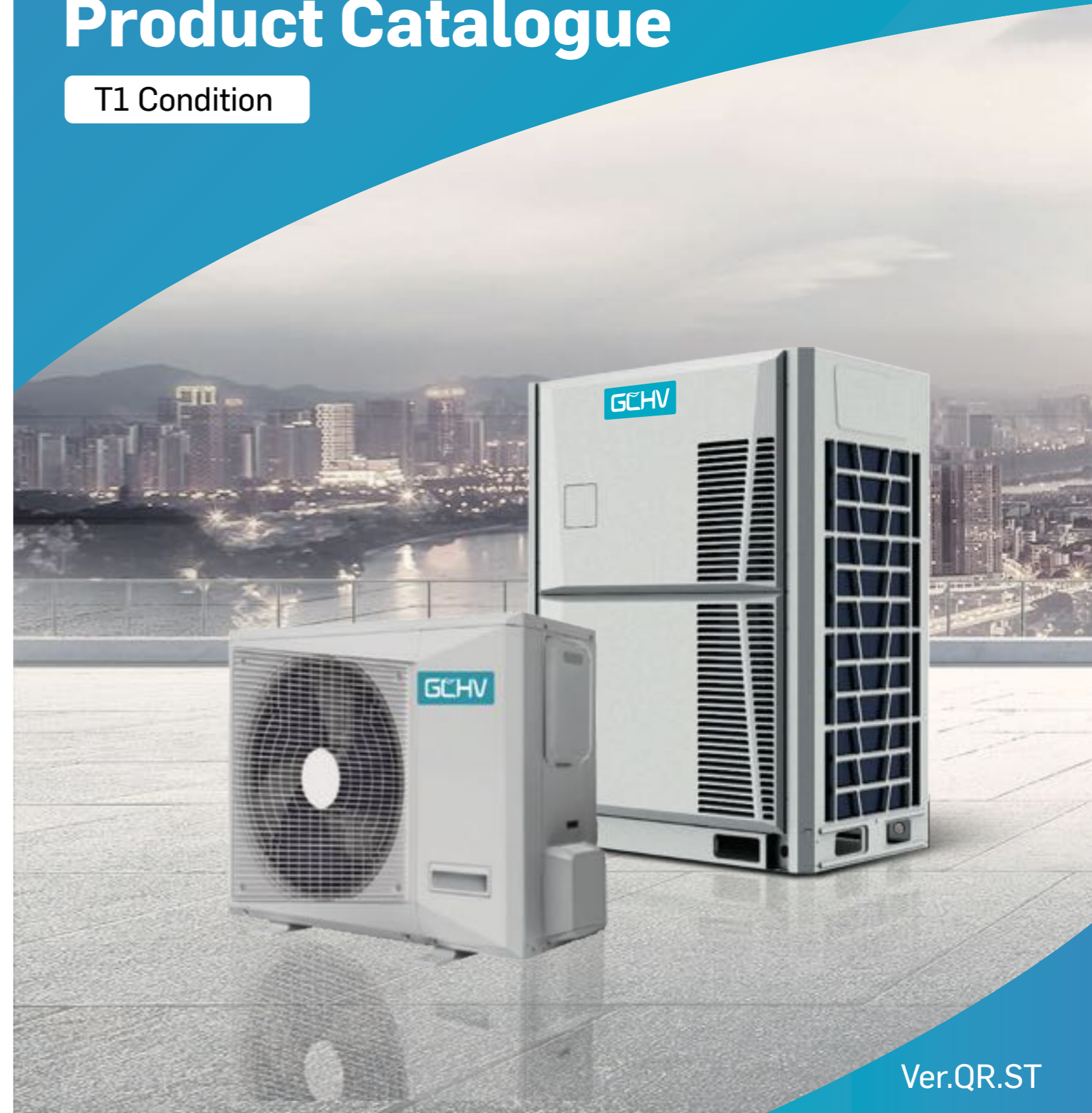




DC INVERTER VRF SYSTEM Product Catalogue

T1 Condition



Giwee

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A Carrier Company

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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.

Commercial air conditioning division established

2004



Honored of "National high-tech enterprises"

2012



Full DC inverter VRF CMV-X series launched

2014



Testing center certificated by CNAS

2018



Giwee new experience center put into service

2022



2002

Enter central air conditioning industry



2011

CAC Company Established



2013

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



2015

Honored of "Provincial engineering research and development center"



2021

Giwee becomes A Carrier Company





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 accredited labs for testing and verification.

Certification

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

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



ISO9001 ISO14001 ISO45001 QC 080000 AEO





Work Condition Laboratory



Laboratory Control Room

R&D Strength



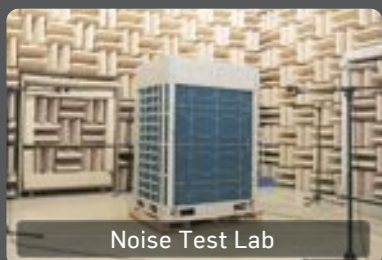
2000kg Transport Simulation



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.

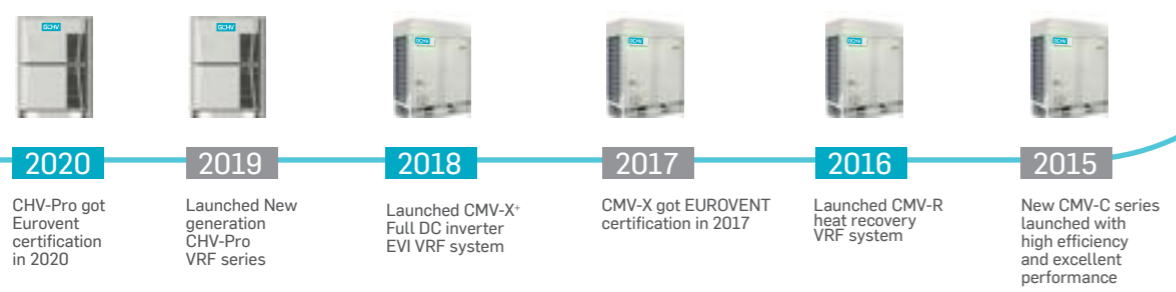
The test center covers an area of more than 15,000 square meters. It has a series of professional laboratories. In 2010, it passed the consistency check of the National Energy Efficiency Label Management Center and obtained certificate, in 2018, the test center obtained CNAS national certification.

Directory

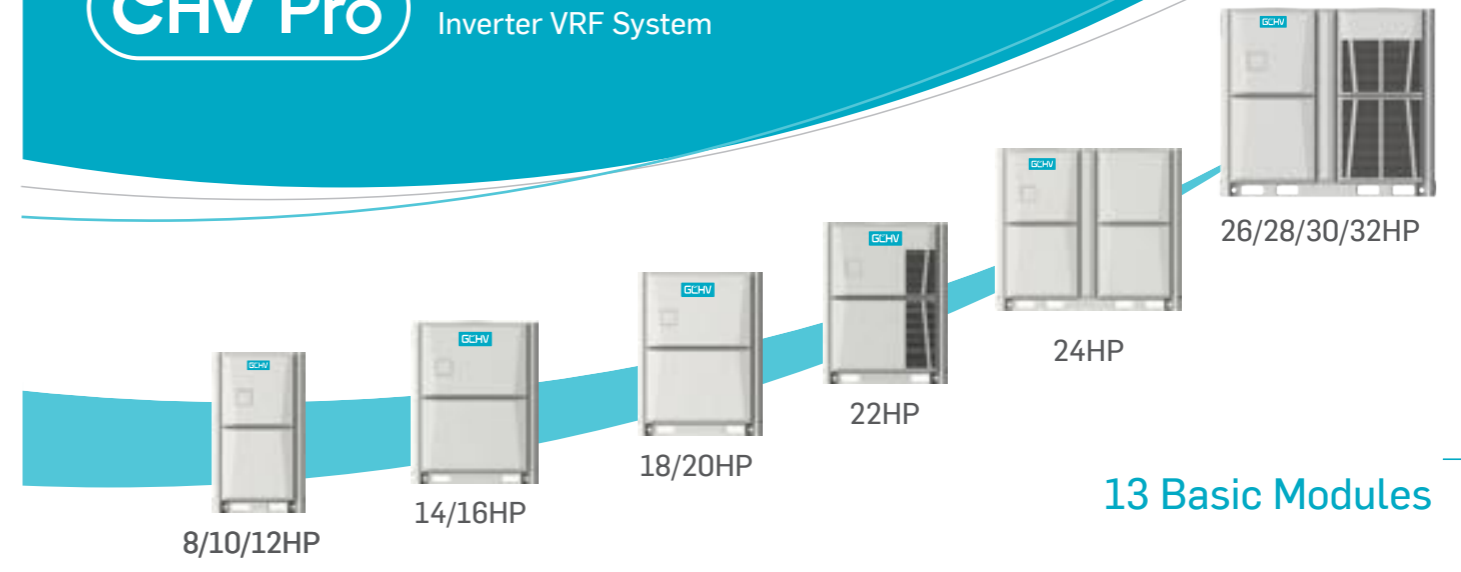
- 01 • Overview
- 02 • CHV-Pro
- 21 • Specifications
- 31 • HR Mini VRF
- 35 • Specifications
- 37 • Mini VRF
- 42 • Specifications
- 43 • Indoor Units
- 64 • Controller and Software



VRF Development History

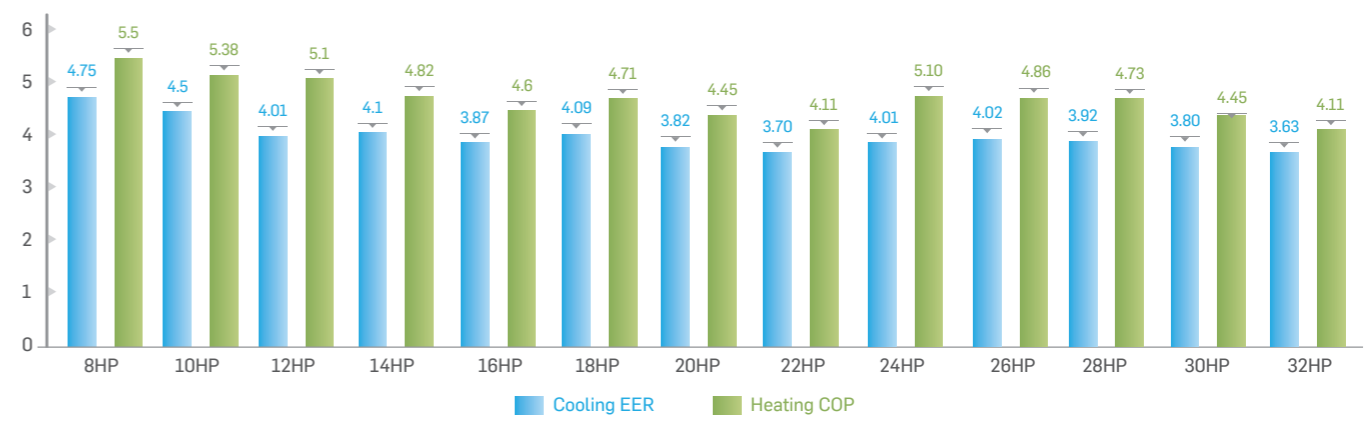


CHV Pro New Generation Full DC Inverter VRF System

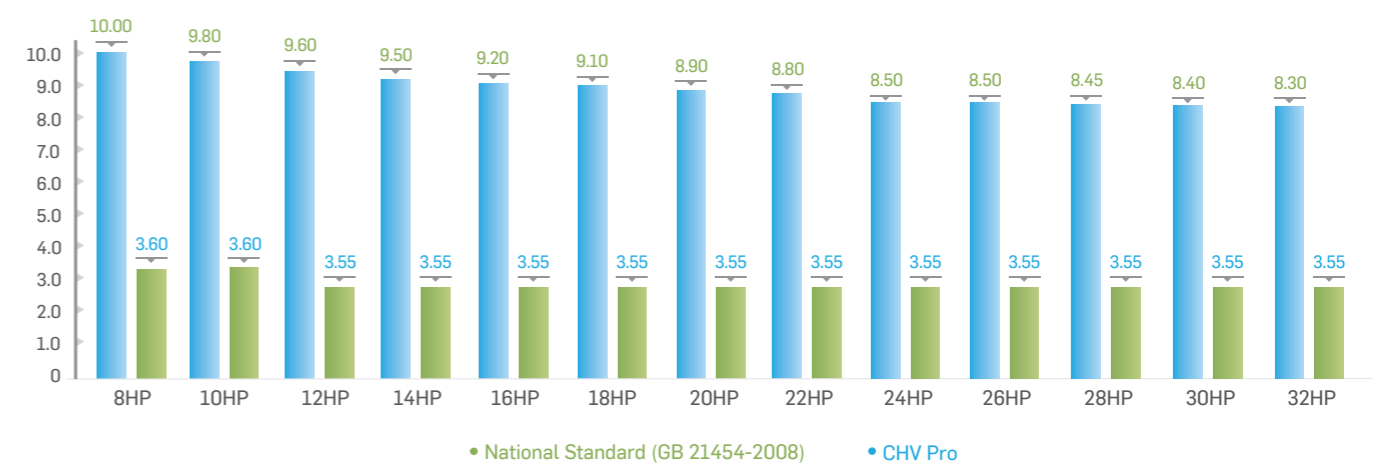


Capacity	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
	25.2kW	28kW	33.5kW	40kW	45kW	50kW	56kW	61.5kW	67kW	73kW	78.5kW	85kW	90kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC
Fan motor	DC	DC	DC	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

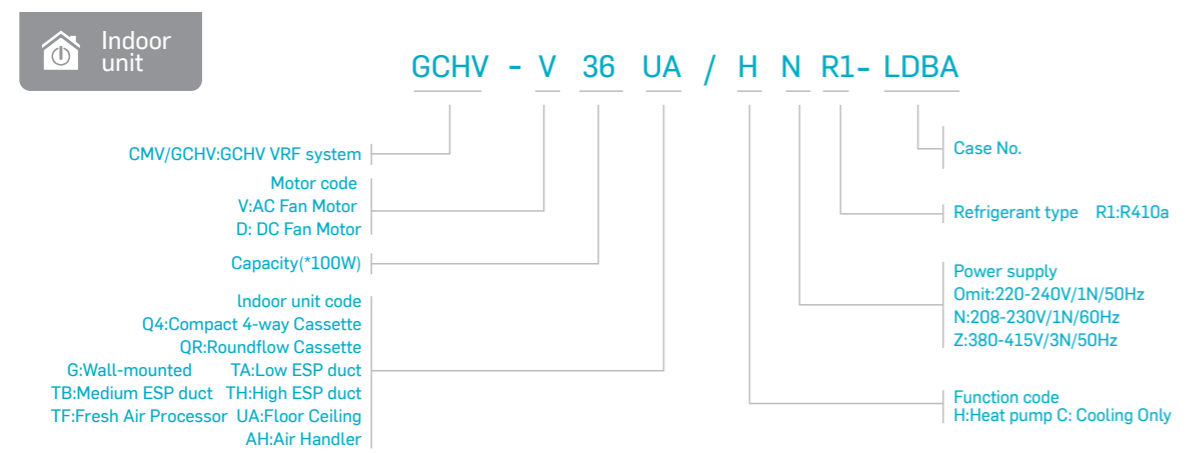
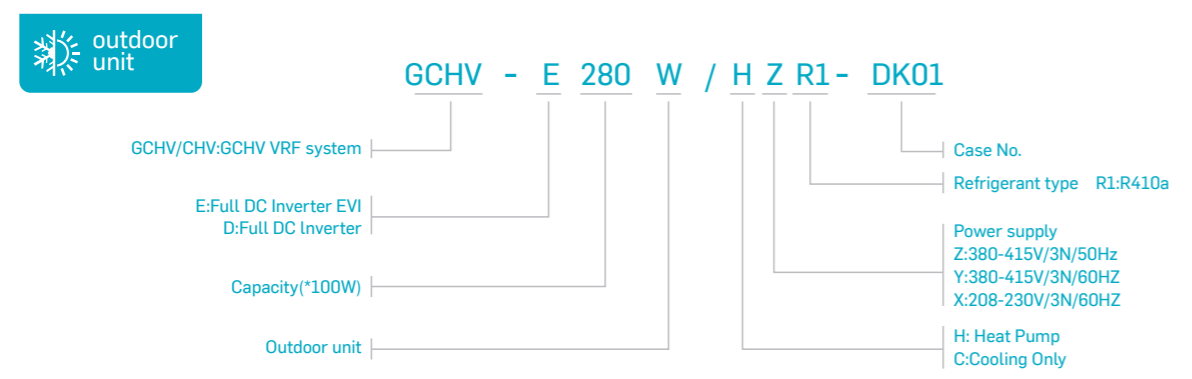
EER&COP



IPLV(C)



How To Read The Model Name



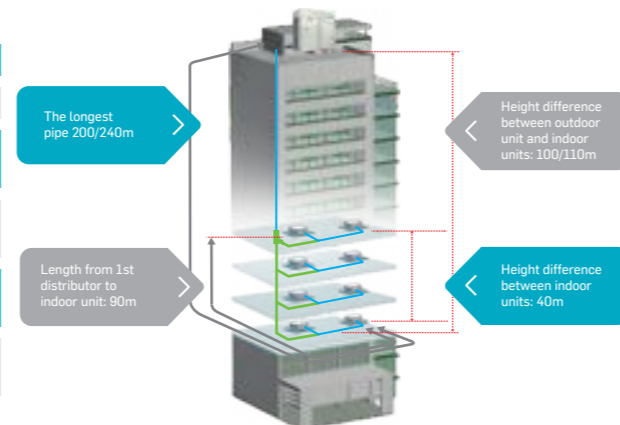
Combination Table

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

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

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.

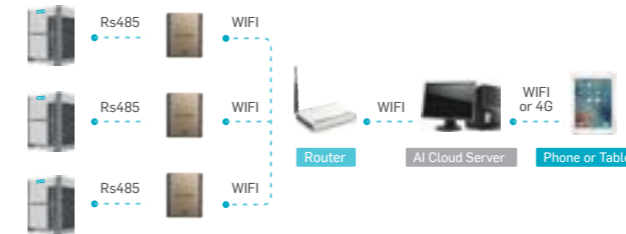


*Please refer to the installation manual for detailed length description.

Features

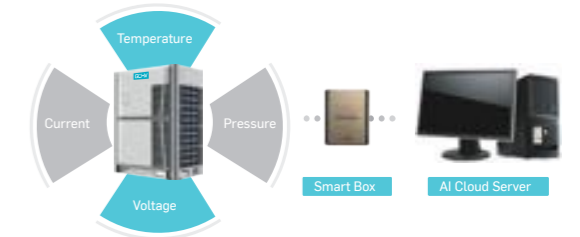
Long Distance Remote Control

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.



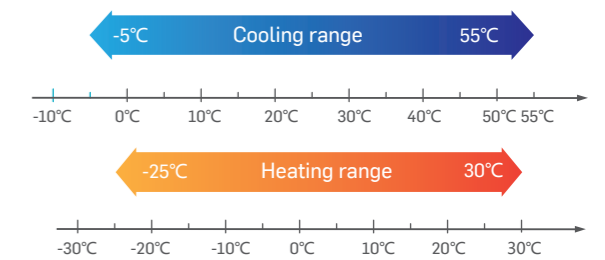
Refrigerant Cooling Design

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



Wide Outdoor Operation Range

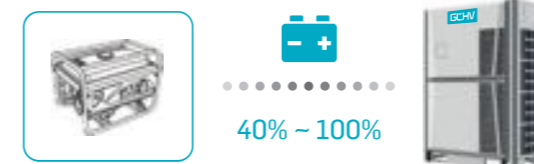
Due to EVI technology, CHV PRO still has 85% of rated capacity even in -15°C.



*Based on GCHV internal test report

Power Saving Mode

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



Refrigerant Status Detection

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

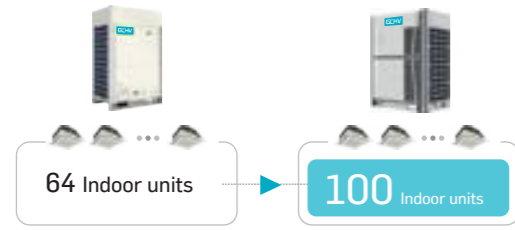


- 13 Extremely insufficient
- 12 Insufficient
- 11 Slightly insufficient
- 0 Normal
- 1 Slightly excess
- 2 Overmuch

Features

2 More indoor units

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



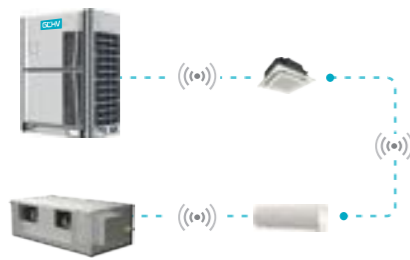
Electrical Lock Function(optional)



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

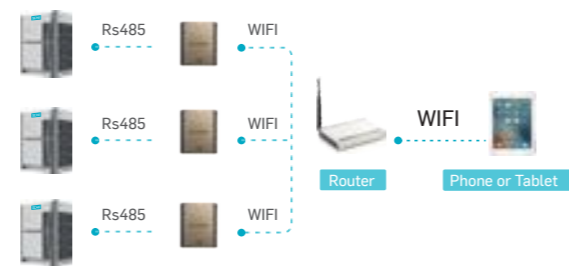
Wireless Communication(optional)

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



Online Diagnosis

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



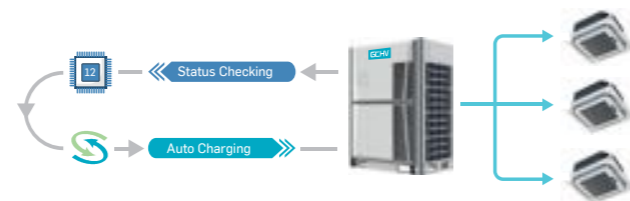
Service Window On Front Cover

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



Auto Charging Refrigerant(optional)

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



13 Basic Modules



Maximum 96HP



Max.3 outdoor units can be freely combined to become a larger unit. the maximum capacity of single system is 96HP.

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

1 High Efficiency

2 Benefits For Users

3 Benefits For Installers

Advantages

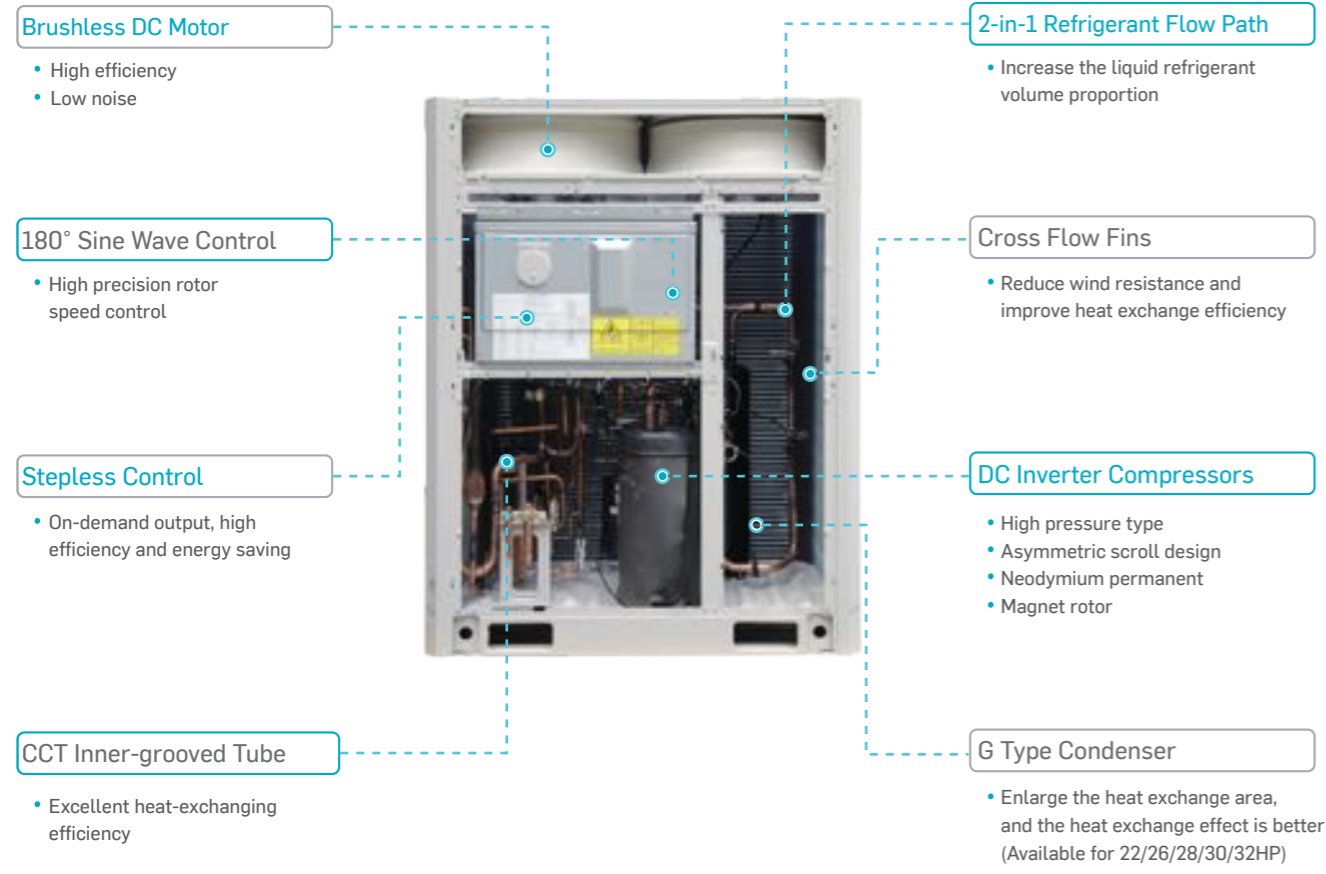
Provide You With Fresh Air

1 High Efficiency

Low carbon life advocate

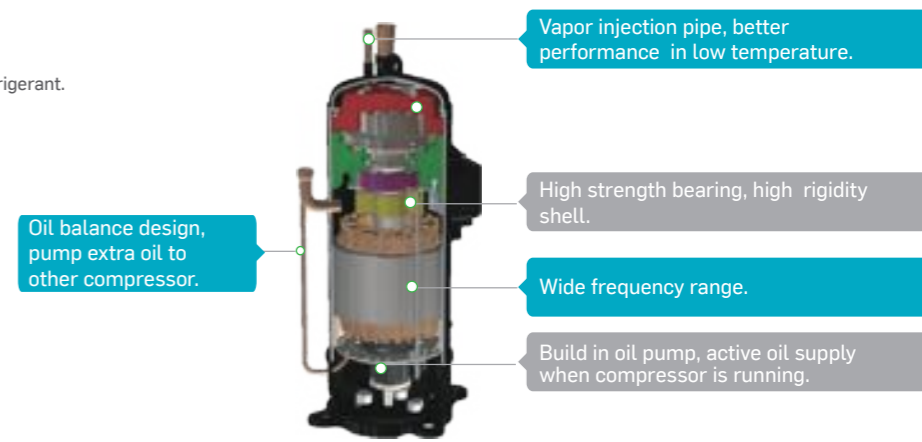
Giwee always focus on low-carbon energy-saving products development, and spare no effort for technological research and development, to become a practitioner and advocate of low-carbon technology!

Core Technologies Make High Efficiency

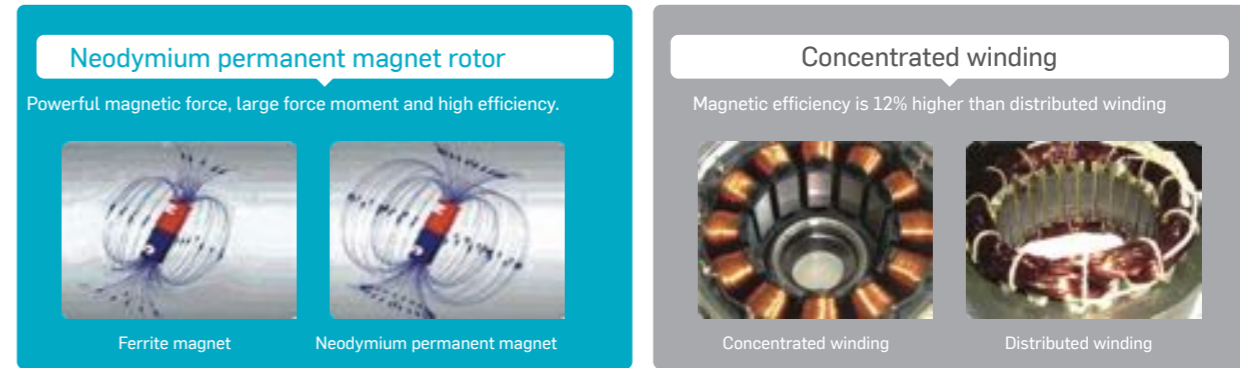


High Efficiency DC Inverter Compressor

- 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 efficiency.
- High pressure chamber
- Has small suction superheat and high refrigerant volume efficiency

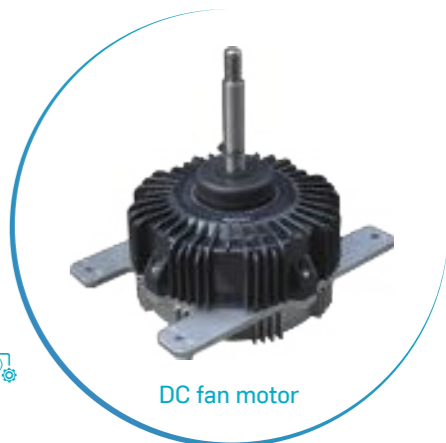


* Has large refrigerant discharge buffer volume, low vibration and noise



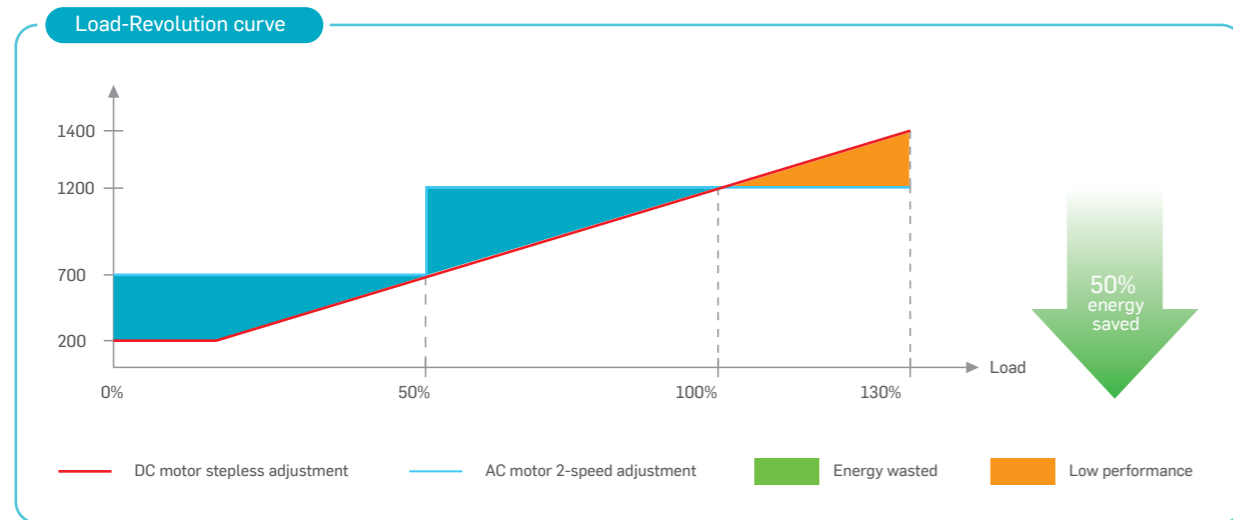
High Efficiency DC Motor

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



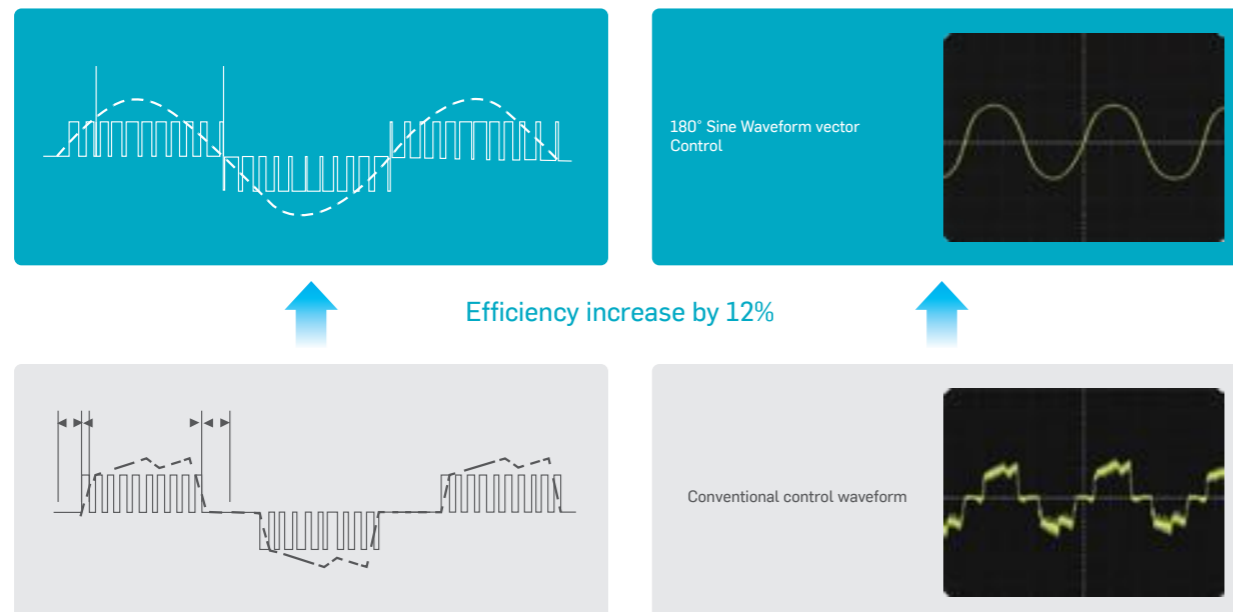
Stepless Control

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



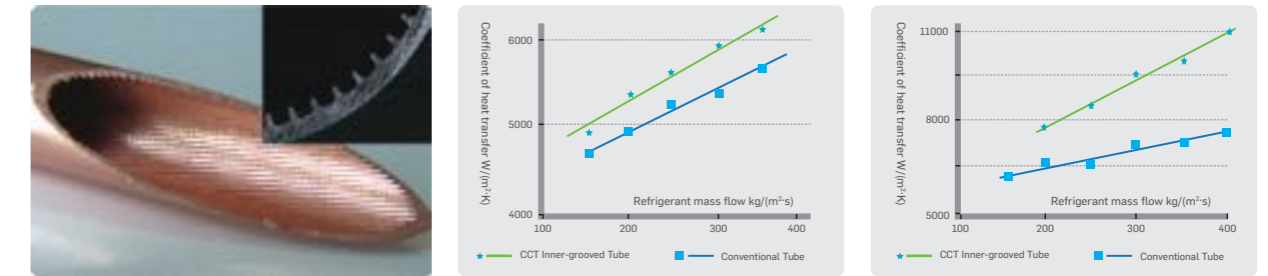
180° Sine Waveform Control

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%.

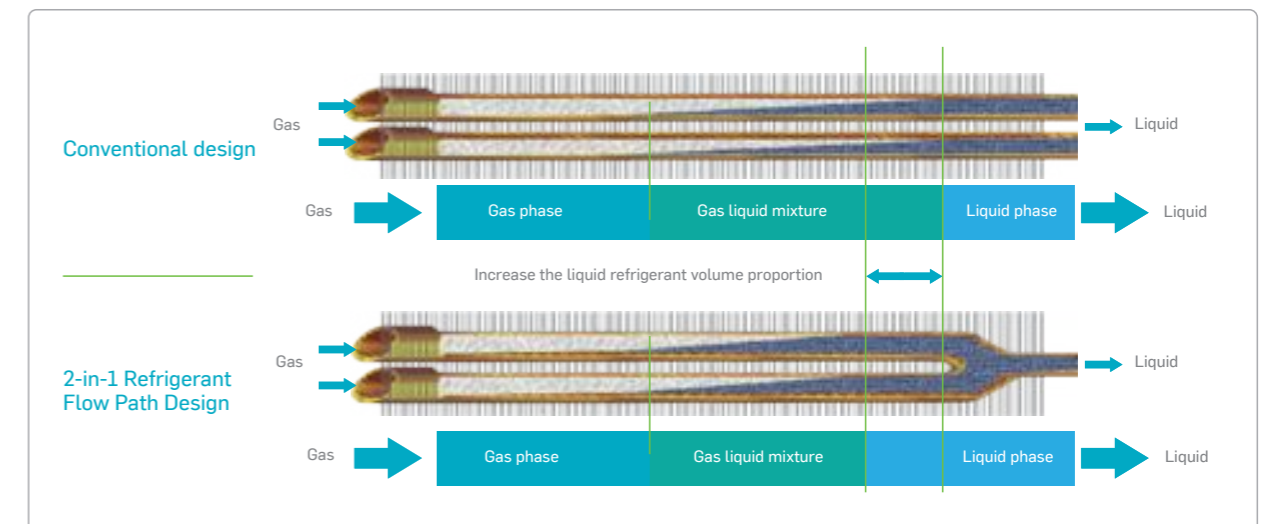
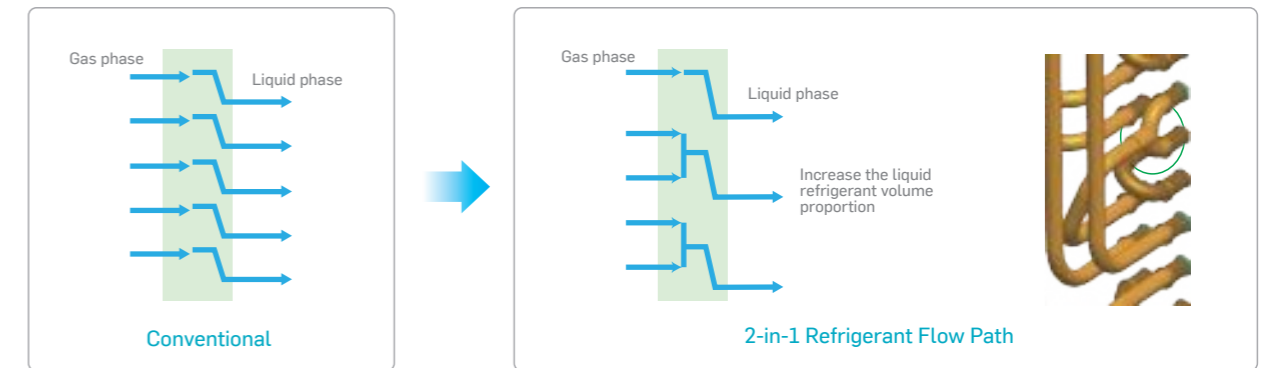


CCT Inner-grooved Tube

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

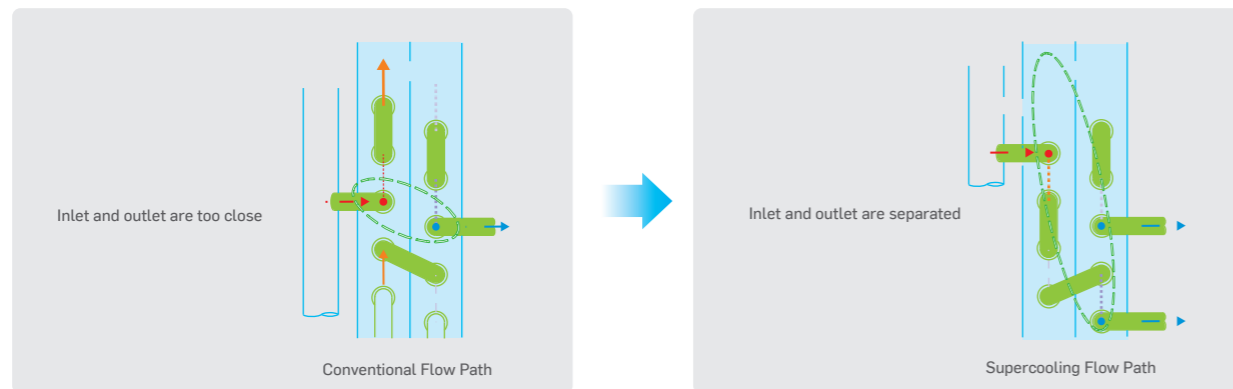


2-in-1 Refrigerant Flow Path Design



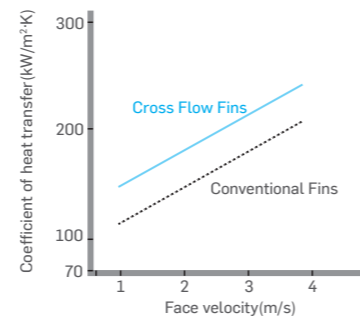
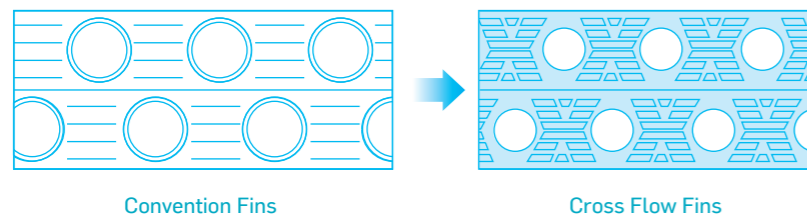
Supercooling Flow Path Design

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



Cross Flow Fins

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



Low Resistance Internal Piping

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

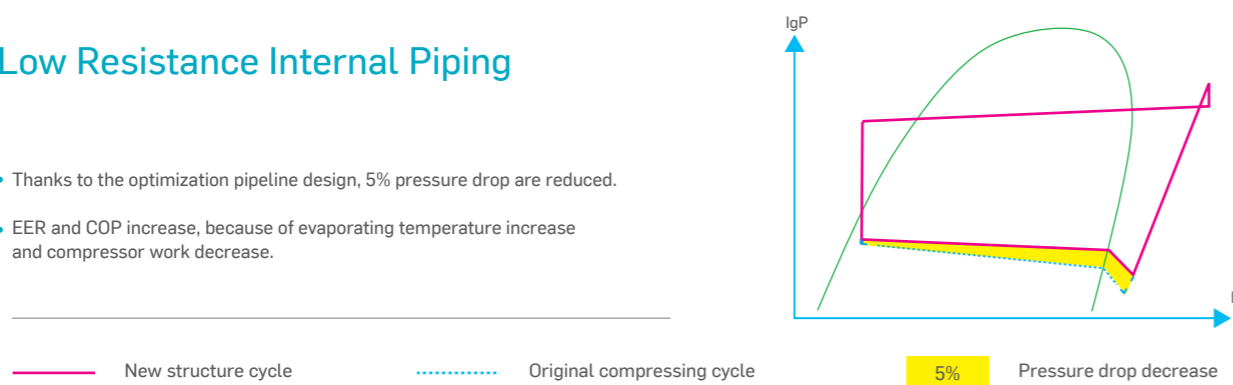


Plate Heat Exchanger

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



Benefits For Users

2

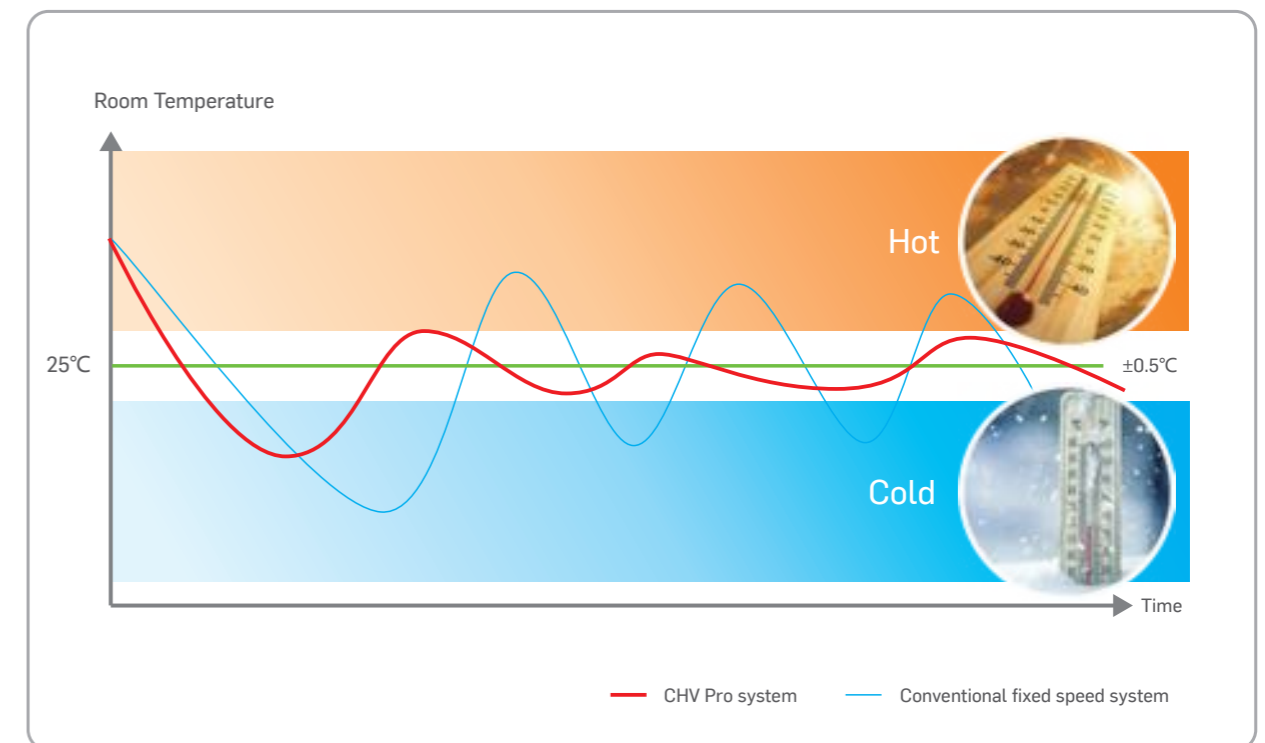
Livable environment provider

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°C, offers outstanding comfort ability.



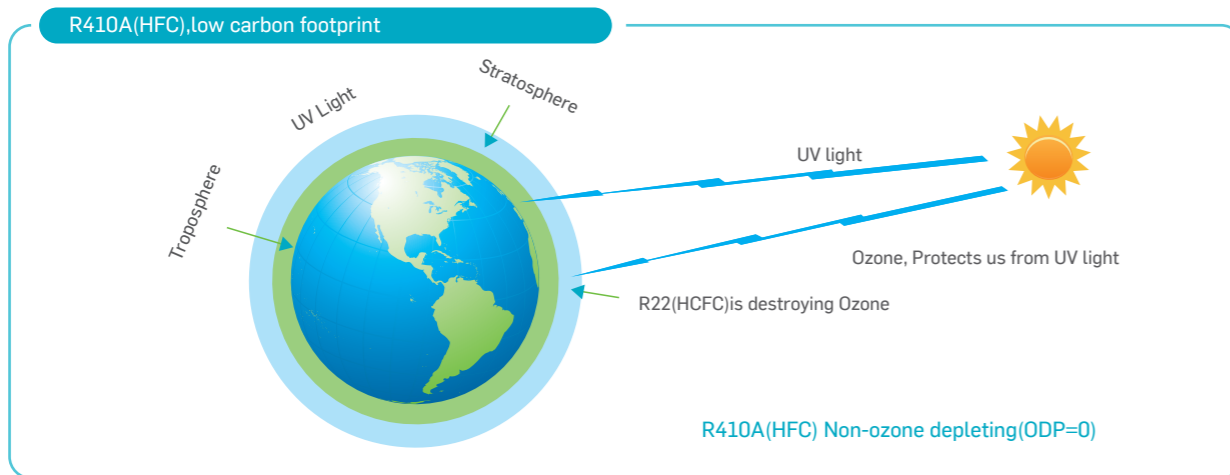
Wide Operation Range

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



Environmental Balanced Refrigerant

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



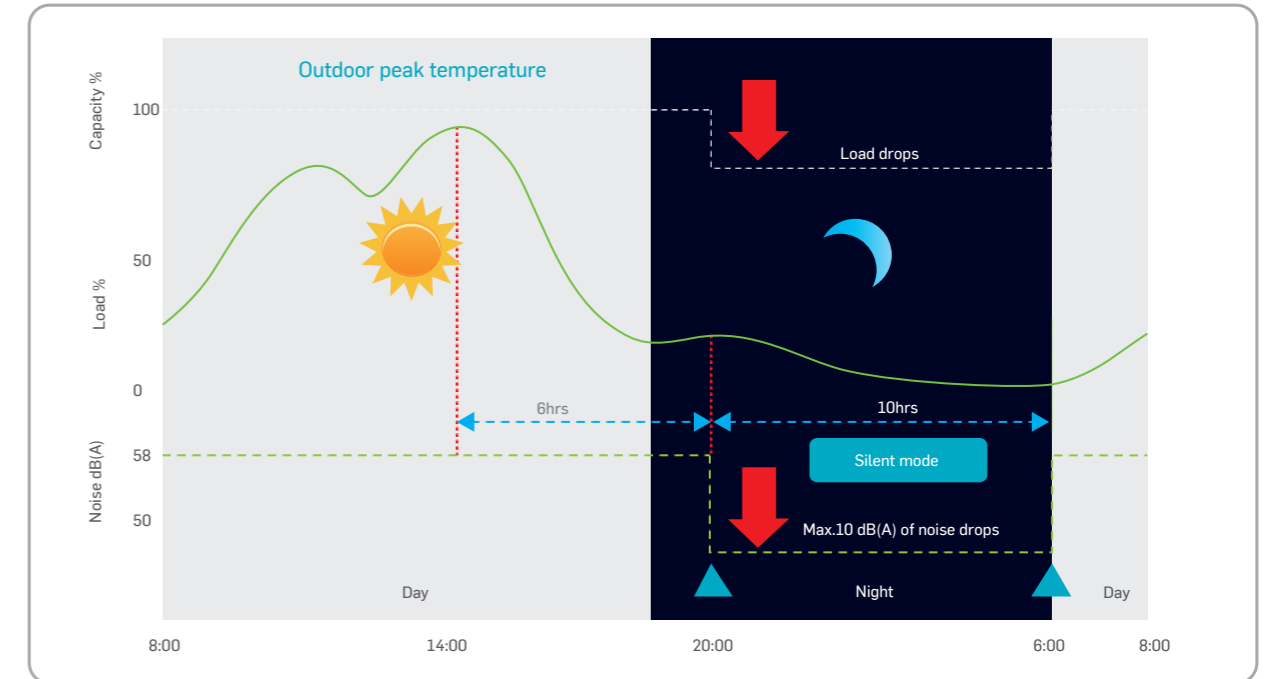
Snow-proof Function

- 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.



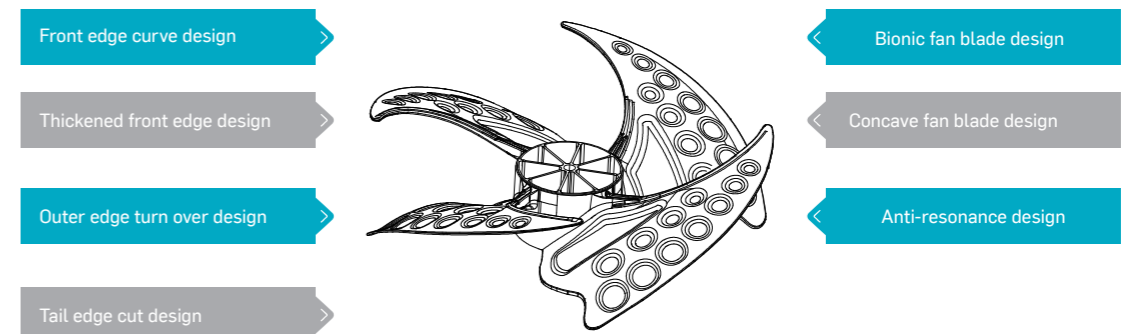
Night Mode

- 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.

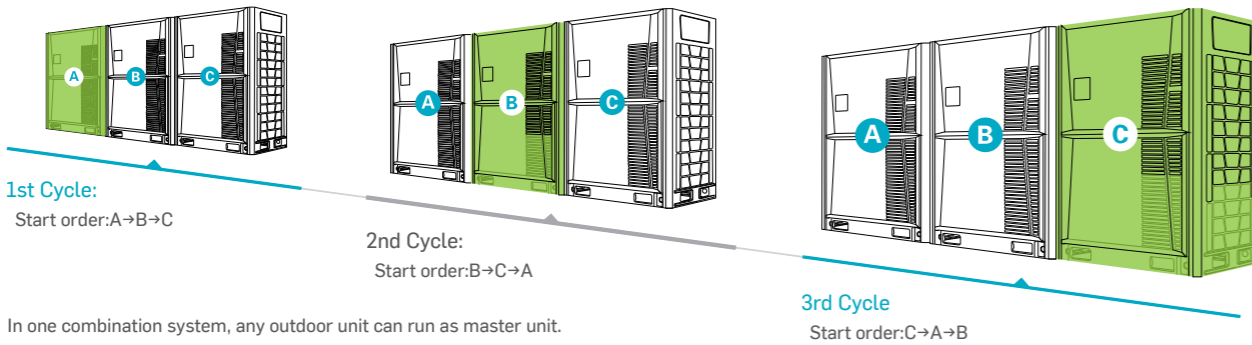


Fan motor back up function.

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.

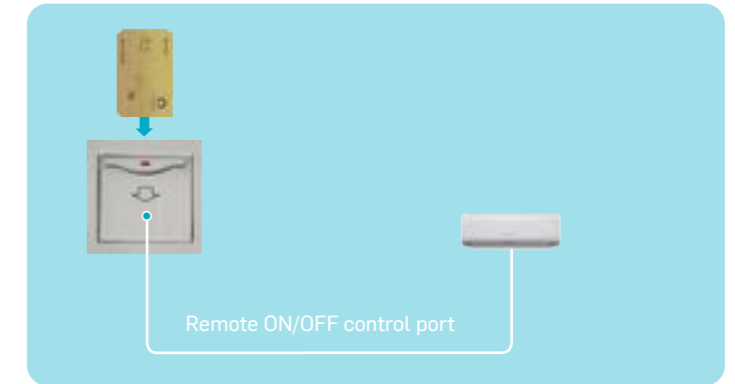
IDU and ODU Positioning Function

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

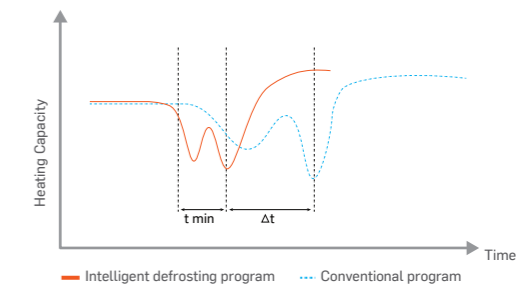
The dedicated temperature sensor monitors the temperature of the condenser coil of the outdoor unit in real time, intelligently selects the defrost mechanism and judges the timing of defrost, effectively prolongs the normal heating time, improves comfort, and achieves energy-saving effects.

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

Defrost Curve

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

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



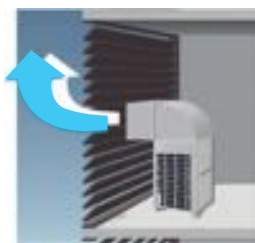


3 Benefits For Installers

Optimization for designer and installer

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

Adjustable Outdoor Fan Static Pressure



- Thanks to DC fan motor, the external static pressure of outdoor fan is adjustable.
- Outdoor units can be installed in the service floor or facility room.
- Maximum ESP 80 Pa.

Touch Screen Wired Controller



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

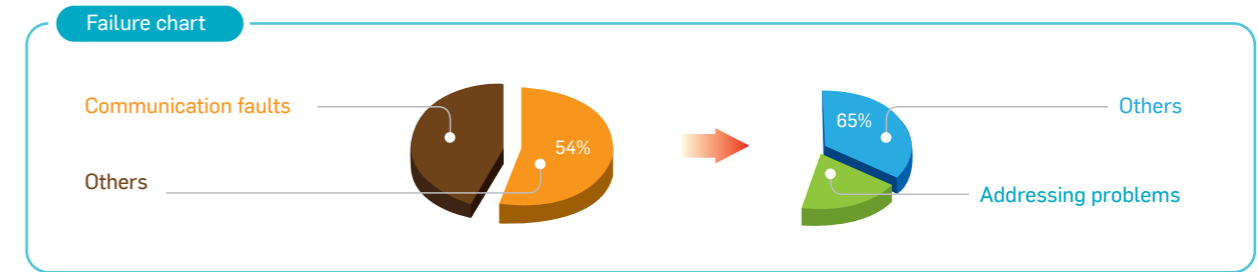
Addressing Methods



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

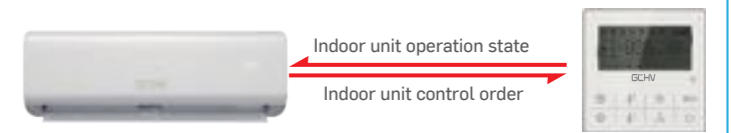
Automatic Addressing

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



New Wired Controller

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



Easy, Safe, Convenient

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

Digital Display On The PCB

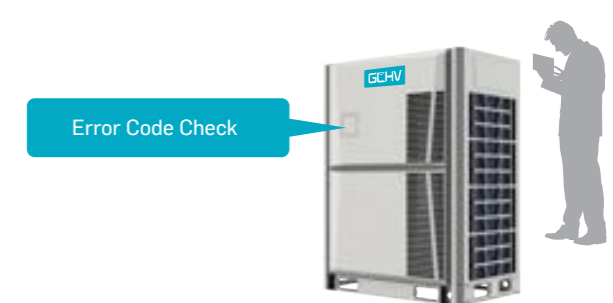
- Digital display on the PCB, it can show system's operation status and error codes.



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

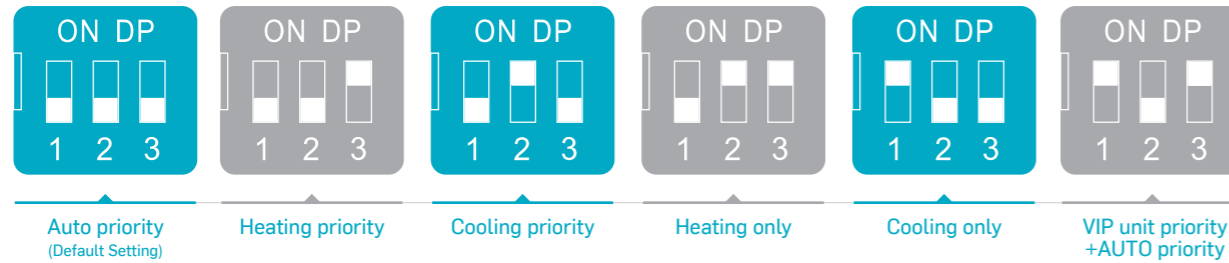
Service Window

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

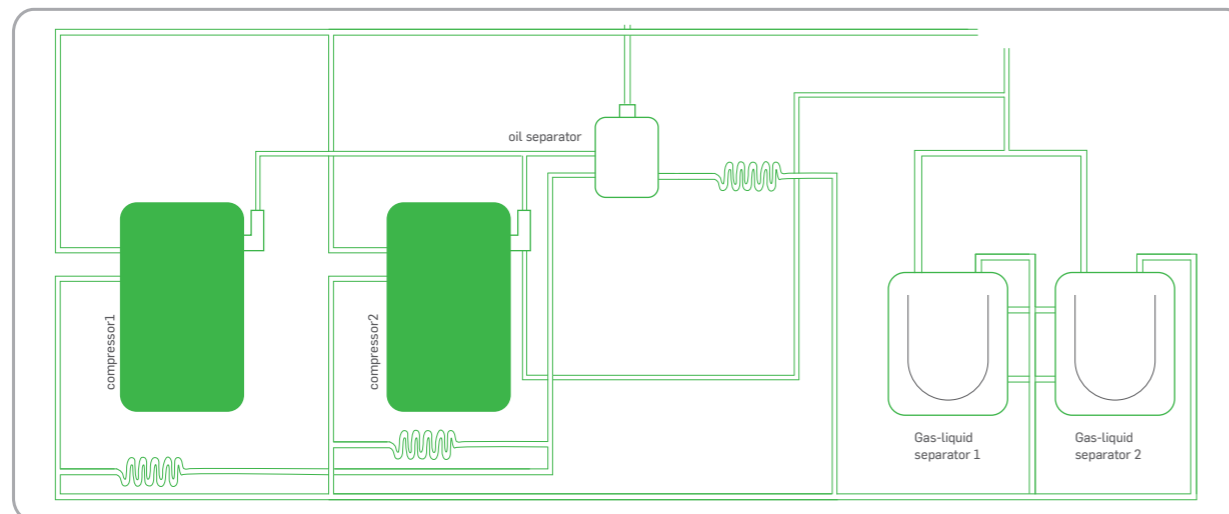
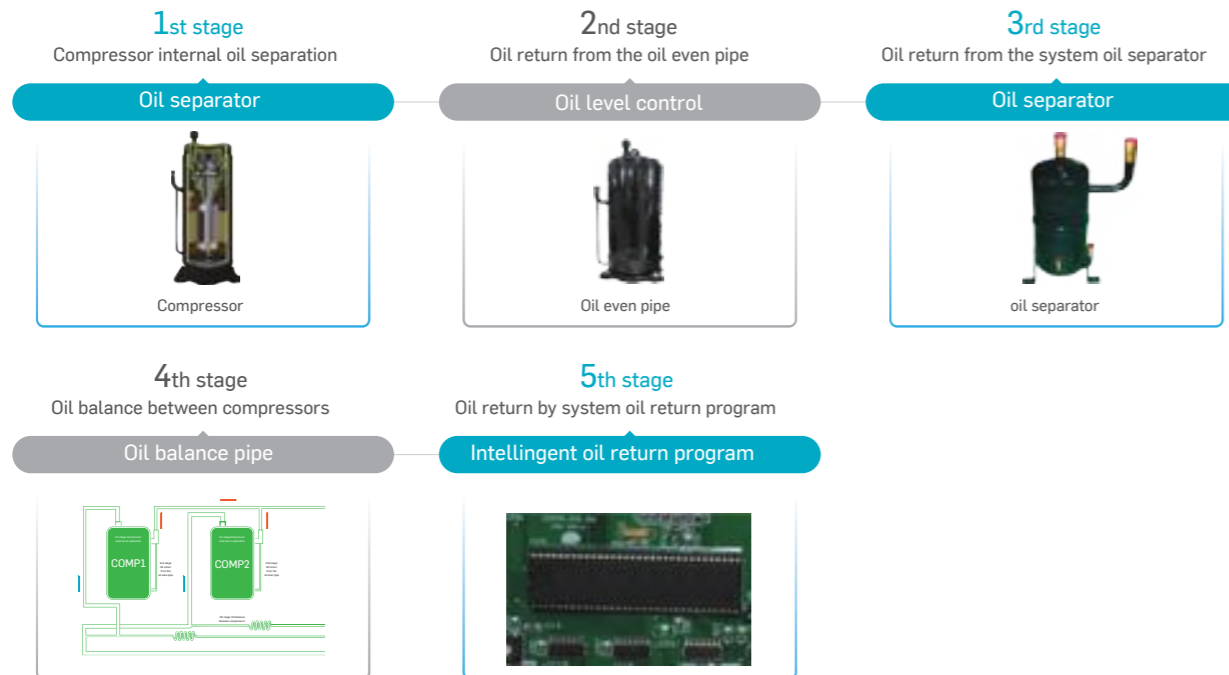


Mode Restriction

- 6 kinds of mode restriction
- Auto priority(Default Setting)
- Cooling(or heating)priority mode.
- Cooling only(or heating only)mode.
- VIP unit priority+AUTO priority mode
- Mode restriction function can be selected on the outdoor PCB.



5-Stage Oil Control

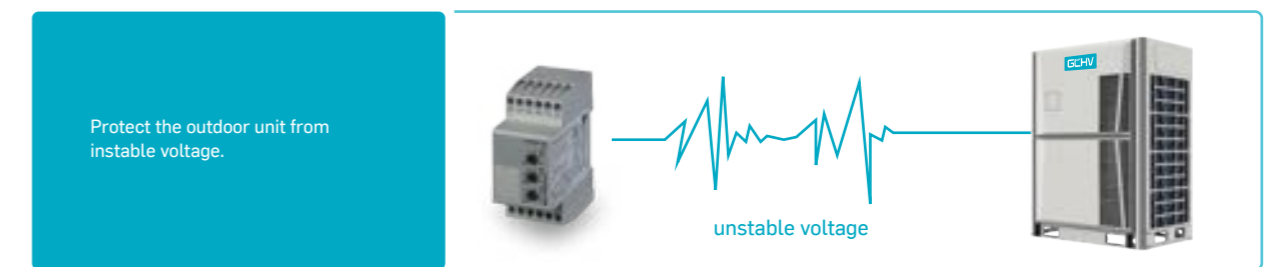


Humanized Internal Structure

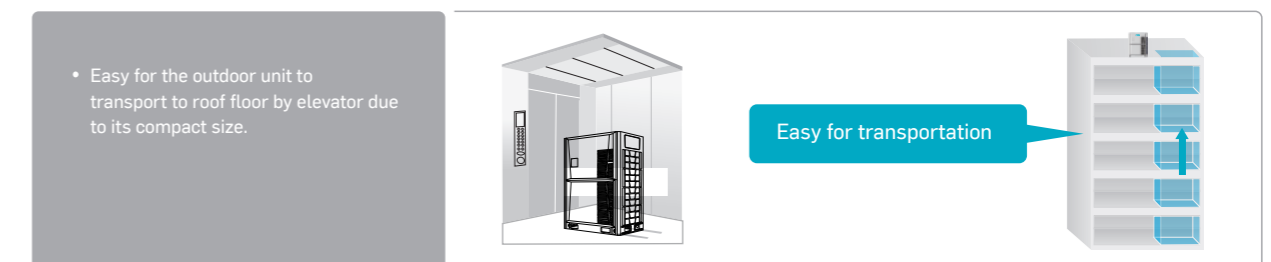


- All key components are designed to close to outside, it is convenient for repair and replacement.
- Thanks to the new balance technology, gas balance pipe does no longer exist, brazing points and leaking risk are decreased.

3-Phase Power Protector(Optional)



Easy Installation



360° Pipe Connection



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				
Performance Data			50%~130%				
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
	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			50%~130%				
Compressor	Quantity		1				
	Type		Scroll Compressor				
	Brand		HITACHI				
Physical Data			50%~130%				
Refrigerant	Type		R410a				
	Volume	Kg	9	11	14		
	Throttle type		EXV				
Dimension (WxHxD)	Net	mm	990x1740x840		1340x1740x840		
	Packing	mm	1060x1900x910		1410x1900x910		
Weight	Net	Kg	228	230	275		
	Gross	Kg	240	242	293		
Outdoor sound level		dB(A)	58	60	60	61	
Max. operating range		Mpa	4.5				
Piping Data			50%~130%				
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 (Actual 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			50%~130%				
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		

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
380-415V/3N/50&60Hz							
50%~130%							
18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
50.0	56.0	61.5	67.0	73.0	78.5	85.0	90.0
170600	191000	209800	228600	249100	267800	290000	307100
14.2	16.0	17.5	19.1	20.8	22.3	24.2	25.6
23.29	26.10	29.06	29.09	32.59	36.13	40.36	44.73
12.22	14.66	16.62	16.71	18.18	20.03	22.37	24.79
4.09	3.82	3.70	4.01	4.02	3.92	3.80	3.63
56.0	63.0	69.0	75.0	81.5	87.5	95.0	100.0
191000	214900	235400	255900	278100	298600	324100	341200
16.0	18.0	19.7	21.3	23.2	24.9	27.0	28.4
22.61	25.70	28.40	28.65	30.28	33.38	38.52	43.90
11.89	14.16	16.80	14.72	16.78	18.50	21.35	24.33
4.71	4.45	4.11	5.10	4.86	4.73	4.45	4.11
22.0	24.4	25.0	26.2	30.1	30.7	35.8	37.7
37.4	41.1	42.1	43.2	50.8	51.8	60.4	63.6
50%~130%							
1				2			
Scroll Compressor				Scroll Compressor			
HITACHI				HITACHI			
R410a							
15	16	20	23				
EXV							
1340x1740x840				1990x1740x840			
1410x1900x910				2060x1900x910			
285	290	297	388	433	480		
303	308	315	406	452	498		
62	63	62	62	63	64		
4.5							
Φ15.88				Φ22.2			
Φ28.6				Φ35.0			
1000				1000			
200				200			
240				240			
40/90				40/90			
100				100			
110				110			
40				40			
0				0			
-5~55				-5~55			
16~32				16~32			
-25~30				-25~30			
16~32				16~32			

Note

- Cooling operating temperature range is from -5°C to 55°C (It can be customized down to -10°C). Heating operating temperature range from -25°C to 30°C.
- The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F) WB outdoor side 35°C(95°F) DB.
- The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F) WB outdoor side 7°C(42.8°F) DB.
- 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.
- The above data may be changed without notice for future improvement on quality and performance.



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	
	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			
	Throttle type	EXV						
Dimension (WxHxD)	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 (Actual 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
Performance Data						
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	3.85	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%						
Compressor Data						
2						
Rotary Compressor						
Mitsubishi						
Physical Data						
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						
Piping Data						
Φ15.88						
Φ28.6						
1000						
200						
240						
40/90						
100						
110						
40						
0						
Operation Temperature Range						
-5-55						
16-32						
-15-30						
16-32						

- Note**
- 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.
 - The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB.
 - The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB.
 - 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.
 - The above data may be changed without notice for future improvement on quality and performance.

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					

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

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	
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							
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	249100	273038	290000	
14.2	16.0	17.5	19.1	20.8	22.8	24.2	
15.10	17.60	20.36	20.81	23.10	25.97	29.11	
3.31	3.18	3.02	3.22	3.16	3.08	2.92	
18.74	25.90	27.80	29.50	32.00	32.00	36.50	
32.0	46.6	47.5	51.0	53.0	53.0	63.0	
50%~130%							
Compressor Data							
1						2	
DC /Twin-rotary							
Mitsubishi							
10~120							
Physical Data							
R410a							
12.5	16.5	18.0	20.0	25.0			
840x1740x1340			840x1740x1990				
910x1900x1410			910x1900x2060				
260	298	306	358	410			
278	316	324	376	428			
62	63	65	66	67			
4.5							
Piping & Wiring Data							
Φ15.9		Φ22.2					
Φ28.6		Φ35					
1000							
200							
240							
90							
100							
110							
40							
0							
Operation Temperature Range							
-5~55							
16~32							



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			
Performance Data			50%-130%			
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
Heating	Capacity	EER	4.77	4.48	4.26	4.29
		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			50%-130%			
Compressor	Quantity		1			
	Type		DC /Scroll			
	Brand		Mitsubishi			
Physical Data			50%-130%			
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			50%-130%			
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			50%-130%			
Cooling	Outdoor side	°C	-5~55			
	Indoor side	°C	17~32			
Heating	Outdoor side	°C	-15~30			
	Indoor side	°C	15~30			

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

GCHV-D450W/HXR1			GCHV-D500W/HXR1			GCHV-D560W/HXR1			GCHV-D615W/HXR1		
Power Supply			208~230V/3N/60Hz			208~230V/3N/60Hz			208~230V/3N/60Hz		
Performance Data			50%-130%			50%-130%			50%-130%		
Cooling	Capacity	HP	16HP	18HP	20HP	22HP					
		kW	45.0	50.0	56.0	61.5					
		Btu/h	153500	169000	191000	209800					
		RT	12.8	14.1	16	17.5					
	Power input	kW	11.12	12.68	15.32	17.62					
Heating	Capacity	EER	4.05	3.94	3.66	3.49					
		kW	50	56	63	69					
		Btu/h	170600	191000	214900	235400					
	RT	14.2	16	18	19.7						
	Power input	kW	10.59	12.54	14.88	17.52					
EER	W/W	4.72	4.47	4.23	3.94						
Capacity adjustment range			50%-130%			50%-130%			50%-130%		
Compressor Data			50%-130%			50%-130%			50%-130%		
Compressor	Quantity		1			2					
	Type		DC /Scroll			DC /Scroll					
	Brand		Mitsubishi			Mitsubishi					
Physical Data			50%-130%			50%-130%			50%-130%		
Refrigerant type/volume		kg	R410A/16		R410A/20						
Dimension (DxHxW)	Net	mm	840x1740x1340		840x1740x1340						
	Packing	mm	910x1900x1410		910x1900x1410						
Weight	Net	kg	275		325						
	Gross	kg	290		340						
Outdoor sound level		dB(A)	71		72						
Maximum operating pressure		MPa	4.5								
Piping Data			50%-130%			50%-130%					
Pipe size	Liquid pipe	mm	Ø15.9		Ø15.9						
	Gas pipe	mm	Ø28.6		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			50%-130%			50%-130%					
Cooling	Outdoor side	°C	-5~55								
	Indoor side	°C	17~32								
Heating	Outdoor side	°C	-15~30								
	Indoor side	°C	15~30								

Model Name			GCHV-D252W/CXR1-DK01	GCHV-D280W/CXR1-DK01	GCHV-D335W/CXR1-DK01	GCHV-D400W/CXR1-DM01
Power Supply			208~230V/3N/60Hz			
Performance Data			50%~130%			
Cooling	Capacity	HP	8HP	10HP	12HP	14HP
		kW	25.2	28.0	33.5	40.0
		Btu/h	86000	95500	114000	136500
		RT	7.2	8.0	9.5	11.4
	Power input	kW	5.82	6.81	9.05	10.47
	EER	W/W	4.33	4.11	3.70	3.82
Rated. input consumption		kW	13.50	14.10	14.20	16.90
Rated. current		A	40.0	42.0	45.0	50.0
Capacity adjustment range			50%~130%			
Compressor Data			50%~130%			
DC Inverter compressor	Quantity		1			
	Type		DC /Twin-rotary			
	Brand		Mitsubishi			
	Frequency range	rps	10-120			
Physical Data			50%~130%			
Refrigerant	Type		R410a			
	Volume	Kg	8		12	
Dimension (DxHxW)	Net	mm	840x1740x990		840x1740x1340	
	Packing	mm	910x1900x1060		910x1900x1410	
Weight	Net	Kg	208		260	
	Gross	Kg	218		278	
Outdoor sound level		dB(A)	58		60	
Maximum operating pressure		MPa	4.5			
Piping & Wiring Data			50%~130%			
Pipe size	Liquid pipe	mm	Φ12.7		Φ15.9	
	Gas pipe	mm	Φ25.4		Φ31.8	
Max. pipe length	Total pipe length	m	1000			
	From OU to farthest IU(Actual length)	m	190			
	From OU to farthest IU (Equivalent length)	m	220			
	From 1st indoor distributor to farthest IU	m	90			
Max. Vertical length	Between OU & IU (OU above IU)	m	90			
	Between OU & IU (OU below IU)	m	110			
	Between IUs	m	30			
	Between Ous	m	0			
Operation Temperature Range			50%~130%			
Cooling	Outdoor side	℃	-5~50			
	Indoor side	℃	16~32			

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

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		
Performance Data			50%~130%			50%~130%			50%~130%			50%~130%		
Cooling	Capacity	HP	16HP	18HP	20HP	22HP	24HP							
		kW	45.0	50.0	56.0	61.5	67.0							
		Btu/h	153500	170600	191000	209800	228600							
		RT	12.8	14.2	16.0	17.5	19.0							
	Power input	kW	12.13	14.62	17.13	19.84	22.11							
	EER	W/W	3.71	3.42	3.27	3.10	3.03							
Rated. input consumption		kW	17.30	24.00	26.50	27.00	27.00							
Rated. current		A	53.0	70.0	78.0	80.0	80.0							
Capacity adjustment range			50%~130%			50%~130%			50%~130%			50%~130%		
Compressor Data			50%~130%			50%~130%			50%~130%			50%~130%		
DC Inverter compressor	Quantity		1			2								
	Type		DC /Twin-rotary			DC /Twin-rotary								
	Brand		Mitsubishi			Mitsubishi								
	Frequency range	rps	10-120			10-120								
Physical Data			50%~130%			50%~130%			50%~130%			50%~130%		
Refrigerant	Type		R410a			R410a								
	Volume	Kg	12		13		14		14		15			
Dimension (DxHxW)	Net	mm	840x1740x1340			840x1740x1340								
	Packing	mm	910x1900x1410			910x1900x1410								
Weight	Net	Kg	260		288		296		296		306			
	Gross	Kg	278		306		314		314		324			
Outdoor sound level		dB(A)	61		62		63		63		63			
Maximum operating pressure		MPa	4.5			4.5			4.5			4.5		
Piping & Wiring Data			50%~130%			50%~130%			50%~130%			50%~130%		
Pipe size	Liquid pipe	mm	Φ15.9			Φ15.9								
	Gas pipe	mm	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			50%~130%			50%~130%			50%~130%			50%~130%		
Cooling	Outdoor side	℃	-5~50			-5~50								
	Indoor side	℃	16~32			16~32								

HR Mini VRF

Heat Recovery Mini VRF system



8/10/12.5/14 kW

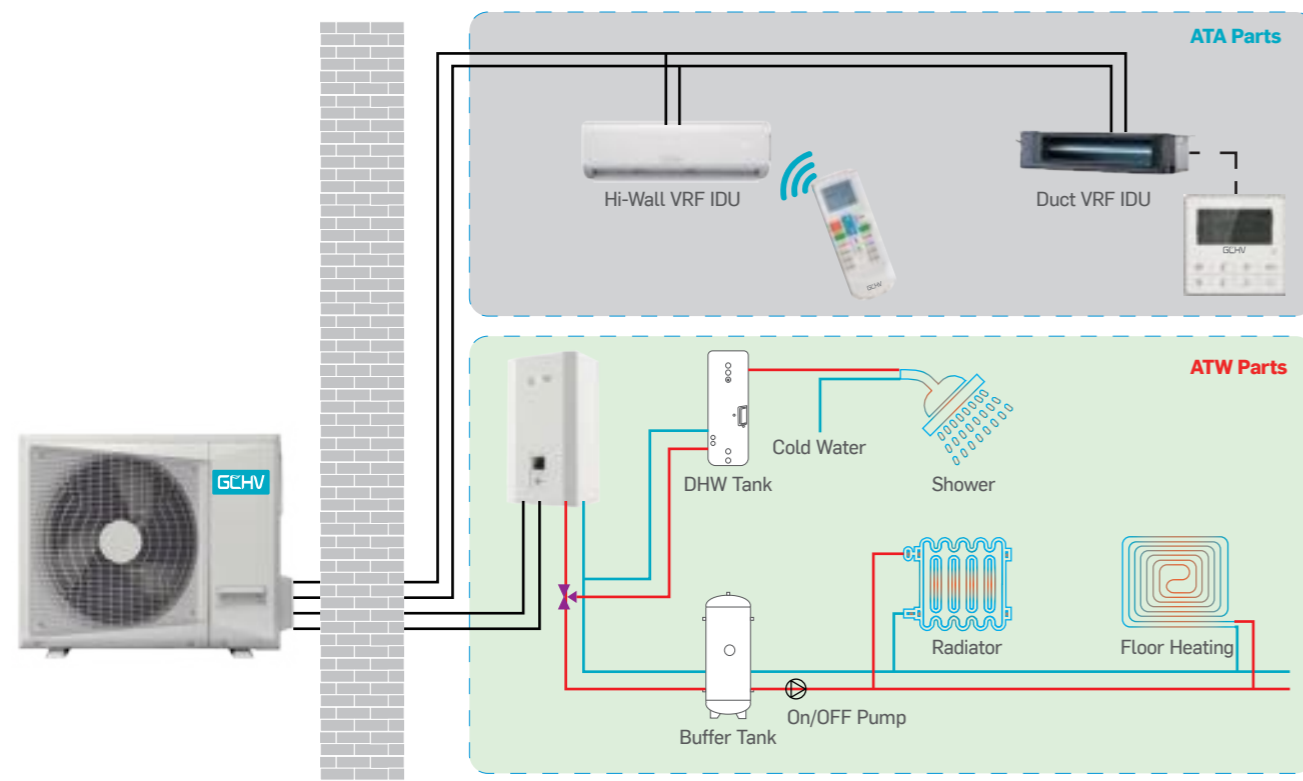


Hydro kit

Features

Concept of HR Mini VRF

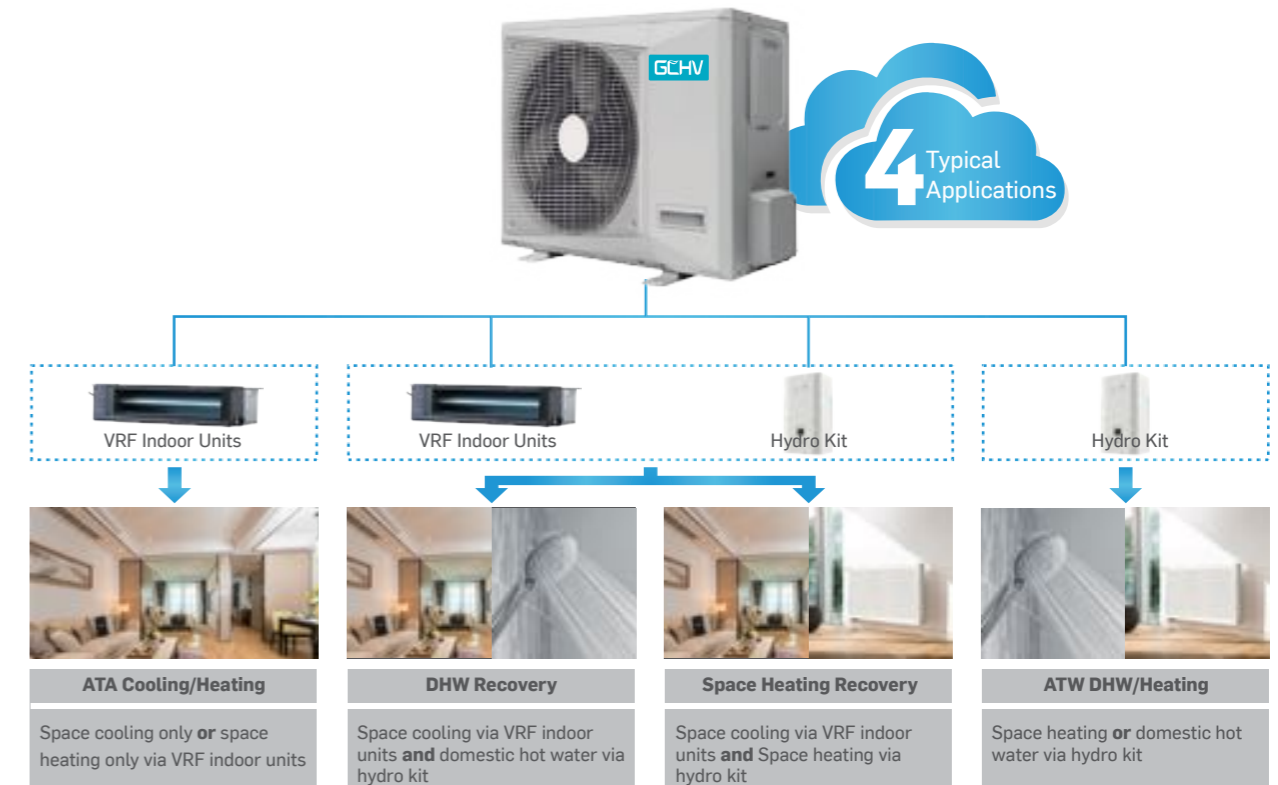
The heat recovery Mini VRF system is an integrated solution for space cooling and heating through the combination of ATA & ATW applications. It can be connected to a regular VRF indoor unit for cooling, or to a hydronic kit to produce hot water for floor heating and radiators, or to provide DHW for showers.



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



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

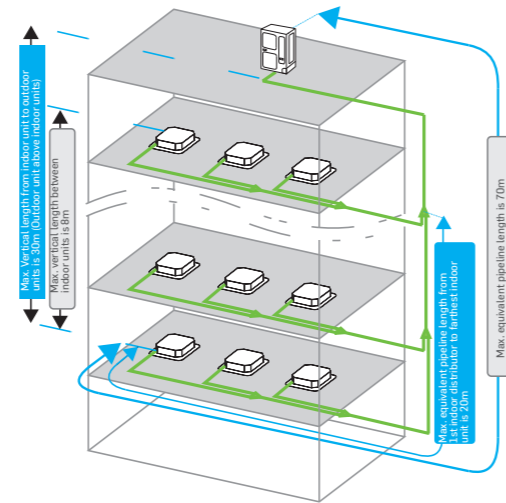


- **Touch Wired Controller**
Touch wired controller, easy and friendly to operate.
- **Inverter Water Pump**
Multi-speed to adjust the water flow rate according to capacity demand.
- **Electrical Heater**
3kw electrical heater, provide additional heat in case of low ambient temp. to promise the heating 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

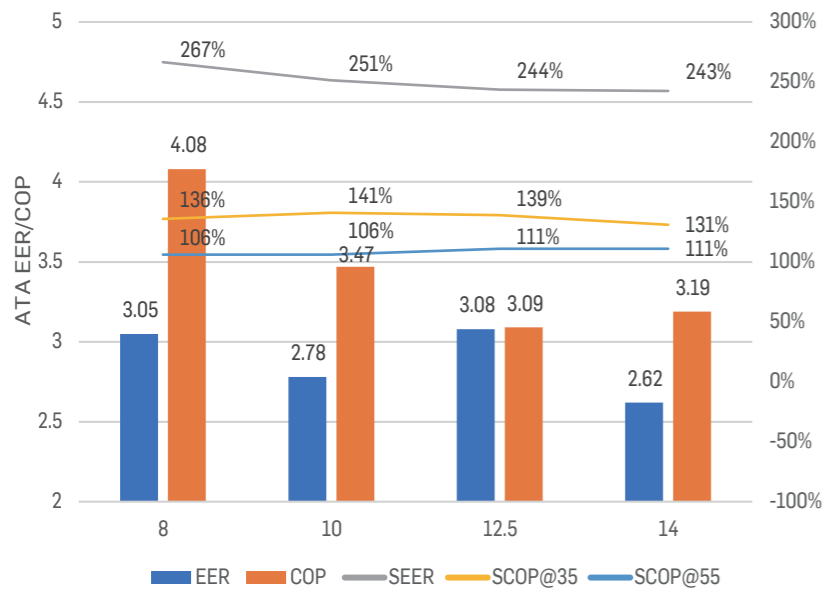
The total pipe length	100m
The longest pipe length	Actual length 60m Equivalent length 70m
Equivalent length from first indoor distributor to last indoor unit	20m
Height difference between indoor and outdoor unit:	Outdoor unit above: ≤30m Outdoor unit below: ≤20m
Height difference between indoor units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



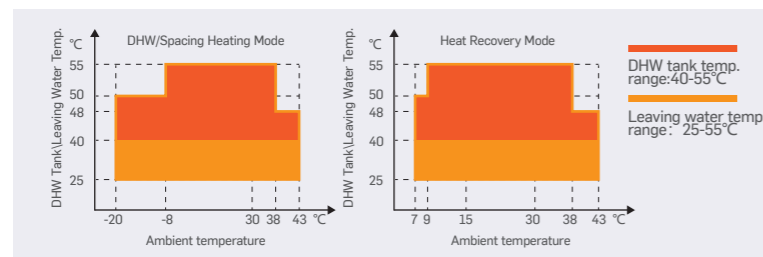
Brushless DC Motor
Brushless DC Motor to obtain the best air flow to make sure the heat exchange performance.



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

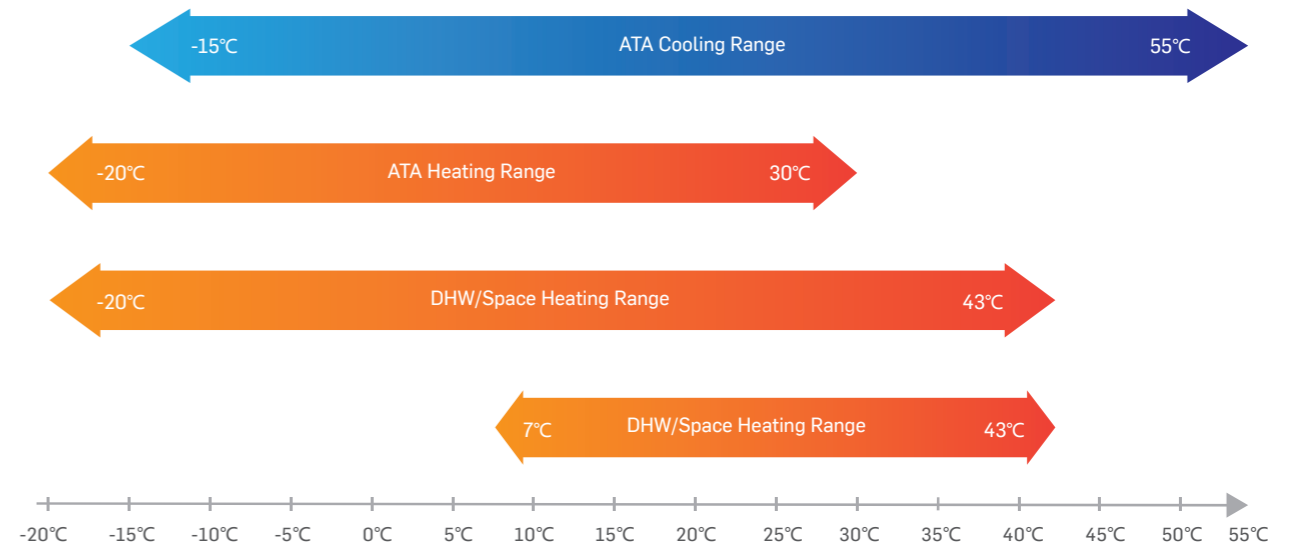
High Leaving Water Temperature

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 provides the hot water all year round and the leaving water temp. up to 55°C, it is very suitable for residential and light commercial projects.



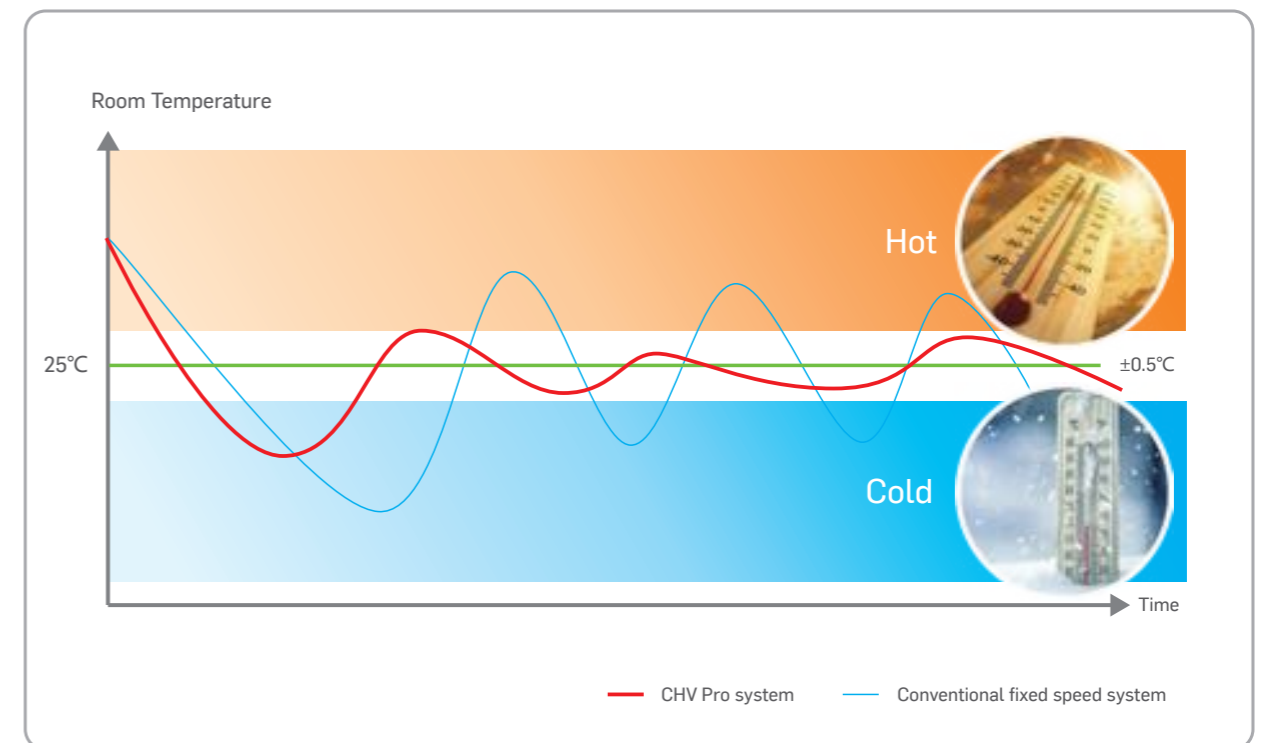
Wide Outdoor Operation Range

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



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°C, 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

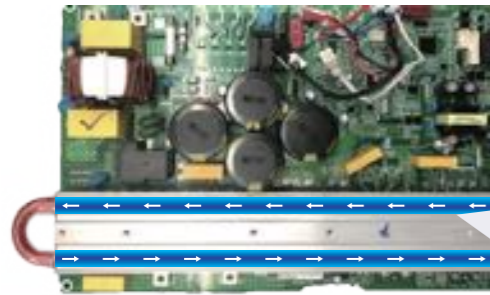
The address of indoor unit is allocated automatically by the system, no need to edit by dialing, which spares the hassle of manual setting one by one.



- 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

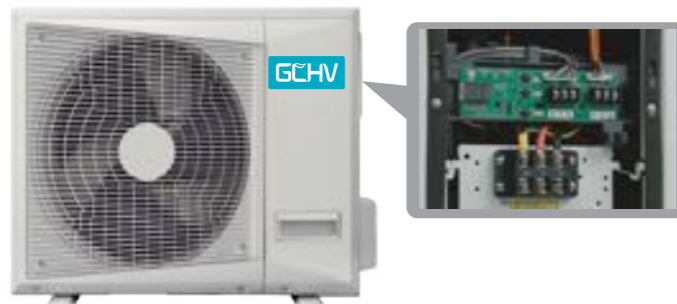
- Good performance with enhanced refrigerant cooling solution
- Intelligent refrigerant control technology to protect PCB
- Quick action speed to make the main PCB working at suitable temperature range
- High reliability



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	8.0	10.0	12.5	14.0	
	Power input	2.60	3.64	4.04	4.60	
	EER	3.07	2.78	3.09	3.02	
	Heating capacity	8.0	10.0	12.5	14.0	
	Power input	2.05	3.00	4.04	4.61	
	COP	4.08	3.47	3.09	3.04	
	SEER	6.74	6.36	6.17	6.14	
ATW capacity	SCOP	4.05	4.05	4.62	4.62	
	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/3.8kg	R410A/3.8kg	R410A/3.8kg
Fan Airflow		m³/h	5500	5500	5500	5500
	Net	mm	1100x528x870	1100x528x870	1100x528x870	1100x528x870
Dimensions	Packing	mm	1140x540x965	1140x540x965	1140x540x965	1140x540x965
	Net/Packing	kg	85/97	85/97	91/104	91/104
Weight	Sound pressure level	dB	57	57	59	59
	Sound power level	dB	67	67	69	69
	Max length for VRF IDU	m	<100	<100	<100	<100
Pipe dimensions	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		3.6	3.6	
Max. current input		17	17	
Sound power level		45	40	
Dimension (W×H×D)		490x910x340	490x910x340	
Packing (W×H×D)		620x1105x425	620x1105x425	
Net/gross weight		47/55	48/56	
	Piping connection(outlet/inlet)	mm	DN32/DN32	DN32/DN32
Water circuit	Safety valve	kPa	600	600
	Drainage pipe	mm	DN20	DN20
	Heat exchanger/volume	L	Plate type/0.658	Plate type/1.22
Expansion tank	Water pump/pump head	m	DC/9	DC/9
	Volume	L	2	2
	Max. water pressure	kPa	800	800
Refrigerant circuit	Pre pressure	kPa	150	150
	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

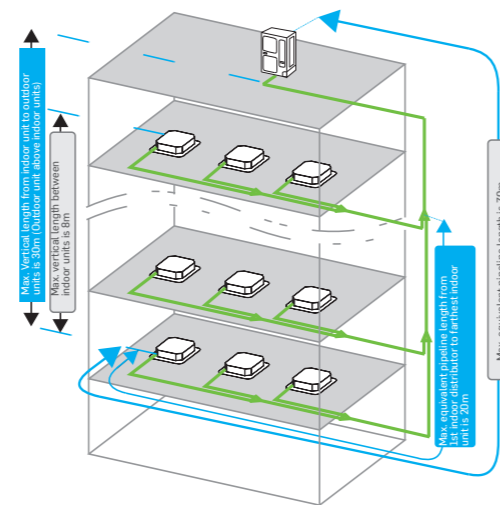


Features

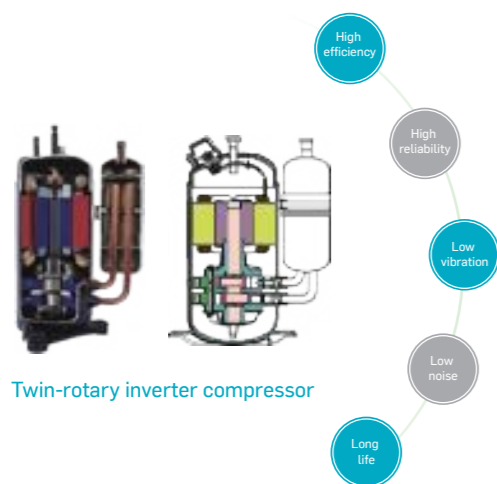
Long Refrigerant Piping

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 DC inverter compressor

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

High Efficiency, Low Noise

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

Environmental Protection

- Developed the compressor with alternative refrigerant which can protect environment.

Low Vibration

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

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

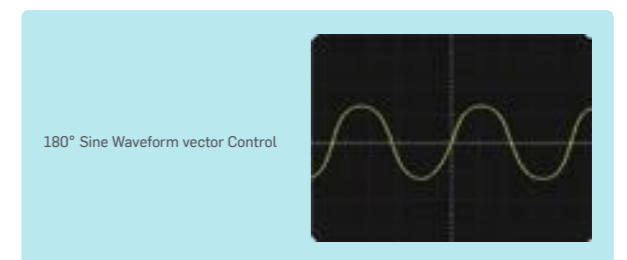
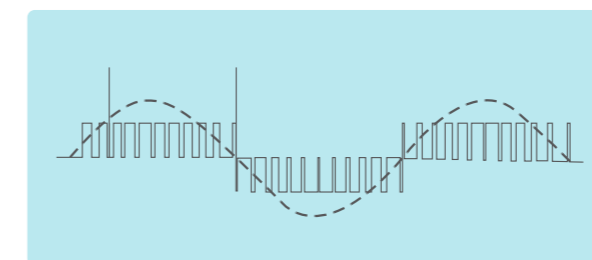
Space Saving Installation

- 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.

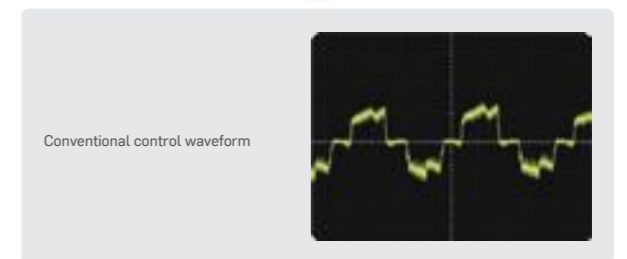


180° Sine Wave Control

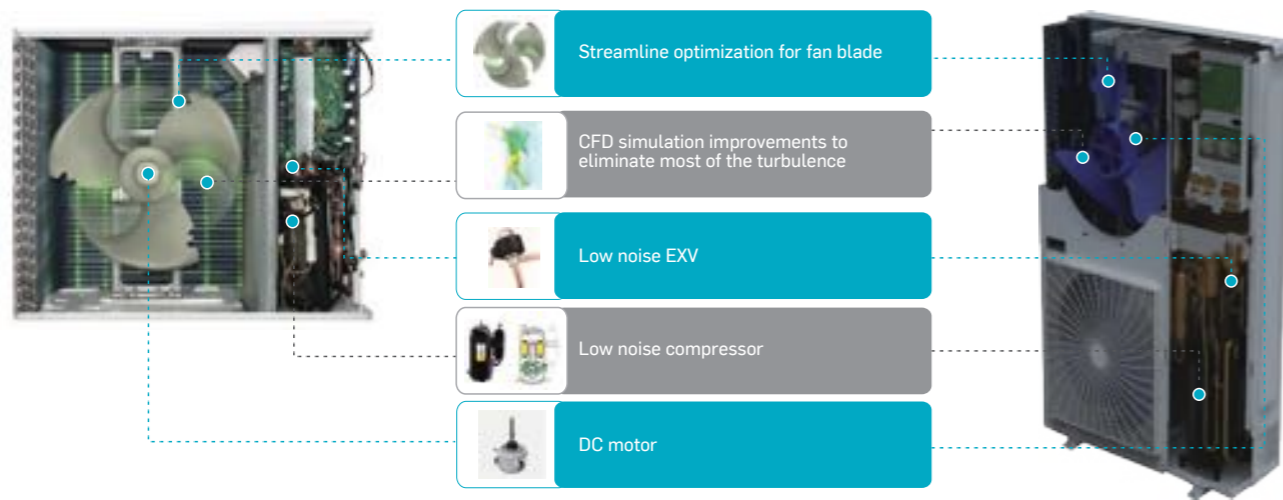
The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.



Increase efficiency by 12%

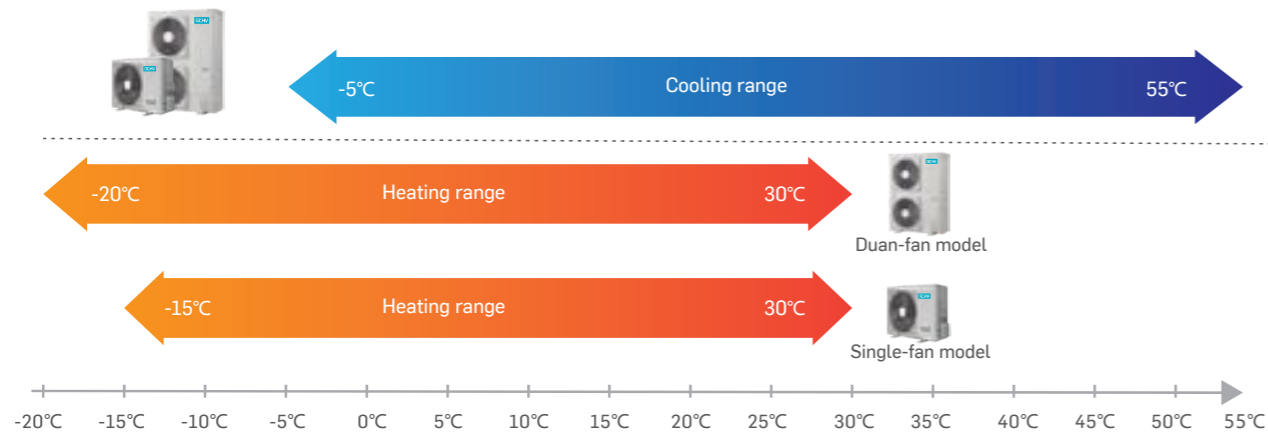


Low Noise



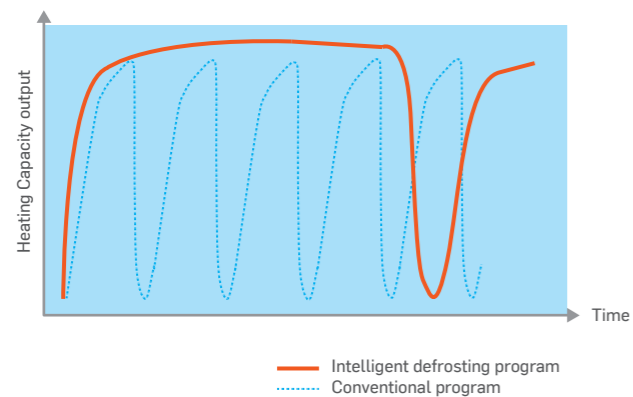
Wide Outdoor Operation Range

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



Intelligent Defrosting Program

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



Defrost curve

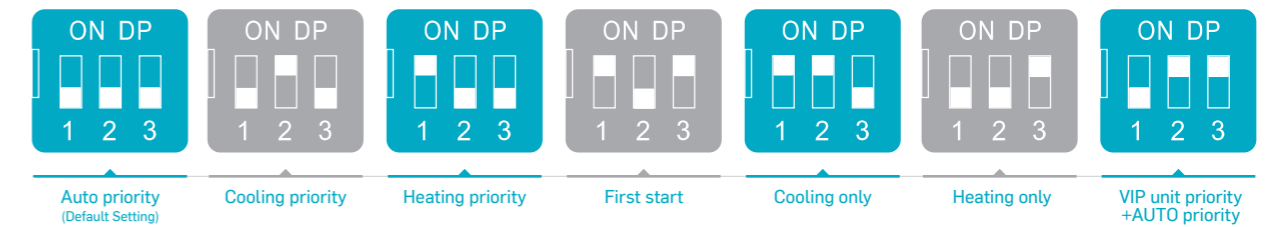
- Conventional unit's defrosting timing & duration is fixed.
- Intelligent defrosting program starts according to heat exchanging efficiency & capacity change due to the frost. Less temperature fluctuations, people feel more comfortable.

Fan Reversal Protection



Mode Restriction

- 7 kinds of mode restriction
 - Auto priority(Default Setting)
 - Cooling only mode
 - 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

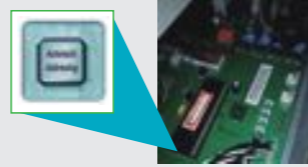
Refrigerant cooling technology for PCB

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

NEW TECHNOLOGY

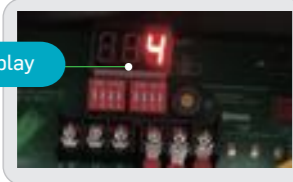
Automatically Addressing

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



Independent Display Board

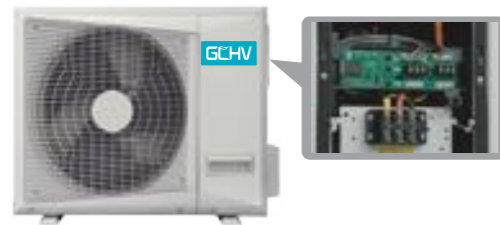
Digital display



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 Type	Compressor Qty	Motor Type	Motor Qty	Refrigerant	Refrigerant Volume (kg)	Sound pressure Level (dB(A))	Dimension (WxHxD)		Weight		Connecting		Max. Connected indoor units quantity
		Capacity (kW)	Capacity (Btu/h)	Power input (kW)	EER	Capacity (kW)	Capacity (Btu/h)								Power input (kW)	COP	Packing (mm)	Body (mm)	Net (kg)	Gross (kg)	
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	1010 x 1445 x 415	975 x 1335 x 400	86.6	96.4	Φ15.88	7
GCHV-D140W/HZR1-050D	380-415/3/50	14	47800	3.80	3.68	16	54000	3.97	4.03						3.8		8				
GCHV-D160W/HZR1-050D	380-415/3/50	16	54000	4.53	3.53	18	61000	4.61	3.91						3.8		9				
GCHV-D180W/HZR1-050D	380-415/3/50	18	61000	5.18	3.47	20	68000	5.02	3.98						4.2	10					
GCHV-D200W/HZR1-080	380-415/3/50	20	68200	5.92	3.38	22	75000	5.35	4.11						5.3	11					
GCHV-D224W/HZR1-080	380-415/3/50	22.4	76400	6.75	3.32	24	81800	5.62	4.27						5.3	13					
GCHV-D260W/HZR1-100	380-415/3/50	26	88700	7.54	3.45	28.5	97200	6.77	4.21						6.1	15					
GCHV-D280W/HZR1-100	380-415/3/50	28	95500	8.31	3.37	31.5	107500	8.18	3.85						8.0	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	19					

Note

- Cooling Operation Conditions: Indoor Air Inlet Temperature: 27°C DB / 19°C WB, T1: Outdoor Air Inlet Temperature: 35°C DB
- 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/HZR1-001	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/HZR1-001	CHV-DH140W/NR1	GCHV-D140W/HZR1-F01	CHV-DH160W/NR1	GCHV-D160W/HZR1-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		CHV-DH080W/R1	CHV-DH100W/R1	CHV-DH125W/R1	GCHV-D125W/HZR1-001	CHV-DH140W/R1	GCHV-D140W/HZR1-F01	CHV-DH160W/R1	GCHV-D160W/HZR1-F01
Cooling	Capacity	8	10	12.5	12.5	14	14	16	16
	Power input	2.60	3.00	3.20	3.20	3.75	3.75	4.75	4.75
	Rated current	11.8	13.6	14.5	6.0	17.0	7.0	21.8	8.8
	EER	3.08	3.33	3.91	3.91	3.73	3.73	3.37	3.37
Heating	Capacity	9	11	14	14	16	16	17	17
	Power input	30700	37500	47800	47800	54600	54600	58000	58000
	Rated current	2.65	3.1	3.52	3.52	4	4	4.4	4.4
	COP	12	14	16.1	6.6	18.2	7.5	20	8.2
Compressor data		Quantity		1	1	1	1	1	1
DC Inverter compressor		Type		Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
		Brand		Mitsubishi	GMCC	Mitsubishi	Highly	Mitsubishi	Mitsubishi
Fan data		Type		DC	DC	DC	DC	DC	DC
Fan motor		Quantity		1	1	1	1	1	1
		Power output (W)		75	90	180	90	180	170
Fan blade		Fan Quantity		1	1	1	1	1	1
		Air flow (m³/h)		3300	4000	5500	4000	5500	5500
Physical data		Fin type		Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil
Outdoor coil		Number of rows		3	2	2	2.5	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
Refrigerant		Type		R410a	R410a	R410a	R410a	R410a	R410a
		Volume (kg)		2.00	2.60	3.00	3.00	3.80	3.80
Dimension (WxHxD)		Net (mm)		935x702x383	1032x810x445	1100x870x528	1032x870x445	1100x870x528	1100x870x528
		Packing (mm)		975x770x420	1075x875x495	1140x965x540	1075x875x495	1140x965x540	1140x965x540
Weight		Net (kg)		47	60	85	67.4	90	90
		Gross (kg)		50	65	95	72.2	100	100
ODU sound level		dB(A)		≤54	≤56	≤56	≤56	≤57	≤57
Operation temp. range		Cooling Outdoor side (°C)		-5-55	-5-55	-5-55	-5-55	-5-55	-5-55
		Heating Outdoor side (°C)		-15-30	-15-30	-15-30	-15-30	-15-30	-15-30

Note

- The cooling conditions: indoor temp.: 27°C DB (80.6°F), 19°C WB (60°F), outdoor temp.: 35°C DB (95°F) equivalent pipe length: 5m drop length: 0m.
- The heating conditions: indoor temp.: 20°C DB (68°F), 15°C WB (44.6°F), outdoor temp.: 7°C DB (42.8°F) equivalent pipe length: 5m drop length: 0m.
- 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.
- 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

2-way Cassette



Features

Features

Accessories

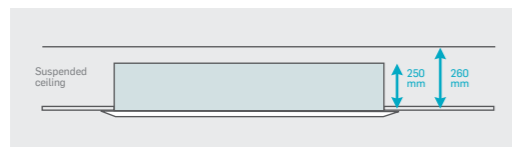
Accessories

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

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

✂ Slim body, easy to install

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



💧 Built-in with drainage pump

Built-in with low noise long life drainage pump, Pumping head is 700mm, flexible for drainage pipe design.



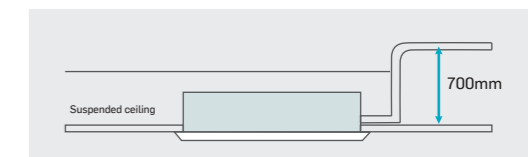
🌀 2 way air direction

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

Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling kW	Cooling kBTu/h	Heating kW	Heating kBTu/h		M ³ /h	CFM			Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm		
GCHV-V22CA/HR1-Q101	50Hz	2.2	7.5	2.5	8.5		520	306	32-36		1150	985	1090	1070			Φ9.53				
GCHV-V28CA/HR1-Q101	50Hz	2.8	9.5	3.2	10.9	0.04					275	250	65	50	24/3.6	28/5.0					
GCHV-V36CA/HR1-Q101	50Hz	3.6	12.2	4.0	13.6						645	513	540	520							
GCHV-V45CA/HR1-Q103	50Hz	4.5	15.3	5.0	17.0	0.05	610	360	36-41	/	1460	1295	1405	1380			Φ12.7	Φ6.35	ODΦ25	Remote controller	
GCHV-V56CA/HR1-Q103	50Hz	5.6	19.1	6.3	21.4	0.07	750	440	35-41		305	290	70	50	35.5/5	40/7					
GCHV-V71CA/HR1-Q103	50Hz	7.1	24.2	8.0	27.2	0.09	950	550	38-45		680	553	575	560			Φ15.9	Φ9.53			

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

Notes:

- Power supply: 220-240V/1N for 50Hz, the above data is for AC motor model.
- Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.
- 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.
- The above data may be changed without notice for future improvement on quality and performance.

Notes:

- Power supply: 220-240V/1N for 50Hz, the above data is for AC motor model.
- Cooling test condition: indoor side 27°C DB, 19°CWB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.
- 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.
- 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

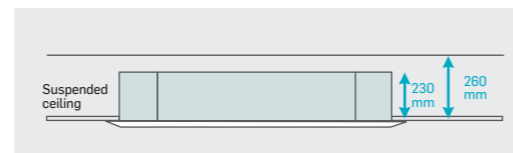
Wide air delivering

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



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

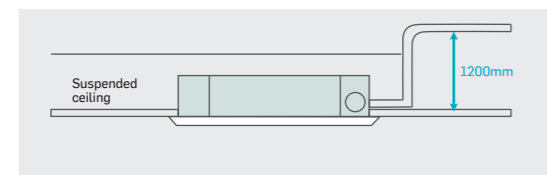
Four interfaces to connect with duct to another room. Fresh air intake, aims to provide more healthy and comfortable indoor environment.



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.



Specification

4-way Cassette Unit(Compact type)

Model name	Power type	Capacity				Power input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling		Heating			M ³ /h	CFM			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		
CMV-V22Q4/HR1-C	50Hz					0.038	447	263	22-34						17.5	23					
CMV-V22Q4/HR1-C	60Hz	2.2	7.5	2.5	8.5	0.038	447	263	22-34								Φ9.52				
CMV-V28Q4/HR1-C	50Hz					0.038	447	263	22-34												
CMV-V28Q4/HR1-C	60Hz	2.8	9.5	3.2	10.9	0.038	447	263	22-34		755	653	750	650	17.5	23					
CMV-V36Q4/HR1-C	50Hz					0.040	515	303	27-38		375	267	95	30			Φ6.35		ODΦ25		Remote controller
CMV-V36Q4/HR1-C	60Hz	3.6	12.2	4.0	13.6	0.040	515	303	27-38		x 680	x 585	x 750	x 650	17.5	23					
CMV-V45Q4/HR1-C	50Hz					0.040	515	303	27-38												
CMV-V45Q4/HR1-C	60Hz	4.5	15.3	5.0	17	0.040	515	303	27-38						17.5	23	Φ12.7				

Round-flow Cassette

Model name	Power type	Capacity				Power input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling		Heating			M ³ /h	CFM			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		
CMV-V56QR/HR1	50Hz	5.6	19.1	6.3	21.4	0.043	860	500	32-39						24	30	Φ12.7	Φ6.35			
CMV-V56QR/HR1	60Hz										920	833									
CMV-V71QR/HR1	50Hz										x 265	x 232			24	30					
CMV-V71QR/HR1	60Hz	7.1	24.2	8.0	27.2	0.093	1200	700	35-39		x 985	x 900									
CMV-V80QR/HR1	50Hz														24	30					
CMV-V80QR/HR1	60Hz	8.0	27.2	8.8	30																
CMV-V90QR/HR1	50Hz														28.5	35					
CMV-V90QR/HR1	60Hz	9.0	30.7	10.0	34.1																
CMV-V100QR/HR1	50Hz														28.5	35					
CMV-V100QR/HR1	60Hz	10.0	34.1	11.0	37.5																
CMV-V112QR/HR1	50Hz														28.5	35					
CMV-V112QR/HR1	60Hz	11.2	38.2	12.5	42.6	0.160	1400	820	37-41		920	833	1030	950			Φ15.88	Φ9.52	Φ25		Remote controller
CMV-V125QR/HR1	50Hz										x 310	x 286									
CMV-V125QR/HR1	60Hz	12.5	42.6	14.0	47.7						x 985	x 900									
CMV-V140QR/HR1	50Hz														28.5	35					
CMV-V140QR/HR1	60Hz	14.0	47.7	15.0	51.1																
CMV-V160QR/HR1	50Hz														28.5	35					
CMV-V160QR/HR1	60Hz	16.0	54.5	17.0	58		1800	1050	38-46												

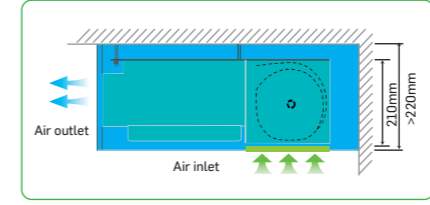
Notes:

- 1.Power supply: 220-240V/1N for 50Hz; 208-230V/1N for 60Hz, the above data is for AC motor model.
- 2.Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C 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.



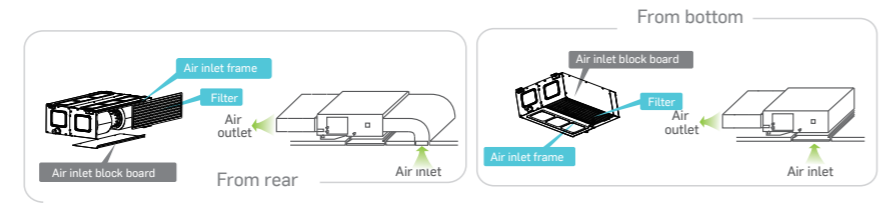
Features

Accessories

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

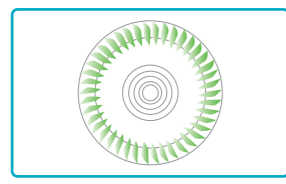
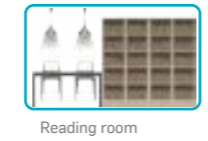
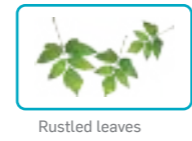
Flexible installation

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

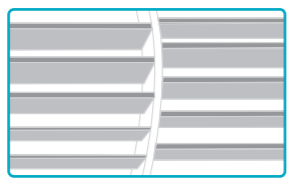


Big air flow low noise centrifugal fan wheel

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.



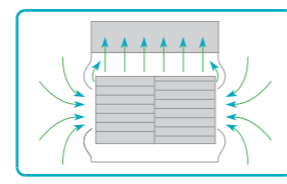
Special resin material fan wheel.



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.



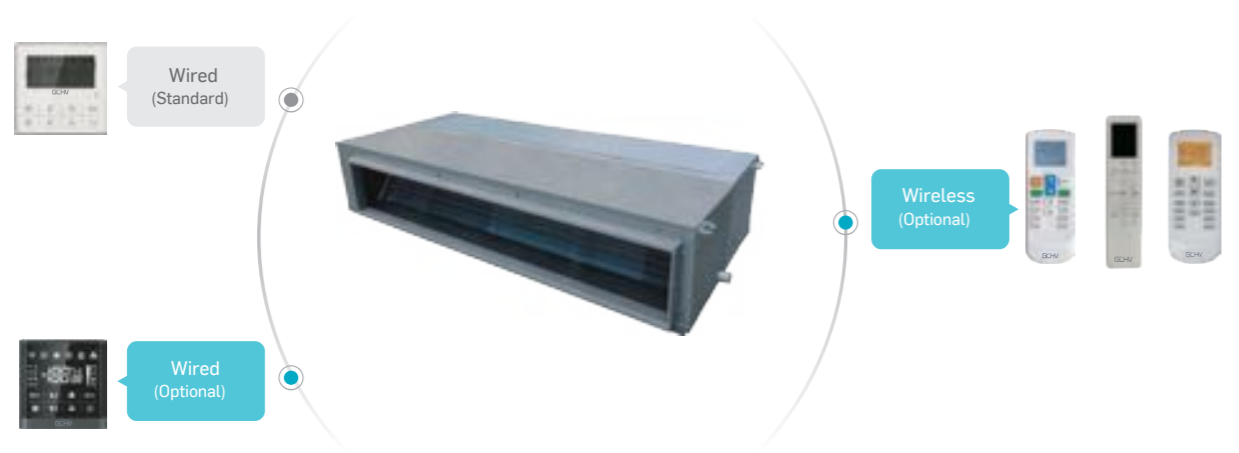
Air inlet of fan wheel casing is arch curved design; it can reduce air flow's disturbance, make if flow smoother to reduce noise.

Specification

Model name	Power type	Capacity				Rated input	Air flow	Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller				
		Cooling kW	Heating kW	Cooling kBTu/h	Heating kBTu/h					Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm					
CMV-V22TA/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.08	450	260	24-29	910 x 240 x 510	814 x 210 x 467	/	/	17.5	20.0	Φ9.52							
CMV-V22TA/HNR1-C	60Hz																						
CMV-V28TA/HR1-C	50Hz	2.8	9.5	3.2	10.9	0.11	550	324	25-32									17.5	20.0	Φ6.35			
CMV-V28TA/HNR1-C	60Hz																						
CMV-V36TA/HR1-C	50Hz	3.6	12.2	4.0	13.6	0.16	620	360	32-37									18.0	20.5	Φ12.7			
CMV-V36TA/HNR1-C	60Hz																						
CMV-V45TA/HR1-C	50Hz	4.5	15.3	5.0	17	0.16	800	520	28-38					1110 x 240 x 510	1010 x 210 x 467			18.0	20.5	Φ12.7			
CMV-V45TA/HNR1-C	60Hz																						
CMV-V56TA/HR1-C	50Hz	5.6	19.1	6.3	21.4	0.18	1000	640	30-39									21.5	24.5				
CMV-V56TA/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 467			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°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.
 3. Sound level: measured at a point 1 m in front of the unit 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



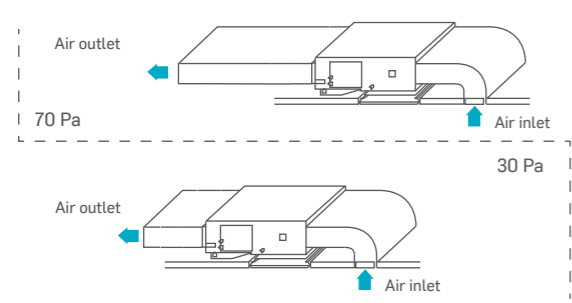
Features

Accessories

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

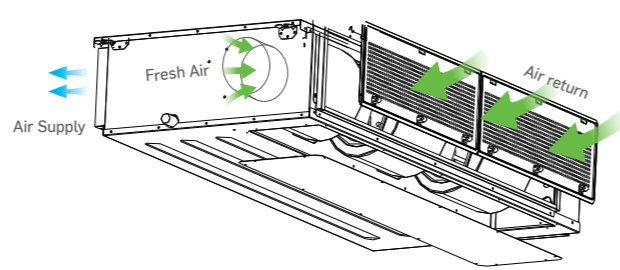
Static pressure

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



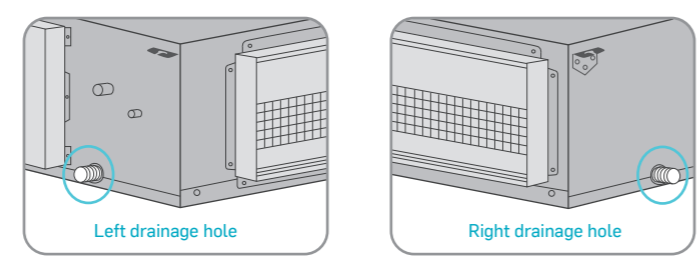
Fresh air intake

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



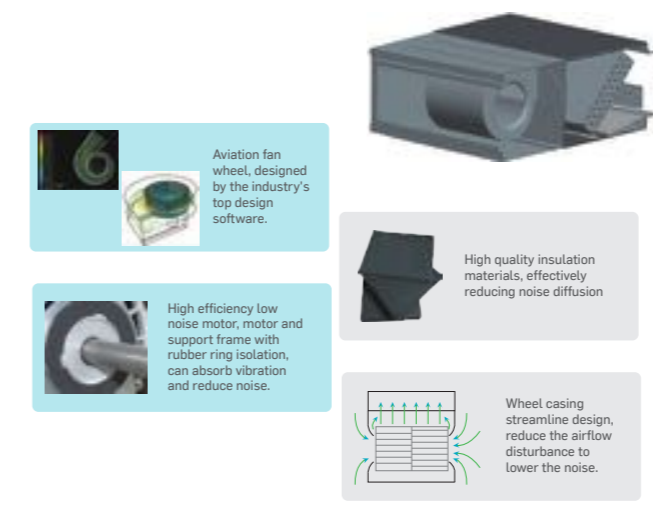
Convenient in drainage pipe installation

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



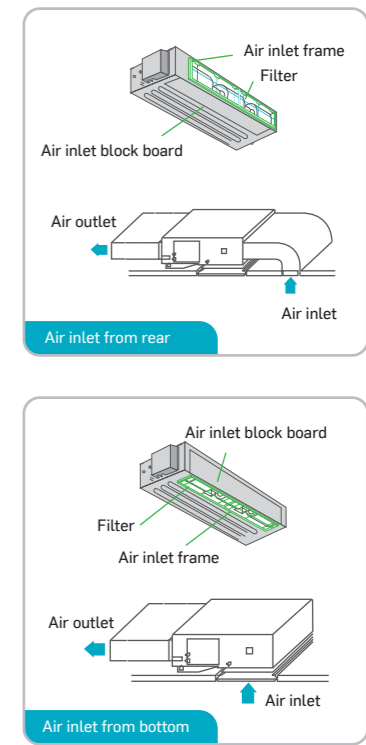
Low noise design

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.



Two air return installation methods

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



DC fan motor is optional

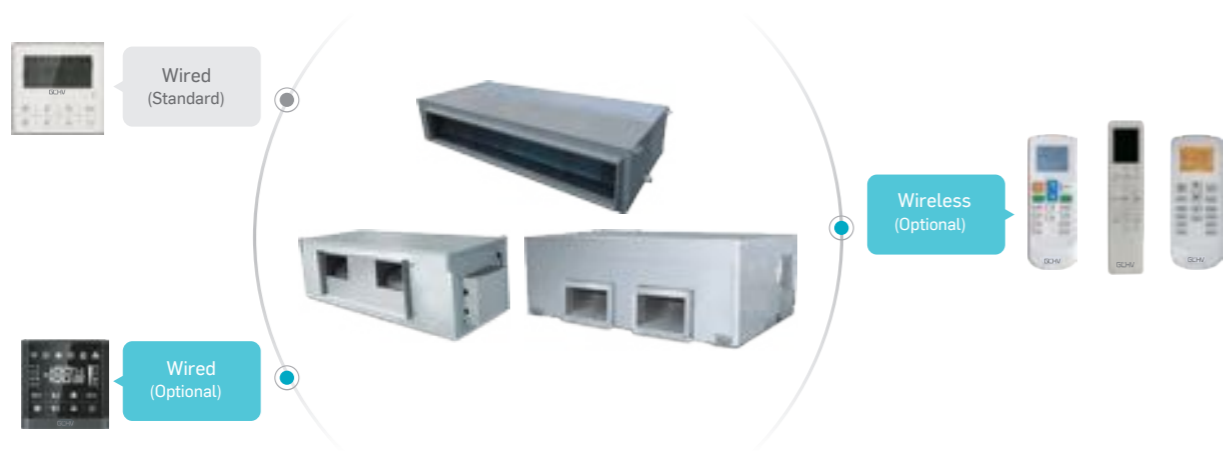
The power consumption of DC fan motor can be reduced greatly in comparison to corresponding AC type.

Specification

Model name	Power type	Capacity				Rated input	Air flow	Sound Level	ESP	Dimension (WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling kW	Cooling kBtu/h	Heating kW	Heating kBtu/h					Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain 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	0.40	1850	1080	38-43	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V80TB/HNR1-B	60Hz																			
CMV-V90TB/HR1-B	50Hz	9.0	30.7	10.0	34.1	0.40	2000	1170	40-44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V90TB/HNR1-B	60Hz																			
CMV-V100TB/HR1-B	50Hz	10.0	34.1	11.0	37.5	0.40	2000	1170	40-44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V100TB/HNR1-B	60Hz																			
CMV-V120TB/HR1-B	50Hz	12.0	40.9	13.0	44.3	0.40	2000	1170	40-44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	Φ15.88	Φ9.52	ODΦ25	Wired controller
CMV-V120TB/HNR1-B	60Hz																			
CMV-V150TB/HR1-B	50Hz	15.0	51.1	17.0	58	0.40	2000	1170	40-44	70	1490 x 325 x 720	1445 x 260 x 680	/	/	46	50	Φ15.88	Φ9.52	ODΦ25	Wired controller
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°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.
 3. Sound level: measured at a point 1 m in front of the unit 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



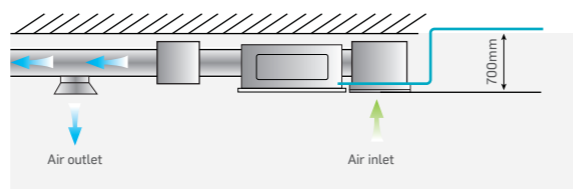
Features

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

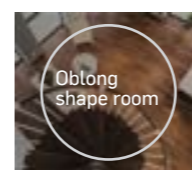


Rectangular diffuser

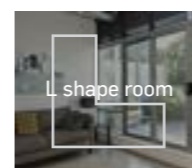
Used with various diffusers, meet for different kinds of decoration.

High static pressure

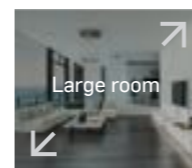
Big air flow with high static pressure, easy for large rooms duct design. Suitable for different shape of rooms.



Oblong shape room



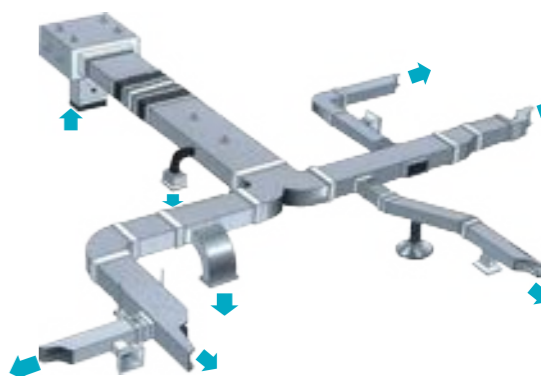
L shape room



Large room



High static pressure ducted unit



Long distance multi-point air supply

Specification

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

Notes:

- Power supply: 220-240V/1N for 50Hz; 208-230V/1N for 60Hz.
- Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.
- 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.
- 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

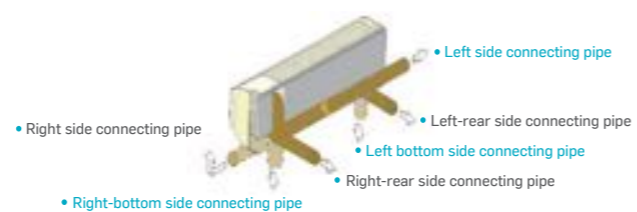
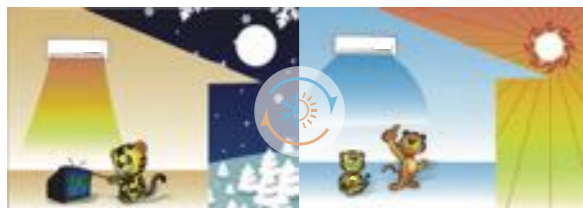
Simple, elegant, stylish, mirror design, suitable for all kinds of decoration style.

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			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			440/380/360/350	440/380/360/350	500/440/415/380	655/610/565/525	720/645/590/560	890/805/720/645
Sound Pressure level			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			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)			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°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB,15°C WB outdoor side 7°C DB.

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

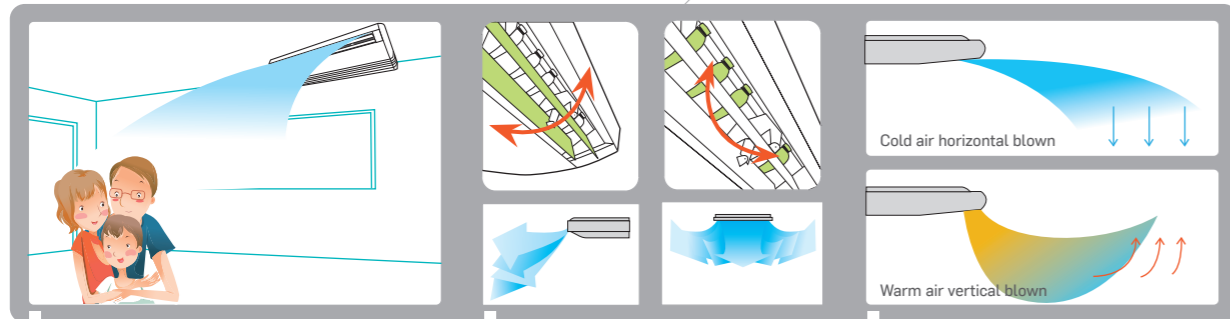
Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Optional	Standard	Optional

Flexible installation

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



Wide angle air supply

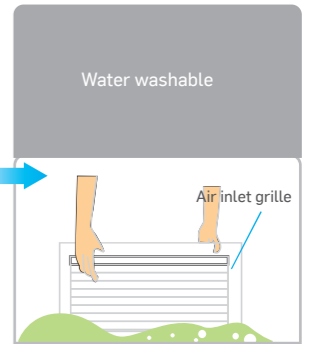
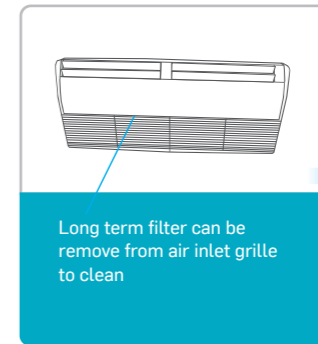
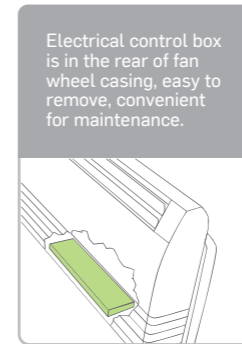
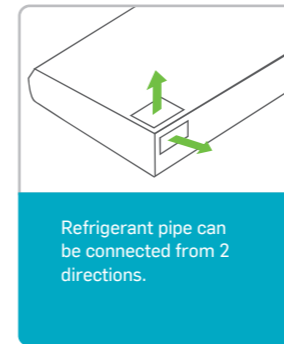


Configured with low noise high performance centrifugal fans, has big air flow and long distance air supply.

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 installation



Two kinds of grilles for selection



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	M ³ /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	0.110	800	470	37-47	1380 x 765 x 325	1300 x 675 x 235	32.0	37.0	Φ15.88	Φ8.52	DN20	
GCHV-V45UA/HNR1-LDBA	60Hz																
GCHV-V56UA/HR1-LDBA	50Hz	5.6	19.1	6.3	21.4	0.095	1200	706	45-51	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
GCHV-V56UA/HNR1-LDBA	60Hz																
GCHV-V71UA/HR1-LDBB	50Hz	7.1	24.2	8.0	27.2	0.160	1600	940	45-50	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
GCHV-V71UA/HNR1-LDBB	60Hz																
GCHV-V80UA/HR1-LDBB	50Hz	8.0	27.2	8.8	30	0.200	2000	1177	45-54	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
GCHV-V80UA/HNR1-LDBB	60Hz																
GCHV-V90UA/HR1-LDBC	50Hz	9.0	30.7	10.0	34.1	0.200	2000	1177	45-54	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
GCHV-V90UA/HNR1-LDBC	60Hz																
GCHV-V112UA/HR1-LDBC	50Hz	11.2	38.2	12.5	42.6	0.200	2000	1177	45-54	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
GCHV-V112UA/HNR1-LDBC	60Hz																
GCHV-V140UA/HR1-LDBC	50Hz	14.0	47.7	15.0	51.1	0.200	2000	1177	45-54	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
GCHV-V140UA/HNR1-LDBC	60Hz																
GCHV-V160UA/HR1-LDBC	50Hz	16.0	54.5	17.0	58	0.200	2000	1177	45-54	1750 x 765 x 325	1670 x 675 x 235	41.0	47.0	Φ15.88	Φ8.52	DN20	
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°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.

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

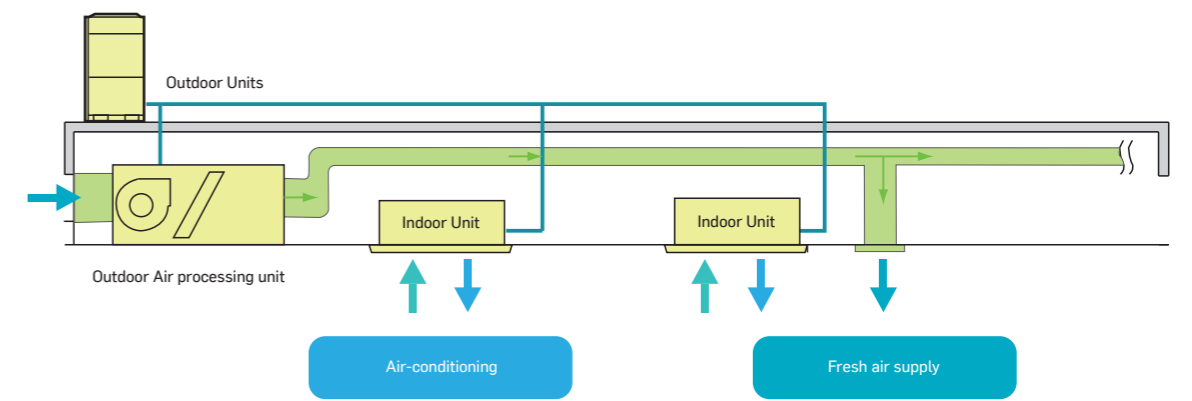
4.The above data may be changed without notice for future improvement on quality and performance.

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

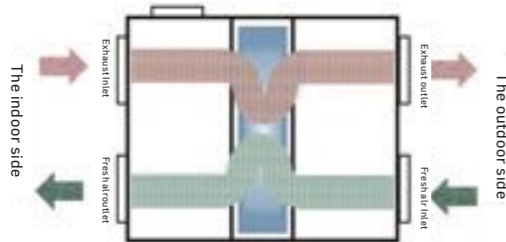
Model name	Power type	Capacity		Power input	Air flow	Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller			
		Cooling	Heating					Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain				
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
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	
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	Wired controller
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°C DB, 28°C WB. Heating test condition: Indoor and outdoor side 0°CDB, -2.9°C 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.



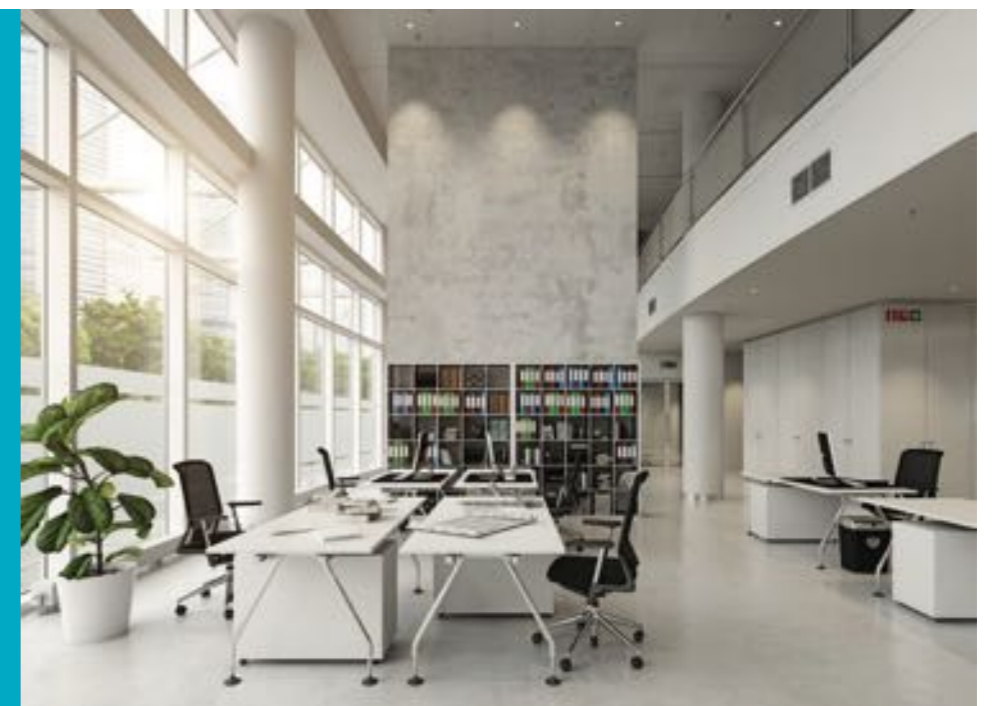
Specification

Suspended type specification

Model name	Air flow M ³ /h	ESP Pa	Power input W	Power supply (V)	Temperature exchanging efficiency(%)		Enthalpy exchanging efficiency(%)		Noise dB(A)	Body dimension (WxDxH) mm	Weight kg
					Cooling	Heating	Cooling	Heating			
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°C DB, 19.5, WB; outdoor fresh air 35°C DB, 28°C;
2.Heating test condition: indoor side 21°C DB, 13, WB outdoor fresh air 5°C DB, 2°C;
3.The above data may be changed without notice for future improvement on quality and performance.

Heat Recovery Ventilator



Air Handler Unit



Features

- Insulated cabinet**
 Galvanized steel with paint on all panels. Thermal insulator cover all inside panels to reduce heat and cooling losses and prevent condensed water accumulation.
- Motor & Blower**
 Direct drive motors, 3-speed, provide selections of air flow to meet desired applications. Φ10" big fan, powerful wind.
- Coil**
 "A" shape coils, constructed with copper tubing and enhanced aluminum fins.
- Filter optional**
 Detachable air filter for cleaning or renewal.
- Multi-position installation**
 Versatile 4-way convertible design for vertical up airflow, horizontal right airflow.

Specification

Model name	Power type	Capacity				Power input	Air flow	Sound Level	ESP	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller	
		Cooling kW	Cooling kBTu/h	Heating kW	Heating kBTu/h					Body mm	Packing mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain 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°C DB, 19°C WB, outdoor side 35°C DB. Heating test condition: Indoor side 20°C DB, 15°C WB, Outdoor side 7°C DB;
 3. Sound level: measured at a point 1 m in front of the unit 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

- Indoor unit operation state
- Indoor unit control order

- 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

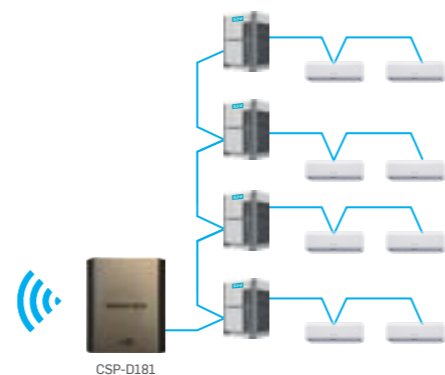
- Available on iOS and Android



- Remote control via cloud server



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



Touch Screen Centralized Controller

CSP-D145

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

CHV-NET(Centralized Control System)

BMS/BAS System

Gateways

Router

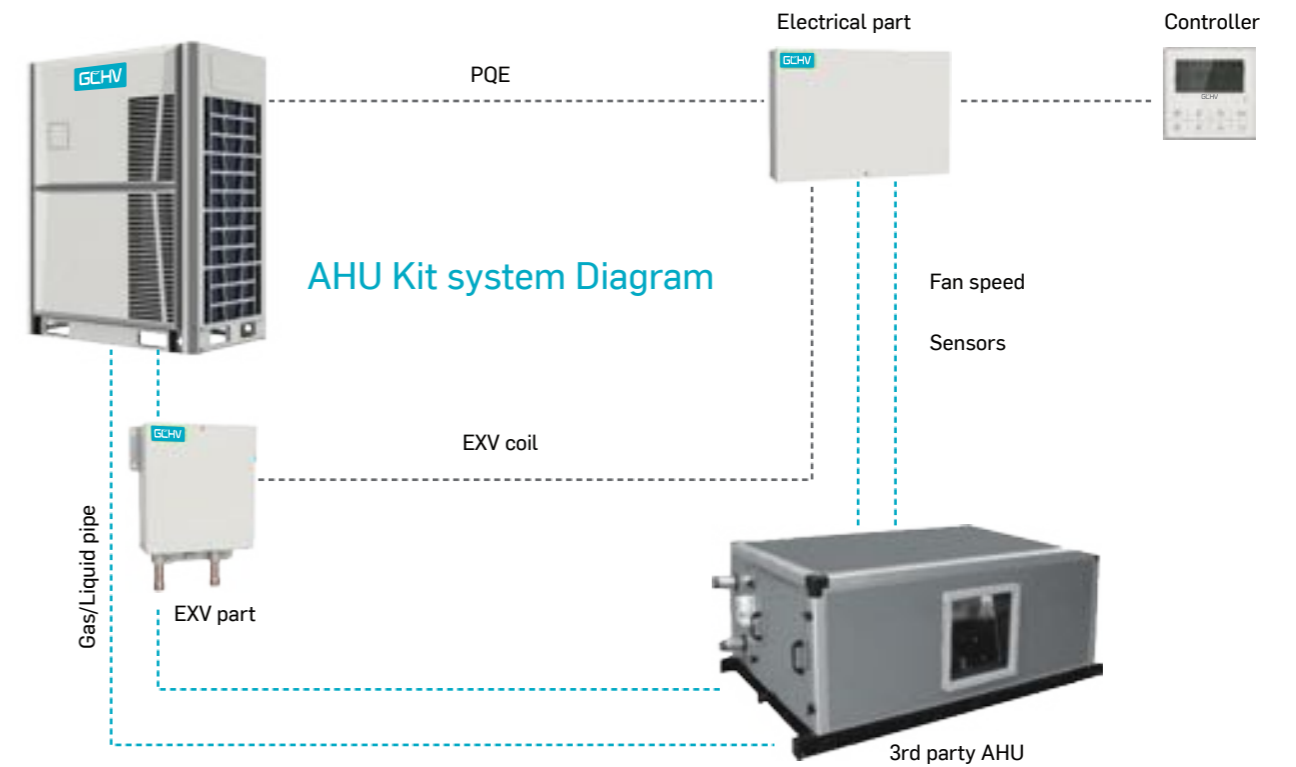
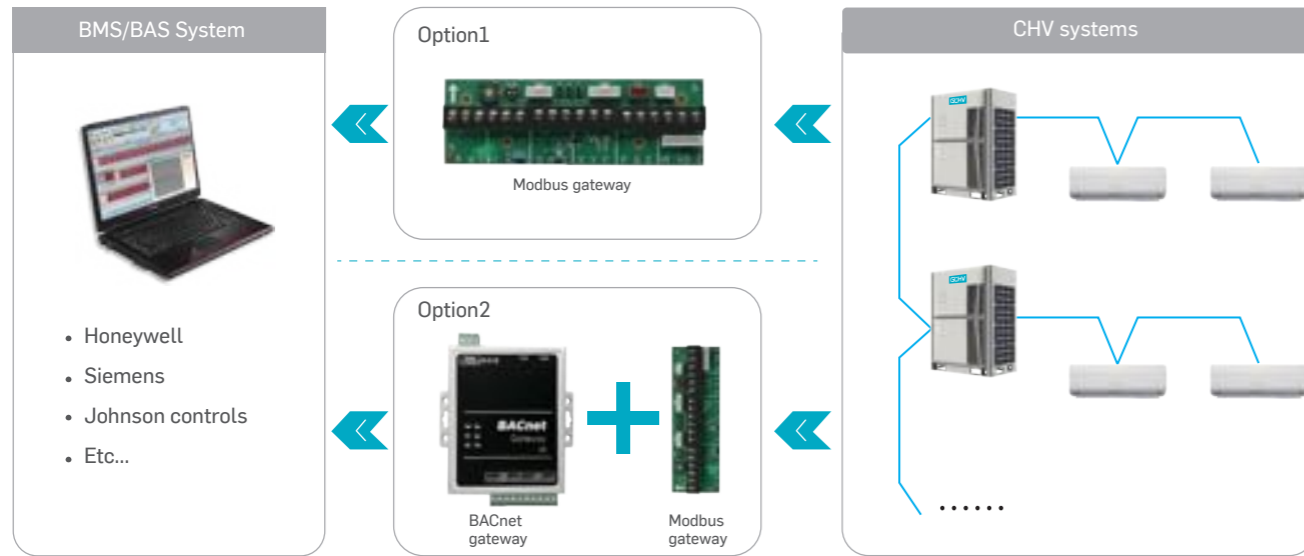
Controller

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

CHV Pro VRF systems

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	EXV part	Sensors & wires	Controller
<ul style="list-style-type: none"> PCB Power terminals Communication terminals 	<ul style="list-style-type: none"> Outlet pipe Inlet pipe EXV 	<ul style="list-style-type: none"> T1 sensor and wire T2 sensor and wire T2B sensor and wire Controller wire 	

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.

<p>Piping diagram</p>	<p>Wiring diagram</p>
<p>Controller selection</p>	<p>Report</p>