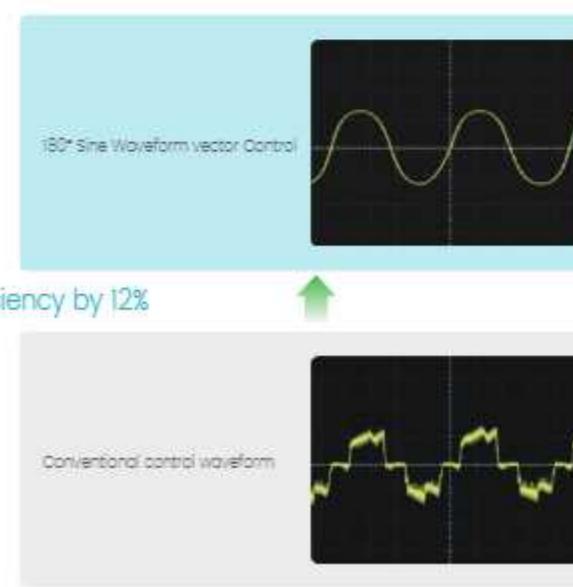
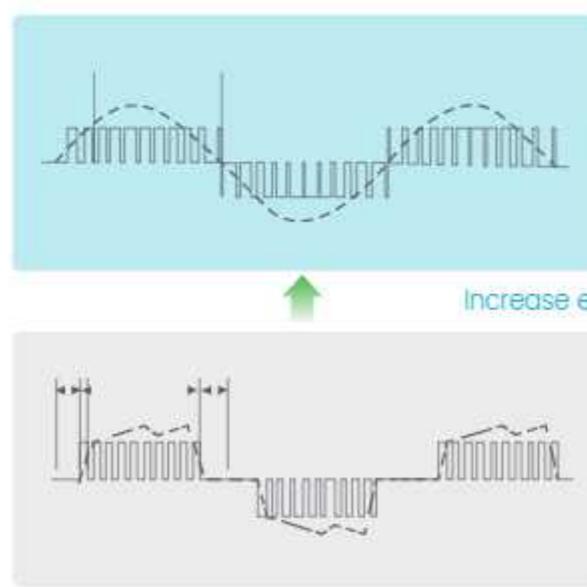
Wide Outdoor Operation Range

Max. cooling operating temperature is designed up to 55°C. Heating operating temperature is down to -20°C.



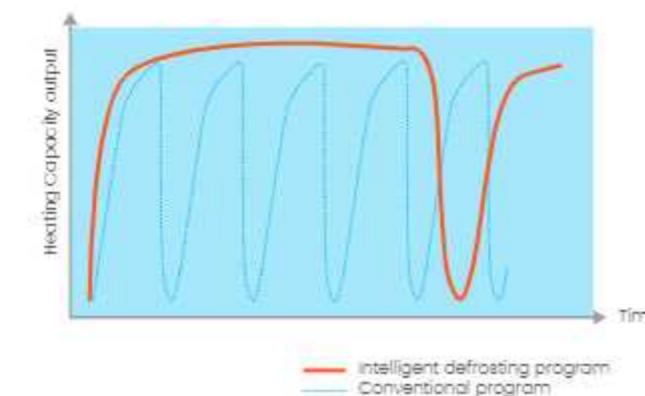
180° Sine Wave Control

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%.



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.



Fan Reversal Protection



Mode Restriction

- 7 kinds of mode restriction
- Auto priority (Default Setting)
- Cooling only mode
- Mode restriction function can be selected on the outdoor PCB.
- Cooling priority mode
- Heating only mode
- Heating priority mode
- VIP unit priority+AUTO priority mode
- First start mode



High Efficiency



Refrigerant cooling technology for PCB

- 1 The radiation fin is made of aluminum panels fitting together seamlessly.
- 2 This helps to cool down the IPM, it has better performance compared to air cooling for PCB.
- 3 The outdoor unit has capability to run in max. 58°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.



Independent Display Board



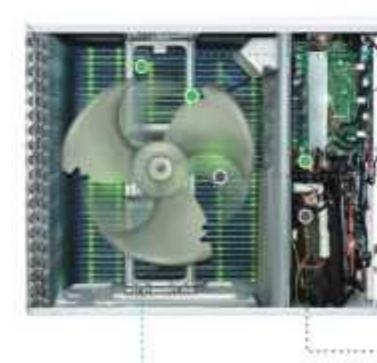
Digital display on the PCB, it can show system's operation status and error codes.



Lower Noise

5 Major Technology Leads to Lower Noise

The Min. noise level is 54 dB(A).



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



2-way Cassette



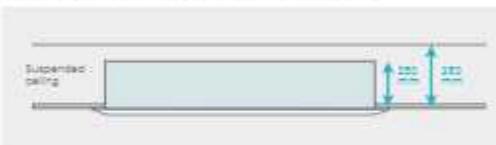
Features

Accessories

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

Slim body, easy to install

Has slim body with 260mm 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 700mm, flexible for drainage pipe design.



Features

Accessories

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

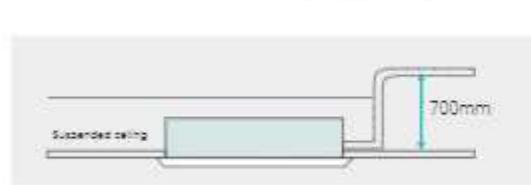
2 way air direction

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 700mm, flexible for drainage pipe design.



Specification

Model name	Power type	Capacity				Motor Input	Air flow	Sound Level	ESP	Dimension (Width)				Body Weight	Connecting pipe	Standard controller		
		Cooling	Heating	kW	W					Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain
DIV-V22Q/HRI-E	50Hz	1.2	7.5	2.5	8.5	0.04	520	305	32-38	180 275 555	984 280 522	1080 65 520	1070 55 520	24/3.5	30/5.0	0.653		
DIV-V23Q/HRI-E	50Hz	1.8	9.5	3.2	10.9	0.04	520	305	32-38	180 275 555	984 280 522	1080 65 520	1070 55 520	24/3.5	30/5.0	0.653		
DIV-V35Q/HRI-E	50Hz	3.5	12.1	4.0	13.6					180 275 555	984 280 522	1080 65 520	1070 55 520	25/3.5	32/5.0	0.653	0.625	Remote controller
DIV-V45Q/HRI-E	50Hz	4.5	15.3	5.0	17.0	0.05	510	300	35-41	180 275 555	984 280 522	1080 65 520	1070 55 520	25/3.5	32/5.0	0.627	0.625	Remote controller
DIV-V55Q/HRI-E	50Hz	5.5	18.1	5.5	21.4	0.07	750	440	35-41	1470 280 572	1304 280 572	1380 65 560	1380 65 560	34/3.5	39/5.0	0.653		
DIV-V70Q/HRI-E	50Hz	7.5	24.2	8.0	27.2	0.08	980	600	38-48	180 280 572	1304 280 572	1380 65 560	1380 65 560	34/3.5	39/5.0	0.653		

Notes:

1. Power supply: 220-240V/50Hz for 50Hz, the above data is for AC motor model.

2. Cooling test condition: Indoor side 27°CDB, 18°CWB outdoor side 35°CDB, Heating test condition: Indoor side 20°CDB, 18°CWB outdoor side 7°CDB.

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.

Specification

Model name	Power type	Capacity				Motor Input	Air flow	Sound Level	ESP	Dimension (Width)				Body Weight	Connecting pipe	Standard controller		
		Cooling	Heating	kW	W					Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain
DIV-H45Q/HRI-E	50Hz	4.5	15.3	5.0	17	0.07	800	470	38-42	125 305 555	1058 310 555	1235 55 555	1205 55 555	33/3.5	35/5.5	0.627	0.625	Remote controller
DIV-H55Q/HRI-E	50Hz	5.5	18.1	5.5	21.4					125 305 555	1058 310 555	1235 55 555	1205 55 555	33/3.5	35/5.5	0.627	0.625	Remote controller
DIV-H70Q/HRI-E	50Hz	7.5	24.2	8.0	27.2	0.10	1120	600	40-45	1455 305 572	1308 310 572	1475 55 572	1445 55 572	40/7.5	47/10.0	0.653	0.625	Remote controller
DIV-H80Q/HRI-E	50Hz	8.0	27.2	8.0	30.7					1455 305 572	1308 310 572	1475 55 572	1445 55 572	40/7.5	47/10.0	0.653	0.625	Remote controller

Notes:

1. Power supply: 220-240V/50Hz for 50Hz, the above data is for AC motor model.

2. Cooling test condition: Indoor side 27°CDB, 18°CWB outdoor side 35°CDB, Heating test condition: Indoor side 20°CDB, 18°CWB outdoor side 7°CDB.

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.

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



Specification

4-way Cassette Unit (Compact type)

Model name	Power type	Capacity				Power input	Air flow	Sound level	ESP	Dimension(Width)				Body weight		Connecting pipe	Standard controller	
		Cooling kW	Cooling kW/h	Heating kW	Heating kW/h					Packaging mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Draint mm
OMV-V22Q4/HRI-C	50Hz	1.1	7.5	2.5	8.5	0.038	447	253	22-34					17.5	23			
OMV-V22Q4/HRI-R	60Hz	1.1	7.5	2.5	8.5	0.038	447	253	22-34					17.5	23	6552		
OMV-V28Q4/HRI-C	50Hz	1.8	9.5	3.2	10.8	0.038	447	253	22-34		755	555	750	550	17.5	23		
OMV-V28Q4/HRI-R	60Hz	1.8	9.5	3.2	10.8	0.038	447	253	22-34		755	555	750	550	17.5	23	6536	00000
OMV-V32Q4/HRI-C	50Hz	3.0	12.2	4.0	13.6	0.040	516	303	27-38		680	585	750	600	17.5	23	6127	
OMV-V32Q4/HRI-R	60Hz	3.0	12.2	4.0	13.6	0.040	516	303	27-38					17.5	23			
OMV-V42Q4/HRI-C	50Hz	4.8	18.3	5.0	17	0.040	516	303	27-38					17.5	23			
OMV-V42Q4/HRI-R	60Hz	4.8	18.3	5.0	17	0.040	516	303	27-38					17.5	23			

Features

Accessories

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

Wide 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.



Space saving installation

It has a slim body with 230mm height, it is specially suitable for low suspended ceiling rooms. (5.6-8.0kW)



Fresh air intake

Four interfaces to connect with duct to another room. Fresh air intake, more healthy and comfortable.



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.



Round-flow Cassette

Model name	Power type	Capacity				Power input	Air flow	Sound level	ESP	Dimension(Width)				Body weight		Connecting pipe	Standard controller	
		Cooling kW	Cooling kW/h	Heating kW	Heating kW/h					Packaging mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	
OMV-V50Q5/HRI	50Hz	5.5	18.5	5.5	21.4	0.043	850	500	31-38					24	30	6127	6035	
OMV-V50Q5/HRI	60Hz	5.5	18.5	5.5	21.4	0.043	850	500	31-38					24	30			
OMV-V70Q5/HRI	50Hz	7.1	24.1	8.0	27.2													
OMV-V70Q5/HRI	60Hz	7.1	24.1	8.0	27.2	0.083	1200	700	35-39		920	885	900	650	24	30		
OMV-V80Q5/HRI	50Hz	8.0	27.2	8.8	30													
OMV-V80Q5/HRI	60Hz	8.0	27.2	8.8	30													
OMV-V90Q5/HRI	50Hz	9.0	30.7	10.0	34.1													
OMV-V90Q5/HRI	60Hz	9.0	30.7	10.0	34.1													
OMV-V100Q5/HRI	50Hz	10.0	34.1	11.0	37.5													
OMV-V100Q5/HRI	60Hz	10.0	34.1	11.0	37.5													
OMV-V112Q5/HRI	50Hz	11.2	39.2	12.5	42.6													
OMV-V112Q5/HRI	60Hz	11.2	39.2	12.5	42.6	0.160					920	885	900	650	24	30	6125	6031
OMV-V125Q5/HRI	50Hz	12.5	42.6	14.0	47.7													
OMV-V125Q5/HRI	60Hz	12.5	42.6	14.0	47.7													
OMV-V140Q5/HRI	50Hz	14.0	47.7	16.0	51													
OMV-V140Q5/HRI	60Hz	14.0	47.7	16.0	51													
OMV-V160Q5/HRI	50Hz	16.0	54.6	17.0	58													
OMV-V160Q5/HRI	60Hz	16.0	54.6	17.0	58													

Notes:

1. Power supply: 220~240V/1N for 50Hz; 208~230V/1N for 60Hz; the above data is for AC motor model.

2. Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 32°C DB, 27°C WB. Heating test condition: indoor side 20°C DB, 16°C WB outdoor side 7°C DB.

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.8m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

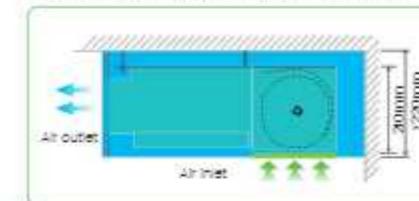
4. The above data may be changed without notice for future improvement on quality and performance.

Short Ceiling Concealed Ducted Unit



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

Drain pump is optional

Pumping head is 700mm.



Features

Accessories

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

Flexible installation

Air return method is optional by actual installation, from rear or from bottom.



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.

20dB(A) → 30dB(A)



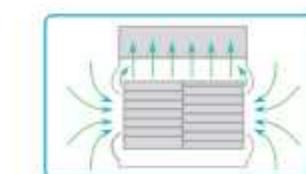
Special resin material fan wheel.



All zones are distribution 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 coating is arch curved design; it can reduce air flow's disturbance, make air flow smoother to reduce noise.

Specification

Model name	Power type	Capacity				Stated input kW	Airflow m³/h	Sound Level dB(A)	ESP Pa	Dimension(Width)				Body weight kg	Connecting pipe size mm	Standard controller
		Cooling kW	Cooling kW	Heating kW	Heating kW					Padding mm	Body mm	Panel padding mm	Panel mm			
DIV-H22TA/HRI-H	50Hz	12	7.5	2.5	8.5	0.08	450	250	24-29	80	84	20	407	16.0	13.5	68.02
DIV-H22TA/HVR-H	50Hz	13	8.5	3.2	10.3	0.11	550	324	25-32	90	94	20	407	16.0	16.0	68.02
DIV-H28TA/HRI-H	50Hz	18	12.2	4.0	13.5	0.11	620	350	32-37	110	100	20	407	18.0	18.0	68.02
DIV-H28TA/HVR-H	50Hz	18	12.2	4.0	13.5	0.11	620	350	32-37	110	100	20	407	18.0	18.0	68.02
DIV-H35TA/HRI-H	50Hz	25	18.3	5.0	17	0.15	800	520	38-38	110	120	20	407	21.0	24.0	68.02
DIV-H35TA/HVR-H	50Hz	25	18.3	5.0	17	0.15	800	520	38-38	110	120	20	407	21.0	24.0	68.02
DIV-H55TA/HRI-H	50Hz	38	28.3	8.3	21.4	0.18	1000	640	30-39	130	124	20	407	25.0	28.0	68.02
DIV-H55TA/HVR-H	50Hz	38	28.3	8.3	21.4	0.18	1000	640	30-39	130	124	20	407	25.0	28.0	68.02
DIV-V71TA/HRI-H	50Hz	71	44.2	8.0	27.1	0.18	1000	640	30-39	130	124	20	407	25.0	28.0	68.02
DIV-V71TA/HVR-H	50Hz	71	44.2	8.0	27.1	0.18	1000	640	30-39	130	124	20	407	25.0	28.0	68.02

Notes:

① Power supply: 220-240V/1N for 50Hz/208-230V/1N for 60Hz, the above data is for AC motor model.

② Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 18°C WB outdoor side 7°C DB.

③ Sound level: measured at a point 1m in front of the unit at a height of 1.0m. 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 ESP Ducted Unit



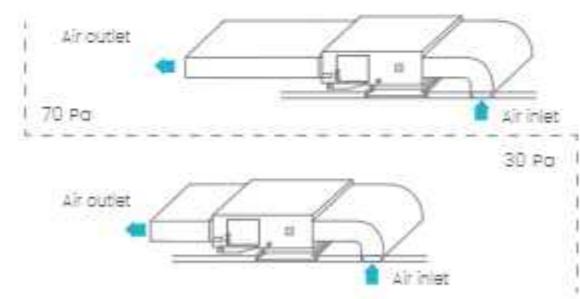
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Standard	Standard	Optional	Standard	Optional

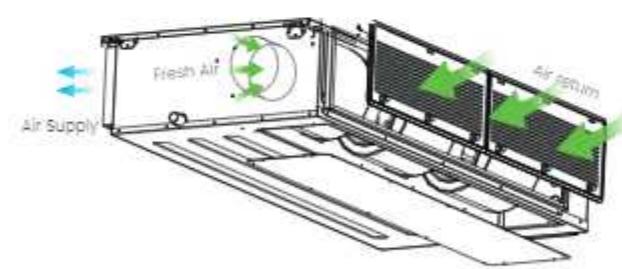
Static pressure

70Pa ESP is standard, suitable for long distance air supply, 30Pa is optional (can be set on site), suitable for low noise requirement rooms.



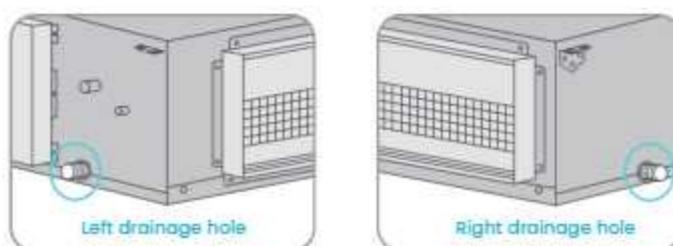
Fresh air intake

A reserved outside air intake port allows outdoor air to be introduced directly into the unit, no need for a separate ventilation system.



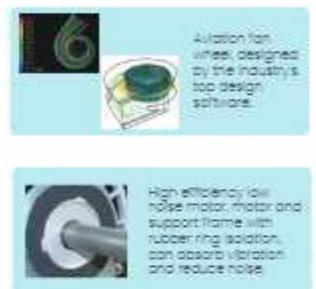
Convenient in drainage pipe installation

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.



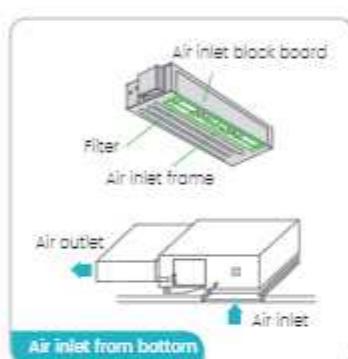
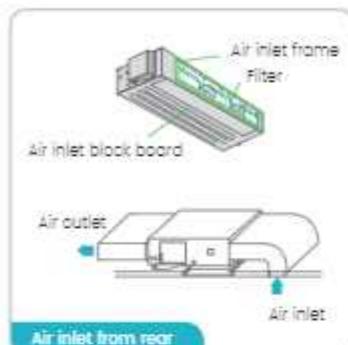
Whole unit low noise design, silent operation

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.



Two air return installation methods

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



DC fan motor is optional

The power consumption of DC fan motor can be reduced greatly in comparison to corresponding AC type.

Specification

Model name	Power type	Capacity		Rated Input	Air flow	Sound Level	ESP	Dimension(WxHxD)			Body Weight	Connecting pipe	Standard controller		
		Cooling kW	Heating kW					mm	mm	mm					
DMV-Y70TB/HRI-B	50Hz	7.1	24.2	8.0	27.2			1250	325	1208			33	37	
DMV-Y70TB/HRI-B	50Hz					1222	710	35-40	720	680			33	37	
DMV-V80TB/HRI-B	50Hz	8.0	27.2	8.0	30.7			1850	1080	38-43	75			45	50
DMV-V80TB/HRI-B	50Hz					1800	1080	38-43	75	1480			45	50	
DMV-V80TB/HRI-B	50Hz	8.0	30.7	10.0	34.1			1480	825	1445			45	50	
DMV-V100TB/HRI-B	50Hz	10.0	34.1	10.0	37.0			2000	1170	40-44	75			45	50
DMV-V100TB/HRI-B	50Hz					2000	1170	40-44	75	1445			45	50	
DMV-V120TB/HRI-B	50Hz	12.0	40.8	12.0	44.3			2000	1170	40-44	75			45	50
DMV-V120TB/HRI-B	50Hz					2000	1170	40-44	75	1445			45	50	
DMV-V150TB/HRI-B	50Hz	15.0	51.1	17.0	58										
DMV-V150TB/HRI-B	50Hz														

Notes:

①Power supply: 220~240V / N for 50Hz; 230~250V / N for 60Hz, the above data is for AC motor model.

②Cooling test condition: indoor side 27°C DB, 18°C WB outdoor side 32°C DB, Heating test condition: indoor side 20°C DB, 18°C WB outdoor side 77°C DB.

③Sound level: measured at a point 1m 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.

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

High ESP Ducted Unit



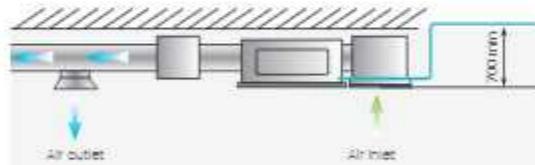
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Standard	Standard	Optional	Standard	/

Optional water pump

Slim body, saving suspended ceiling spaces. And water pump is optional, pump head up to 700mm



Can be used with various diffusers



Round diffuser



Spiral diffuser



Square diffuser



Linear diffuser



Rectangular diffuser

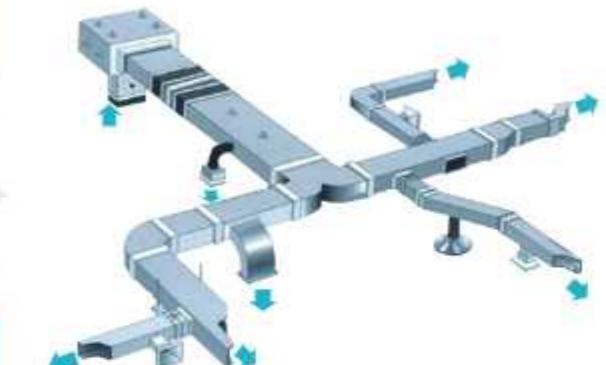
Used with various diffusers, meet for different kinds of decoration.

High static pressure

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



High static pressure ducted unit



Long distance multi-point air supply

Specification

Model name	Power type	Capacity				Power input kW	Air flow m³/s	Sound level dB(A)	ESP Pa	Dimension (WxHxD)		Body weight kg	Connecting pipe Size Outer Inner Diameter mm	Standard controller
		Cooling		Heating						Packing mm	Body mm			
		kW	kg/h	kW	kg/h	mm	mm	mm	mm	mm	mm			
DMV-V71TH/HRI-B	50Hz	7.1	24.2	7.5	25.5					1450 X 325 X 720	1445 X 320 X 580	45	50	
DMV-V71TH/HRI-B	50Hz	8.0	27.2	8.8	30	0.40	1500	880	40-42					
DMV-V80TH/HRI-B	50Hz	8.0	30.7	10.0	34.1									
DMV-V80TH/HRI-B	50Hz	10.0	34.1	11.0	37.5									
DMV-V100TH/HRI-B	50Hz	12.0	40.8	13.0	44.3	0.60	2300	1550	44-52					
DMV-V100TH/HRI-B	50Hz	15.0	50.1	17.0	59.0									
DMV-V120TH/HRI-B	50Hz	20.0	58.2	21.0	70.0	1.72	4000	2300	45-52					
DMV-V120TH/HRI-B	50/60Hz	20.0	68.1	22.0	78.0	1.20	3750	2200	45-50					
DMV-V150TH/HRI-B	50Hz	25.0	85.3	27.0	93.8	1.72	4300	2470	45-54					
DMV-V150TH/HRI-B	50/60Hz	25.0	85.3	27.0	93.8	1.20	3750	2200	45-51					
DMV-C200TH/HRI-B	50/60Hz	25.0	85.3	27.0	93.8	1.20	3750	2200	45-51					
DMV-V200TH/HRI-B	50Hz	28.0	88.5	30.0	105.0	1.72	4400	2680	45-55					
DMV-V200TH/HRI-B	50/60Hz	28.0	85.3	30.0	105.0	1.20	4100	2400	45-51					
DMV-V250TH/HRI-B	50Hz	40.0	103.5	50.0	170.5	2.50	6000	3520	50					
DMV-V250TH/HRI-B	50Hz	55.0	119.0	62.0	24.8	3.40	8000	4700	54					
DMV-V250TH/HRI-B	50Hz	65.0	120.0	62.0	24.8	3.40	8000	4700	54	220 X 540 X 1050	2155 X 575 X 915	222	250	6188 6088 00022

Notes:

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

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

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

Air supply smoothly

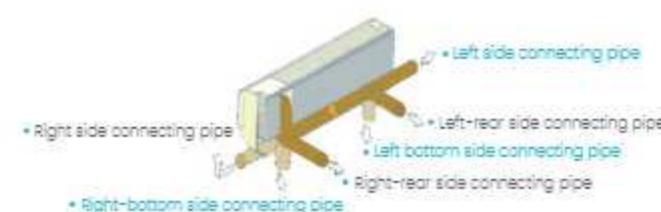
Cross flow fan, in Cooling mode, cold air is blown from horizontal. In heating mode, warm air is blown from vertical.

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.



Specification

Model	ECMV-020S/H0-008	ECMV-020S/H0-008	ECMV-020S/H0-008	ECMV-040S/H0-008	ECMV-040S/H0-008	ECMV-060S/H0-008	ECMV-070S/H0-008
Power Supply	220-240V/50Hz/60Hz	220-240V/50Hz/60Hz	220-240V/50Hz/60Hz	220-240V/50Hz/60Hz	220-240V/50Hz/60Hz	220-240V/50Hz/60Hz	220-240V/50Hz/60Hz
Capacity	Cooling kW Heating kW	2.0 2.0	2.8 2.8	3.5 4.0	4.5 5.0	5.5 6.3	7.1 8.0
Power input	W	15	15	18	20	23	35
Fan motor	Type Speed (H/Ved/Led) t/min	DC 1000/800/870/850	DC 1000/800/870/850	DC 100/1000/800/800	DC 1050/850/800/850	DC 100/1000/800/800	DC 1300/1200/100/1000
Air flow	m³/h	440/380/350/350	440/380/350/350	500/440/410/380	600/510/550/510	720/640/580/550	880/800/720/540
Sound Pressure level	dB(A)	34-33	34-33	37-35	39-38	32-41	35-43
Body dimension (WxHxD)	Net mm	854x300x200	854x300x200	854x300x200	872x320x215	872x320x215	872x320x215
	Packing mm	845x375x290	845x375x290	845x375x290	1050x400x310	1060x400x310	1050x400x310
Body weight	Net/Gross kg	35/32	35/32	35/32	45/44	45/44	45/44
Refrigerant type		R410A	R410A	R410A	R410A	R410A	R410A
Throttle type		EXV	EXV	EXV	EXV	EXV	EXV
Liquid pipe/Gas pipe	mm	Φ5.35/Φ5.51	Φ5.35/Φ5.51	Φ5.35/Φ5.51	Φ5.35/Φ5.51	Φ5.35/Φ5.51	Φ5.35/Φ5.51
Drainage Water pipe (Outer diameter)	mm	Φ20	Φ20	Φ20	Φ20	Φ20	Φ20
Operation temperature	°C	15-21	15-21	15-22	15-22	15-22	15-22

Notes:

1. Power supply: 220-240V/50Hz/60Hz/230V/60Hz for 50Hz

2. Cooling test condition: indoor side 27°C DB, 18°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 18°C WB outdoor side 7°C DB.

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.8m. 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



Easy for installation



Two kinds of grilles for selection



Floor Ceiling Unit



Features

Accessories

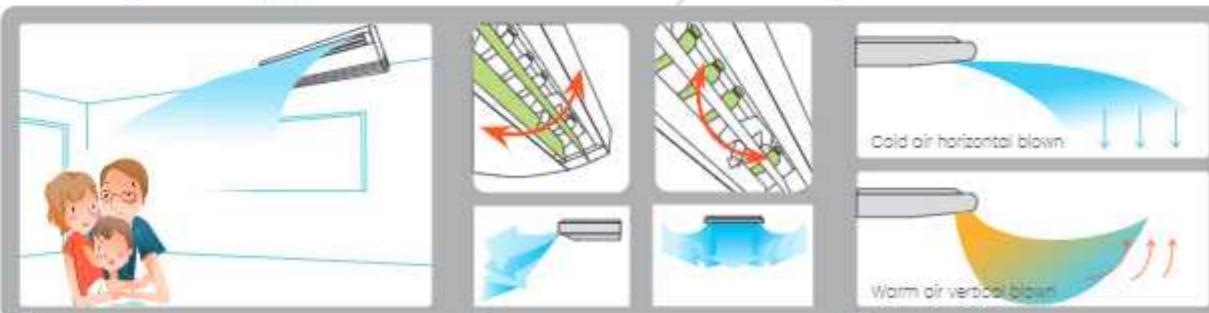
Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Optional	Standard	Optional

Flexible installation

According to actual project needs, choose ceiling suspended installation or floor standing installation.



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.

Specification

Model name	Power type	Capacity		Power Input	Air flow	Sound level	Dimension(Width*D)		Body Weight	Connecting pipe	Standard controller					
		Cooling kW	Heating kW				Packing mm	Body mm	Net kg	Gross kg						
GCHV-V30UA/HRI-L0B4	50Hz	3.6	12.3	4.0	13.7	0.085	500	350	37-41	1130 X 700 X 330	1000 X 575 X 235	25.5	31.0	0.127	0.035	DN20
GCHV-V30UA/HRI-H0B4	50Hz	4.5	15.3	5.0	17	0.10	500	470	37-47	1380 X 700 X 330	1300 X 575 X 235	31.0	37.0			
GCHV-V45UA/HRI-L0B4	50Hz	5.6	19.1	6.3	21.4	0.110	600	470	37-47	1380 X 700 X 330	1300 X 575 X 235	31.0	37.0			
GCHV-V45UA/HRI-H0B4	50Hz	7.1	24.2	8.0	27.1	0.135	1200	705	45-51	1380 X 700 X 330	1300 X 575 X 235	31.0	37.0			
GCHV-V50UA/HRI-L0B4	50Hz	8.0	27.2	8.8	30	0.160	1500	840	45-50	1750 X 700 X 330	1570 X 575 X 235	41.0	47.0			
GCHV-V50UA/HRI-H0B4	50Hz	9.3	30.7	10.0	34	0.180	1600	840	45-50	1750 X 700 X 330	1570 X 575 X 235	41.0	47.0			
GCHV-V70UA/HRI-L0B4	50Hz	11.2	38.2	12.5	42.5	0.200	2000	1177	45-54	1750 X 700 X 330	1570 X 575 X 235	41.0	47.0			
GCHV-V70UA/HRI-H0B4	50Hz	14.0	47.7	15.0	51	0.220	2000	1177	45-54	1750 X 700 X 330	1570 X 575 X 235	41.0	47.0			
GCHV-V100UA/HRI-L0B4	50Hz	15.0	54.5	17.0	58	0.220	2000	1177	45-54	1750 X 700 X 330	1570 X 575 X 235	41.0	47.0			
GCHV-V100UA/HRI-H0B4	50Hz	18.0	64.5	20.0	68	0.220	2000	1177	45-54	1750 X 700 X 330	1570 X 575 X 235	41.0	47.0			

Notes:

1. Power supply: 220~240V/1~N for 50Hz; 208~230V/1~N for 60Hz, the above data is for AC motor model.

2. Cooling test condition: Indoor side 27°C DB, 18°C WB outdoor side 35°C DB, Heating test condition: Indoor side 0°C DB, 15°C WB outdoor side 7°C DB.

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.8m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

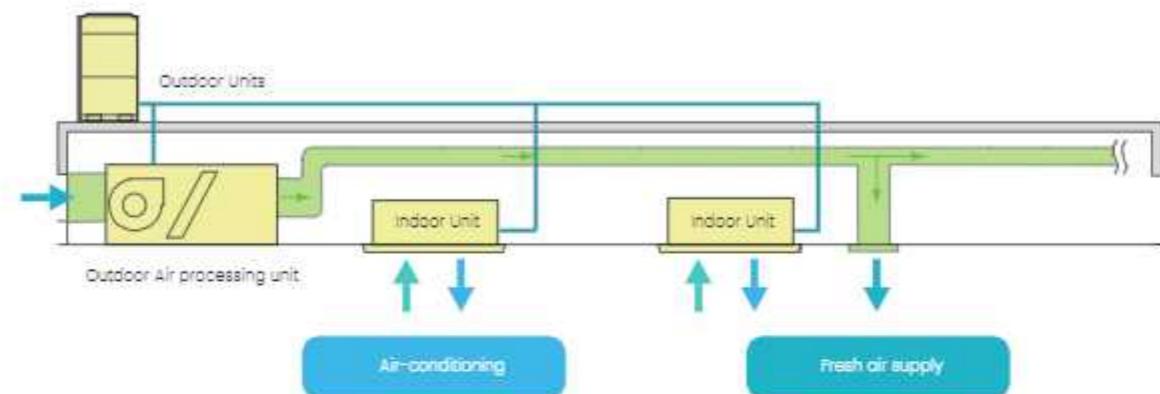
4. The above data may be changed without notice for future improvement on quality and performance.

Fresh Air Processor



Innovative air supply technology for excellent room temperature control

Fresh air unit can be connected with other type indoor units.
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	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.

Specification

Model name	Power type	Capacity				Power input kW	Air flow m³/s	Sound level dB(A)	ESP Pa	Dimension(WxHxD)				Body weight kg	Net Box mm	Gross Box mm	Liquid mm	Drain mm	Connecting pipe	Standard controller
		Cooling		Heating						Packing mm	Body mm	Panel packing mm	Panel mm							
		kW	kg/s/h	kW	kg/s/h	Pa	mm	mm	mm	mm	mm	mm	mm							
DYV-H140TF/HRI-E	50Hz									1240 X 440 X 370 X 520										
DYV-H140TF/HRI-E	60Hz	14.0	47.7	8.0	30.7	0.45	1400	620	42-48	220										
DYV-H224TF/HRI-E	50Hz									1610 X 490 X 448 X 370										
DYV-H224TF/HRI-E	60Hz	22.4	76.4	16.0	54.5	1.20	2000	1170	45-52	220										
DYV-H280TF/HRI-E	50Hz									1610 X 490 X 448 X 370										
DYV-H280TF/HRI-E	60Hz	28.0	86.8	20.0	68.1	1.20	2800	1640	45-52	220										
DYV-H450TF/HRI	50Hz									1610 X 490 X 448 X 370										
DYV-H450TF/HRI	60Hz	45.0	153.8	31.4	107.1	1.60	4000	3520	55	300	1200 X 710 X 675 X 918									
DYV-H550TF/HRI	50Hz									1610 X 490 X 448 X 370										
DYV-H550TF/HRI	60Hz	55.0	181.0	38.0	133.0	1.80	6000	4700	62	300	1200 X 710 X 675 X 918									
DYV-H650TF/HRI	50Hz									1610 X 490 X 448 X 370										
DYV-H650TF/HRI	60Hz	65.0	208.0	45.0	150.0	2.00	8000	6700	72	300	1200 X 710 X 675 X 918									

Notes: 1. 450W E, 550W units' power supply are 380-415V/3N for 50Hz and 220-230V/3N for 60Hz, the others' power supply is 220-240V/1N for 50Hz and 220-230V/1N for 60Hz.

2. Cooling test condition: indoor and outdoor side 33°C DB, 26°C WB; Heating test condition: indoor and outdoor side 0°C DB, -2.5°C WB.

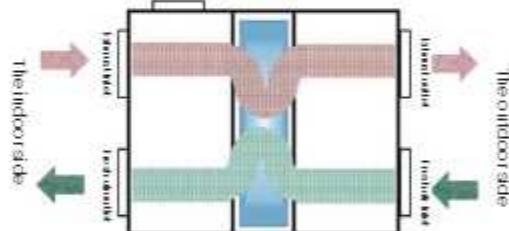
3. Sound level measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

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

Heat Recovery Ventilator



Features

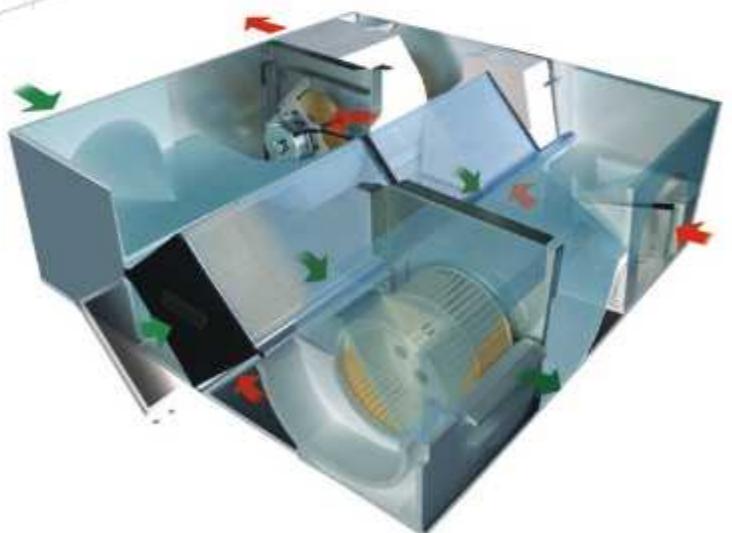


How it works

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 other places.



Specification

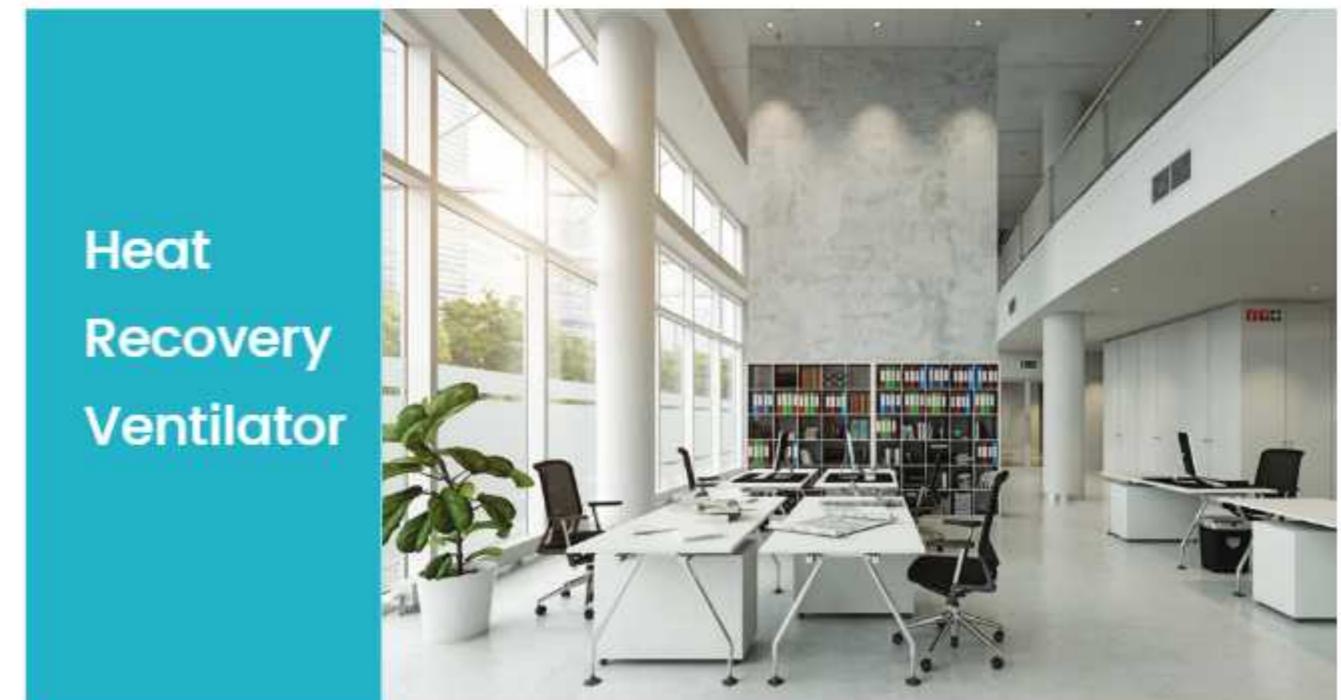
Suspended type specification

Model name	Air flow m³/h	ESP. Pa	Power input W	Power supply (V)	Temperature exchanging efficiency(%)		Enthropy exchanging efficiency(%)		Noise dB(A)	Body dimension (Width×Height) mm	Weight kg
					Cooling	Heating	Cooling	Heating			
QR-H020	200	75	55	220V/1N/50±2	50.0	55.0	50.0	55.0	30	500x500x204	25
QR-H030	300	75	130		50.0	55.0	50.0	55.0	33	744x500x270	27
QR-H040	400	80	200		50.0	55.0	50.0	55.0	35	744x504x270	30
QR-H050	500	80	220		50.0	55.0	50.0	55.0	38	824x504x270	41
QR-H060	600	80	240		50.0	55.0	50.0	55.0	40	824x504x270	43
QR-H080	800	100	400		50.0	55.0	50.0	55.0	42	1158x504x388	55
QR-H100	1000	150	510		50.0	55.0	50.0	55.0	43	1158x504x388	62
QR-H130	1300	150	630		50.0	55.0	50.0	55.0	45	1158x504x388	62
QR-H150S	1500	150	1000		50.0	55.0	50.0	55.0	51	1500x500x540	100
QR-H200S	2000	170	1200		50.0	55.0	50.0	55.0	53	1850x500x540	125
QR-H250S	2500	180	2000		50.0	55.0	50.0	55.0	55	1430x510x500	140
QR-H300S	3000	200	2100		50.0	55.0	50.0	55.0	57	1500x700x540	170
QR-H400S	4000	220	2400		50.0	55.0	50.0	55.0	60	1320x725x500	185
QR-H500S	5000	240	3000		50.0	55.0	50.0	55.0	61	1560x820x500	280
QR-H600S	6000	260	3600		50.0	55.0	50.0	55.0	70	1560x820x500	310
QR-H700S	7000	30	4200		50.0	55.0	50.0	55.0	73	2050x650x168	350
QR-H800S	8000	320	5000		50.0	55.0	50.0	55.0	74	2050x650x168	381
QR-H800V/S	8000	340	7500		50.0	55.0	50.0	55.0	77	2310x900x200	500
QR-H1000V/S	10000	400	8000		50.0	55.0	50.0	55.0	78	2310x900x200	534

Notes: 1.Cooling test condition: indoor side 27°C DB, 18.5° WB; outdoor fresh air 20°C DB, 29°C;

2.Heating test condition: indoor side 21°C DB, 13° WB; outdoor fresh air 5°C DB, 21°C;

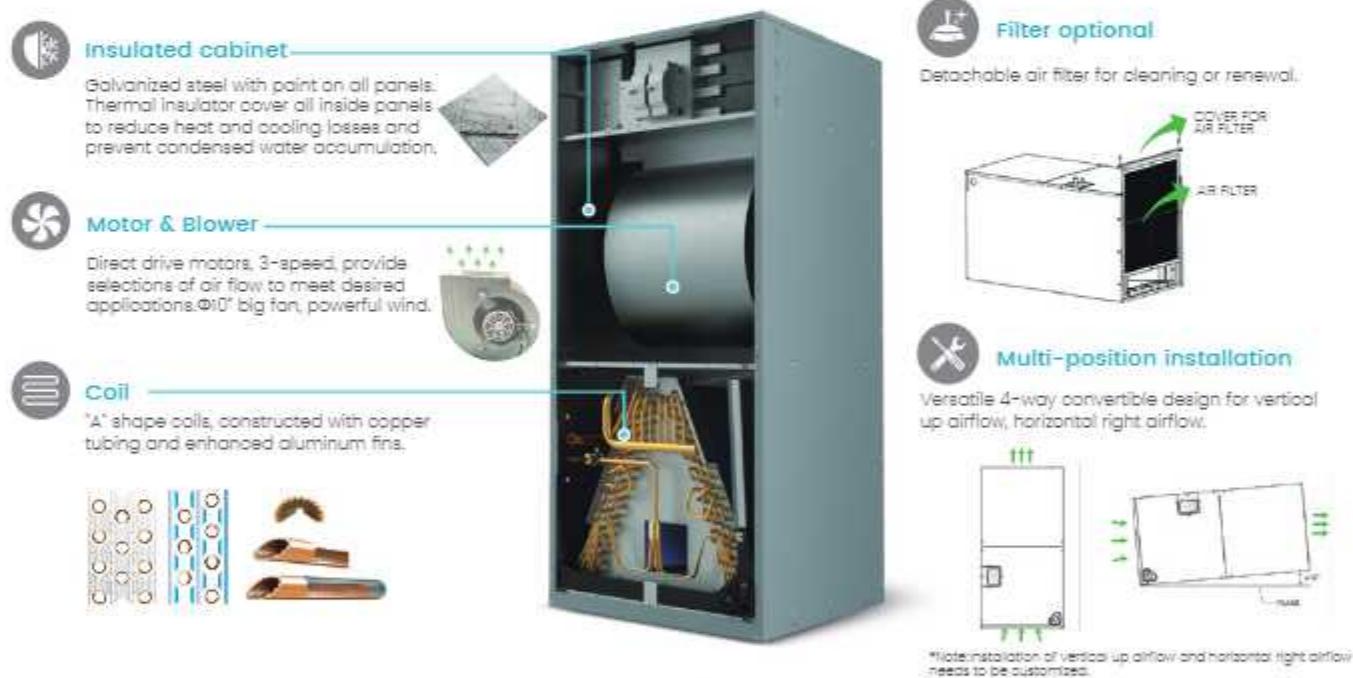
3.The above data may be changed without notice for future improvement on quality and performance.



Air Handler Unit



Features



Specification

Model name	Power type	Capacity		Power input	Air flow	Sound Level	ESP	Dimension (Width)		Body Weight	Connecting pipe	Standard controller						
		kw	kcal/h					mm	mm	Net	Gross	Bio	Liquid	Drain				
OMV-P70AH/HnR	50Hz	7.1	24.1	8.0	27.2	250	1500	8823	51-54	25	774x520x450	834x520x555	35	36	215.88	28.52	220	Wired Controller
OMV-P100AH/HnR	50Hz	10.5	38.7	11.5	38.1	320	1800	8823	51-54	37	774x520x450	834x520x555	35	36	215.88	28.52	220	Wired Controller
OMV-P160AH/HnR	50Hz	18.0	64.4	18.0	51.2	517	2600	1470.5	57-60	50	870x600x500	1030x600x595	48	51	215.88	28.52	220	Wired Controller

Notes: 1. Power supply: 220~230V / 50~60Hz.

2. Cooling test condition: Indoor side 27°C DB, 18°C WB, outdoor side 35°C DB. Heating test condition: Indoor side 20°C DB, 15°C WB, Outdoor side 7°C 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.

Controllers & Software



Wireless Controllers



Wired Controllers



Touch Screen Wired Controller



Simple Centralized Controller



Smart Manager

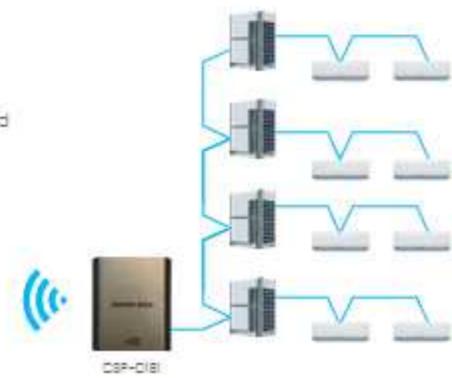
- Available on iOS and Android



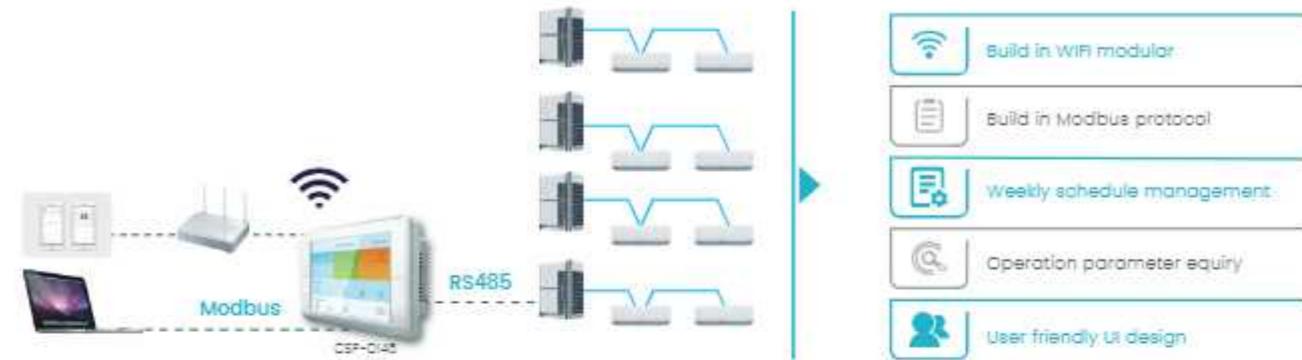
- Remote control via cloud server



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



Touch Screen Centralized Controller

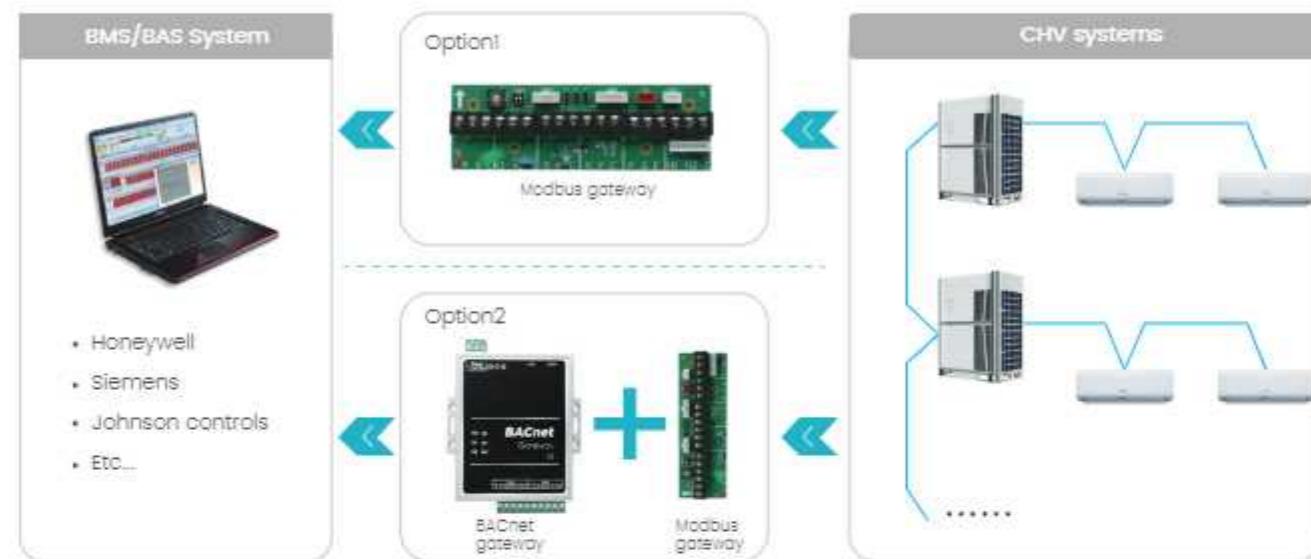


CHV-NET(Centralized Control System)

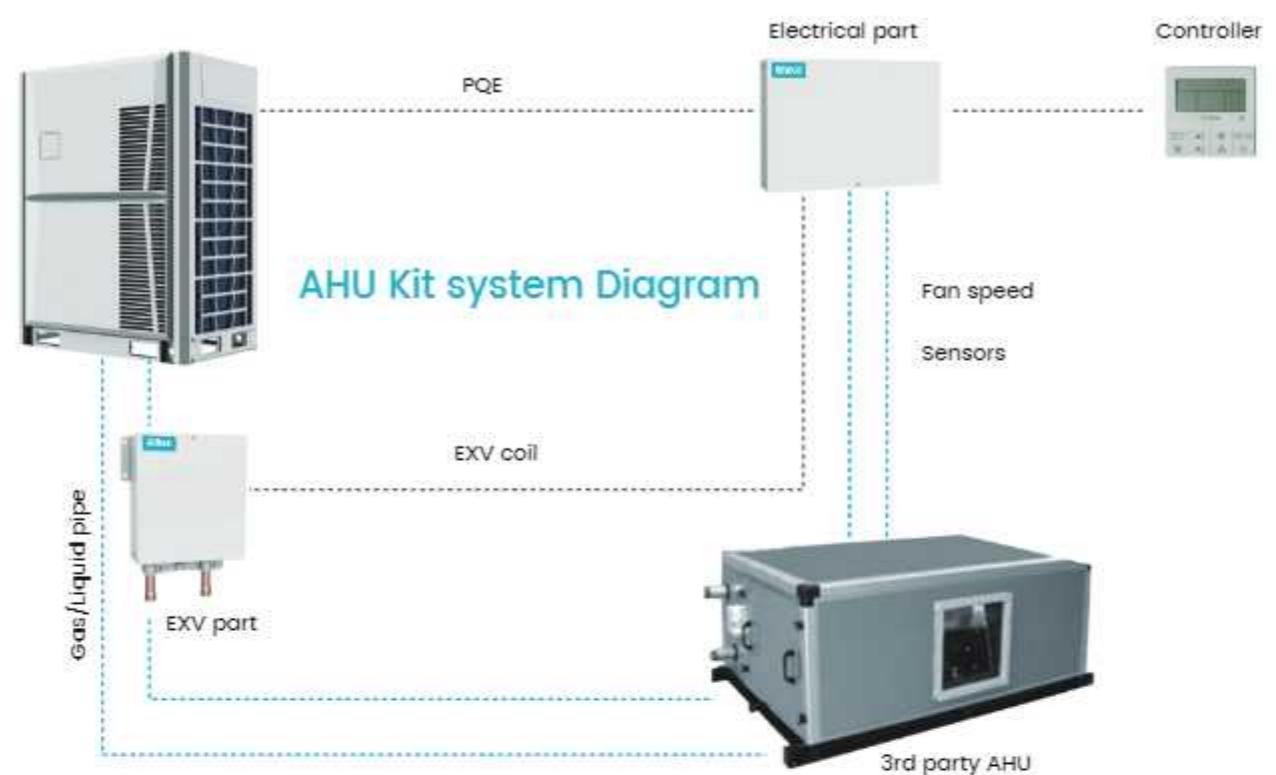


BMS Gateway

- Modbus gateway** Independent Modbus Box or built-in with outdoor unit.
- BACnet gateway** Connect with Modbus gateway, use BACnet IP protocol.

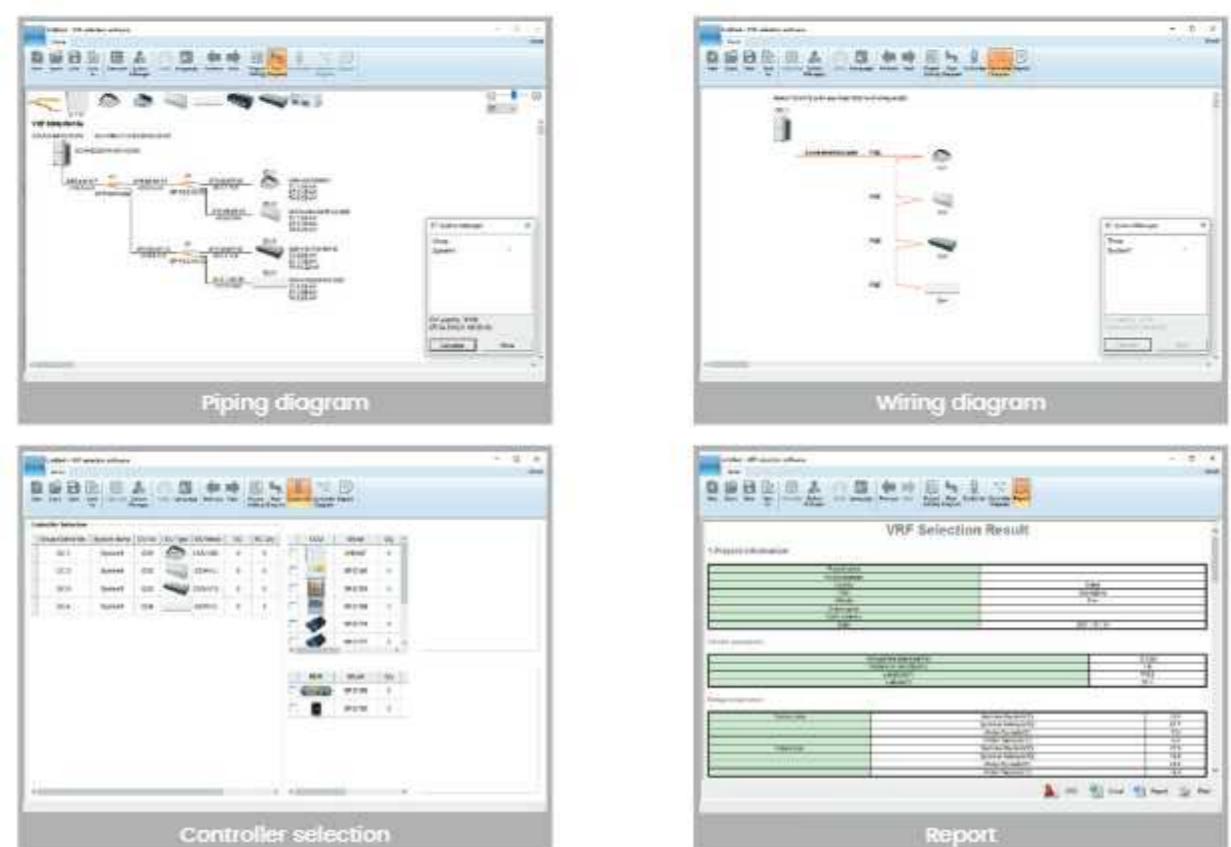


AHU Connection Kit



VRF Selection Software

The selection software provides a comprehensive selection of system design reports and calculations. Based on the units selected, the software produces detailed system layout and piping requirement calculations, greatly improves the work efficiency.



PROJECTS



Volgograd Arena ,important venue of the 2018 Russia World Cup, total VRF capacity 2400kW.



Murtala Muhammed Airport Lagos , total VRF capacity 800kW.



Nizhny Novgorod Stadium, Important venue of the 2018 Russian World Cup, total VRF capacity 1600kW.



SEB Bank in Kaunas, Lithuania with CMV-R/CMV-X/CMV-MINI VRF system

PROJECTS



Main venue of the Universiade in shenzhen, total VRF capacity 8000kw.



Mauritania International Conference Center, CMV-C & CMV-mini, total VRF capacity 3640kw.



Double Tree(Hilton) in Russia, with 3-pipe VRF system.



Montego bay resort in Jemaica, with DC inverter VRF system.