Giwee

No. 28, Eastern Industrial Park, Lishui Town, Nanhai District,
Foshan City, Guangdong Province, China, P.C:528244

giwee.vip@giwee.com

www.giwee.com

86-757-88781037

86-757-88789825

A Carrier Company

Note: The specifications of this catalogue may change for further improvement on quality and performance without prior notice to allow us to incorporate the latest innovations for its customers. The information contained in this catalogue is merely informative.

DC INVERTER VRF SYSTEM
Product Catalogue

T1 Condition

Ver.QR.ST

About Giwee

Giwee is a global supplier with integrated advantages in R&D, production and sales in the HVAC field, the 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 is a Carrier company.

Giwee covers an area of 167,000 square meters, with more than 120,000 square meters of plants and 17 modern production lines. Annual output exceeds 1.5 million sets, includes VRF, modular chiller, light 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.

2002
Enter central air conditioning industry

2004
Commercial air conditioning division established

2011
CAC Company Established

2012
Honored of “National high-tech enterprises”

2013
New R&D office building and VRF plant put into operation

2014
Full DC inverter VRF CMV-X series launched

2015
Honored of “Provincial engineering research and development center”

2018
Testing center certificated by CNAS

2021
Giwee becomes A Carrier Company

2022
Giwee new experience center put into service

Production Capacity

Giwee has 17 advanced production lines and an annual production capacity of over 1.5 million sets. Introduce lean production management, improves production efficiency. By using various robots, AGV systems and other equipment, improve online and offline processes, optimize logistics and distribution technology, and improve product quality and production efficiency. The use of MES system helps to track production progress, inventory status, work progress and other operational management, and improve product quality and production efficiency.

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 quality of the products.

The testing center has been certified by CNAS in 2018, with a full range of professional incoming inspection labs, enthalpy difference labs, EMC labs, 42 national accreditedlabs 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 according to specific market requirements.

ISO9001 ISO14001 ISO45001 QC 080000 AEO


Work Condition Laboratory


Laboratory Control Room

R&D Strength


2000kg Transport Simulation

Testing&Inspection Center


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, carries 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 to R&D and continually invest 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 15,000 square meters. It has a series of 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.

Directory

2002

Develop intelligent VRF system,enter VRF market

2004

Successfully developed intelligent inverter VRF system

2009

Upgrade performance; launch more stable, energy saving, and more comfortable super DC inverter module

2011

Launch new CMV system adopt the industry fourth generation core technology, both process and quality upgrade

2013

Full DC inverter CMV- X was successful developed

VRF Development History

2020

CHV-Pro got Eurovent certification in 2020

2019

Launched New generation CHV-Pro VRF series

2018

Launched CMV-X+ Full DC inverter EVI VRF system

2017

CMV-X got EUROVENT certification in 2017

2016

Launched CMV-R heat recovery VRF system

2015

New CMV-C series launched with high efficiency and excellent performance

How To Read The Model Name

outdoor unit

GCHV - E 280 W / H Z R1- DK01

- GCHV/CHV:GCHV VRF system
- E:Full DC Inverter EVI / D:Full DC Inverter
- Capacity(*100W)
- Outdoor unit
- H: Heat Pump / C:Cooling Only
- Power supply Z:380-415V/3N/50Hz Y:380-415V/3N/60HZ X:208-230V/3N/60HZ
- Refrigerant type R1:R410a
- Case No.

Indoor unit

GCHV - V 36 UA / H N R1- LDBA

- CMV/GCHV:GCHV VRF system
- Motor code V:AC Fan Motor / D: DC Fan Motor
- Capacity(*100W)
- Indoor unit code Q4:Compact 4-way Cassette / QR:Roundflow Cassette / G:Wall-mounted / TA:Low ESP duct / TB:Medium ESP duct / TH:High ESP duct / TF:Fresh Air Processor / UA:Floor Ceiling / AH:Air Handler
- Function code H:Heat pump C: Cooling Only
- Power supply Omit:220-240V/1N/50Hz N:208-230V/1N/60Hz Z:380-415V/3N/50Hz
- Refrigerant type R1:R410a
- Case No.

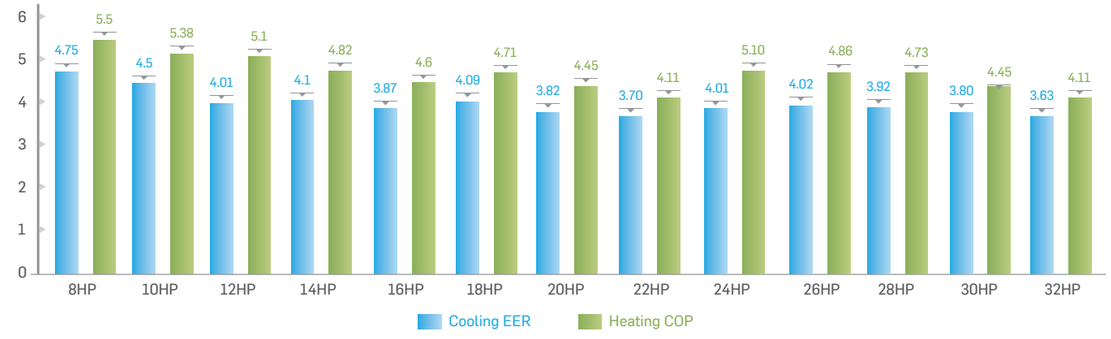
CHV Pro

New Generation Full DC Inverter VRF System

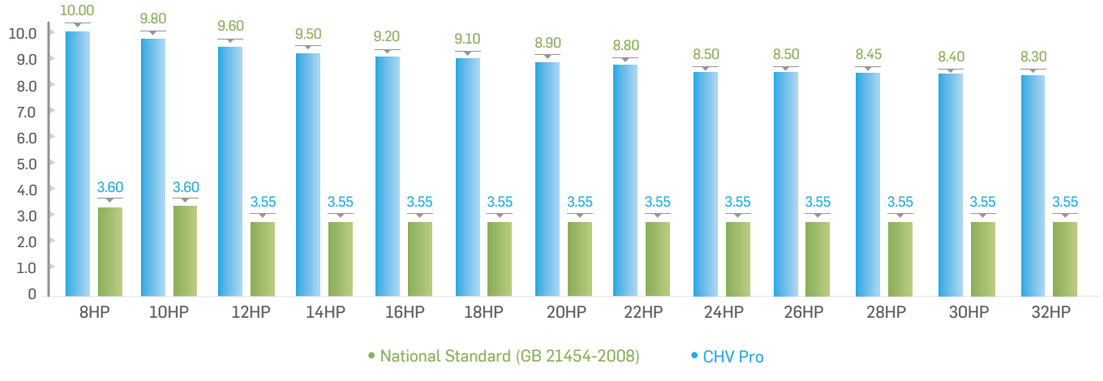
13 Basic Modules

Capacity	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
	25.2kW	28kW	33.5kW	40kW	45kW	50kW	56kW	61.5kW	67kW	73kW	78.5kW	85kW	90kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC+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+DC	DC+DC

EER&COP



IPLV(C)



Combination Table

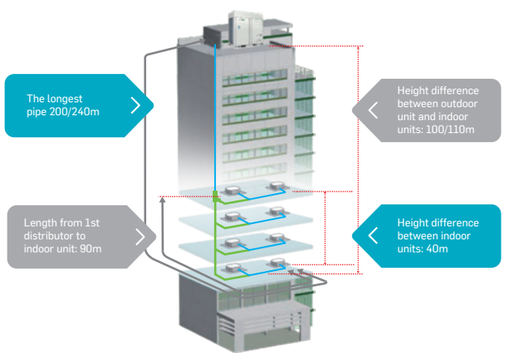
HP	Cooling Cap.(kW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
8	25.2	●												
10	28		●											
12	33.5			●										
14	40				●									
16	45					●								
18	50						●							
20	56							●						
22	61.5								●					
24	67									●				
26	73										●			
28	78.5											●		
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.

Refrigerant Piping

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.

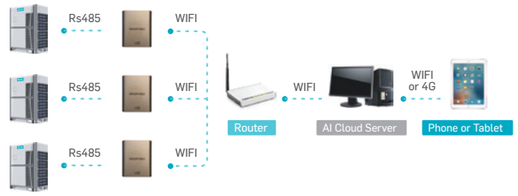
*Please refer to the installation manual for detailed length description.



Features

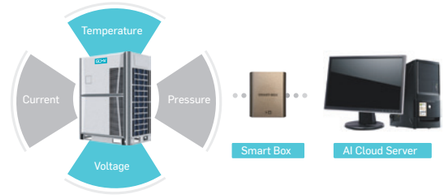
Long Distance Remote Control

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.

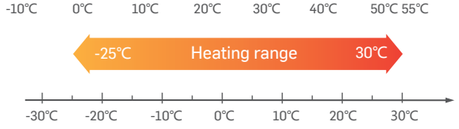


Refrigerant Cooling Design

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

Wide Outdoor Operation Range

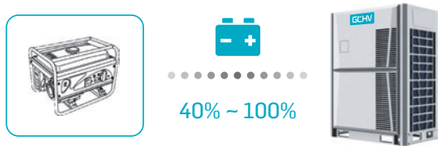
Due to EVI technology, CHV PRO still has 85% of rated capacity even in -15℃.



*Based on GCHV internal test report

Power Saving Mode

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



Refrigerant Status Detection

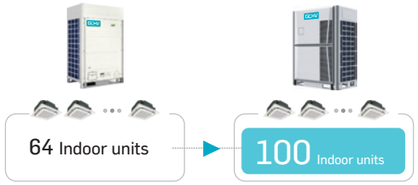
- Built-in with smart refrigerant auto check function, which can give suggestion about refrigerant status.
- Different code means different refrigerant status:

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

Features

More indoor units

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



Electrical Lock Function(optional)

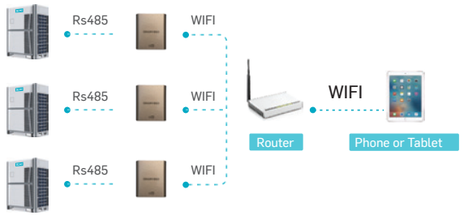
In case of end user doesn't pay as contract, electrical lock function can be used to stop VRF system, and end user can not start the system without permission.
System can be unlock with password by authorized technician.

Wireless Communication(optional)

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

Online Diagnosis

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

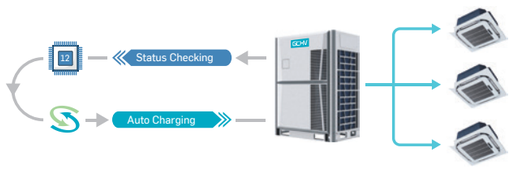


Service Window On Front Cover

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.

Advantages

1 High Efficiency

2 Benefits For Users

3 Benefits For Installers

Provide You With Fresh Air

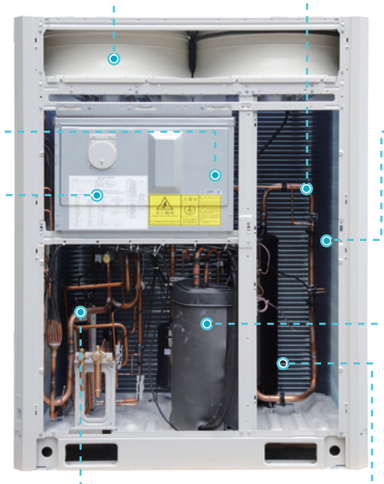
1

High Efficiency

Low carbon life advocate

Giwee 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-grooved Tube
- Excellent heat-exchanging efficiency

2-in-1 Refrigerant Flow Path
- Increase the liquid refrigerant volume proportion

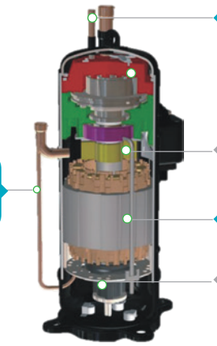
Cross Flow Fins
- Reduce wind resistance and improve heat exchange efficiency

DC Inverter Compressors
- High pressure type
- Asymmetric scroll design
- Neodymium permanent
- Magnet rotor

G Type Condenser
- Enlarge the heat exchange area, and the heat exchange effect is better (Available for 22/26/28/30/32HP)

High Efficiency DC Inverter Compressor

- From Hitachi, famous inverter compressor manufacturer.
- R410a environmentally balanced refrigerant.
- Small torque fluctuation, low vibration and quiet operation.
- High efficiency due to its 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 effciency.
- High pressure chamber
  - Has small suction superheat and high refrigerant volume effciency
  - Has large refrigerant discharge buffer volume, low vibration and noise



Vapor injection pipe, better performance in low temperature.

High strength bearing, high rigidity shell.

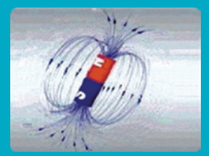
Wide frequency range.

Build in oil pump, active oil supply when compressor is running.

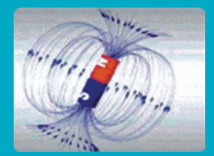
Oil balance design, pump extra oil to other compressor.

Neodymium permanent magnet rotor

Powerful magnetic force, large force moment and high efficiency.



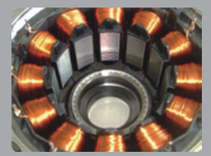
Ferrite magnet



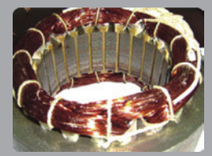
Neodymium permanent magnet

Concentrated winding

Magnetic efficiency is 12% higher than distributed winding



Concentrated winding



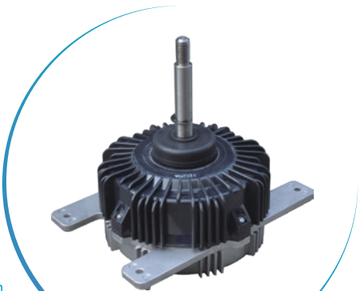
Distributed winding

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.

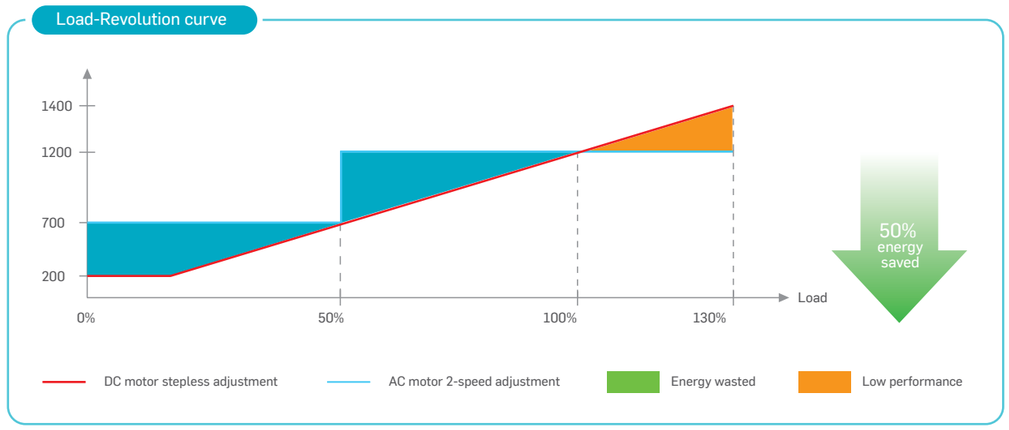
Brushless with built-in sensor.



DC fan motor

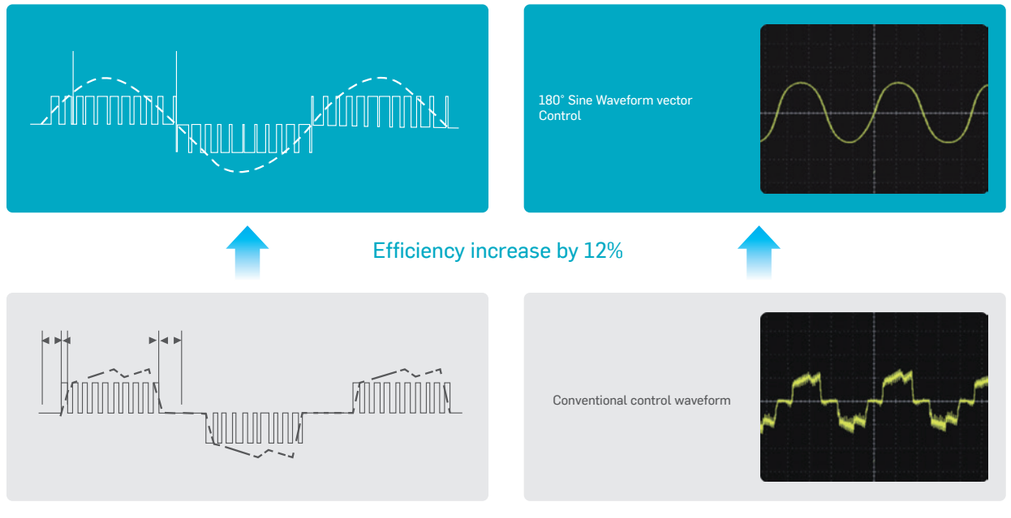
Stepless Control

DC fan motor can be stepless contolled by outdoor PCB according to system's operating pressure, and it is able to reducethe energy consumption and maintain the system in good condition.



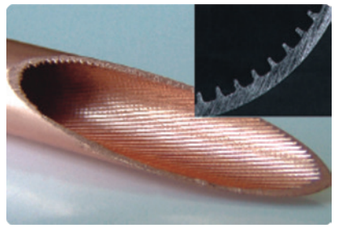
180° Sine Waveform Control

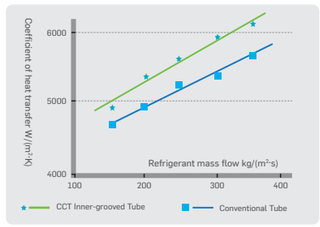
The perfect combination of 180° Sine waveform rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.

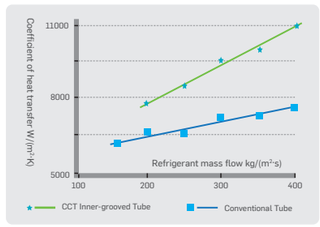


CCT Inner-grooved Tube

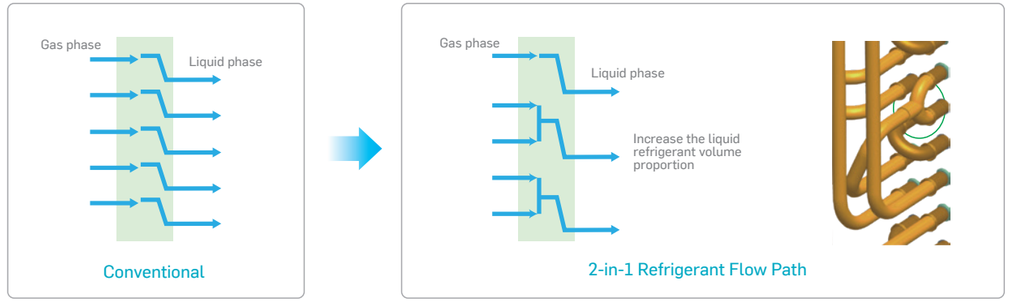
CCT (Continuous Cooling Transformation)inner-grooved copper tube has high thermometic conductivity. This inner-grooved fins break the refrigerant flow boundary layer to enhance refrigerant disturbance to increase heat-exchanging efficiency.

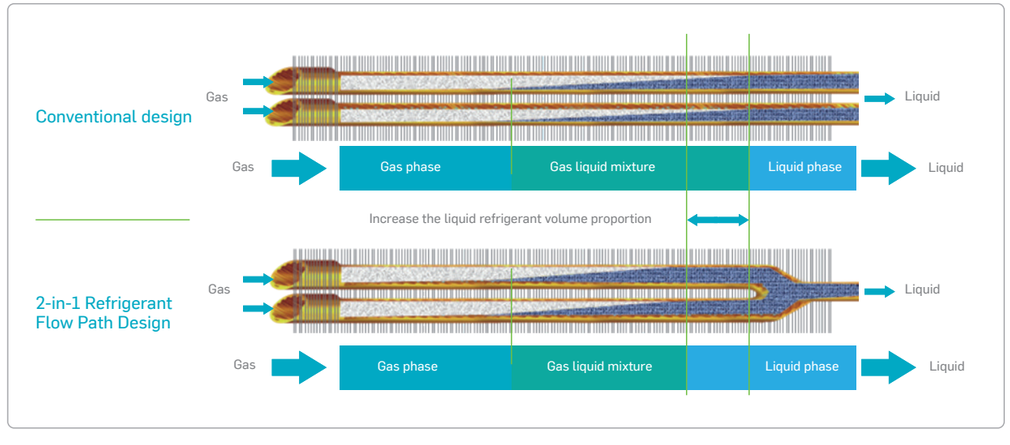






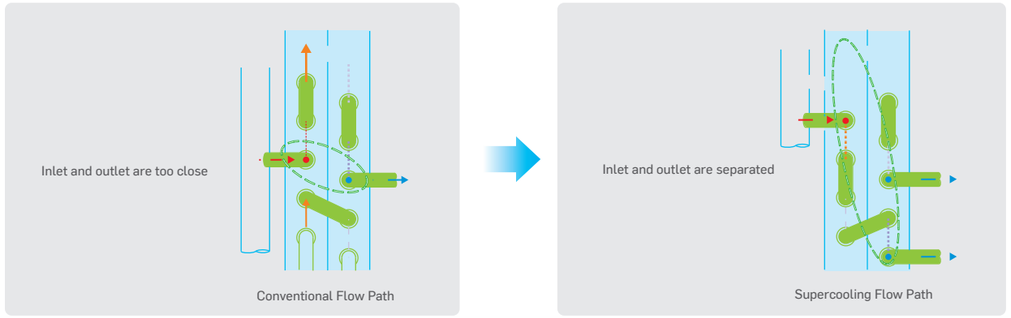
2-in-1 Refrigerant Flow Path Design





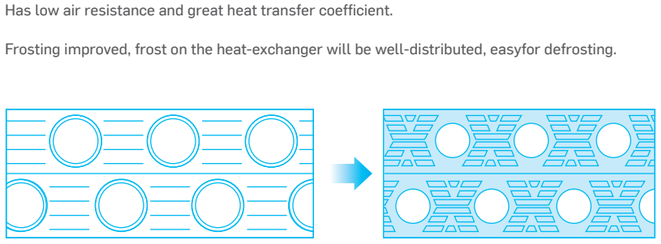
Supercooling Flow Path Design

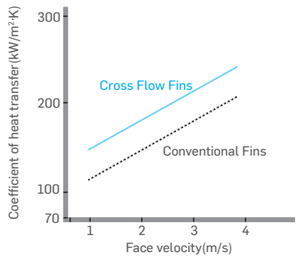
Supercooling flow path design, separates the refrigerant inlet and outlet, increase the supercooling degree, reduce the effect of high temperature inlet gas refrigerant to low temperature outlet liquid refrigerant, therefore,the system efficiency will be greatly increased.



Cross Flow Fins

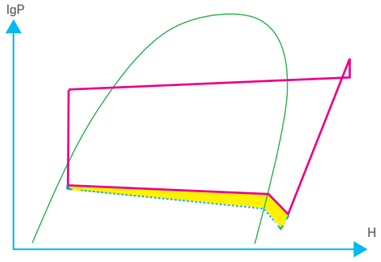
- Has low air resistance and great heat transfer coefficient.
- Frosting improved, frost on the heat-exchanger will be well-distributed, easyfor defrosting.





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

Plate Heat Exchanger

- Provides an additional sub cooling.
- Improved heat exchanger+Plate Heat Exchanger+Optimized control logic.
- Heating performance highly increased.

2

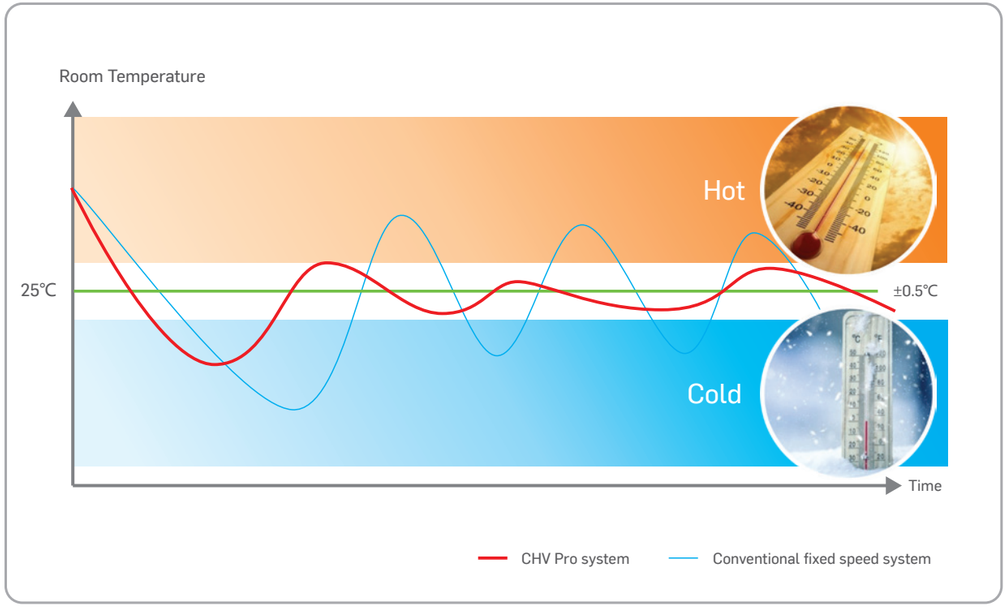
Benefits For Users

Livable environment provider

Giwee focuses on starting point of CAC system: provide 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 balanced refrigerant and so on, we strive to provide 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℃, offers outstanding comfort ability.

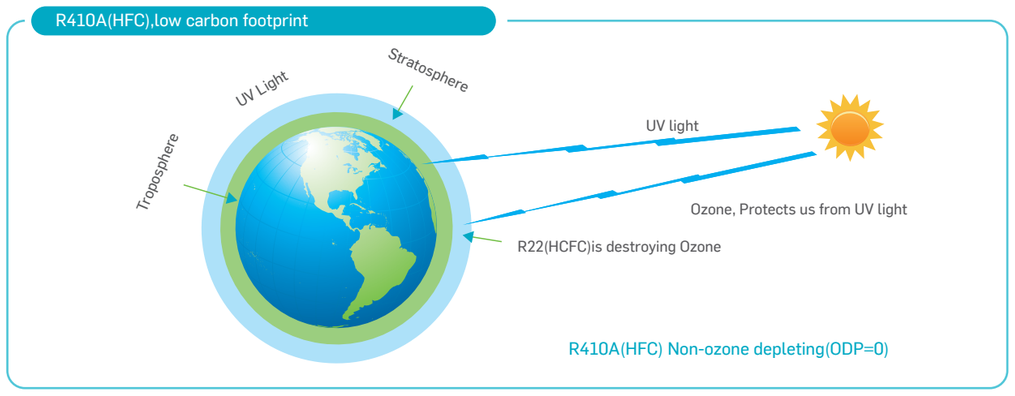


Wide Operation Range

CHV pro has a wide ambient temperature operation range, cooling at -5-55℃, and heating at -25-30℃.

Environmental Balanced Refrigerant

Refrigerant R410A(HFC), low carbon footprint, non-ozone depleting.

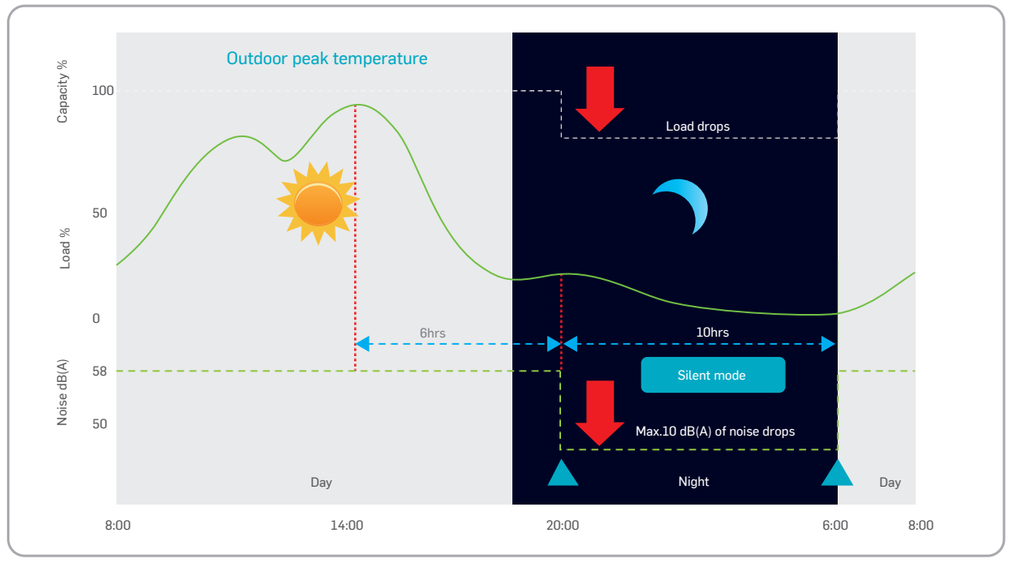


Snow-proof Function

- 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.

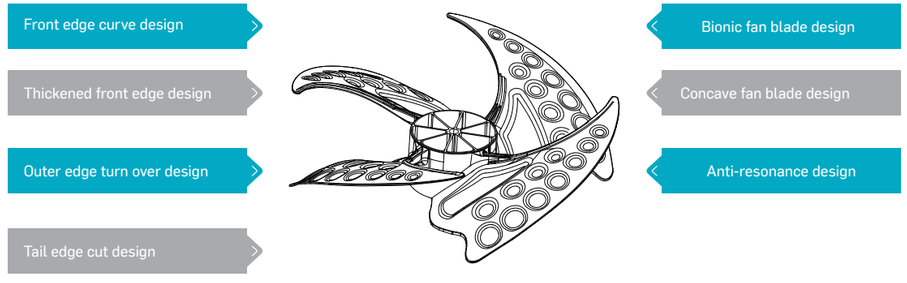
Night Mode

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



Low Noise Fan Blade

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



3-stage Back Up Function

Module back up function.

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

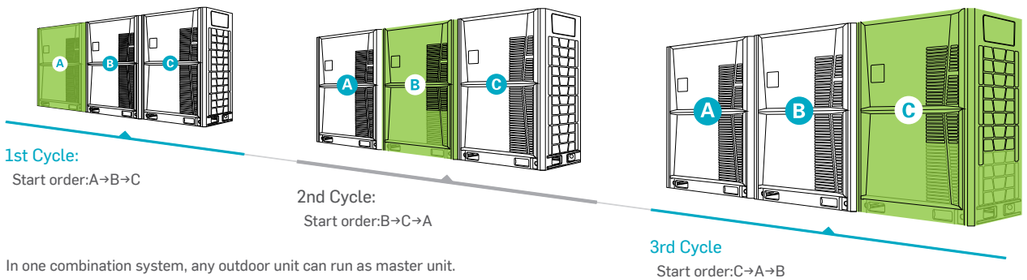
Compressor back up function

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



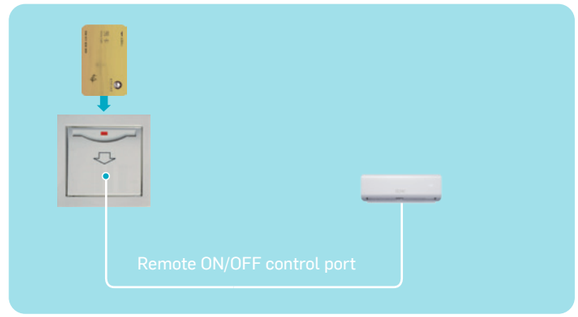
- In one combination system, any outdoor unit can run as master unit.
- Cycle operation equalizes the running time of the outdoor units, greatly extending the lifespan of outdoor units in one system.

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.

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.



Intelligent Defrosting Program

5 special defrosting mechanisms

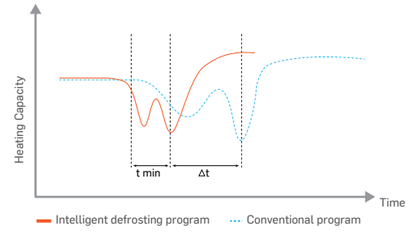
The dedicated temperature sensor monitors the temperature of the condenser coil of the outdoor unit in real time, intelligently selects the defrost mechanism and judges the timing of defrost, effectively prolongs the normal heating time, improves comfort, and achieves energy-saving effects.

- 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 morecomfortable



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 occtupied 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.

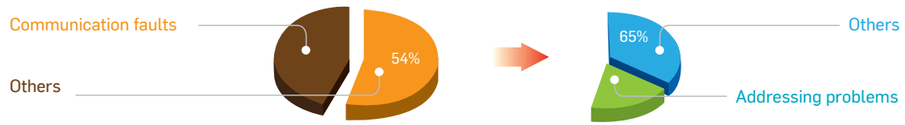
Addressing Methods

- 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

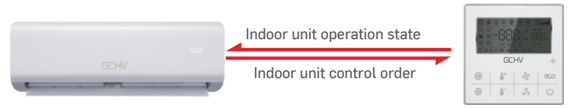
- Automatic addressing will reduce artificial faults by 35% and 5% manual works.
  - 54% system failure were caused by communication faults.
  - 65% communication faults were caused by address problems.
  - Most of the address problems were: address setting forgotten, wrong settings, address repeat.

Failure chart



New Wired Controller

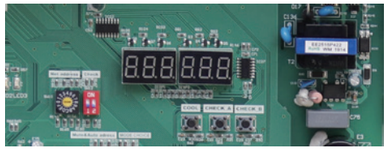
- Bidirectional communication. Indoor unit's operating parameters(error code, temperature, address)can be inquired and displayed on the controller.
- Compact design.
- Timer function.



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

Digital Display On The PCB

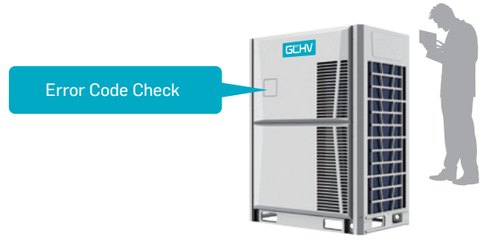
- Digital display on the PCB, it can show system's operation status and error codes.



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

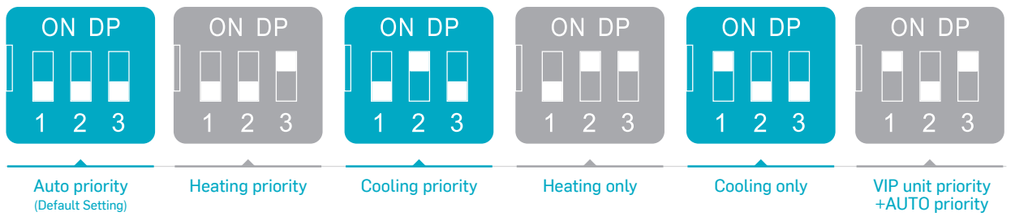
Service Window

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



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

1st stage
Compressor internal oil separation
Oil separator


Compressor

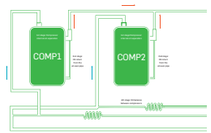
2nd stage
Oil return from the oil even pipe
Oil level control


Oil even pipe

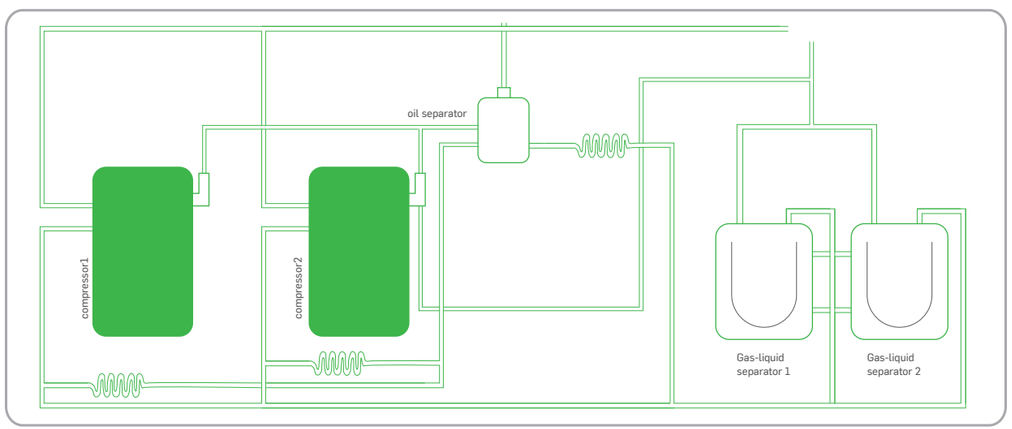
3rd stage
Oil return from the system oil separator
Oil separator


oil separator

4th stage
Oil balance between compressors
Oil balance pipe



5th stage
Oil return by system oil return program
Intellingent oil return program

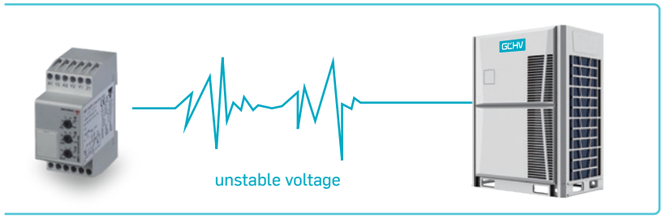


Humanized Internal Structure

- 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.

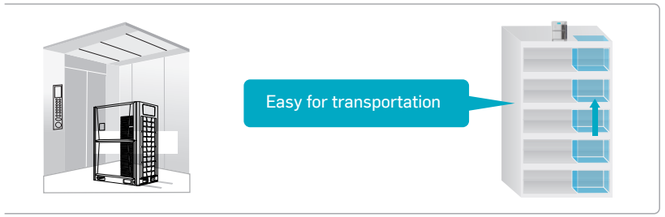
3-Phase Power Protector(Optional)

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.



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

380-415V/3N/50&60Hz
DC INVERTER EVI VRF SYSTEM(Scroll Compressor)

Model Name			GCHV-E252W/HZR1-DK01	GCHV-E280W/HZR1-DK01	GCHV-E335W/HZR1-DK01	GCHV-E400W/HZR1-DM01	GCHV-E450W/HZR1-DM01
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	25.2	28.0	33.5	40.0	45.0
		Btu/h	86000	95500	114000	136500	153500
		RT	7.2	8.0	9.5	11.4	12.8
	Rated current	A	9.04	11.30	14.51	18.10	21.60
	Power input	kW	5.31	6.22	8.35	9.76	11.63
	EER	W/W	4.75	4.50	4.01	4.10	3.87
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	5.50	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	
Dimension (WxHxD)	Throttle type		EXV				
	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	℃	-25–30			-25–30	
	Indoor side	℃	16–32			16–32	

Model Name			GCHV-E500W/HZR1-DM01	GCHV-E560W/HZR1-DM01	GCHV-E615W/HZR1-DM01	GCHV-E670W/HZR1-DS01	GCHV-E730W/HZR1-DS01	GCHV-E785W/HZR1-DS01	GCHV-E850W/HZR1-DS01	GCHV-E900W/HZR1-DS01
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	380–415V/3N/50&60Hz	380–415V/3N/50&60Hz	380–415V/3N/50&60Hz
Performance Data										
Cooling	Capacity	HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
		kW	50.0	56.0	61.5	67.0	73.0	78.5	85.0	90.0
		Btu/h	170600	191000	209800	228600	249100	267800	290000	307100
		RT	14.2	16.0	17.5	19.1	20.8	22.3	24.2	25.6
	Rated current	A	23.29	26.10	29.06	29.09	32.59	36.13	40.36	44.73
	Power input	kW	12.22	14.66	16.62	16.71	18.18	20.03	22.37	24.79
	EER	W/W	4.09	3.82	3.70	4.01	4.02	3.92	3.80	3.63
Heating	Capacity	kW	56.0	63.0	69.0	75.0	81.5	87.5	95.0	100.0
		Btu/h	191000	214900	235400	255900	278100	298600	324100	341200
		RT	16.0	18.0	19.7	21.3	23.2	24.9	27.0	28.4
	Rated current	A	22.61	25.70	28.40	28.65	30.28	33.38	38.52	43.90
	Power input	kW	11.89	14.16	16.80	14.72	16.78	18.50	21.35	24.33
	COP	W/W	4.71	4.45	4.11	5.10	4.86	4.73	4.45	4.11
Max. input consumption		kW	22.0	24.4	25.0	26.2	30.1	30.7	35.8	37.7
Max. Current		A	37.4	41.1	42.1	43.2	50.8	51.8	60.4	63.6
Capacity adjustment range			50%–130%							
Compressor Data										
Compressor	Quantity		1			2				
	Type		Scroll Compressor			Scroll Compressor				
	Brand		HITACHI			HITACHI				
Physical Data										
Refrigerant	Type		R410a							
	Volume	Kg	15	16			20		23	
Dimension (WxHxD)	Throttle type		EXV							
	Net	mm	1340x1740x840			1990x1740x840				
	Packing	mm	1410x1900x910			2060x1900x910				
Weight	Net	Kg	285	290	297	388	433		480	
	Gross	Kg	303	308	315	406	452		498	
Outdoor sound level		dB(A)	62	63		62	63		64	
Max. operating range		Mpa	4.5							
Piping Data										
Pipe size	Liquid pipe	mm	Φ15.88				Φ22.2			
	Gas pipe	mm	Φ28.6				Φ35.0			
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	℃	-25–30				-25–30			
	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 -25℃ 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.

CHV Pro

380-415V/3N/50Hz
DC INVERTER VRF SYSTEM(Rotary Compressor)

Model Name			GCHV-D252W/HZR1-DK01	GCHV-D280W/HZR1-DK01	GCHV-D335W/HZR1-DK01	GCHV-D400W/HZR1-DM01	GCHV-D450W/HZR1-DM01
Power Supply			380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz
Performance Data							
Cooling	Capacity	HP	8HP	10HP	12HP	14HP	16HP
		kW	25.2	28.0	33.5	40.0	45.0
		Btu/h	86000	95500	114000	136500	153500
		RT	7.2	8.0	9.5	11.4	12.8
	Rated current	A	10.20	11.80	15.50	18.20	21.60
	Power input	kW	5.50	7.00	9.20	10.80	12.80
	EER	W/W	4.64	4.07	3.64	3.70	3.52
Heating	Capacity	kW	27.0	31.5	37.5	45.0	50.0
		Btu/h	92100	107500	128000	153500	170600
		RT	7.7	9.0	10.7	12.8	14.2
	Rated current	A	10.00	11.60	15.40	18.00	21.00
	Power input	kW	5.75	6.90	9.10	10.60	12.50
	COP	W/W	4.70	4.57	4.12	4.25	4.00
Max. input consumption		kW	13.96	13.96	13.96	17.83	18.80
Max. Current		A	24.0	24.0	24.0	29.0	31.7
Capacity adjustment range			50%–130%				
Compressor Data							
Compressor	Quantity		1				
	Type		Rotary Compressor				
	Brand		Mitsubishi				
Physical Data							
Refrigerant	Type		R410a				
	Volume	Kg	9		11	14	
Dimension (WxHxD)	Throttle type		EXV				
	Net	mm	990x1740x840			1340x1740x840	
	Packing	mm	1060x1900x910			1410x1900x910	
Weight	Net	Kg	205		210	250	250
	Gross	Kg	217		222	268	268
Outdoor sound level		dB(A)	58		58	60	60
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	℃	-15–30			-15–30	
	Indoor side	℃	16–32			16–32	

GCHV-D500W/HZR1-DM01	GCHV-D560W/HZR1-DM01	GCHV-D615W/HZR1-DM01	GCHV-D670W/HZR1-DS01	GCHV-D730W/HZR1-DS01	GCHV-D800W/HZR1-DS01	GCHV-D850W/HZR1-DS01
380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz	380–415V/3N/50Hz
18HP	20HP	22HP	24HP	26HP	28HP	30HP
50.0	56.0	61.5	67.0	73.0	80.0	85.0
170600	191000	209800	228600	249000	272900	290000
14.2	16.0	17.5	19.1	20.9	22.7	24.2
24.80	29.60	31.50	36.70	34.60	36.90	46.70
14.70	17.60	18.70	21.74	20.54	25.50	27.71
3.40	3.18	3.29	3.08	3.55	3.14	3.07
56.0	63.0	69.0	75.0	81.5	88.0	95.0
191000	214900	235400	255800	278100	300300	324100
16.0	18.0	19.7	21.4	23.3	25.1	27.0
24.10	29.10	30.80	30.30	35.40	37.70	46.50
14.30	17.20	18.20	17.94	20.96	24.10	27.60
3.92	3.66	3.79	4.18	3.89	3.65	3.44
22.0	24.4	25.0	27.6	35.3	35.3	37.6
37.4	41.1	43.1	45.4	59.6	59.6	63.4
50%–130%						
2						
Rotary Compressor						
Mitsubishi						
R410a						
15	16			20		23
EXV						
1340x1740x840			1990x1740x840			
1410x1900x910			2060x1900x910			
300	309		352	412		452
310	319		370	430		470
62	63			65	66	
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		
-15–30				-15–30		
16–32				16–32		

Note

1. Cooling operating temperature range is from -5°C to 55°C (It can be customized down to -10°C). Heating operating temperature range is from -15°C to 30°C.
2. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB.
3. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)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.

CHV Pro | Cooling Only

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

Model Name			GCHV-D252W/CZR1-DK01	GCHV-D280W/CZR1-DK01	GCHV-D335W/CZR1-DK01	GCHV-D400W/CZR1-DM01	GCHV-D450W/CZR1-DM01
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	25.2	28.0	33.5	40.0	45.0
		Btu/h	86000	95500	114000	136500	153500
		RT	7.2	8.0	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	17.96	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	10~120				
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	℃	-5~55				
	Indoor side	℃	16~32				

Model Name			GCHV-D500W/CZR1-DM01	GCHV-D560W/CZR1-DM01	GCHV-D615W/CZR1-DM01	GCHV-D670W/CZR1-DM01	GCHV-D730W/CZR1-DS01	GCHV-D800W/CZR1-DS01	GCHV-D850W/CZR1-DS01
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	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
Performance Data									
Cooling	Capacity	HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP
		kW	50.0	56.0	61.5	67.0	73.0	80.0	85.0
		Btu/h	170600	191000	209800	228600	249100	273038	290000
		RT	14.2	16.0	17.5	19.1	20.8	22.8	24.2
	Power input	kW	15.10	17.60	20.36	20.81	23.10	25.97	29.11
	EER	W/W	3.31	3.18	3.02	3.22	3.16	3.08	2.92
Rated. input consumption		kW	18.74	25.90	27.80	29.50	32.00	32.00	36.50
Rated. current		A	32.0	46.6	47.5	51.0	53.0	53.0	63.0
Capacity adjustment range			50%~130%						
Compressor Data									
DC Inverter compressor	Quantity		1	2					
	Type		DC /Twin-rotary						
	Brand		Mitsubishi						
	Frequency range	Hz	10~120						
Physical Data									
Refrigerant	Type		R410a						
	Volume	Kg	12.5	16.5		18.0	20.0		25.0
Dimension (DxHxW)	Net	mm	840x1740x1340				840x1740x1990		
	Packing	mm	910x1900x1410				910x1900x2060		
Weight	Net	Kg	260	298		306	358		410
	Gross	Kg	278	316		324	376		428
Outdoor sound level		dB(A)	62	63		65	66		67
Maximum operating pressure		MPa	4.5						
Piping & Wiring Data									
Pipe size	Liquid pipe	mm	Φ15.9						Φ22.2
	Gas pipe	mm	Φ28.6						Φ35
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	℃	-5~55						
	Indoor side	℃	16~32						

Note

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

CHV Pro

208~230V/3N/60Hz
NEW DC INVERTER VRF SYSTEM

Model Name			GCHV-D252W/HXR1	GCHV-D280W/HXR1	GCHV-D335W/HXR1	GCHV-D400W/HXR1
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	28.0	33.5	40.0
		Btu/h	85000	93800	114000	136500
		RT	7.1	7.9	9.5	11.4
	Power input	kW	5.28	6.25	7.86	9.33
	EER	W/W	4.77	4.48	4.26	4.29
Heating	Capacity	kW	27.4	31.5	37.5	45
		Btu/h	93500	107500	128000	153500
		RT	7.8	9	10.7	12.8
	Power input	kW	5.46	6.58	8.61	9.32
	EER	W/W	5.02	4.79	4.36	4.83
Capacity adjustment range			50%-130%			
Compressor Data						
Compressor	Quantity		1			
	Type		DC /Scroll			
	Brand		Mitsubishi			
Physical Data						
Refrigerant type/volume		kg	R410A/12			R410A/16
Dimension (DxHxW)	Net	mm	840x1740x990			840x1740x1340
	Packing	mm	910x1900x1060			910x1900x1410
Weight	Net	kg	220			275
	Gross	kg	230			290
Outdoor sound level		dB(A)	67			71
Maximum operating pressure		MPa	4.5			
Piping Data						
Pipe size	Liquid pipe	mm	Ø12.7			Ø15.9
	Gas pipe	mm	Ø22.2			Ø28.6
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	40			
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	°C	-5~55			
	Indoor side	°C	17~32			
Heating	Outdoor side	°C	-15~30			
	Indoor side	°C	15~30			

GCHV-D450W/HXR1	GCHV-D500W/HXR1	GCHV-D560W/HXR1	GCHV-D615W/HXR1
208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
16HP	18HP	20HP	22HP
45.0	50.0	56.0	61.5
153500	169000	191000	209800
12.8	14.1	16	17.5
11.12	12.68	15.32	17.62
4.05	3.94	3.66	3.49
50	56	63	69
170600	191000	214900	235400
14.2	16	18	19.7
10.59	12.54	14.88	17.52
4.72	4.47	4.23	3.94
50%~130%			
1	2		
DC /Scroll			
Mitsubishi			
R410A/16	R410A/20		
840x1740x1340			
910x1900x1410			
275	325		
290	340		
71	72		
4.5			
Ø15.9			
Ø28.6			
1000			
190			
220			
40			
90			
110			
30			
0			
-5~55			
17~32			
-15~30			
15~30			

Note

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

CHV Pro | Cooling Only

208~230V/3N/60Hz
NEW DC INVERTER VRF SYSTEM

Model Name			GCHV-D252W/CXR1-DK01	GCHV-D280W/CXR1-DK01	GGCHV-D335W/CXR1-DK01	GCHV-D400W/CXR1-DM01	GCHV-D450W/CXR1-DM01	GCHV-D500W/CXR1-DM01	GCHV-D560W/CXR1-DM01	GCHV-D615W/CXR1-DM01	GCHV-D670W/CXR1-DM01
Power Supply			208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	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	16HP	18HP	20HP	22HP	24HP
		kW	25.2	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67.0
		Btu/h	86000	95500	114000	136500	153500	170600	191000	209800	228600
		RT	7.2	8.0	9.5	11.4	12.8	14.2	16.0	17.5	19.0
	Power input	kW	5.82	6.81	9.05	10.47	12.13	14.62	17.13	19.84	22.11
	EER	W/W	4.33	4.11	3.70	3.82	3.71	3.42	3.27	3.10	3.03
Rated. input consumption		kW	13.50	14.10	14.20	16.90	17.30	24.00	26.50	27.00	27.00
Rated. current		A	40.0	42.0	45.0	50.0	53.0	70.0	78.0	80.0	80.0
Capacity adjustment range			50%~130%				50%~130%				
Compressor Data											
DC Inverter compressor	Quantity		1				1	2			
	Type		DC /Twin-rotary				DC /Twin-rotary				
	Brand		Mitsubishi				Mitsubishi				
	Frequency range	rps	10-120				10~120				
Physical Data											
Refrigerant	Type		R410a				R410a				
	Volume	Kg	8			12	12	13	14	14	15
Dimension (DxHxW)	Net	mm	840x1740x990			840x1740x1340	840x1740x1340				
	Packing	mm	910x1900x1060			910x1900x1410	910x1900x1410				
Weight	Net	Kg	208			260	260	288	296	296	306
	Gross	Kg	218			278	278	306	314	314	324
Outdoor sound level		dB(A)	58		60		61	62	63	63	63
Maximum operating pressure		MPa	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				
	From OU to farthest IU(Actual length)	m	190				190				
	From OU to farthest IU (Equivalent length)	m	220				220				
	From 1st indoor distributor to farthest IU	m	90				90				
Max. Vertical length	Between OU & IU (OU above IU)	m	90				90				
	Between OU & IU (OU below IU)	m	110				110				
	Between IUs	m	30				30				
	Between Ous	m	0				0				
Operation Temperature Range											
Cooling	Outdoor side	℃	-5~50				-5~50				
	Indoor side	℃	16~32				16~32				

Note

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

HR Mini VRF

Heat Recovery
Mini VRF system

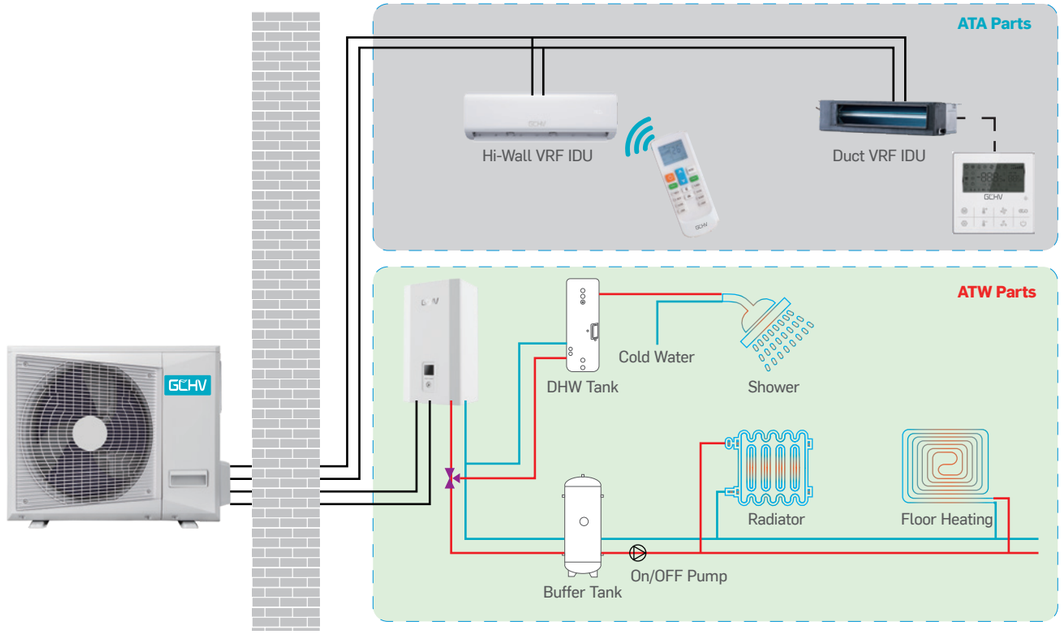
8/10/12.5/14 kW

Hydro kit

Features

Concept of HR Mini VRF

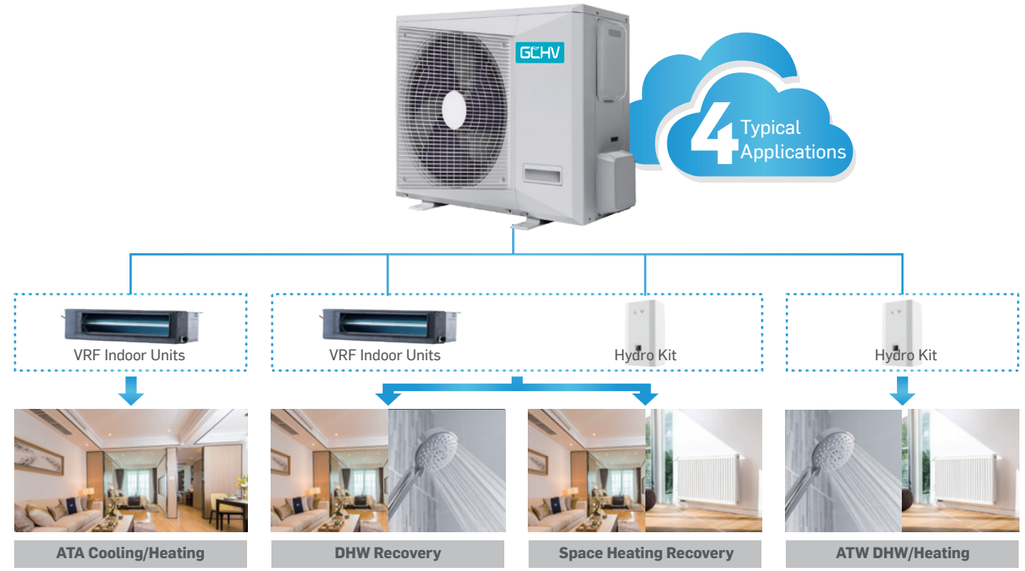
The heat recovery Mini VRF system is an integrated solution for space cooling and heating through the combination of ATA & ATW applications. It can be connected to a regular VRF indoor unit for cooling, or to a hydronic kit to produce hot water for floor heating and radiators, or to provide DHW for showers.



Heat Recovery Mini VRF System

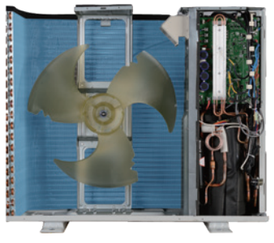
The heat recovery Mini VRF system is an integrated solution for space cooling and heating through the combination of ATA & ATW applications. It can be connected to a regular VRF indoor unit for cooling, or to a hydronic kit to produce hot water for floor heating and radiators, or to provide DHW for showers.

- Cooling in summer via ATA and free DHW water supply
- Space heating in winter via ATA/ATW and DHW water supply
- In spring and autumn, ATA cooling and ATW heating can be used at the same time to adapt to different room applications



Space cooling only **or** space heating only via VRF indoor units	Space cooling via VRF indoor units **and** domestic hot water via hydro kit	Space cooling via VRF indoor units **and** Space heating via hydro kit	Space heating **or** domestic hot water via hydro kit

Outdoor Unit Features



- **Mitsubishi Twin-rotary Compressor**
  Mitsubishi Twin-rotary compressor with stepless control to help the system operate more precisely and smoothly in a constant & free frequency.
- **Two System In One Outdoor Unit**
  Two 4-way valve & EXV with 4 pipes, one set for air conditioning system and the other for water system, adopts heat recovery technology for high efficiency.
- **High-efficiency DC Motor**
  High-efficiency DC motor and optimized the fan speed to suit the different condition to achieve better performance.
- **Large Air Volume**
  Bigger fan blade and low air resistance grille to obtain larger air volume to improve the system performance.

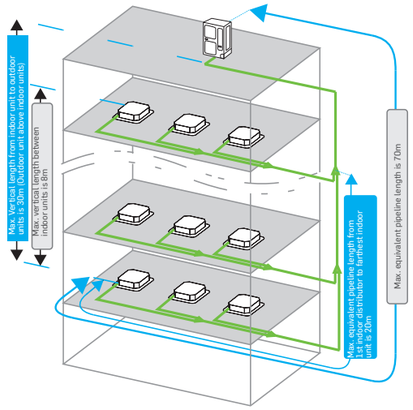
Hydro Kit Features

- **Touch Wired Controller**
  Touch wired controller, easy and friendly to operate.
- **Inverter Water Pump**
  Multi-speed to adjust the water flow rate according to capacity demand.
- **Electrical Heater**
  3kw electrical heater, provide additional heat in case of low ambient temp. to promise the heating capacity.
- **Water Flow Switch**
  Water flow switch to protect the system to avoid the BPHE freezing.
- **Easy Commissioning**
  Water pressure gauge & safety valve to obtain the easy commissioning and service.

Long Refrigerant Piping

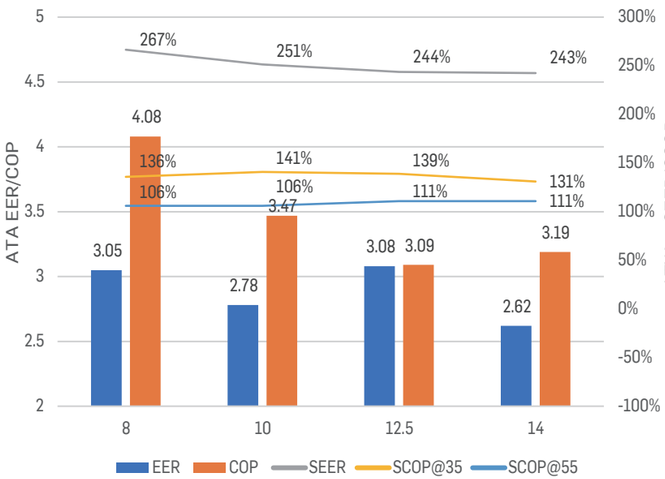
The total pipe length	100m
The longest pipe length	Actual length 60m Equivalent length 70m
Equivalent length from first indoor distributor to last indoor unit	20m
Height difference between indoor and outdoor unit:	Outdoor unit above≤30m Outdoor unit below≤20m
Height difference between indoor units	8m

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



High Efficiency

Adopt the full DC inverter technology to achieve high efficiency.



High Efficiency Compressor

Twin-rotary DC inverter compressor, constant & stepless output.

Brushless DC Motor

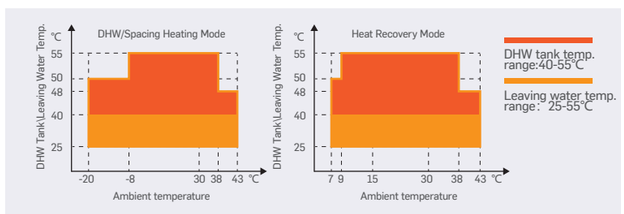
Brushless DC Motor to obtain the best air flow to make sure the heat exchange performance.

Brushless DC Pump

Brushless DC pumps for hydronic kits allow for precise water temp. control.

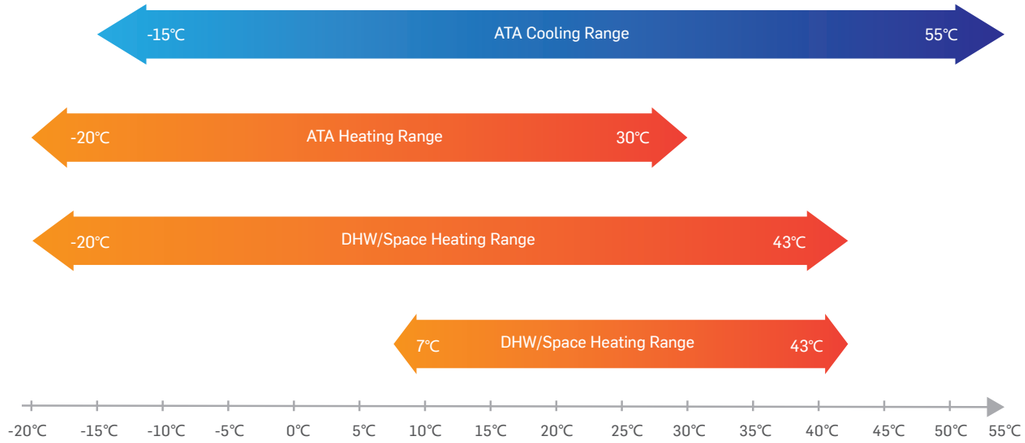
High Leaving Water Temperature

The heat recovery Mini VRF has a wide operation ambient temperature range from -20°C to 43°C for heating/DHW, and 7-43°C for heat recovery mode, it prodives the hot water all year round and the leaving water temp. up to 55℃, it is very suitable for residential and light commercial projects.



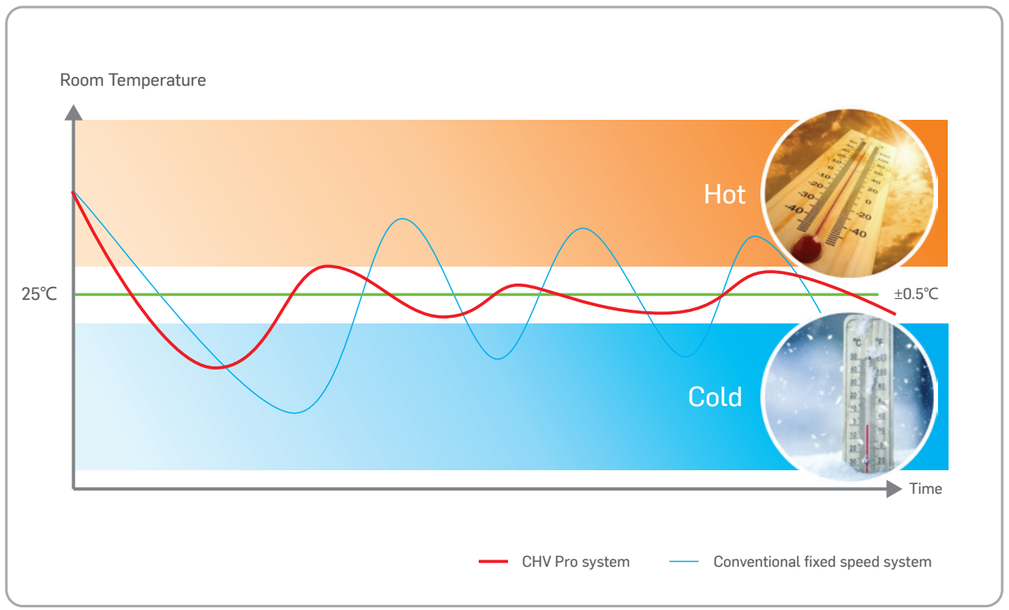
Wide Outdoor Operation Range

• ATA Cooling: -15~55℃ • ATA Heating: -20~30℃ • DHW/Space heating: -20~43℃ • Heat Recovery: 7~43℃



Outstanding Comfort Ability

- Precisely room temperature control by adopting 2000 pulse EXV and high-precision sensor. Indoor temperature fluctuation can be maintaining within 0.5℃, offers outstanding comfort ability.
- Space cooling through the air condition to flow the cold air from ceiling of room & space heating through the floor heating/radiator to warm the house from floor of room, which is more comfortable way to human feeling in cold/heat condition.



Auto Addressing

The address of indoor unit is allocated automatically by the system, no need to edit by dialing, which spares the hassle of manual setting one by one.

- 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.

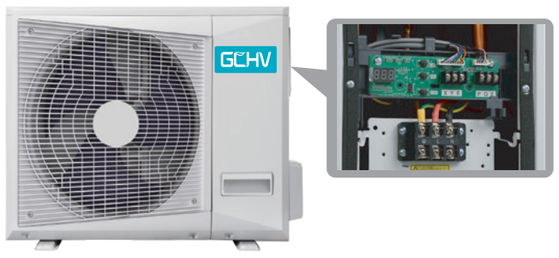
Refrigerant Cooling Tech. For PCB

- Good performance with enhanced refrigerant cooling solution
- Intelligent refrigerant control technology to protect PCB
- Quick action speed to make the main PCB working at suitable temperature range
- High reliability

The cold refrigerant flows through the PCB and takes away the heat of the PCB through the aluminum heat exchange plate to ensure the long-term stable operation.

Service Window

- Service window on the right side to connect the cable and digital display to check the running data.
- One button to start the system to do the running test.



HR Mini VRF

220~240V/1N/50Hz
Heat Recovery Mini VRF

Outdoor Unit			GCHV-VH080R1-(BR)D-F01	GCHV-VH100R1-(BR)D-F01	GCHV-VH125R1-(BR)D-F01	GCHV-VH140R1-(BR)D-F04
Power Supply			220–240V/1N/50Hz	220–240V/1N/50Hz	220–240V/1N/50Hz	220–240V/1N/50Hz
Performance Data						
Max. power input		W	6500	6500	6500	6500
Max. current		A	30	30	30	30
ATA capacity	Cooling capacity	kW	8.0	10.0	12.5	14.0
	Power input	kW	2.60	3.64	4.04	4.60
	EER	W/W	3.07	2.78	3.09	3.02
	Heating capacity	kW	8.0	10.0	12.5	14.0
	Power input	kW	2.05	3.00	4.04	4.61
	COP	W/W	4.08	3.47	3.09	3.04
	SEER		6.74	6.36	6.17	6.14
	SCOP		4.05	4.05	4.62	4.62
ATW capacity	A7W45	kW	10.51	12.58	14.32	16.59
	COP	W/W	4.02	3.61	3.21	2.98
	Capacity @A2W35	kW	12.26	14.78	12.2	14.4
	COP @A2W35	W/W	3.21	3.02	3.52	3.42
	Capacity @A7W35	kW	14.61	15.71	14.20	16.40
	COP @A7W35	W/W	3.65	3.55	3.62	3.58
	Capacity @A-7W35	kW	8.42	9.92	10.50	11.80
	COP @A-7W35	W/W	2.42	2.39	3.32	3.31
	SCOP @W35/W55 (average climate)		3.48/2.73	3.61/2.73	3.35/2.86	3.35/2.86
	Energy efficiency ηs @W35/W55 (average climate)		136%/106%	141%/106%	139%/111%	131%/111%
	Energy class @W35/W55		A+/A+	A+/A+	A+/A+	A+/A+
Capacity with heat recovery	W55 ATA+ATW	kW	27.0	27.2	28.1	28.6
	Power input	kW	4.20	4.11	4.37	4.58
	Energy efficiency	W/W	6.47	6.61	6.43	6.24
Outdoor temperature range	Cooling	C	-15–55	-15–55	-15–55	-15–55
	Heating	C	-20–30	-20–30	-20–30	-20–30
	DHW	C	-20–40	-20–40	-20–40	-20–40
	Cooling + hot water	C	7–43	7–43	7–43	7–43
Water outlet temperature	Heating	C	25–58	25–58	25–58	25–58
	DHW	C	35–55	35–55	35–55	35–55
Compressor	Brand		Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi
	Type		DC inverter	DC inverter	DC inverter	DC inverter
Refrigerant	Type/quantity		R410A/3.0kg	R410A/3.0kg	R410A/3.8kg	R410A/3.8kg
Fan Airflow		m^3/h	5500	5500	5500	5500
Dimensions	Net	mm	1100x528x870	1100x528x870	1100x528x870	1100x528x870
	Packing	mm	1140x540x965	1140x540x965	1140x540x965	1140x540x965
Weigth	Net/Packing	kg	85/97	85/97	91/104	91/104
Sound level	Sound pressure level	dB	57	57	59	59
	Sound power level	dB	67	67	69	69
Pipe dimensions	Max length for VRF IDU	m	＜100	＜100	＜100	＜100
	Max height for VRF IDU	m	＜30	＜30	＜30	＜30
	Max length for hydro kit	m	＜30	＜30	＜30	＜30
	Max height level for hydro kit	m	＜30	＜30	＜30	＜30
	Max height between IDUs	m	8	8	8	8
Connection pipe (liquid/gas)	Air conditioner side	mm	9.52/15.88	9.52/15.88	9.52/15.88	9.52/15.88
	Hydronic module side	mm	9.52/15.88	9.52/15.88	9.52/15.88	9.52/15.88
Water primary circuit waterflow		L/min	26.2	32.7	40.1	45.8
Max indoor units combination		number	5	6	7	8
Max simultaneity		%	Max 130% of outdoor unit capacity			

Hydronic module			CE-SLMK-100N-DS-001	CE-SLMK-160N-DS-003
Power Supply			220–240V/1N/50Hz	220–240V/1N/50Hz
Performance Data				
Leaving water temperature	Space heating	℃	25–60	25–60
	Domestic hot water	℃	40–60	40–60
Max. power input		kW	3.6	3.6
Max. current input		A	17	17
Sound power level		dB(A)	45	40
Dimension (W×H×D)		mm	490x910x340	490x910x340
Packing (W×H×D)		mm	620x1105x425	620x1105x425
Net/gross weight		kg	47/55	48/56
Water circuit	Piping connection(Outlet/Inlet)	mm	DN32/DN32	DN32/DN32
	Safty valve	kPa	600	600
	Drainage pipe	mm	DN20	DN20
	Heat exchanger/volume	L	Plate type/0.658	Plate type/1.22
	Water pump/pump head	m	DC/9	DC/9
Expansion tank	Volume	L	2	2
	Max. water pressure	kPa	800	800
	Pre pressure	kPa	150	150
Refrigerant circuit	Liquid side/Gas side	mm	Φ9.52/Φ15.88	Φ9.52/Φ15.88
Back-up E-heater	Power supply	V/N/Hz	230/1/50	230/1/50
	Capacity	kW	3kW	3kW

Mini VRF

Small Capacity Full DC Inverter VRF Unit

8/10/12.5/14/16kW

12.5/14/16/18kW

20/22.4kW

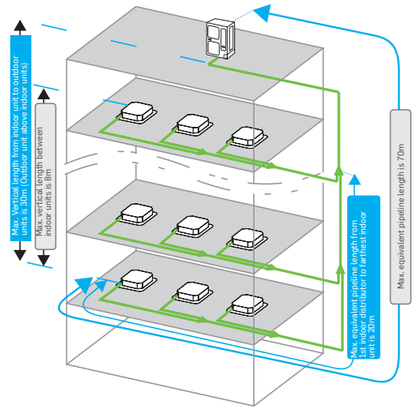
26/28/33.5kW

Features

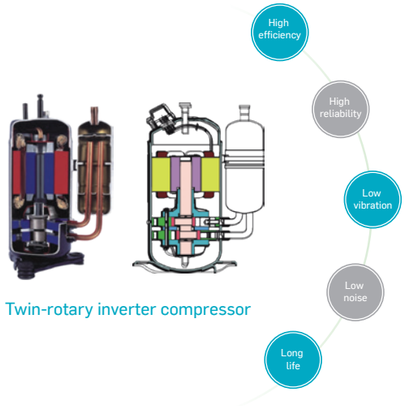
Long Refrigerant Piping

The total pipe length	100m(8-22.4kW),120m(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≤30m Outdoor unit below≤20m
Height difference between indoor units	8m

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



High Efficiency DC Inverter Compressor



Twin-rotary 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 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

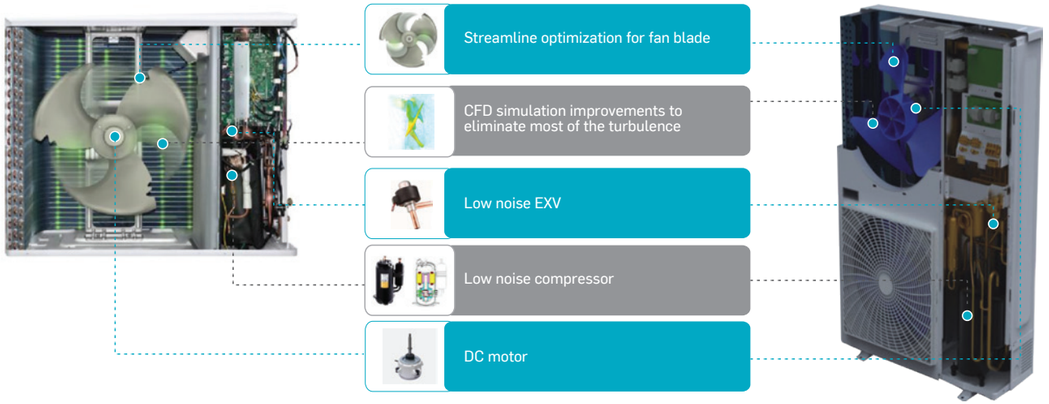
Space Saving Installation

- 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.

180° Sine Wave Control

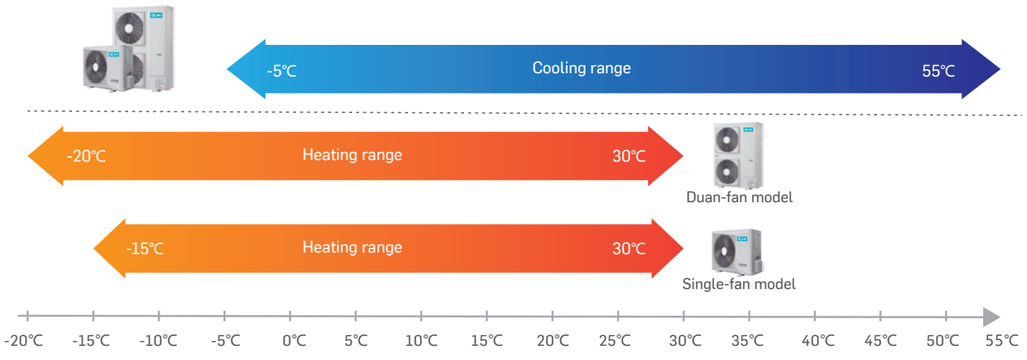
The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.

Low Noise



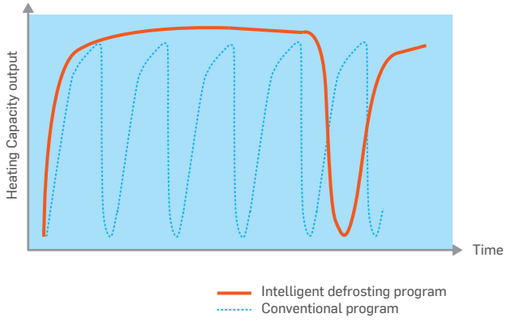
Wide Outdoor Operation Range

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



Intelligent Defrosting Program

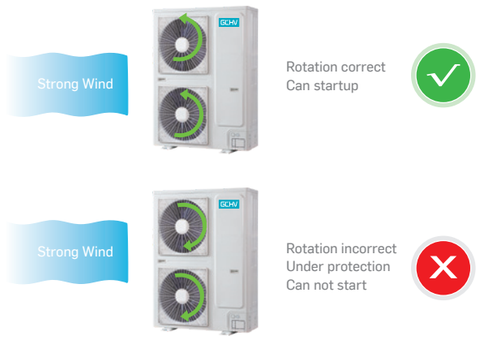
Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.



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.

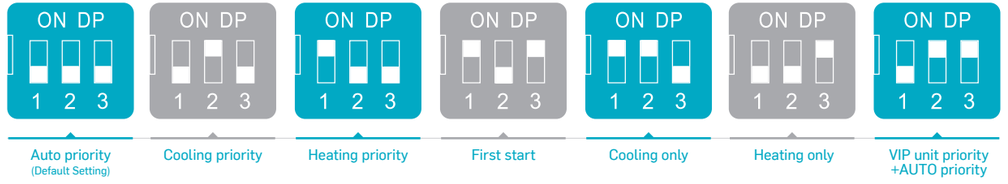
Fan Reversal Protection



In standby, if the outdoor fan motor is rotating in opposite direction at a high speed by the wind or other natural factors, the unit can't start so as to keep the fan motor from broken down, it will start when the fan motor speed slow down.

Mode Restriction

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



High Efficiency

NEW TECHNOLOGY

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. 55℃ ambient temperature.

Automatically Addressing

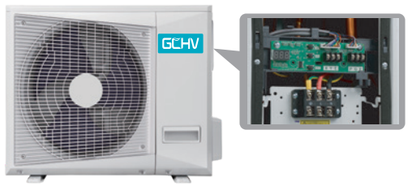
- Automatically addressing: system will distribute address to indoor unit automatically.
- Automatic addressing will reduce artificial faults and manual works.

Independent Display Board

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

Service Window

- Service window on the right side to connect the cable and digital display to check the running data.
- One button to start the system to do the running test.



Refrigerant cooling tech. for PCB

- Good performance with enhanced refrigerant cooling solution
- Intelligent refrigerant control technology to protect PCB
- Quick action speed to make the main PCB working at suitable temperature range
- High reliability

The cold refrigerant flows through the PCB and takes away the heat of the PCB through the aluminum heat exchange plate to ensure the long-term stable operation.

Dual-fan

Model name	Power type (V/N/HZ)	Cooling				Heating				Compressor		Motor		Refrigerant		Sound pressure Level	Dimension (WxHxD)		Weight		Connecting		Max. Connected indoor units quantity
		Capacity		Power input	EER	Capacity		Power input	COP	Type	Qty	Type	Qty	Type	Volume		Packing	Body	Net	Gross	Gas	Liquid	
		kW	Btu/h	kW		kW	Btu/h	kW							kg	DB(A)	mm	mm	kg	kg	mm	mm	
GCHV-D125W/HZR1-050D	380-415/3/50	12.5	42000	3.38	3.70	14	47000	3.26	4.29	DC/ Twin - rotary	1	DC/ fan motor	2	R410a	3.45	56	1010 x 1445 x 415	975 x 1335 x 400	86.6	96.4	Φ15.88	Φ9.52	7
GCHV-D140W/HZR1-050D	380-415/3/50	14	47800	3.80	3.68	16	54000	3.97	4.03						3.8				86.6	96.4			8
GCHV-D160W/HZR1-050D	380-415/3/50	16	54000	4.53	3.53	18	61000	4.61	3.91						3.8	58			90.1	100			9
GCHV-D180W/HZR1-050D	380-415/3/50	18	61000	5.18	3.47	20	68000	5.02	3.98						4.2				94.7	104.4			10
GCHV-D200W/HZR1-080	380-415/3/50	20	68200	5.92	3.38	22	75000	5.35	4.11						5.3		1095x 1545x 485	1015x 1430x 450	112.7	126.8	Φ19.05		11
GCHV-D224W/HZR1-080	380-415/3/50	22.4	76400	6.75	3.32	24	81800	5.62	4.27						5.3				112.7	126.8			13
GCHV-D260W/HZR1-100	380-415/3/50	26	88700	7.54	3.45	28.5	97200	6.77	4.21						6.1		1278 x 1703 x 560	1120 x 1549 x 528	142	162	Φ22.2	Φ12.7	15
GCHV-D280W/HZR1-100	380-415/3/50	28	95500	8.31	3.37	31.5	107500	8.18	3.85						8.0	60			154	174			16
GCHV-D335W/HZR1-100	380-415/3/50	33.5	114300	9.46	3.54	37.5	128000	8.99	4.17						8.0				154	174			19

Note

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

Single-fan

Model name			CHV-DH080W/R1	CHV-DH100W/R1	CHV-DH125W/R1	GCHV-D125W/HZR1-D01	CHV-DH140W/R1	GCHV-D140W/HZR1-F01	CHV-DH160W/R1	GCHV-D160W/HZR1-F01
			CHV-DH080W/NR1	CHV-DH100W/NR1	CHV-DH125W/NR1	GCHV-D125W/HYR1-D01	CHV-DH140W/NR1	GCHV-D140W/HYR1-F01	CHV-DH160W/NR1	GCHV-D160W/HYR1-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
			208~230V/1N/60Hz	208~230V/1N/60Hz	208~230V/1N/60Hz	380~415V/3N/60Hz	208~230V/1N/60Hz	380~415V/3N/60Hz	208~230V/1N/60Hz	380~415V/3N/60Hz
Performance data										
Cooling	Capacity	kW	8	10	12.5	12.5	14	14	16	16
		Btu/h	27300	34100	42600	42600	47800	47800	54600	54600
	Power input	kW	2.60	3.00	3.20	3.20	3.75	3.75	4.75	4.75
	Rated current	A	11.8	13.6	14.5	6.0	17.0	7.0	21.8	8.8
	EER	W/W	3.08	3.33	3.91	3.91	3.73	3.73	3.37	3.37
Heating	Capacity	kW	9	11	14	14	16	16	17	17
		Btu/h	30700	37500	47800	47800	54600	54600	58000	58000
	Power input	kW	2.65	3.1	3.52	3.52	4	4	4.4	4.4
	Rated current	A	12	14	16.1	6.6	18.2	7.5	20	8.2
	COP	W/W	3.40	3.55	3.98	3.98	4.00	4.00	3.86	3.86
Compressor data										
DC Inverter compressor	Quantity		1	1	1	1	1	1	1	1
	Type		Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
	Brand		Mitsubishi	GMCC	Mitsubishi	Highly	Mitsubishi	Highly	Mitsubishi	Mitsubishi
Fan data										
Fan motor	Type		DC	DC	DC	DC	DC	DC	DC	DC
	Quantity		1	1	1	1	1	1	1	1
	Power output	W	75	90	180	90	180	170	180	170
Fan blade	Fan Quantity		1	1	1	1	1	1	1	1
	Air flow	m³/h	3300	4000	5500	4000	5500	5500	5500	5500
Physical data										
Outdoor coil	Fin type		Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil
	Number of rows		3	2	2	2.5	3	3	3	3
	Tube 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
Refrigerant	Type		R410a	R410a	R410a	R410a	R410a	R410a	R410a	R410a
	Volume	kg	2.00	2.60	3.00	3.00	3.80	3.45	3.80	3.80
Dimension (WxHxD)	Net	mm	935x702x383	1032x810x445	1100x870x528	1032×810×445	1100x870x528	1100x870x528	1100x870x528	1100x870x528
	Packing	mm	975x770x420	1075x875x495	1140x965x540	1075×875×495	1140x965x540	1140x965x540	1140x965x540	1140x965x540
Weight	Net	kg	47	60	85	67.4	90	87.5	90	90
	Gross	kg	50	65	95	72.2	100	97.4	100	100
ODU sound level		dB(A)	≤54	≤56	≤56	≤56	≤57	≤57	≤57	≤57
Operation temp. range										
Cooling	Outdoor side	℃	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55
Heating	Outdoor side	℃	-15~30	-15~30	-15~30	-15~30	-15~30	-15~30	-15~30	-15~30

Note

1. The cooling conditions: indoor temp.:27℃ DB(80.6°F), 19℃ WB(60°F), outdoor temp.: 35℃ DB(95°F)equivalent pipe length:5m drop length:0m.
2. The heating conditions: indoor temp.:20℃ DB(68°F), 15℃ WB(44.6°F), outdoor temp.:7℃ DB(42.8°F)equivalent pipe length:5m drop length:0m.
3. Sound level: Anechoic chamber conversion value, one measured point is 1 m in front of the unit at a height of 1 m. Two measured points are 1 m beside the unit at a height of 1 m. 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 at performance.

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

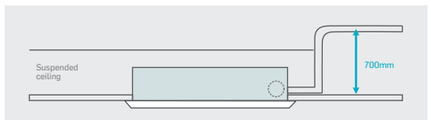
Features

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 700mm, 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							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h	kW	M^3/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
GCHV-V22CA/HR1-Q101	50Hz	2.2	7.5	2.5	8.5	0.04	520	306	32–36	/	1150 x 275 x 645	985 x 250 x 513	1090 x 65 x 540	1070 x 50 x 520	24/3.6	28/5.0	Φ9.53	Φ6.35	ODΦ25	Remote controller
GCHV-V28CA/HR1-Q101	50Hz	2.8	9.5	3.2	10.9															
GCHV-V36CA/HR1-Q101	50Hz	3.6	12.2	4.0	13.6															
GCHV-V45CA/HR1-Q103	50Hz	4.5	15.3	5.0	17.0	0.05	610	360	36–41		1460 x 305 x 680	1295 x 290 x 553	1405 x 70 x 575	1380 x 50 x 560	35.5/5	40/7	Φ12.7			
GCHV-V56CA/HR1-Q103	50Hz	5.6	19.1	6.3	21.4	0.07	750	440	35–41											
GCHV-V71CA/HR1-Q103	50Hz	7.1	24.2	8.0	27.2	0.09	950	550	38–45								Φ15.9	Φ9.53		

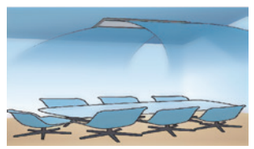
Notes:
1.Power supply: 220–240V/1N for 50Hz, the above data is for AC motor model.
2.Cooling test condition: indoor side 27℃ DB, 19℃ WB outdoor side 35℃ DB. Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB
3.Sound level: measured at a point 1.4 m below the unit. During actual operation, 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.

2-way Cassette

Features

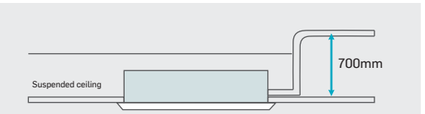
2 way air direction

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(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h	kW	M^3/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
GCHV-V45CA/HR1-Q202	50Hz	4.5	15.3	5.0	17	0.07	800	470	38–42	/	1215 x 360 x 630	1092 x 315 x 548	1205 x 75 x 655	1178 x 44 x 630	36/5	41/7	Φ12.7	Φ6.35	ODΦ25	Remote controller
GCHV-V56CA/HR1-Q202	50Hz	5.6	19.1	6.3	21.4															
GCHV-V71CA/HR1-Q203	50Hz	7.1	24.2	8.0	27.2	0.10	1120	650	40–46		1455 x 360 x 630	1332 x 315 x 548	1445 x 75 x 655	1420 x 44 x 630	48/6	42.5/8.5	Φ15.9	Φ9.53		
GCHV-V80CA/HR1-Q203	50Hz	8.0	27.2	9.0	30.7															

Notes:
1.Power supply: 220–240V/1N for 50Hz, the above data is for AC motor model.
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 1.4 m below the unit. 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

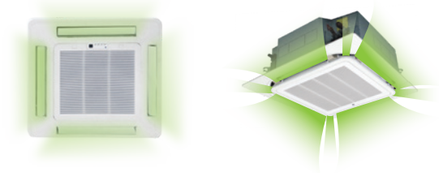
Features

Accessories

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

Wide air delivering

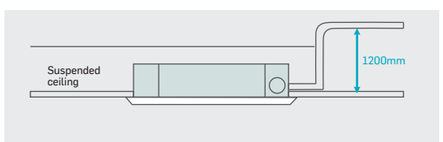
Air flow is soft and smooth, air can be delivered to every corner without dead angle, it makes the room temperature distribution more balance.



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.

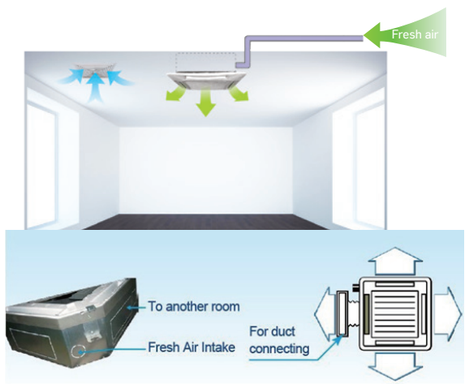


Space saving installation

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, aims to provide more healthy and comfortable indoor environment.



Specification

4-way Cassette Unit(Compact type)

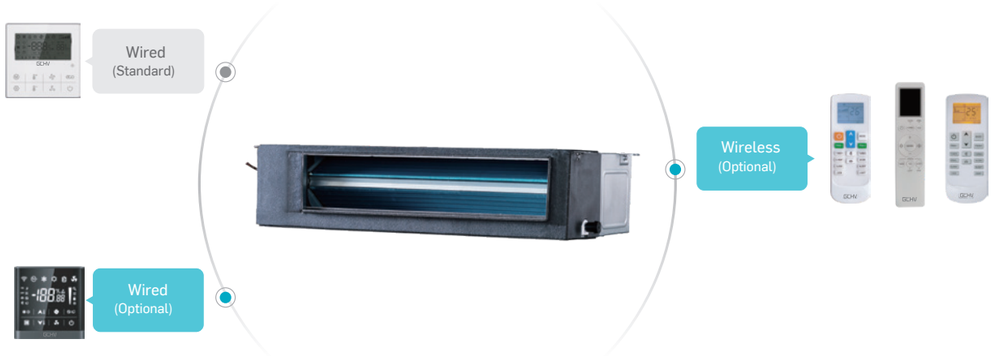
Model name	Power type	Capacity Cooling kW	Capacity Cooling kBtu/h	Capacity Heating kW	Capacity Heating kBtu/h	Power input kW	Air flow M³/h	Air flow CFM	Sound Level DB(A)	ESP Pa	Dimension(WxHxD) Packing mm	Dimension(WxHxD) Body mm	Dimension(WxHxD) Panel packing mm	Dimension(WxHxD) Panel mm	Body Weight Net kg	Body Weight Gross kg	Connecting pipe Gas mm	Connecting pipe Liquid mm	Connecting pipe Drain mm	Standard controller
CMV-V22Q4/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.038	447	263	22–34	/	755 x 375 x 680	653 x 267 x 585	750 x 95 x 750	650 x 30 x 650	17.5	23	Φ9.52	Φ6.35	ODΦ25	Remote controller
CMV-V22Q4/HNR1-C	60Hz																			
CMV-V28Q4/HR1-C	50Hz	2.8	9.5	3.2	10.9	0.038	447	263	22–34						17.5	23				
CMV-V28Q4/HNR1-C	60Hz																			
CMV-V36Q4/HR1-C	50Hz	3.6	12.2	4.0	13.6	0.040	515	303	27–38						17.5	23	Φ12.7			
CMV-V36Q4/HNR1-C	60Hz																			
CMV-V45Q4/HR1-C	50Hz	4.5	15.3	5.0	17	0.040	515	303	27–38						17.5	23				
CMV-V45Q4/HNR1-C	60Hz																			

Round-flow Cassette

Model name	Power type	Capacity Cooling kW	Capacity Cooling kBtu/h	Capacity Heating kW	Capacity Heating kBtu/h	Power input kW	Air flow M³/h	Air flow CFM	Sound Level DB(A)	ESP Pa	Dimension(WxHxD) Packing mm	Dimension(WxHxD) Body mm	Dimension(WxHxD) Panel packing mm	Dimension(WxHxD) Panel mm	Body Weight Net kg	Body Weight Gross kg	Connecting pipe Gas mm	Connecting pipe Liquid mm	Connecting pipe Drain mm	Standard controller
CMV-V56QR/HR1	50Hz	5.6	19.1	6.3	21.4	0.043	860	500	32–39	/	920 x 265 x 985	833 x 232 x 900	1030 x 100 x 1030	950 x 50 x 950	24	30	Φ12.7	Φ6.35	Φ25	Remote controller
CMV-V56QR/HNR1	60Hz																			
CMV-V71QR/HR1	50Hz	7.1	24.2	8.0	27.2	0.093	1200	700	35–39						24	30				
CMV-V71QR/HNR1	60Hz																			
CMV-V80QR/HR1	50Hz	8.0	27.2	8.8	30										24	30				
CMV-V80QR/HNR1	60Hz																			
CMV-V90QR/HR1	50Hz	9.0	30.7	10.0	34.1	0.160	1400	820	37–41		920 x 310 x 985	833 x 286 x 900			28.5	35	Φ15.88	Φ9.52		
CMV-V90QR/HNR1	60Hz																			
CMV-V100QR/HR1	50Hz	10.0	34.1	11.0	37.5										28.5	35				
CMV-V100QR/HNR1	60Hz																			
CMV-V112QR/HR1	50Hz	11.2	38.2	12.5	42.6										28.5	35				
CMV-V112QR/HNR1	60Hz																			
CMV-V125QR/HR1	50Hz	12.5	42.6	14.0	47.7										28.5	35				
CMV-V125QR/HNR1	60Hz																			
CMV-V140QR/HR1	50Hz	14.0	47.7	15.0	51.1		1800	1050	38–46						28.5	35				
CMV-V140QR/HNR1	60Hz																			
CMV-V160QR/HR1	50Hz	16.0	54.5	17.0	58										28.5	35				
CMV-V160QR/HNR1	60Hz																			

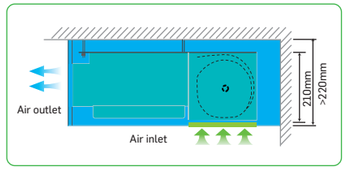
Notes:
1.Power supply: 220–240V/1N for 50Hz; 208–230V/1N for 60Hz, the above data is for AC motor model.
2.Cooling test condition: indoor side 27℃ DB, 19℃ WB outdoor side 35℃ DB. Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB.
3.Sound level: measured at a point 1.4 m below the unit. 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.

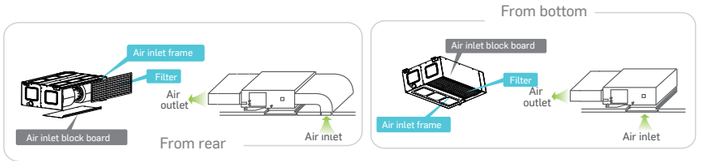
Features

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.

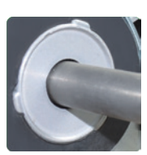


Big air flow low noise centrifugal fan wheel

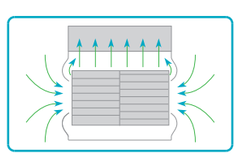
Big air flow low noise centrifugal fan blade with special air tunnel system, and the unique shock absorption measures, making this series ducted units' running noise is as low as 24 dB(A), let users to enjoy the comfort, sleep without any disturbance.

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.



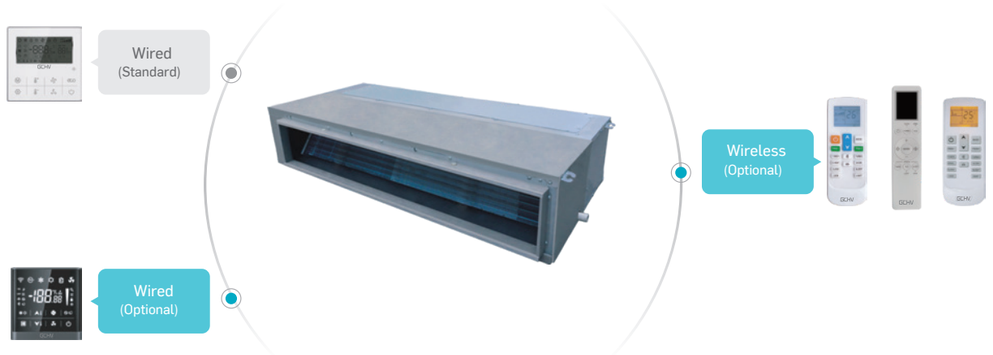
Air inlet of fan wheel casing is arch curved design; it can reduce air flow's disturbance, make if flow smoother to reduce noise.

Specification

Model name	Power type	Capacity				Rated input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							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	kg	mm	mm	mm	
CMV-V22TA/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.08	450	260	24–29	30	910 x 240 x 510	814 x 210 x 467	/	/	17.5	20.0	Φ9.52	Φ6.35	ODΦ25	Wired controller
CMV-V22TA/HNR1-C	60Hz																			
CMV-V28TA/HR1-C	50Hz	2.8	9.5	3.2	10.9										17.5	20.0				
CMV-V28TA/HNR1-C	60Hz																			
CMV-V36TA/HR1-C	50Hz	3.6	12.2	4.0	13.6	0.11	550	324	25–32						18.0	20.5	Φ12.7			
CMV-V36TA/HNR1-C	60Hz																			
CMV-V45TA/HR1-C	50Hz	4.5	15.3	5.0	17		620	360	32–37						18.0	20.5				
CMV-V45TA/HNR1-C	60Hz																			
CMV-V56TA/HR1-C	50Hz	5.6	19.1	6.3	21.4	0.16	800	520	28–38		1110 x 240 x 510	1010 x 210 x 487			21.5	24.5				
CMV-V56A/HNR1-C	60Hz																			
CMV-V71TA/HR1-C	50Hz	7.1	24.2	8.0	27.2	0.18	1000	640	30–39		1310 x 240 x 510	1214 x 210 x 487			26.5	30.0	Φ15.88	Φ9.52		
CMV-V71TA/HNR1-C	60Hz																			

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℃ 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 outlet and 1 m below the unit outlet center. 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



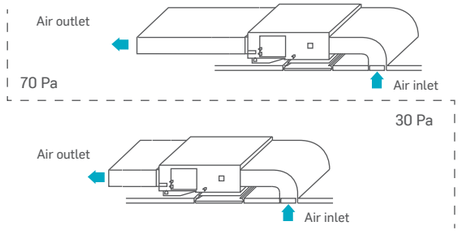
Features

Accessories

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

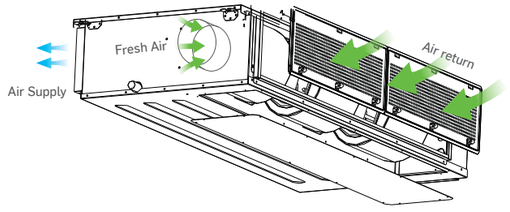
Static pressure

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



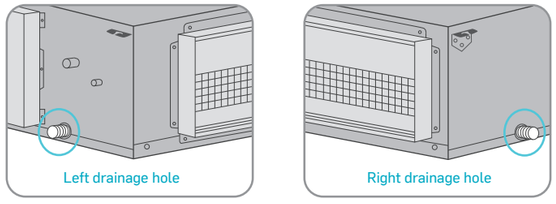
Fresh air intake

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



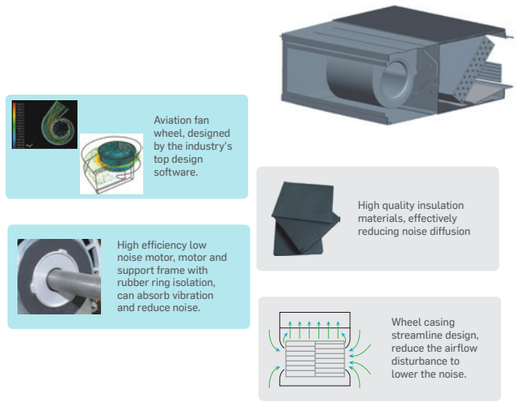
Convenient in drainage pipe installation

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.



Low noise design

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.

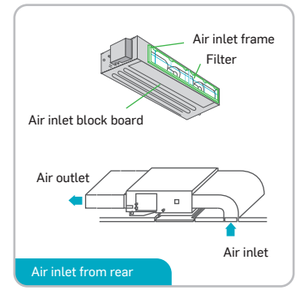


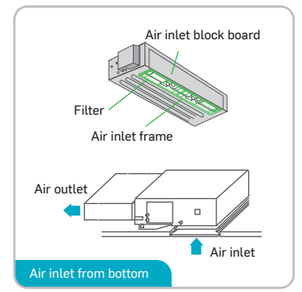
DC fan motor is optional

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

Two air return installation methods

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



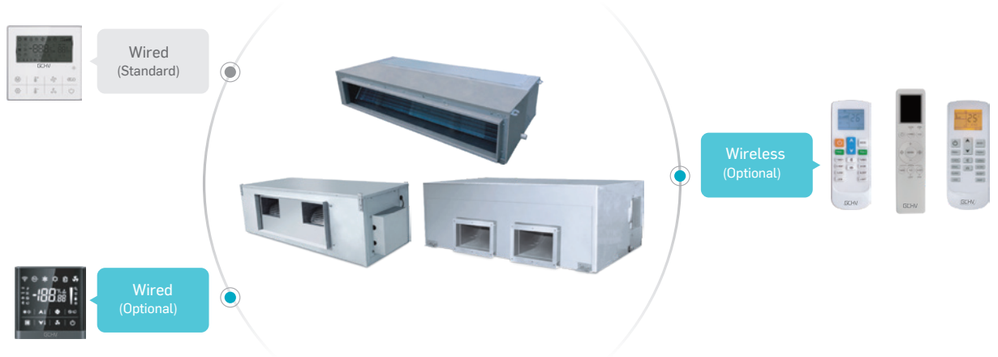


Specification

Model name	Power type	Capacity				Rated input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							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	kg	mm	mm	mm	
CMV-V71TB/HR1-B	50Hz	7.1	24.2	8.0	27.2	0.40	1220	710	36–41	70	1255 x 325 x 720	1209 x 260 x 680	/	/	33	37	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V71TB/HNR1-B	60Hz																			
CMV-V80TB/HR1-B	50Hz	8.0	27.2	9.0	30.7										33	37				
CMV-V80TB/HNR1-B	60Hz																			
CMV-V90TB/HR1-B	50Hz	9.0	30.7	10.0	34.1		1850	1080	38–43		1490 x 325 x 720	1445 x 260 x 680			46	50				
CMV-V90TB/HNR1-B	60Hz																			
CMV-V100TB/HR1-B	50Hz	10.0	34.1	11.0	37.5		2000	1170	40–44						46	50				
CMV-V100TB/HNR1-B	60Hz																			
CMV-V120TB/HR1-B	50Hz	12.0	40.9	13.0	44.3										46	50				
CMV-V120TB/HNR1-B	60Hz																			
CMV-V150TB/HR1-B	50Hz	15.0	51.1	17.0	58										46	50				
CMV-V150TB/HNR1-B	60Hz																			

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℃ 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 outlet and 1 m below the unit outlet center. 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 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

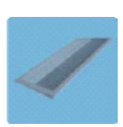
Can be used with various diffusers


Round diffuser


Spiral diffuser


Square diffuser


Linear diffuser

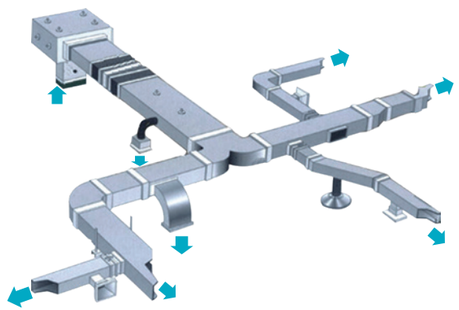

Rectangular diffuser

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 Cooling kW	Capacity Cooling kBtu/h	Capacity Heating kW	Capacity Heating kBtu/h	Power input kW	Air flow M³/h	Air flow CFM	Sound Level DB(A)	ESP Pa	Dimension(WxHxD) Packing mm	Dimension(WxHxD) Body mm	Body Weight Net kg	Body Weight Gross kg	Connecting pipe Gas mm	Connecting pipe Liquid mm	Connecting pipe Drain mm	Standard controller
CMV-V71TH/HR1-B	50Hz	7.1	24.2	7.8	26.6	0.40	1500	880	40–42	150	1490 x 325 x 720	1445 x 260 x 680	46	50	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V71TH/HNR1-B	60Hz																	
CMV-V80TH/HR1-B	50Hz	8.0	27.2	8.8	30													
CMV-V80TH/HNR1-B	60Hz																	
CMV-V90TH/HR1-B	50Hz	9.0	30.7	10.0	34.1													
CMV-V90TH/HNR1-B	60Hz																	
CMV-V100TH/HR1-B	50Hz	10.0	34.1	11.0	37.5	0.50	2300	1350	44–52		1245 x 445 x 655	1190 x 370 x 620	47	51				
CMV-V100TH/HNR1-B	60Hz																	
CMV-V120TH/HR1-B	50Hz	12.0	40.9	13.0	44.3													
CMV-V120TH/HNR1-B	60Hz																	
CMV-V150TH/HR1-B	50Hz	15.0	51.1	17.0	58.0													
CMV-V150TH/HNR1-B	60Hz																	
CMV-V200TH/HR1-B	50Hz	20.0	68.2	22.0	75.0	1.72	4000	2350	45–53		1510x580x870	1465x448x811	102	113	Φ22.2	Φ12.7	ODΦ30	
CMV-V200TH/HNR1-B	60Hz																	
GCHV-D200TH/HR1-F310	50/60Hz	20.0	68.2	22.0	75.0	1.20	3750	2200	45–50		1515x885x580	1440x811x448						
CMV-V250TH/HR1-B	50Hz	25.0	85.3	27.5	93.8	1.72	4200	2470	45–54		1510x580x870	1465x448x811						
CMV-V250TH/HNR1-B	60Hz																	
GCHV-D250TH/HR1-F310	50/60Hz	25.0	85.3	27.5	93.8	1.20	3750	2200	46–51		1515x885x580	1440x811x448						
CMV-V280TH/HR1-B	50Hz	28.0	95.5	30.8	105.0	1.72	4400	2580	45–55		1510x580x870	1465x448x811						
CMV-V280TH/HNR1-B	60Hz																	
GCHV-D280TH/HR1-F310	50/60Hz	28.0	95.5	30.8	105.0	1.30	4100	2400	48–52		1515x885x580	1440x811x448						
CMV-V450TH/HZR1-B	50Hz	45.0	153.5	50.0	170.6	2.60	6000	3520	60	200	2267 x 840 x 1050	2165 x 676 x 916	222	260	Φ28.6	Φ15.88	ODΦ32	
CMV-V450TH/HXR1-B	60Hz																	
CMV-V560TH/HR1-B	50Hz	56.0	191.0	63.0	214.9	3.40	8000	4700	64									
CMV-V560TH/HXR1-B	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 outlet and 1 m below the unit outlet center. 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

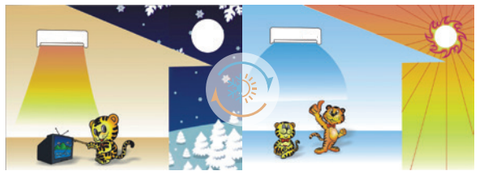
Simple, elegant, stylish, mirror design, suitable for all kinds of decoration style.

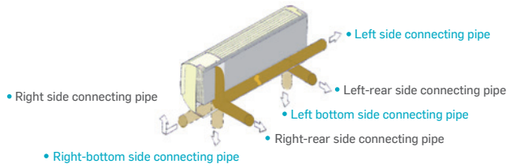
Flexible in installation

Refrigerant pipe can be connected from 3 directions.

Hotel card function

Hotel card interface is standard, which are designed to save energy by only running appliances while guest are present in their room.





Specification

Model			GCHV-D22G/HR1-GSB	GCHV-D28G/HR1-GSB	GCHV-D36G/HR1-GSB	GCHV-D45G/HR1-GSC	GCHV-D56G/HR1-GSC	GCHV-D71G/HR1-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		m^3/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	Net/Gross	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/Φ9.52	Φ6.35/Φ9.52	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 outlet and 0.8 m below the unit outlet center. 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

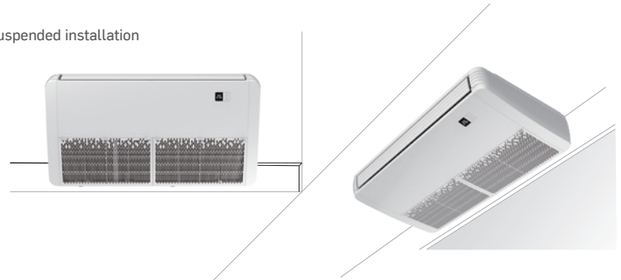
Features

Accessories

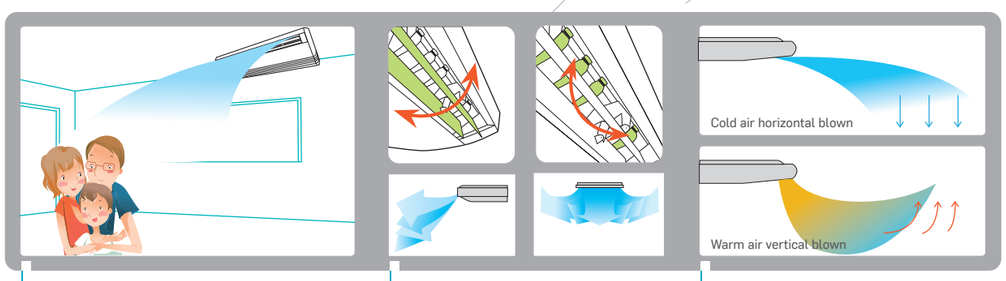
Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Optional	Standard	Optional

Flexible installation

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



Wide angle air supply

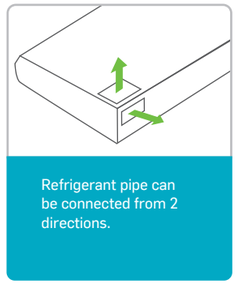


Configured with low noise high performance centrifugal fans, has big air flow and long distance air supply.

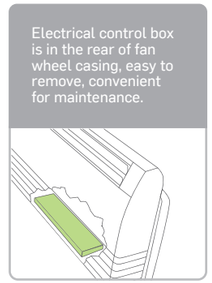
3 dimensional air supply, wide air supply angle, easily supply to every corners.

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

Easy for installtion

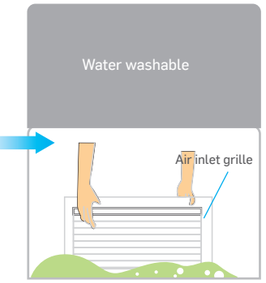


Refrigerant pipe can be connected from 2 directions.



Electrical control box is in the rear of fan wheel casing, easy to remove, convenient for maintenance.

Long term filter can be remove from air inlet grille to clean



Two kinds of grilles for selection

Horizontal Type Grill
(Standard)

Honeycomb Type Grill
(Optional)

Specification

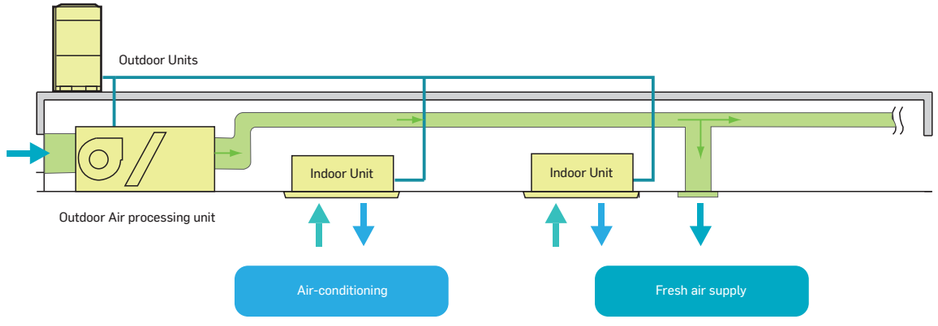
Model name	Power type	Capacity				Power input	Air flow		Sound Level	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling		Heating						Packing	Body	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h	kW	M³/h	CFM	DB(A)	mm	mm	kg	kg	mm	mm	mm	
GCHV-V36UA/HR1-LDBA	50Hz	3.6	12.3	4.0	13.7	0.085	620	360	37–42	1130 x 765 x 330	1050 x 675 x 235	26.5	31.0	Φ12.7	Φ6.35	DN20	Remote controller
GCHV-V36UA/HNR1-LDBA	60Hz																
GCHV-V45UA/HR1-LDBA	50Hz	4.5	15.3	5.0	17												
GCHV-V45UA/HNR1-LDBA	60Hz																
GCHV-V56UA/HR1-LDBA	50Hz	5.6	19.1	6.3	21.4	0.110	800	470	37–47								
GCHV-V56UA/HNR1-LDBA	60Hz																
GCHV-V71UA/HR1-LDBB	50Hz	7.1	24.2	8.0	27.2	0.095	1200	706	45–51	1380 x 765 x 325	1300 x 675 x 235	32.0	37.0	Φ15.88	Φ9.52	DN20	
GCHV-V71UA/HNR1-LDBB	60Hz																
GCHV-V80UA/HR1-LDBB	50Hz	8.0	27.2	8.8	30												
GCHV-V80UA/HNR1-LDBB	60Hz																
GCHV-V90UA/HR1-LDBC	50Hz	9.0	30.7	10.0	34.1	0.160	1600	940	45–50	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0				
GCHV-V90UA/HNR1-LDBC	60Hz																
GCHV-V112UA/HR1-LDBC	50Hz	11.2	38.2	12.5	42.6												
GCHV-V112UA/HNR1-LDBC	60Hz																
GCHV-V140UA/HR1-LDBC	50Hz	14.0	47.7	15.0	51.1	0.200	2000	1177	45–54								
GCHV-V140UA/HNR1-LDBC	60Hz																
GCHV-V160UA/HR1-LDBC	50Hz	16.0	54.5	17.0	58												
GCHV-V160UA/HNR1-LDBC	60Hz																

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℃ 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 outlet and at a height of 1 m. 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 environment

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

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.

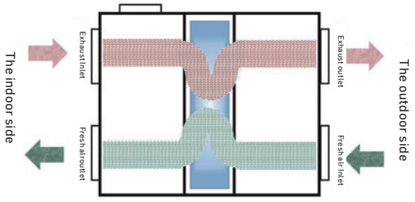
Specification

Model name	Power type	Capacity				Power input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							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	kg	mm	mm	mm	
CMV-V140TF/HR1-B	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	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V140TF/HNR1-B	60Hz																			
CMV-V224TF/HR1-B	50Hz	22.4	76.4	16.0	54.5	1.20	2000	1170	45–52	220	1510 x 490 x 870	1465 x 448 x 811			102	106				
CMV-V224TF/HNR1-B	60Hz																			
CMV-V280TF/HR1-B	50Hz	28.0	95.5	20.0	68.2	1.20	2800	1640	45–52	220	1510 x 490 x 870	1465 x 448 x 811			102	106	Φ22.2	Φ12.7	ODΦ30	
CMV-V280TF/HNR1-B	60Hz																			
CMV-V450TF/HZR1	50Hz	45.0	153.5	31.4	107.1	1.60	4000	3520	58	300	2200 x 710 x 1018	2165 x 676 x 916			222	260				
CMV-V450TF/HXR1	60Hz																			
CMV-V560TF/HZR1	50Hz	56.0	191.0	39.0	133.0	2.50	6000	4700	62	300	2200 x 710 x 1018	2165 x 676 x 916			222	260	Φ28.6	Φ15.88	ODΦ32	
CMV-V560TF/HXR1	60Hz																			

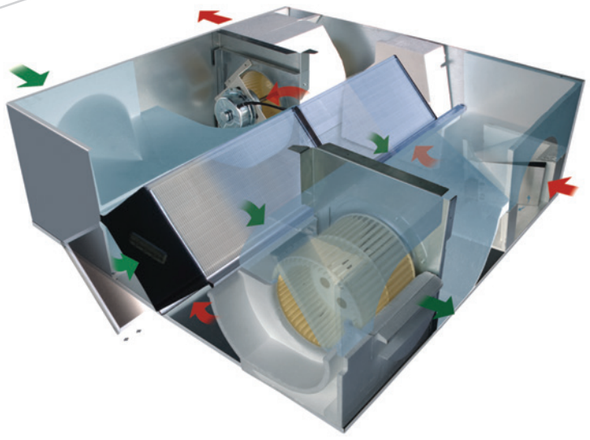
Notes:1.45kW & 56kW units' power supply are 380–415V/3N for 50Hz and 208–230V/3N for 60Hz, the others' power supply is 220–240V/1N for 50Hz and 208–230V/1N for 60Hz
2.Cooling test condition: Indoor and outdoor side 33℃ DB, 28℃ WB. Heating test condition: Indoor and outdoor side 0℃CB, -2.9℃ WB.
3.Sound level: measured at a point 1 m below the unit. 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

Supspended type specification

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

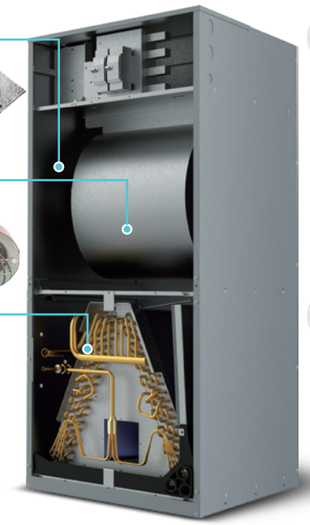
Heat Recovery Ventilator

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

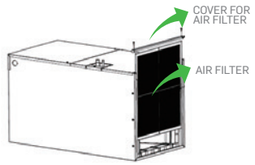
Direct drive motors, 3-speed, provide selections of air flow to meet desired applications.Φ10" big fan, powerful wind.

Coil

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

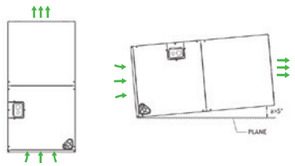
Filter optional

Detachable air filter for cleaning or renewal.



Multi-position installation

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



*Note:Installation of vertical up airflow and horizontal right airflow needs to be customized.

Specification

Model name	Power type	Capacity				Power input	Air flow		Sound Level	ESP	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Body	Packing	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h	W	M³/h	CFM	DB(A)	Pa	mm	mm	kg	kg	mm	mm	mm	
CMV-V71AH/HNR1	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
CMV-V105AH/HNR1	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
CMV-V160AH/HNR1	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 m in front of the unit outlet and at a height of 1 m. 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

- Indoor unit address inquiry
- Indoor unit address setting
- Temperature setting

- Operation mode setting
- Fan speed setting
- Timer function

Wired Controllers

ZKX-C/T/A-06TW

- Bidirectional communication. Indoor unit's operating parameters(error code, temperature, address)can be inquired and displayed on the controller.
- Compact design
- Timer function
- °F/°C Fahrenheit/centigrade setting
- Address setting
- Press button tone setting

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.

Simple Centralized Controller

CSP-D184

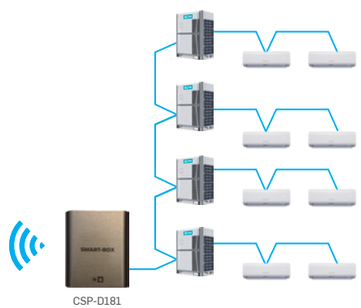
- Easy to install. Controller connects to outdoor units only.
- 1 Controller can control max. 100 indoor units.
- Mode lock function, user can lock the running mode of indoor unit.
- Build in Modbus protocol.

Smart Manager

- Available on iOS and Android

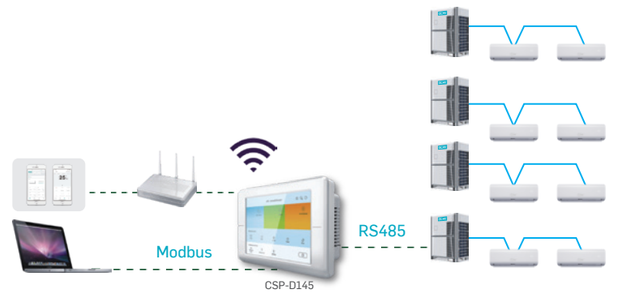
- Remote control via cloud server

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



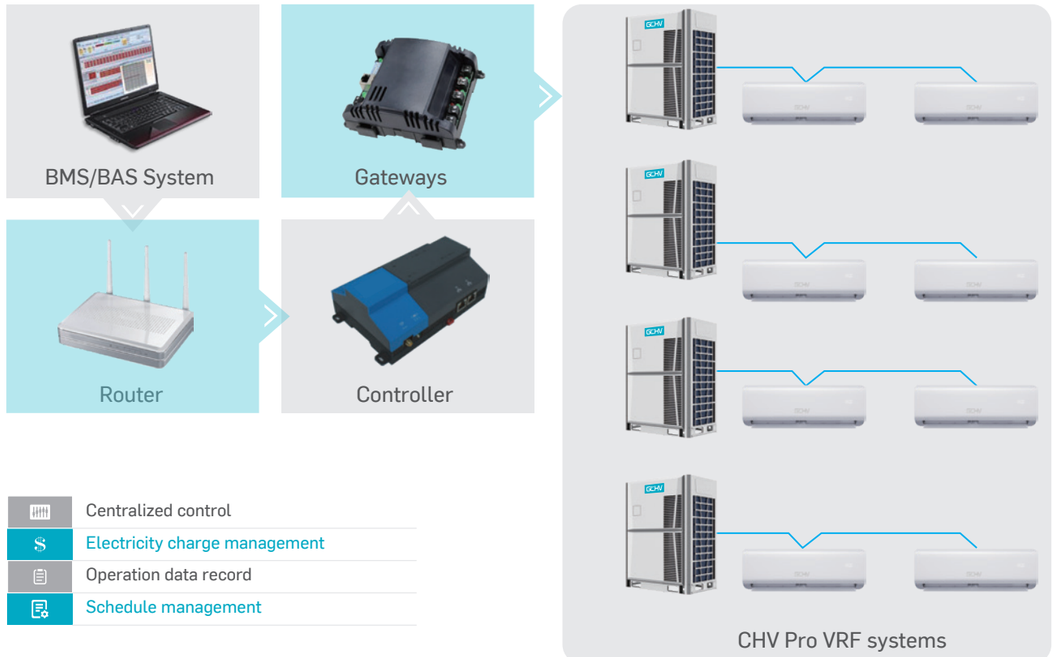
CSP-D181

Touch Screen Centralized Controller



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

CHV-NET(Centralized Control System)

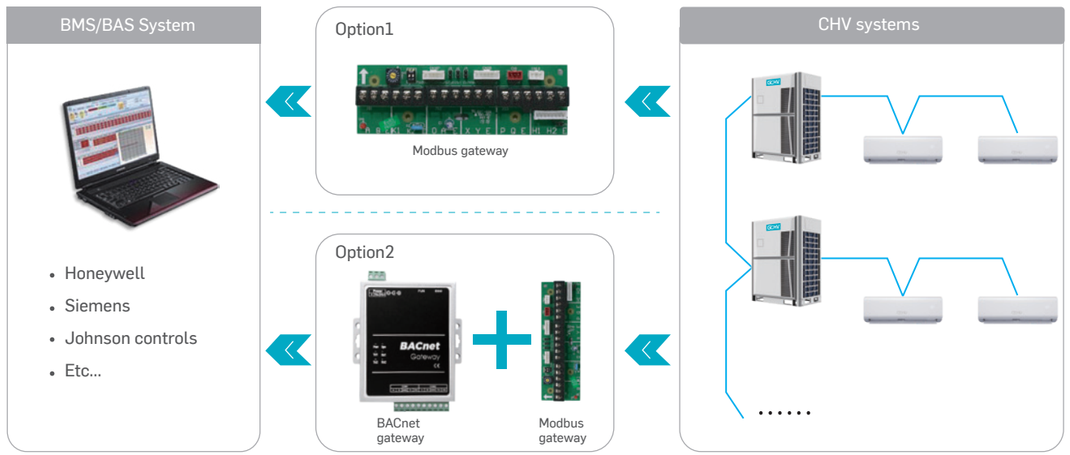


- Centralized control
- Electricity charge management
- Operation data record
- Schedule management

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

- GCHV AHU kit is an interface that allows 3rd party manufacturer's AHU connecting to GCHV VRF outdoor units.
- No address limit and automatic addressing.
- Split type, convenient for installation.
- One electrical part has one address and can max. connect 4 EXV parts.
- One AHU kit can max. connect up to 120HP.

GCHV AHU Kit

Electrical part

- PCB
- Power terminals
- Communication terminals

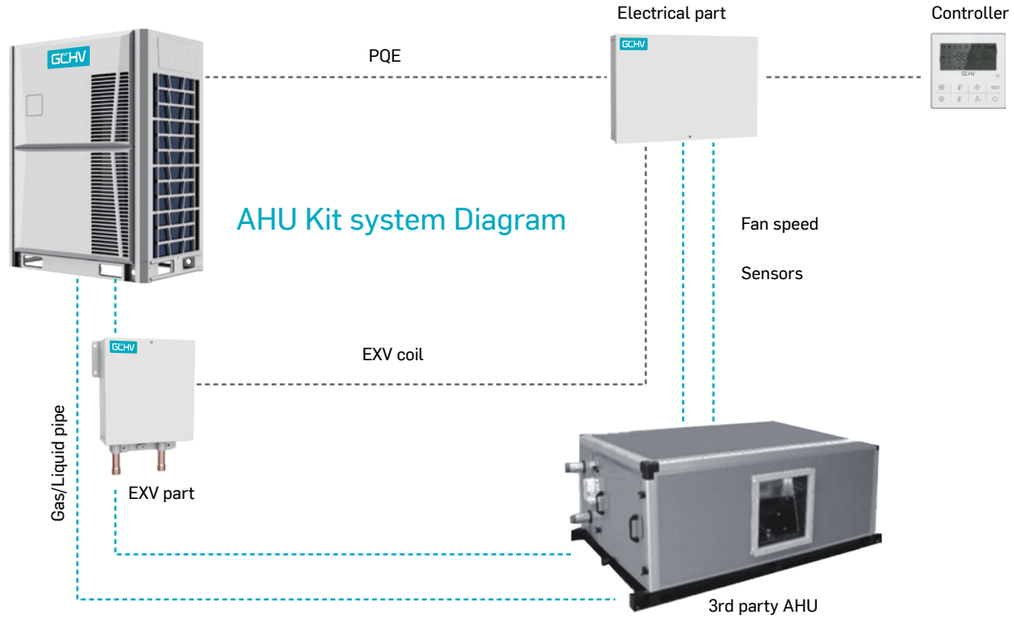
EXV part

- Outlet pipe
- Inlet pipe
- EXV

Sensors & wires

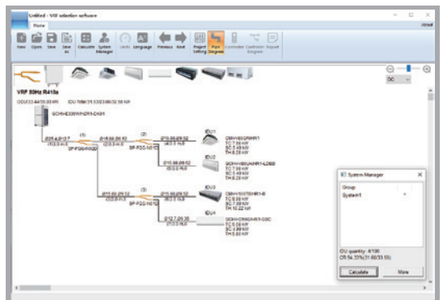
- T1 sensor and wire
- T2 sensor and wire
- T2B sensor and wire
- Controller wire

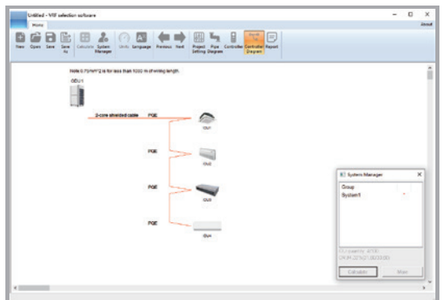
Controller

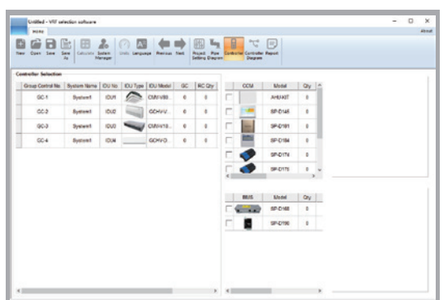


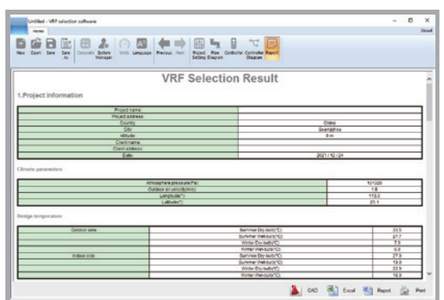
VRF Selection Software

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


Piping diagram


Wiring diagram


Controller selection



Report