2002

Develop intelligent VRF system,enter VRF market.

2004

Successfully developed intelligent inverter VRF system.

2009

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

2011

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

2013

Full DC inverter CMV- X was successful developed;

VRF Development History

2020

CHV-Pro got Eurovent certification in 2020

2019

Launched New generation CHV-Pro VRF series.

2018

Launched CMV-X' Full DC inverter EVI VRF system.

2017

CMV-X got EUROVENT certification in 2017. Become 2018 Russia World Cup HVAC equipment supplier.

2016

Launched CMV-R heat recovery VRF system.

2015

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

How To Read The Model Name

outdoor unit

CMV - V 280 W / Z R1 - B

- CMV/CHV:GCHV VRF system
- Inverter code
  V:Inverter D:Full DC Inverter
  VH:Side dicharge oudoor unit
  VT:T3 Inverter
  R:Heat Recovery DC Inverter
- Capacity(*100W)
- Outdoor unit
- Power supply
  Z:380-415V/3PH/50Hz
  Y:380-415V/3PH/60HZ
  X:208-230V/3PH/60HZ
- Refrigerant type R1:R410a
- Design code B:2nd generation

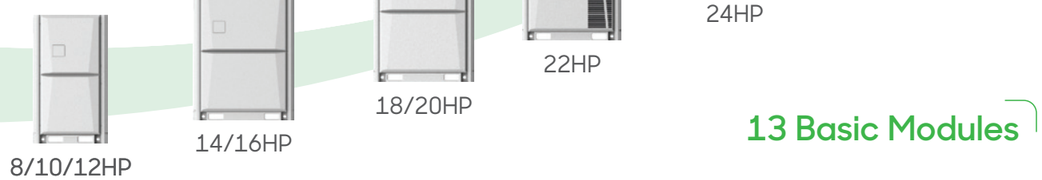
Indoor unit

CMV - V 125 TB / H N R1

- CMV/CHV:GCHV VRF system
- Motor code
  V:AC Fan Motor
  D: DC Fan Motor
- Capacity(*100W)
- Indoor unit code
  Q:4-way cassette
  Q4:4-way cassette (compact type)
  G:Wall-mounted
  TA:Low ESP ducted
  TB:Medium ESP ducted
  TH:High ESP ducted
  LD:Floor ceiling
- Function code H:Heat pump
- Power supply
  Omit:220-240V/1PH/50Hz
  N:220-240V/1 PH/60Hz
- Refrigerant type R1:R410a

CHV Pro

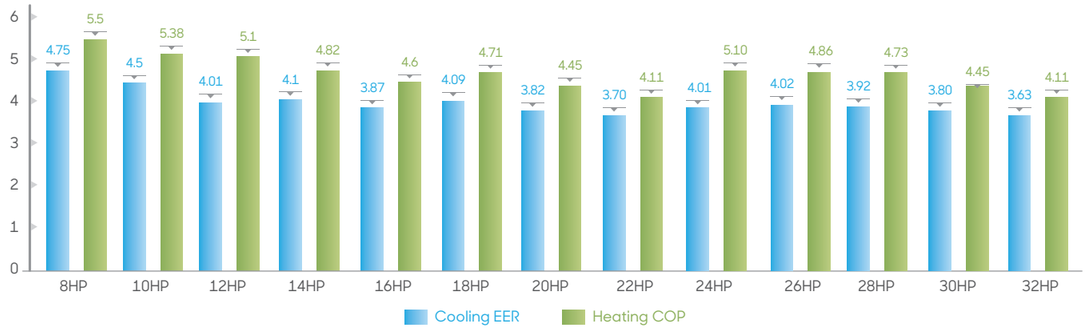
380~415V/3N/50Hz&60Hz
New Generation Full DC Inverter EVI VRF



13 Basic Modules

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

EER&COP

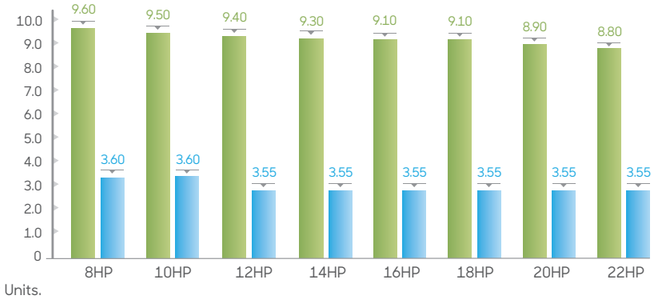


IPLV(C)

IPLV:Integrated Part Load Value(ARI 550/590)
(C):Cooling condition

The Integrated Part Load Value (IPLV) is a performance characteristic developed by the Air-Conditioning, Heating and Refrigeration institute (AHRI). It is most commonly used to describe the performance of a AC system capable of capacity modulation. Unlike an EER (Energy Efficiency Ratio) or COP (coefficient of performance), which describes the efficiency at full load conditions, the IPLV is derived from the equipment efficiency while operating at various capacities. Since a VRF system does not always run at l00% capacity, the EER or COP is not an ideal representation of the typical equipment performance. The IPLV is a very important value to consider since it can affect energy usage and operating costs throughout the lifetime of the equipment.

*Note:Due to space limited,here just list IPLV from 8HP-22HP Units.

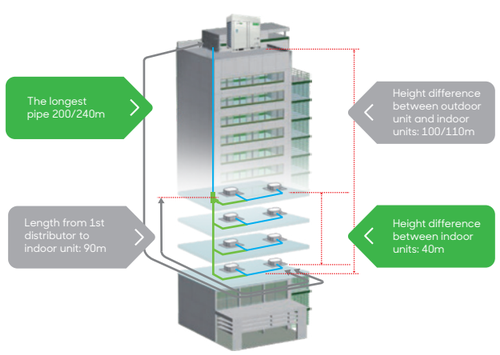


Combination Table

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											●		
30	83.5												●	
32	89.5													●
34	95					●	●							
36	101						●●							
38	106.5					●			●					
40	111.5						●		●					
42	117.5							●	●					
44	123								●●					
46	128.5								●	●				
48	134.5									●●				
50	140								●			●		
52	145									●		●		
54	151									●			●	
56	156.5									●				●
58	163						●●		●					
60	168					●			●●					
62	173						●		●●					
64	179							●	●●					
66	184.5								●●●	●				
68	190								●●	●●				
70	196								●	●●				
72	201.5								●●			●		
74	206.5						●					●●		
76	212.5									●●		●		
78	218								●			●●		
80	224.5									●		●●		
82	229.5										●	●●		
84	234.5											●●●		
86	240.5											●●	●	
88	246											●●		●
90	253										●			●●
92	258.5											●		●●
94	265												●	●●
96	270													●●●

Long Piping & Height Difference

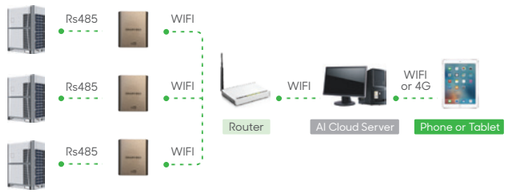
The total pipe length	1000 m
The longest pipe length	200 /240m
Height difference	Outdoor unit above <100m Outdoor unit below <110m
Height difference between indoor units	40m
Length from first indoor distributor to last indoor unit	90 m
Communication wire length	can be up to 1000m.



Features

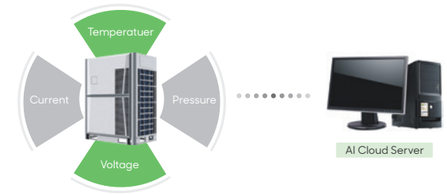
Long Distance Remote Control

Long distance remote control by phone or tablet.



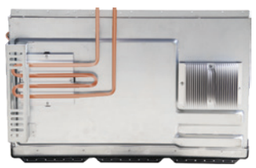
Malfunction Forecasting

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



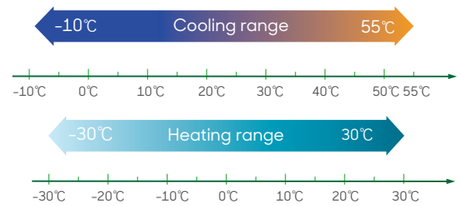
Refrigerant Cooling Design

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



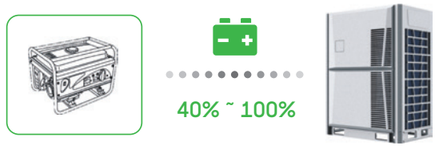
Wide Outdoor Operation Range

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



Power Saving Mode

In the cae of power shortage, CHV PRO can run power saving mode to ease generator's pressure.



Refrigerant Status Detection

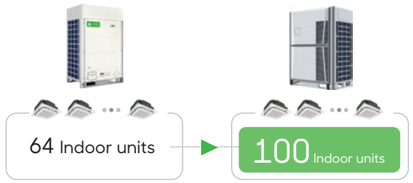
- Built-in with smart refrigerant auto check function, which can give suggestion about refrigerant status.
- Different code means different refrigerant status:

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

Features

More indoor units

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



Electrical Lock Function(optional)

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

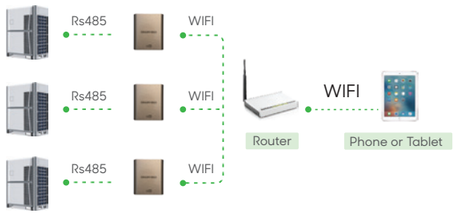
System can be unlock with password by authorized technician.

Wireless Communication(optional)

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

On Site Diagnosis

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

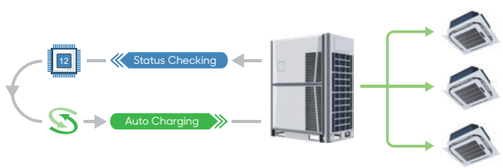


Service Window On Front Cover

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

Auto Charging Refrigerant(optional)

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.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.

CMV-X+

380V-405V/50Hz&60Hz
Full DC Inverter EVI
VRF System

8/10/12HP

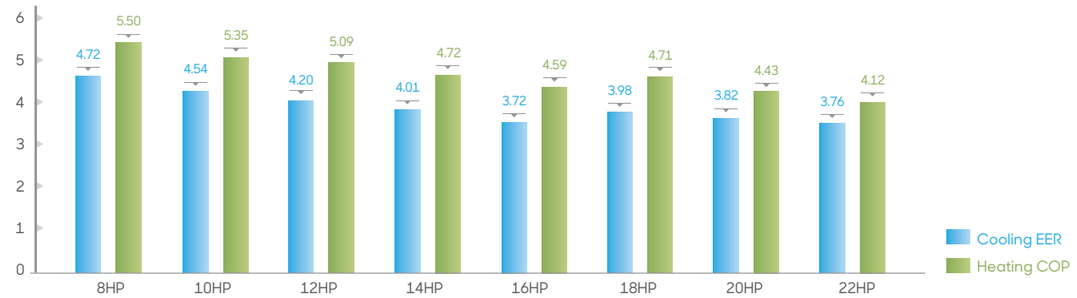
14/16/18/20/22HP

8 Basic Modules

CMV-X+ is GCHV's latest generation VRF product, all compressors and fan motors are DC brushless type, so it has more excellent energy efficiency.

Capacity	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
	25.2kW	28kW	33.5kW	40kW	45kW	50kW	56kW	61.5kW
Compressor	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

EER&COP



IPLV(C)

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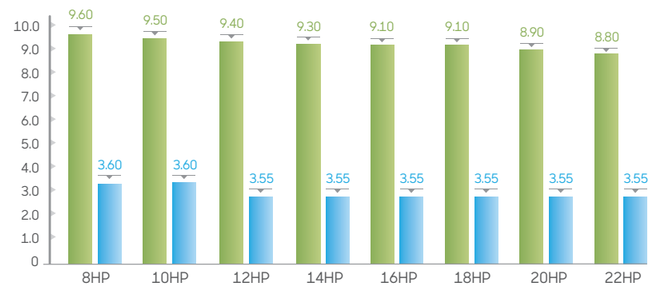
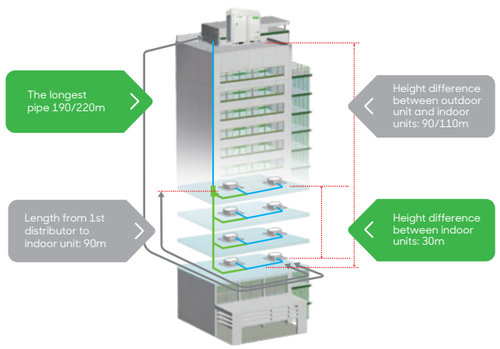


Combination Table

HP	Model	Cooling Capacity(KW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	Max. Connected Indoor Unit Quantity
8	CMV-D252W/ZR1-B	25.2	●								14
10	CMV-D280W/ZR1-B	28		●							16
12	CMV-D335W/ZR1-B	33.5			●						19
14	CMV-D400W/ZR1-B	40				●					23
16	CMV-D450W/ZR1-B	45					●				26
18	CMV-D500W/ZR1-B	50						●			29
20	CMV-D560W/ZR1-B	56							●		33
22	CMV-D615W/ZR1-B	61.5								●	36
24	CMV-D670W/ZR1-B	67			●●						39
26	CMV-D730W/ZR1-B	73		●			●				43
28	CMV-D780W/ZR1-B	78		●				●			46
30	CMV-D835W/ZR1-B	83.5			●			●			49
32	CMV-D895W/ZR1-B	89.5		●						●	52
34	CMV-D950W/ZR1-B	95			●					●	56
36	CMV-D1010W/ZR1-B	101					●		●		59
38	CMV-D1065W/ZR1-B	106.5					●			●	62
40	CMV-D1115W/ZR1-B	111.5						●		●	64
42	CMV-D1175W/ZR1-B	117.5							●	●	64
44	CMV-D1230W/ZR1-B	123								●●	64
46	CMV-D1285W/ZR1-B	128.5			●●					●	64
48	CMV-D1345W/ZR1-B	134.5		●			●			●	64
50	CMV-D1400W/ZR1-B	140			●		●			●	64
52	CMV-D1450W/ZR1-B	145			●			●		●	64
54	CMV-D1510W/ZR1-B	151		●						●●	64
56	CMV-D1565W/ZR1-B	156.5			●					●●	64
58	CMV-D1630W/ZR1-B	163				●				●●	64
60	CMV-D1680W/ZR1-B	168					●			●●	64
62	CMV-D1730W/ZR1-B	173						●		●●	64
64	CMV-D1790W/ZR1-B	179							●	●●	64
66	CMV-D1845W/ZR1-B	184.5			●●					●●	64
68	CMV-D1900W/ZR1-B	190		●			●			●●	64
70	CMV-D1960W/ZR1-B	196			●		●			●●	64
72	CMV-D2015W/ZR1-B	201.5			●			●		●●	64
74	CMV-D2065W/ZR1-B	206.5			●				●	●●	64
76	CMV-D2125W/ZR1-B	212.5		●						●●●	64
78	CMV-D2180W/ZR1-B	218			●					●●●	64
80	CMV-D2245W/ZR1-B	224.5				●				●●●	64
82	CMV-D2295W/ZR1-B	229.5					●			●●●	64
84	CMV-D2345W/ZR1-B	234.5						●		●●●	64
86	CMV-D2405W/ZR1-B	240.5							●	●●●	64
88	CMV-D2460W/ZR1-B	246								●●●●	64

Long Piping & Height Difference

The total pipe length	1000 m
The longest pipe length	Actual length 190m Equivalent length 220m
Height difference	Outdoor unit above <90m Outdoor unit below <110m
Equivalent length from first indoor distributor to last indoor unit	90 m
Height difference between indoor and outdoor unit	Outdoor unit above <90m Outdoor unit below <110m
Height difference between indoor units	30m



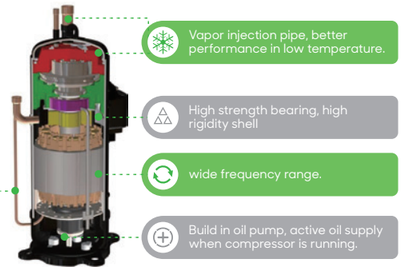
What Is EVI VRF System

Enhanced Vapor Injection Compressor

The Enhanced vapor injection compressor adopts two-stage throttling intermediate injection technology, which uses a flash vaporizer for gas-liquid separation to achieve the effect of increasing the enthalpy. It is cooled by vapor injection mixing at medium and low pressures while compressing, and then compressed normally at high pressure to increase the displacement of the compressor and achieve great heating performance improvement in a low temperature environment. This compressor could heating at -30℃,and Heating capacity increased by nearly 20%-50% at -15℃。

High pressure chamber small suction refrigerant superheat, refrigerant volume efficiency is high, large refrigerant discharge buffer volume.

Oil balance design, pump extra oil to other compressor.

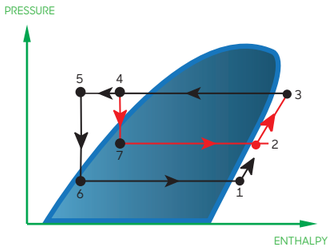


Vapor injection pipe, better performance in low temperature.

High strength bearing, high rigidity shell

wide frequency range.

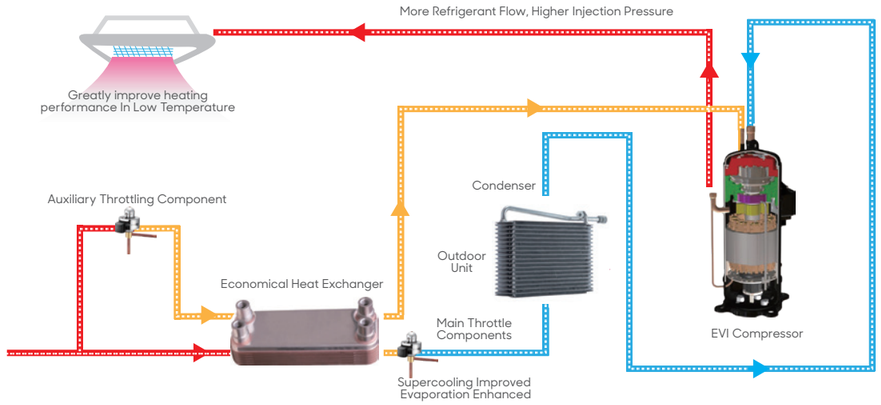
Build in oil pump, active oil supply when compressor is running.



Theory of Enhanced Vapor Injection

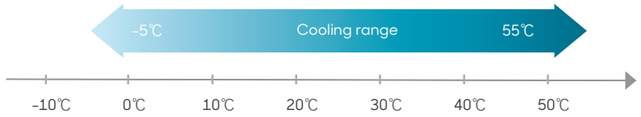
With the help of high-efficiency heat exchanger, on the one hand, the refrigerant in main circulation super cooling before throttling to increase the enthalpy difference, on the other hand, the low temperature and low pressure refrigerant which has been depressurized by the electronic expansion valve in the auxiliary circuit is appropriately preheated to achieve a suitable medium pressure, provide to the compressor for secondary compression.

When the outdoor temperature is very low, the heat exchange capacity of the outdoor unit is reduced, so the normal air return volume of the compressor is reduced, which lead to the reduction of compressor capacity, and the best effect cannot be exerted. However, the refrigerant gas is replenished through the intermediate pressure air return injection port, increase the displacement of the compressor, and the refrigerant circulating amount of the indoor unit heat exchanger is increased to improve the heating capacity. Therefore, it is more suitable for cold regions.

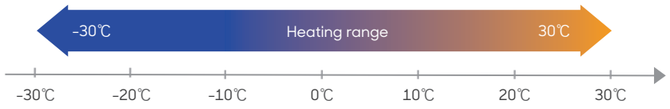


Wide Operation Range

Due to global waming is getting worse,cooling operating temperature is designed up to 55℃.

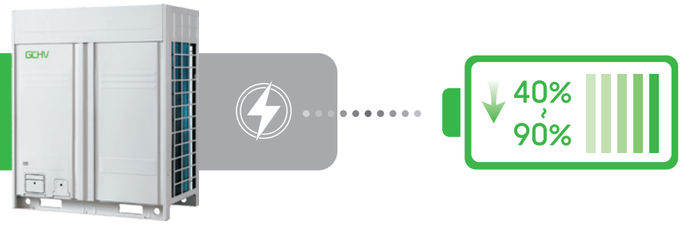


Heating operating temperature is down to -30℃.In the cold winter, CMV system can heat the room continuously.

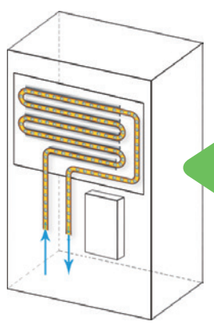


Power Saving Mode

In case of power shortage, CMV-X⁺ can run as power saving mode to ease power grid pressure.



Refrigerant Cooling Design

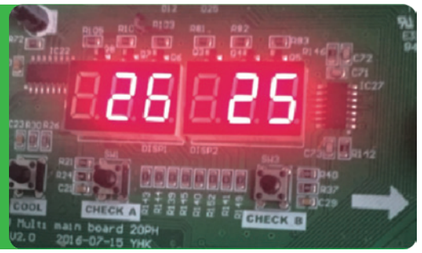


In CMV-X⁺, we use refrigerant to cool down inverter modular board, to keep unit in a safety condition.

Refrigerant Status Checking

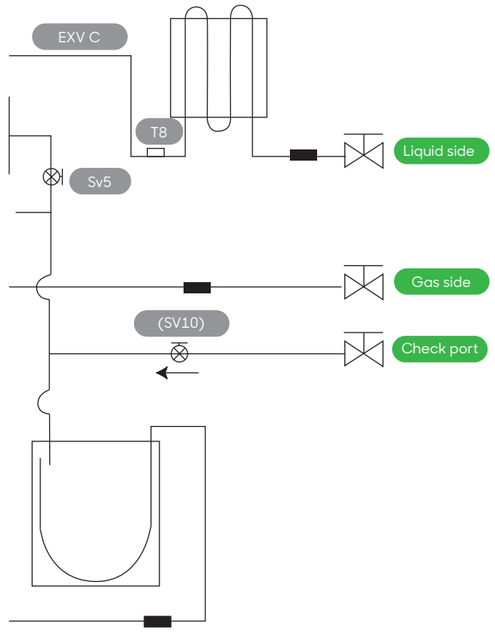
CMV-X⁺ is building in smart auto checking logic, which can give suggestion about refrigerant status. Different code means different refrigerant staus:

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



Refrigerant Auto Charging (Customized Function)

CMV-X⁺ can customize with auto charging refrigerant function, we will add SV10 valve in gas pipe, and outdoor unit will control SV10 to charge refrigerant or not.



CMV-X

208V-230V/60Hz
Full DC Inverter VRF System

8/10HP

12/14/16HP

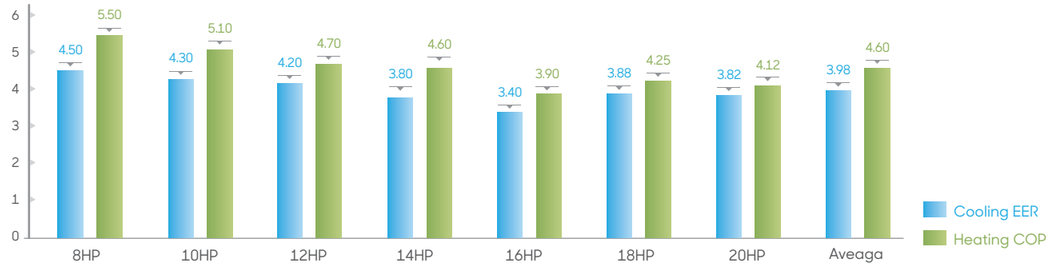
18/20HP

7 Basic Modules

CMV-X is GCHV'S latest generation VRF product, all compressors and fan motors are DC brushless type, so it has more excellent energy efficiency.

Capacity	8HP	10HP	12HP	14HP	16HP	18HP	20HP
	25.2kW	28kW	33.5kW	40kW	45kW	50kW	56kW
Compressor	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

EER&COP



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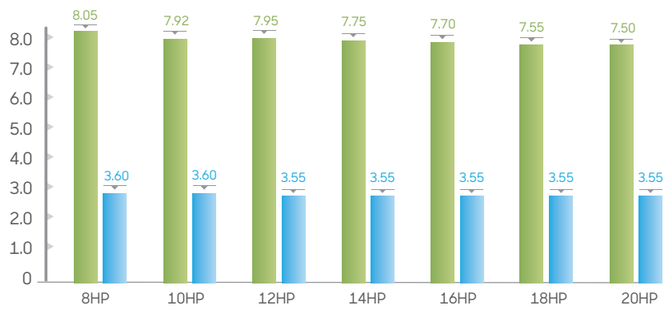
IPLV：Integrated Part Load Value(ARI 550/590)
(C)：Cooling condition

The Integrated Part Load Value(IPLV) is a performance characteristic developed by the Air-Conditioning, Heating and Refrigeration Institute (AHRI).It is most commonly used to describe the performance of a AC system capable of capacity modulation.Unlike an EER (Energy Efficiency Ratio) or COP (coefficient of performance).which describes the efficiency at full load conditions, the IPLV is derived from the equipment efficiency while operating at various capacities.Since a VRF system does not always run at 100% capacity, the EER or COP is not an ideal representation of the typical equipment performance.The IPLV is a very important value to consider since it can affect energy usage and operating costs throughout the lifetime of the equipment.

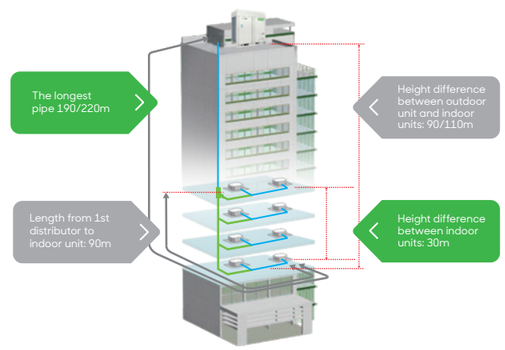


Combination Table

HP	Cooling Capacity(KW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	Max. Connected Indoor Unit Quantity
8	25.2	●							14
10	28		●						16
12	33.5			●					19
14	40				●				23
16	45					●			26
18	50						●		29
20	56							●	33
22	61.5		●	●					36
24	68			●●					40
26	73		●			●			43
28	78		●				●		46
30	84		●					●	50
32	89.5			●				●	53
34	95					●	●		56
36	101					●		●	59
38	106						●	●	62
40	112							●●	64
42	117.5		●	●				●	64
44	123			●●				●	64
46	129		●			●		●	64
48	134		●				●	●	64
50	140		●					●●	64
52	145.5			●				●●	64
54	152				●			●●	64
56	157					●		●●	64
58	162						●	●●	64
60	168						●●●		64
62	175.2	●					●	●●	64
64	179			●●				●●	64
66	185		●			●		●●	64
68	190		●				●	●●	64
70	196		●					●●●	64
72	201.5			●				●●●	64
74	207					●	●	●●	64
76	213					●		●●●	64
78	218						●	●●●	64
80	224							●●●●	64

Long Piping & Height Difference

The total pipe length	1000 m
The longest pipe length	Actual length 190m Equivalent length 220m
Equivalent length from first indoor distributor to last indoor unit	90 m
Height difference between indoor and outdoor unit	Outdoor unit above<90m Outdoor unit below<110m
Height difference between indoor units	30m



CMV-R

380V-405V/50Hz&60Hz
Heat Recovery VRF System

8/10/12/14/16HP

5 Basic Modules

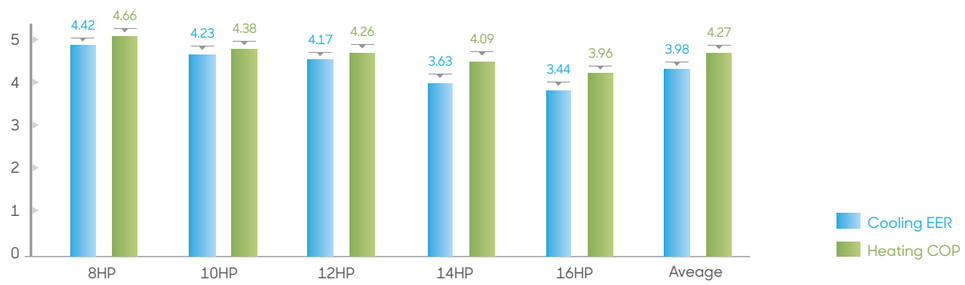
CMV-R is heat recovery VRF product with all DC inverter compressors and DC brushless fan motors. It achieves high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.

Energy saving of the operating systems has been greatly improved as heating and cooling modes can be operated at the same time in one VRF system

Capacity	8HP 25.2kW	10HP 28kW	12HP 33.5kW	14HP 40kW	16HP 45kW
Compressor	DC	DC	DC	DC+DC	DC+DC
Fan motor	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

Power type	208-230V	380-415V
50Hz/3phase		●
60Hz/3phase		●

EER&COP

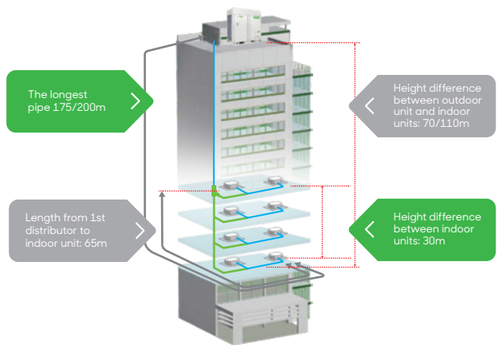


Combination Table

HP	Cooling Capacity(KW)	8HP	10HP	12HP	14HP	16HP	Max. Connected Indoor Unit Quantity
8	25.2	●					14
10	28		●				16
12	33.5			●			19
14	40				●		23
16	45					●	26
18	53.5	●	●				31
20	56		●●				33
22	61.5		●	●			36
24	68		●		●		40
26	73		●			●	43
28	80				●●		47
30	85				●	●	50
32	90					●●	53
34	96		●●		●		56
36	101		●●			●	59
38	106.5		●	●		●	62
40	113		●		●	●	64
42	120				●●●		64
44	125				●●	●	64
46	130				●	●●	64
48	135					●●●	64
50	143.2	●	●			●●	64
52	146		●●			●●	64
54	151.5		●	●		●●	64
56	158		●		●	●●	64
58	165				●●●	●	64
60	170				●●	●●	64
62	175				●	●●●	64
64	180					●●●●	64

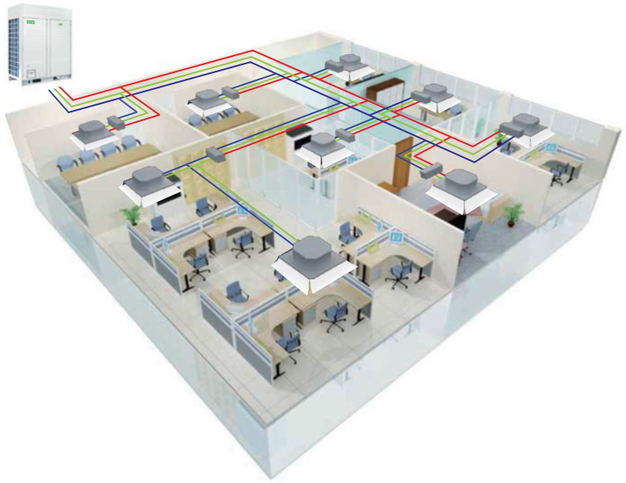
Long Piping & Height Difference

The total pipe length	1000 m
The longest pipe length	Actual length 175m Equivalent length 200m
Equivalent length from first indoor distributor to last indoor unit	65 m
Height deference between indoor and outdoor unit	Outdoor unit above<70m Outdoor unit below<110m
Height difference between indoor units	30m



What Is Heat Recovery VRF System

Simultaneous Cooling And Heating Operation

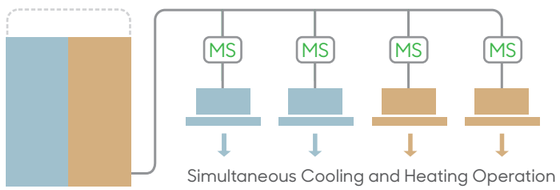


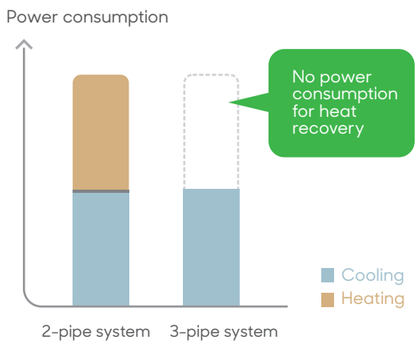
CMV-R is 3-pipe heat recovery VRF product with all DC inverter compressors and DC brushless fan motors. It offers simultaneous cooling and heating operation in one system.

CMV-R achieves high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.

Heat Recovery, More Efficiency

Simultaneous heating and cooling in different zones, more energy saving by heat recovery from one space to another which saves up to 50% in costs compared with a conventional heat pump system.





GCHV Pro · GMV-X+ · GMV-X · GMV-R

1 High Efficiency

2 Benefits For Users

3 Benefits For Installers

Advantages

Provide You With Fresh Air

GUANGDONG CHIGO HEATING & VENTILATION EQUIPMENT CO.,LTD.
HTTP://WWW.CHIGO-CAC.COM

1

High Efficiency

Low carbon life advocate

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

Core Technologies Make High Efficiency

Brushless DC Motor
- High efficiency
- Low noise

180° Sine Wave Control
- High precision rotor speed control

Stepless Control
- On-demand output,high efficiency and energy saving

CCT Inner-grooved Tube
- Excellent heat-exchanging efficiency

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

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

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

Cross Flow Fins
- Reduce air resistance
- Frosting improved

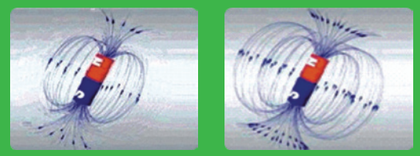
High Efficiency DC Inverter Compressor

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

- Differential pressure oil film control technology, reducing noise and improving gas tightness
- Special scroll design for R410a
- High precision processing,improving compression efficiency by 15%
- Concentrated winding,improving low frequency efficiency
- High strength bearing,high rigidity shell

Neodymium permanent magnet rotor

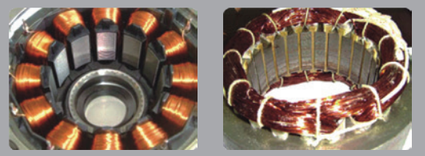
Powerful magnetic force,large force moment and high efficiency.



Ferrite magnet | Neodymium permanent magnet

Concentrated winding

Magnetic efficiency is 12% higher than distributed winding



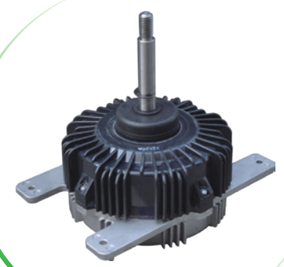
Concentrated winding | Distributed winding

High Efficiency DC Motor

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

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

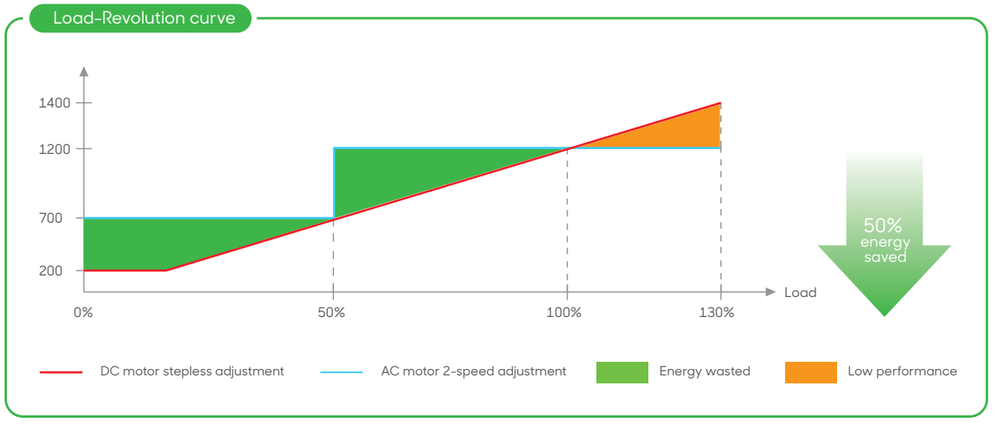
Brushless with built-in sensor.



DC fan motor

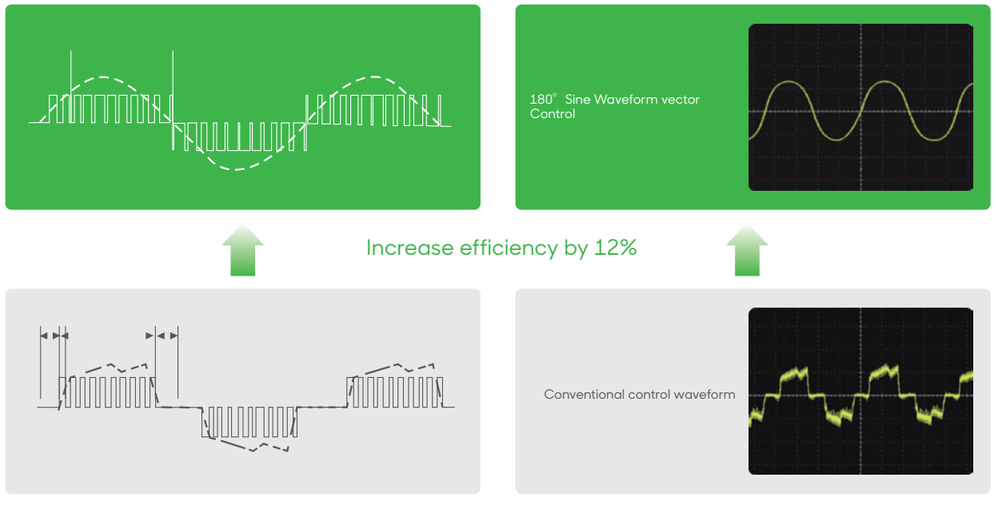
Stepless Control

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



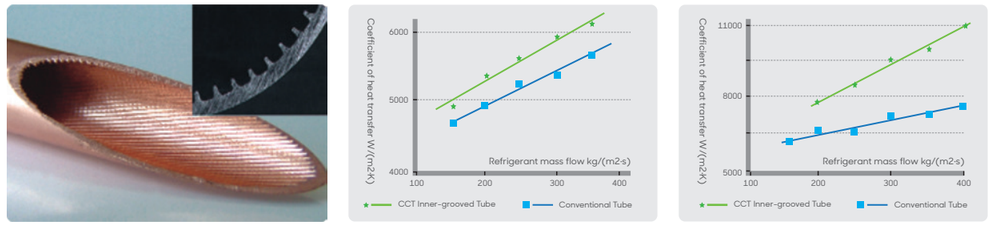
180° Sine Waveform Control

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

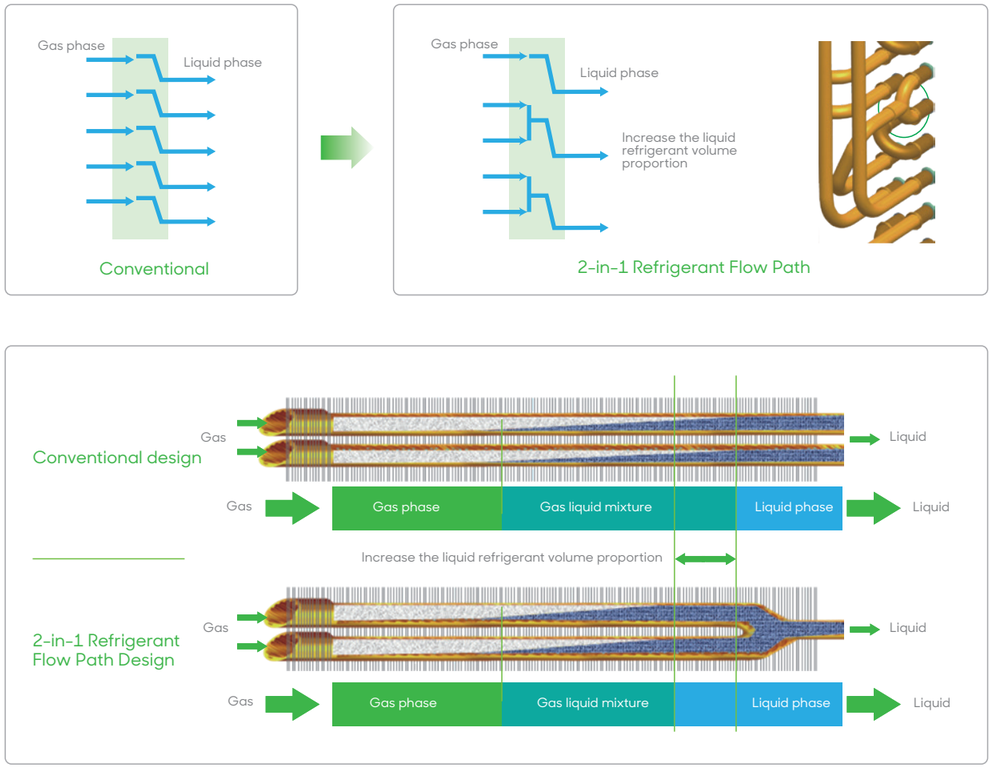


CCT Inner-grooved Tube

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

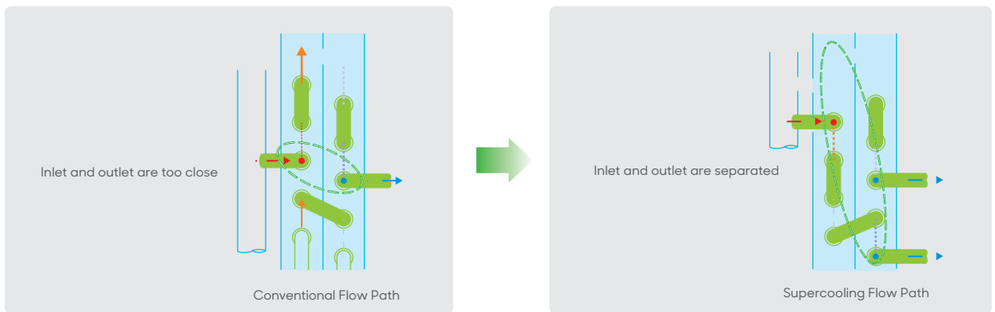


2-in-1 Refrigerant Flow Path Design



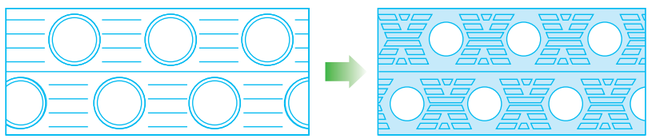
Supercooling Flow Path Design

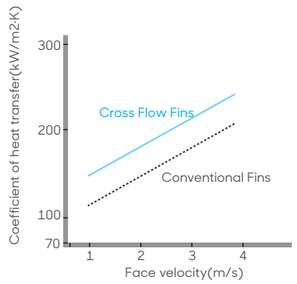
Supercooling flow path design, separates the refrigerant inlet and outlet, increase the supercooling degree, reduce the effect of high temperature inlet gas refrigerant to low temperature outlet liquid refrigerant, therefore,the system efficiency will be greatly increased.



Cross Flow Fins

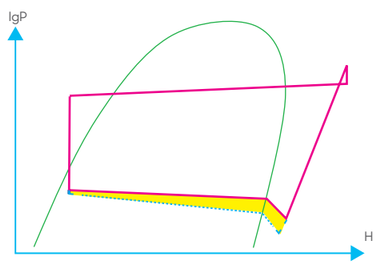
- Has low air resistance and great heat transfer coefficient.
- Frosting improved, frost on the heat-exchanger will be well-distributed,easyfor defrosting.





Low Resistance Internal piping

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



New structure cycle Original compressing cycle 5% Pressure drop decrease

2

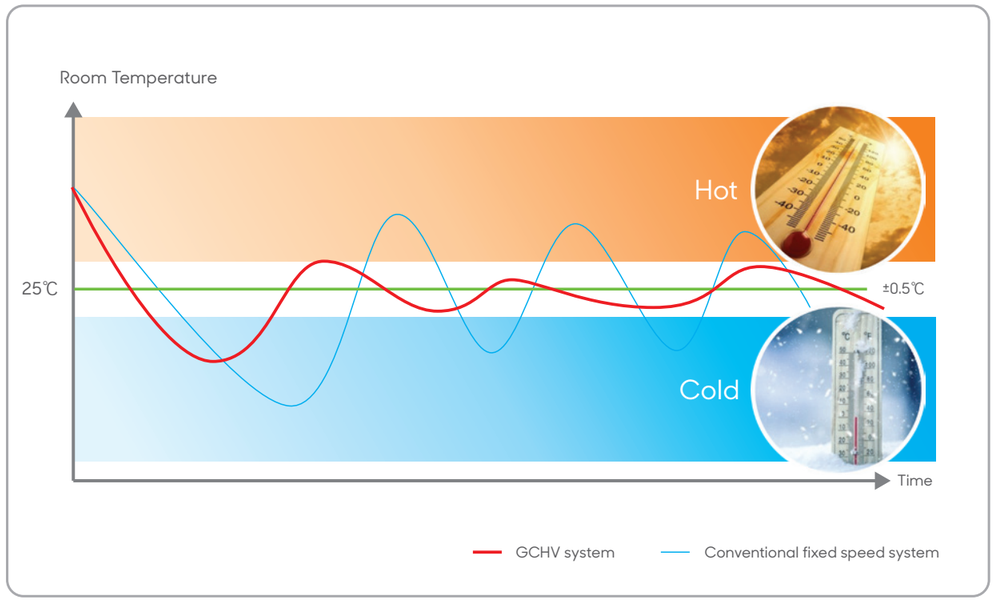
Benefits For Users

Livable environment creator

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

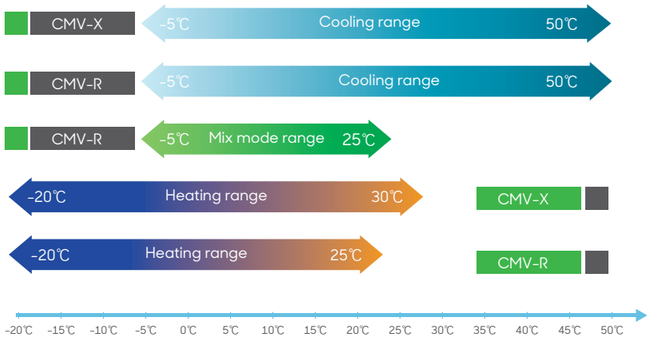
Outstanding Comfort Ability

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



Wide Operation Range

- Cooling operating temperature is up to 50℃,suitable for the hot region.
- Heating operating temperature is down to -20℃.In the cold winter, CMV system can stably produce heat.
- Mix mode operating temperature is up to 25℃ heating operating temperature is down to-20℃. In the cold winter, CMV system can stably produce heat.
- Outdoor unit running at temperature above 50℃ need customized in factory, please consult to sales engineer.

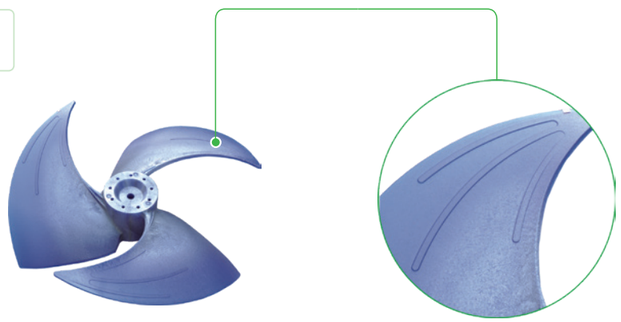


7 Improvements To Reduce Noise

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

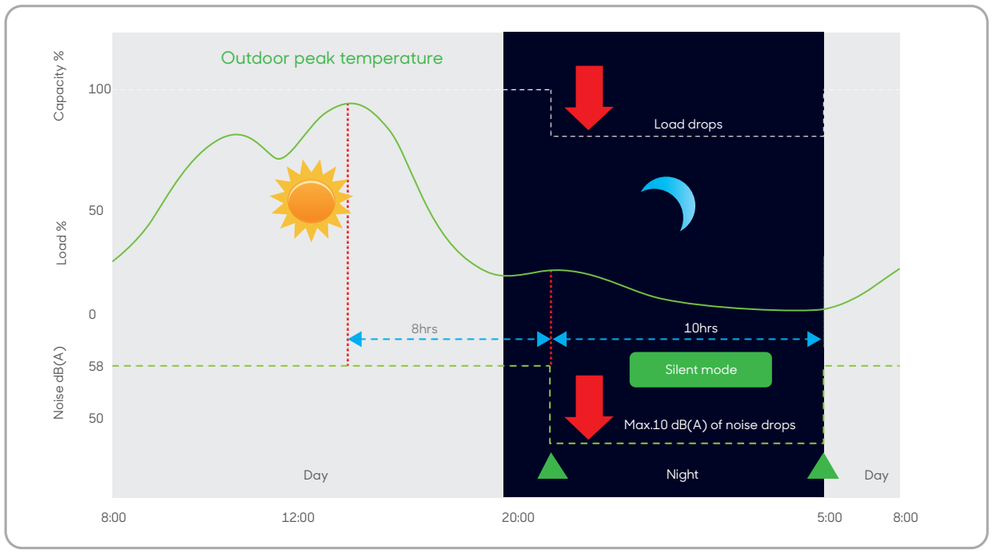
Low Noise Fan Blade

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



Silent Mode, Night Time Noise Control

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

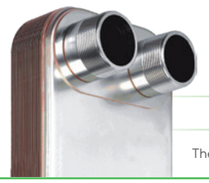


Snow-proof Function

- In the cold weather, outdoor fan will start to run for a while at intervals, for preventing the snow to accumulate on fan blade. Because accumulated snow will freeze and block fan blade rotating, even worse it will damage the motor.
- It only start when temperature is lower than 0℃.

The PHE Economizer

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



PHE Economizer

The PHE economizer need customization.

3-stage Back Up Function

Module back up function.

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

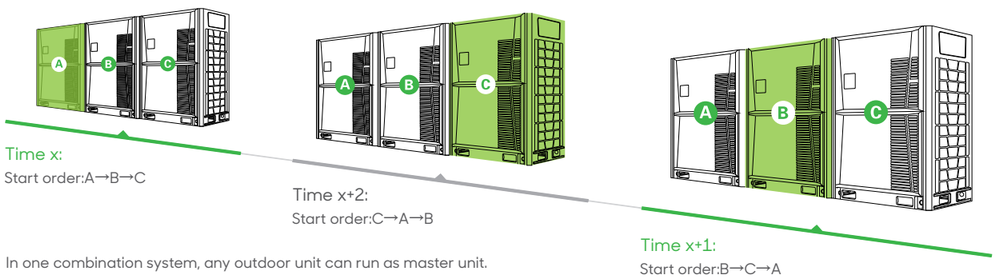
Compressor back up function

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

Fan motor back up function.

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

All Outdoor Units Cycle Operation



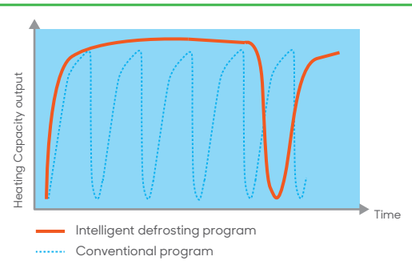
- In one combination system, any outdoor unit can run as master unit.
- Balance the lifespan among outdoor units in one system.

Intelligent Defrosting Program

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

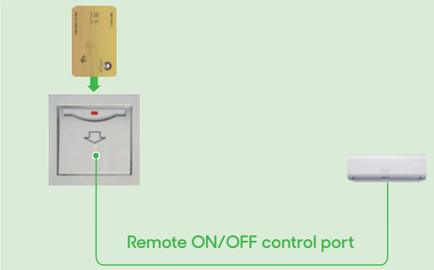
Defrost Curve

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



Remote ON/OFF Control Function

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



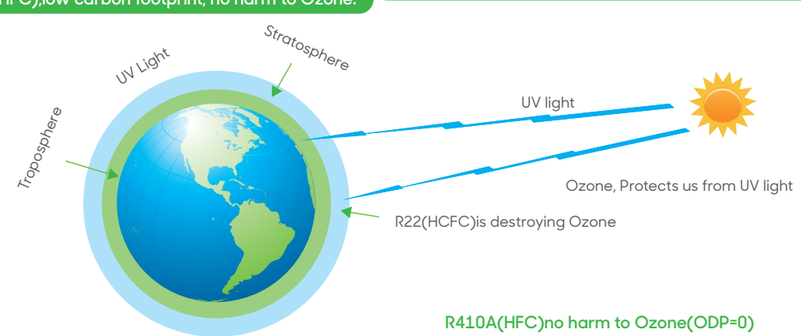
Emergency Stop Operation Function

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

Environment Friendly

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

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

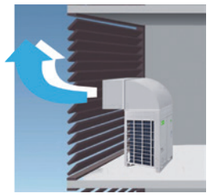


3 Benefits For Installers

Optimization for designer and installer

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

Adjustable Outdoor Fan Static Pressure



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

Touch Screen Wired Controller

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

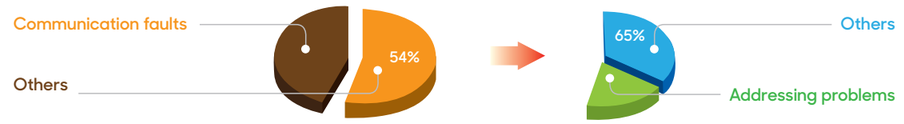
Addressing Methods

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

Automatic Addressing

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

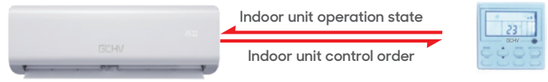
Failure chart



Address faults was awarded to the most hated fault after had investigated 120 VRF after-sale engineers in 2011.

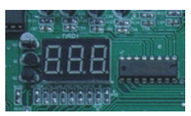
New Wired Controller

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



LED Display On The PCB

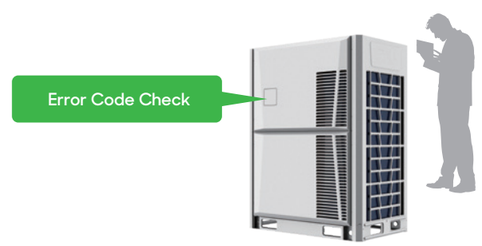
- LED display on the PCB, it can show system's operation status and error codes.



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

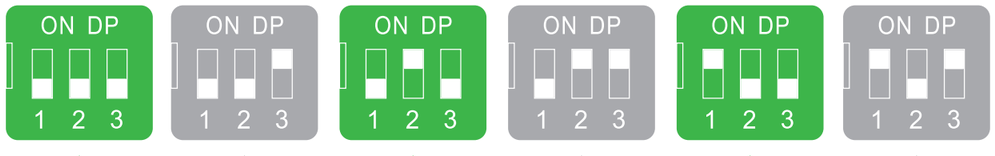
Service Window

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



Mode Restriction

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



5-Stage Oil Control

1st stage
Compressor internal oil separation
Oil separator

Separation efficiency 92%

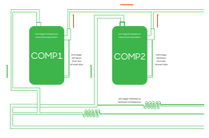
2nd stage
Oil return from the oil even pipe
Oil level control

Oil even pipe

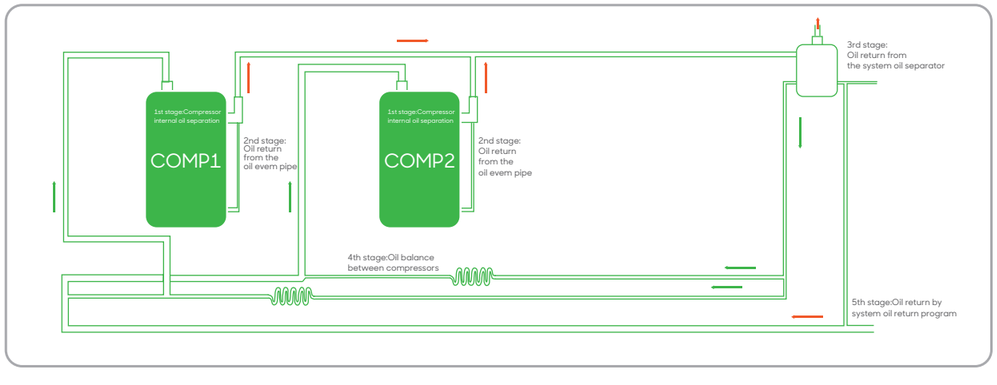
3rd stage
Oil return from the system oil separator
Oil separator

Separation efficiency 92%

4th stage
Oil balance between compressors
Oil balance pipe



5th stage
Oil return bysystem oil return program
Intellingent oil return program

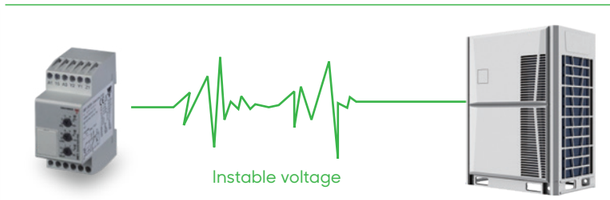


Humanized Internal Structure

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

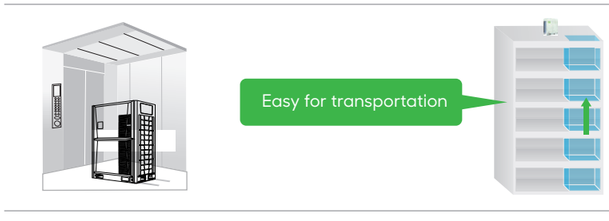
3-Phase Power Protector(Optional)

Protect the outdoor unit from instable voltage.



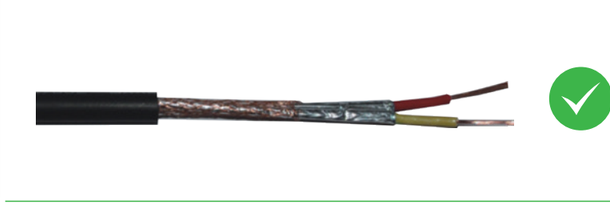
Easy Installation

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



Use 2-Core Shielded Wire As Signal Wire

- Save installation cost.
- Reduce manual works.



CHV Pro

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

Model Name			GCHV-E252W/HZR1-DK01	GCHV-E280W/HZR1-DK01	GCHV-E335W/HZR1-DK01	GCHV-E400W/HZR1-DM01	GCHV-E450W/HZR1-DM01
Power Supply			380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
Performance Data							
Cooling	Capacity	HP	8HP	10HP	12HP	14HP	16HP
		kW	25.2	28.0	33.5	40.0	45.0
		Btu/h	86000	95500	114000	136500	153500
		RT	7.2	8.0	9.5	11.4	12.8
	Rated current	A	9.04	11.30	14.51	18.10	21.60
	Power input	kW	5.31	6.22	8.35	9.76	11.63
	EER	W/W	4.75	4.50	4.01	4.10	3.87
Heating	Capacity	kW	27.4	31.5	37.5	45.0	50.0
		Btu/h	93500	107500	128000	153500	170600
		RT	7.8	9.0	10.7	12.8	14.2
	Rated current	A	8.93	11.25	14.34	18.00	20.25
	Power input	kW	4.98	5.86	7.35	9.34	10.87
	COP	W/W	5.50	5.38	5.10	4.82	4.60
Max. input consumption		kW	13.4	14.3	14.8	18.3	18.8
Max. Current		A	23.1	24.7	25.5	30.8	31.7
Capacity adjustment range			50%~130%				
Compressor Data							
Compressor	Quantity		1				
	Type		Scroll Compressor				
	Brand		HITACHI				
Physical Data							
Refrigerant	Type		R410a				
	Volume	Kg	9		11	14	
Dimension (WxHxD)	Throttle type		EXV				
	Net	mm	990x1740x840			1340x1740x840	
	Packing	mm	1060x1900x910			1410x1900x910	
Weight	Net	Kg	228		230	275	
	Gross	Kg	240		242	293	
Outdoor sound level		dB(A)	58		60	60	61
Max. operating range		Mpa	4.5				
Piping Data							
Pipe size	Liquid pipe	mm	Φ12.7			Φ15.88	
	Gas pipe	mm	Φ22.2			Φ28.6	
Max. pipe length	Total pipe length	m	1000			1000	
	ODU to farthest IDU (Acual length)	m	200			200	
	ODU to farthest IDU (Equivalent length)	m	240			240	
	1st IDU distributor to farthest IDU	m	40/90			40/90	
Max. vertical length	Between ODU & IDU (ODU above IDU)	m	100			100	
	Between ODU & IDU (ODU below IDU)	m	110			110	
	Between IDUs	m	40			40	
	Between ODUs	m	0			0	
Operation Temperature Range							
Cooling	Outdoor side	℃	-5~55			-5~55	
	Indoor side	℃	16~32			16~32	
Heating	Outdoor side	℃	-30~30			-30~30	
	Indoor side	℃	16~32			16~32	

Model Name			GCHV-E500W/HZR1-DM01	GCHV-E560W/HZR1-DM01	GCHV-E615W/HZR1-DM01	GCHV-E670W/HZR1-DS01	GCHV-E730W/HZR1-DS01	GCHV-E785W/HZR1-DS01	GCHV-E850W/HZR1-DS01	GCHV-E900W/HZR1-DS01
Power Supply			380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
Performance Data										
Cooling	Capacity	HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
		kW	50.0	56.0	61.5	67.0	73.0	78.5	85.0	90.0
		Btu/h	170600	191000	209800	228600	249100	267800	290000	307100
		RT	14.2	16.0	17.5	19.1	20.8	22.3	24.2	25.6
	Rated current	A	23.29	26.10	29.06	29.09	32.59	36.13	40.36	44.73
	Power input	kW	12.22	14.66	16.62	16.71	18.18	20.03	22.37	24.79
	EER	W/W	4.09	3.82	3.70	4.01	4.02	3.92	3.80	3.63
Heating	Capacity	kW	56.0	63.0	69.0	75.0	81.5	87.5	95.0	100.0
		Btu/h	191000	214900	235400	255900	278100	298600	324100	341200
		RT	16.0	18.0	19.7	21.3	23.2	24.86	27.0	28.4
	Rated current	A	22.61	25.70	28.40	28.65	30.28	33.38	38.52	43.9
	Power input	kW	11.89	14.16	16.80	14.72	16.78	18.50	21.35	24.33
	COP	W/W	4.71	4.45	4.11	5.10	4.86	4.73	4.45	4.11
Max. input consumption		kW	22.0	24.4	25.0	26.2	30.7	30.7	35.8	37.7
Max. Current		A	37.4	41.1	42.1	43.2	50.8	51.8	60.4	63.6
Capacity adjustment range			50%~130%							
Compressor Data										
Compressor	Quantity		1			2				
	Type		Scroll Compressor			Scroll Compressor				
	Brand		HITACHI			HITACHI				
Physical Data										
Refrigerant	Type		R410a							
	Volume	Kg	15	16		20			23	
Dimension (WxHxD)	Throttle type		EXV			EXV				
	Net	mm	1340x1740x840			1990x1740x840				
	Packing	mm	1410x1900x910			2060x1900x910				
Weight	Net	Kg	285	290	297	388	433		480	
	Gross	Kg	303	308	315	406	452		498	
Outdoor sound level		dB(A)	62	63		62	63		64	
Max. operating range		Mpa	4.5							
Piping Data										
Pipe size	Liquid pipe	mm	Φ15.88			Φ22.2				
	Gas pipe	mm	Φ28.6			Φ35.0				
Max. pipe length	Total pipe length	m	1000			1000				
	ODU to farthest IDU (Acual length)	m	200			200				
	ODU to farthest IDU (Equivalent length)	m	240			240				
	1st IDU distributor to farthest IDU	m	40/90			40/90				
Max. vertical length	Between ODU & IDU (ODU above IDU)	m	100			100				
	Between ODU & IDU (ODU below IDU)	m	110			110				
	Between IDUs	m	40			40				
	Between ODUs	m	0			0				
Operation Temperature Range										
Cooling	Outdoor side	℃	-5~55			-5~55				
	Indoor side	℃	16~32			16~32				
Heating	Outdoor side	℃	-30~30			-30~30				
	Indoor side	℃	16~32			16~32				

Note

1. Cooling operating temperature range is from -5℃ to 55℃(It can be customized down to -10℃). Heating operating temperature range from -30℃ to 30℃.
2. The cooling conditions: indoor side 27℃(80.6℉) DB, 19℃(60℉)WB outdoor side 35℃(95℉) DB.
3. The heating conditions: indoor side 20℃(68℉) DB, 15℃(44.6℉)WB outdoor side 7℃(42.8℉) DB.
4. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
5. The above data may be changed without notice for future improvement on quality and performance.

CMV-X+

380V-415V/3N/50Hz&60Hz
TROPICAL TYPE (T3 TYPE) FULL DC INVERTER EVI VRF SYSTEM

CMV-X+			Basic modules							
HP			08	10	12	14	16	18	20	22
Model Name	380~415V/3N/50Hz		CMV-D252W/ZR1-B	CMV-D280W/ZR1-B	CMV-D335W/ZR1-B	CMV-D400W/ZR1-B	CMV-D450W/ZR1-B	CMV-D500W/ZR1-B	CMV-D560W/ZR1-B	CMV-D615W/ZR1-B
	380~415V/3N/60Hz		CMV-D252W/YR1-B	CMV-D280W/YR1-B	CMV-D335W/YR1-B	CMV-D400W/YR1-B	CMV-D450W/YR1-B	CMV-D500W/YR1-B	CMV-D560W/YR1-B	CMV-D615W/YR1-B
Max.Connected Indoor Units Quantity			13	16	16	20	20	20	24	24
Cooling (T1:T3)	Capacity	kW	T1:25.2/T3:22.9	T1:28.0/T3:25.4	T1:33.5/T3:30.4	T1:40/T3:36.3	T1:45/T3:40.9	T1:50/T3:45.4	T1:56/T3:50.9	T1:61.5/T3:55.9
		k Btu/h	T1:86/T3:78	T1:95.5/T3:86.7	T1:114/T3:103.6	T1:136.5/T3:124	T1:153.5/T3:139.4	T1:170.6/T3:155	T1:191/T3:173.6	T1:209.8/T3:190.7
		RT	T1:7.2/T3:6.5	T1:8.0/T3:7.22	T1:9.5/T3:8.63	T1:11/T3:10.3	T1:12.8/T3:11.6	T1:14.2/T3:12.9	T1:16/T3:14.77	T1:17.5/T3:15.89
	Power input	kW	T1:5.43/T3:5.7	T1:6.29/T3:6.71	T1:7.98/T3:8.49	T1:9.98/T3:10.18	T1:12.1/T3:12.57	T1:12.56/T3:13.74	T1:14.66/16.35	T1:16.36/T3:18.4
	EER	W/W	T1:4.72/T3:4.02	T1:4.45/T3:3.79	T1:4.2/T3:3.58	T1:4.01/T3:3.57	T1:3.72/T3:3.25	T1:3.98/T3:3.3	T1:3.82/T3:3.11	T1:3.76/T3:3.04
Heating	Capacity	kW	27.4	31.5	37.5	45.0	50.0	56.0	63.0	69.0
		Btu/h	93500	107500	128000	153500	170600	191000	214900	235000
	Power input	kW	4.98	5.89	7.37	9.53	10.89	11.89	14.22	16.75
	COP	W/W	5.50	5.35	5.09	4.72	4.59	4.71	4.43	4.12
Compressor	Quantity		1DC					2DC		
	Type		Hermatic scroll							
Refrigerant	Type		R410A							
	Throttle type		EXV							
	Volume	Kg	10		12	15	15	16	17	17
Motor	Type		DC motor							
	Quantity		1DC			2DC				
	ESP	Pa	85							
Dimension (WxDxH)	Net	mm	970x765x1620			1349x765x1620				
	Packing	mm	1030x825x1750			1405x825x1780				
Net weight		Kg	208		220	287		314	325	
Sound pressure level		dB(A)	58		60	61		62	63	
Total equivalent pipeline length≥90m	Liquid	mm	Φ9.52	Φ12.7		Φ15.88				
	Gas	mm	Φ22.2	Φ25.4		Φ28.6		Φ31.80		
Total equivalent pipeline length≥90m	Liquid	mm	Φ12.7		Φ15.88			Φ19.05		
	Gas	mm	Φ25.4		Φ28.6	Φ31.8				
Oil balance pipe		mm	/							

2 modules combination										
24	26	28	30	32	34	36	38	40	42	44
CMV-D670W/ZR1-B	CMV-D730W/ZR1-B	CMV-D780W/ZR1-B	CMV-D840W/ZR1-B	CMV-D895W/ZR1-B	CMV-D950W/ZR1-B	CMV-D1010W/ZR1-B	CMV-D1065W/ZR1-B	CMV-D1120W/ZR1-B	CMV-D1175W/ZR1-B	CMV-D1230W/ZR1-B
CMV-D670W/YR1-B	CMV-D730W/YR1-B	CMV-D780W/YR1-B	CMV-D840W/YR1-B	CMV-D895W/YR1-B	CMV-D950W/YR1-B	CMV-D1010W/YR1-B	CMV-D1065W/YR1-B	CMV-D1120W/YR1-B	CMV-D1175W/YR1-B	CMV-D1230W/YR1-B
28	28	28	32	32	36	36	36	42	42	42
67.0	73.0	78.0	83.5	89.5	95.0	101.0	106.5	111.5	117.5	123.0
228	249	266	284	305	324	344	363	380	400	419
19.0	20.7	22.1	23.7	25.4	27.0	28.7	30.2	31.7	33.4	34.9
15.95	18.39	18.85	20.54	22.65	24.33	26.76	28.45	28.92	31.02	32.71
4.20	3.97	4.14	4.07	3.95	3.90	3.77	3.74	3.86	3.79	3.76
75.0	81.5	87.5	93.5	100.5	106.5	113.0	119.0	125.0	132.0	138.0
255000	278000	298000	319000	342000	363000	385000	406000	426000	450000	470000
14.73	16.78	17.78	19.26	22.64	24.11	25.11	27.64	28.64	30.97	33.50
5.09	4.86	4.92	4.86	4.44	4.42	4.50	4.31	4.36	4.26	4.12
1DC+1DC		1DC+2DC						2DC+2DC		
Hermatic scroll										
R410A										
EXV										
/										
DC motor										
2DC+2DC		1DC+2DC					2DC+2DC			
85										
/										
/										
/										
/										
Φ15.88		Φ19.05					Φ19.05			
Φ31.8		Φ34.9					Φ38.1			
Φ19.05		Φ22.2					Φ22.2			
Φ34.9		Φ38.1					Φ41.3			
Φ6.35										

3 modules combination									
HP		46	48	50	52	54	56	58	60	62
Model Name	380~415V/3N/50Hz	CMV-D1290W/ZR1-B	CMV-D1345W/ZR1-B	CMV-D1400W/ZR1-B	CMV-D1455W/ZR1-B	CMV-D1510W/ZR1-B	CMV-D1565W/ZR1-B	CMV-D1625W/ZR1-B	CMV-D1680W/ZR1-B	CMV-D1730W/ZR1-B
	380~415V/3N/60Hz	CMV-D1290W/YR1-B	CMV-D1345W/YR1-B	CMV-D1400W/YR1B	CMV-D1455W/YR1-B	CMV-D1510W/YR1-B	CMV-D1565W/YR1-B	CMV-D1625W/YR1-B	CMV-D1680W/YR1-B	CMV-D1730W/YR1-B
Max.Connected Indoor Units Quantity		48	48	54	54	54	58	58	58	64
Cooling	Capacity	kW	128.5	134.5	140	145	151	156.5	163	168	173
		k Btu/h	438	458	477	494	515	533	556	573	590
		RT	36.5	38.2	39.8	41.2	42.9	44.4	46.3	47.7	49.1
	Power input	kW	32.31	34.74	36.43	36.90	39.00	40.69	42.69	44.81	45.28
	EER	W/W	3.98	3.87	3.84	3.93	3.87	3.85	3.82	3.75	3.82
Heating	Capacity	kW	144	150.5	156.5	162.5	169.5	175.5	183	188	194
		Btu/h	491000	513000	533000	554000	578000	598000	624000	641000	661000
	Power input	kW	31.48	33.53	35.01	36.00	39.38	40.86	43.02	44.39	45.38
	COP	W/W	4.57	4.49	4.47	4.51	4.30	4.29	4.25	4.24	4.27
Compressor	Quantity		1DC+2DC+2DC				1DC+2DC+2DC				2DC+2DC+2DC
	Type		Hermatic scroll								
Refrigerant	Type		R410A								
	Throttle type		EXV								
	Volume	Kg	/								
Motor	Type		DC motor								
	Quantity		1DC+2DC+2DC		1DC+2DC+2DC			2DC+2DC+2DC			
	ESP	Pa	85								
Dimension (WxDxH)	Net	mm	/								
	Packing	mm	/								
Net weight		Kg	/								
Sound pressure level		dB(A)	/								
Total equivalent pipeline length<90m	Liquid	mm	Φ19.05		Φ22.2						
	Gas	mm	Φ38.10		Φ44.5						
Total equivalent pipeline length≥90m	Liquid	mm	Φ22.20		Φ25.4						
	Gas	mm	Φ41.30		Φ44.5						
Oil balance pipe		mm	Φ6.35								

4 modules combination												
64	66	68	70	72	74	76	78	80	82	84	86	88
CMV-D1790W/ZR1-B	CMV-D1845W/ZR1-B	CMV-D1905W/ZR1-B	CMV-D1960W/ZR1-B	CMV-D2015W/ZR1-B	CMV-D2070W/ZR1-B	CMV-D2125W/ZR1-B	CMV-D2180W/ZR1-B	CMV-D2240W/ZR1-B	CMV-D2295W/ZR1-B	CMV-D2345W/ZR1-B	CMV-D2405W/ZR1-B	CMV-D2460W/ZR1-B
CMV-D1790W/YR1-B	CMV-D1845W/YR1-B	CMV-D1905W/YR1-B	CMV-D1960W/YR1-B	CMV-D2015W/YR1-B	CMV-D2070W/YR1-B	CMV-D2125W/YR1-B	CMV-D2180W/YR1-B	CMV-D2240W/YR1-B	CMV-D2295W/YR1-B	CMV-D2345W/YR1-B	CMV-D2405W/YR1-B	CMV-D2460W/YR1-B
64	64	64	64	64	64	64	64	64	64	64	64	64
179	184.5	190	196	201.5	206.5	212.5	218	224.5	229.5	234.5	240.5	246
610	629	648	668	687	704	725	743	765	783	800	820	839
50.8	52.4	54	55.7	57.2	58.7	60.4	61.9	63.8	65.2	66.6	68.3	69.9
47.37	49.07	48.67	51.10	52.79	53.25	55.36	57.05	59.04	61.17	61.63	63.73	65.43
3.78	3.76	3.90	3.84	3.82	3.88	3.84	3.82	3.80	3.75	3.80	3.77	3.76
201	207	213	218	225.5	231.5	238.5	244.5	252	257	263	270	276
685000	706000	726000	743000	769000	789000	813000	834000	859000	876000	897000	921000	941000
47.72	50.24	48.23	50.28	51.76	52.75	56.13	57.61	59.78	61.14	62.13	64.46	66.99
4.21	4.12	4.42	4.34	4.36	4.39	4.25	4.24	4.22	4.20	4.23	4.189	4.12
2DC+2DC+2DC		1DC+2DC+2DC+2DC			1DC+2DC+2DC+2DC				2DC+2DC+2DC+2DC			
Hermatic scroll												
R410A												
EXV												
/												
DC motor												
2DC+2DC+2DC		1DC+2DC+2DC			1DC+2DC+2DC+2DC				2DC+2DC+2DC+2DC			
85												
/												
/												
/												
/												
Φ22.2		Φ25.4										
Φ44.5					Φ54.0							
Φ25.4												
Φ44.5		Φ54.0										
Φ6.35												

Note

1.Cooling operating temperature range is from -5℃ to 55℃. Heating operating temperature range is from -30℃ to 30℃
2.The cooling conditions: T1 condition: indoor side 27℃(80.6℉)DB,19℃(60℉)WB outdoor side 35℃ (95℉)DB; T3 condition: indoor side 27℃(80.6℉) DB, 19℃(60℉) WB, outdoor side 46℃(114.8℉) DB.
3.The heating conditions: indoor side20℃(68℉)DB, 15℃(44.6℉)WB outdoor side 7℃ (42.8℉)DB
4.Sound level: measured at a point 1m in front of the unit at a height of 1.3 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
5.The above data may be changed without notice for future improvement on quality and performance.

CHV Pro | Cooling Only

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

Model Name			GCHV-D252W/CZR1-DK01	GCHV-D280W/CZR1-DK01	GCHV-D335W/CZR1-DK01	GCHV-D400W/CZR1-DM01	GCHV-D450W/CZR1-DM01
Power Supply			380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
Performance Data							
Cooling	Capacity	HP	8HP	10HP	12HP	14HP	16HP
		kW	25.2	28	33.5	40	45
		Btu/h	86000	95500	114000	136500	153500
		RT	7.2	8	9.5	11.4	12.8
	Power input	kW	5.86	6.79	9.18	10.50	12.20
	EER	W/W	4.30	4.12	3.65	3.80	3.68
Rated. input consumption		kW	13.90	14.10	14.60	17.96	18.34
Rated. current		A	24.0	24.5	25.2	30.2	31.0
Capacity adjustment range			50%~130%				
Compressor Data							
DC Inverter compressor	Quantity		1				
	Type		DC /Twin-rotary				
	Brand		Mitsubishi				
	Frequency range	Hz	20~102	20~106	20~108	20~106	20~108
Physical Data							
Refrigerant	Type		R410a				
	Volume	Kg	10			12.5	
Dimension (DxHxW)	Net	mm	840x1740x990			840x1740x1340	
	Packing	mm	910x1900x1060			910x1900x1410	
Weight	Net	Kg	210			260	
	Gross	Kg	220			278	
Outdoor sound level		dB(A)	58		60		61
Maximum operating pressure		MPa	4.5				
Piping & Wiring Data							
Pipe size	Liquid pipe	mm	Φ12.7			Φ15.9	
	Gas pipe	mm	Φ22.2			Φ28.6	
Max. pipe length	Total pipe length	m	1000				
	From OU to farthest IU(Actual length)	m	200				
	From OU to farthest IU (Equivalent length)	m	240				
	From 1st indoor distributor to farthest IU	m	90				
Max. Vertical length	Between OU & IU (OU above IU)	m	100				
	Between OU & IU (OU below IU)	m	110				
	Between IUs	m	40				
	Between Ous	m	0				
Operation Temperature Range							
Cooling	Outdoor side	℃	-15~55				
	Indoor side	℃	16~32				

Model Name	GCHV-D500W/CZR1-DM01	GCHV-D560W/CZR1-DM01	GCHV-D615W/CZR1-DM01	GCHV-D670/CZR1-DM01	GCHV-D730/CZR1-DS01	GCHV-D800/CZR1-DS01	GCHV-D850/CZR1-DS01
Power Supply	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz	380~415V/3N/50&60Hz
Performance Data							
18HP	20HP	22HP	24HP	26HP	28HP	30HP	
50.0	56.0	61.5	67.0	73.0	78.5	85.0	
170600	191000	209800	228600	249100	267800	290000	
14.2	16.0	17.5	19.1	20.8	22.3	24.2	
15.10	17.80	20.36	20.81	23.10	25.49	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	53.00	53.00	63.00	
50%~130%							
Compressor Data							
1	2						
DC /Twin-rotary							
Mitsubishi							
20~110	20~106	20~110					
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							
Φ15.9						Φ22.2	
Φ28.6						Φ35	
1000							
200							
240							
90							
100							
110							
40							
0							
-15~55							
16~32							

Note

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

GCHV Pro | Cooling Only

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

Model Name			GCHV-D252W/CXR1-DK01	GCHV-D280W/CXR1-DK01	GGCHV-D335W/CXR1-DK01	GCHV-D400W/CXR1-DM01
Power Supply			208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
Performance Data						
Cooling	Capacity	HP	8HP	10HP	12HP	14HP
		kW	25.2	28	33.5	40
		Btu/h	86000	95500	114000	136500
		RT	7.2	8	9.5	11.4
	Power input	kW	5.82	6.83	8.57	10.08
	EER	W/W	4.33	4.10	3.91	3.97
Rated. input consumption		kW	13.50	14.10	14.20	16.90
Rated. current		A	40.0	42.0	45.0	50.0
Capacity adjustment range			50%~130%			
Compressor Data						
DC Inverter compressor	Quantity		1			
	Type		DC /Twin-rotary			
	Brand		Mitsubishi			
	Frequency range	rps	10-120			
Physical Data						
Refrigerant	Type		R410a			
	Volume	Kg	10			12
Dimension (DxHxW)	Net	mm	840x1740x990			840x1740x1340
	Packing	mm	910x1900x1060			910x1900x1410
Weight	Net	Kg	208			260
	Gross	Kg	218			278
Outdoor sound level		dB(A)	58		60	
Maximum operating pressure		MPa	4.5			
Piping & Wiring Data						
Pipe size	Liquid pipe	mm	Φ12.7			Φ15.9
	Gas pipe	mm	Φ25.4			Φ31.8
Max. pipe length	Total pipe length	m	1000			
	From OU to farthest IU(Actual length)	m	190			
	From OU to farthest IU (Equivalent length)	m	220			
	From 1st indoor distributor to farthest IU	m	90			
Max. Vertical length	Between OU & IU (OU above IU)	m	90			
	Between OU & IU (OU below IU)	m	110			
	Between IUs	m	30			
	Between Ous	m	0			
Operation Temperature Range						
Cooling	Outdoor side	℃	-5~50			
	Indoor side	℃	16~32			

GCHV-D450W/CXR1-DM01	GCHV-D500W/CXR1-DM01	GCHV-D560W/CXR1-DM01	GCHV-D615W/CXR1-DM01	GCHV-D670/CXR1-DM01
208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz	208~230V/3N/60Hz
16HP	18HP	20HP	22HP	24HP
45	50.0	56.0	61.5	67.0
153500	170600	191000	209800	228600
12.8	14.2	16.0	17.5	19.0
11.75	13.37	15.73	18.25	19.59
3.83	3.74	3.56	3.37	3.42
17.30	24.00	26.50	27.00	27.00
53.0	70.0	78.0	80.0	80.0
50%~130%				
1	2			
DC /Twin-rotary				
Mitsubishi				
10~120				
R410a				
12	13	14	14	15
840x1740x1340				
910x1900x1410				
260	288	296	296	306
278	306	314	314	324
61	62	63	63	63
4.5				
Φ15.9				
Φ31.8				
1000				
190				
220				
90				
90				
110				
30				
0				
-5~50				
16~32				

Note

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

CMV-X

208~230V/60Hz
FULL DC INVERTER VRF SYSTEM

Basic modules

HP			8	10	12	14	16	18	20	22
Model Name		208~230V/3N/60Hz	CMV-D252W/XR1	CMV-D280W/XR1	CMV-D335W/XR1	CMV-D400W/XR1	CMV-D450W/XR1	CMV-D500W/XR1	CMV-D560W/XR1	CMV-D615W/XR1
Max.Connected Indoor Units Quantity			13	16	16	20	20	20	24	24
Cooling	Capacity	kW	25.2	28	33.5	40.0	45.0	50.0	56.0	61.5
		Btu/h	85000	95000	114000	136000	153000	170500	191000	209000
		RT	7.1	7.9	9.5	11.3	12.7	14.3	15.9	17.4
	Power input	kW	5.79	6.94	8.49	10.59	12.72	14.46	16.68	15.43
	EER	W/W	4.34	4.03	3.94	3.77	3.54	3.45	3.35	3.99
Heating	Capacity	kW	27.4	31.5	37.5	45.0	50.0	56.0	63.0	69.0
		Btu/h	93000	107000	127000	153000	170000	190960	214000	235000
	Power input	kW	5.89	7.2	8.82	10.99	12.45	14.14	16.02	16.02
	COP	W/W	4.65	4.39	4.25	4.00	4.02	3.96	3.93	4.31
Compressor	Quantity		1			2				1+1
	Type		Hermatic scroll							
Refrigerant	Type		R410A							
	Throttle type		EXV							
	Volume	Kg	10		12	16	16	15	16.5	10+12
Motor	Type		DC motor							
	Quantity		1		2					1+2
	ESP	Pa	85							
Dimension (WxDxH)	Net	mm	970x765x1620		1260x765x1620			1349x765x1620		/
	Packing	mm	1030x825x1750		1315x825x1750			1405x825x1780		/
Net weight		Kg	208	242	286			305	320	/
Sound pressure level		dB(A)	58		60			63		/
Total equivalent pipeline length<90m	Liquid	mm	Φ9.52	Φ12.7		Φ15.88				
	Gas	mm	Φ22.2	Φ25.4		Φ28.6		Φ31.8		
Total equivalent pipeline length ≥90m	Liquid	mm	Φ12.7		Φ15.8			Φ19.05		
	Gas	mm	Φ25.4	Φ28.6		Φ31.8				
Oil balance pipe		mm	/							Φ6.35

2 modules combination

24	26	28	30	32	34	36	38	40	42	44
CMV-D670W/XR1	CMV-D730W/XR1	CMV-D780W/XR1	CMV-D840W/XR1	CMV-D895W/XR1	CMV-D950W/XR1	CMV-D1010W/XR1	CMV-D1060W/XR1	CMV-D1120W/XR1	CMV-D1175W/XR1	CMV-D1230W/XR1
28	28	28	32	32	36	36	36	42	42	42
67.0	73.0	78.0	84.0	89.5	95.0	101.0	106.0	112.0	117.5	123.0
228000	249000	266000	286000	305000	324000	344000	361000	382000	400000	419000
19.0	20.7	22.1	23.8	25.4	27.0	28.7	30.1	31.8	33.4	34.9
16.98	19.66	21.40	23.62	25.17	27.18	29.40	31.14	33.36	32.11	33.66
3.98	3.71	3.64	3.56	3.56	3.50	3.44	3.40	3.36	3.66	3.65
75.0	81.5	87.5	94.5	100.5	106.0	113.0	119.0	126.0	132.0	138.0
255000	278000	298000	322000	342000	361000	385000	406000	429000	450000	470000
17.64	19.65	21.34	23.22	25.17	26.59	28.47	30.16	32.04	33.04	33.66
4.30	4.15	4.10	4.07	3.99	3.99	3.97	3.95	3.93	4.00	4.10
1+1	1+2				2+2				1+1+2	
Hermatic scroll										
R410A										
EXV										
12+12	10+16	10+15	10+16.5	12+16.5	16+15	16+16.5	15+16.5	16.5+16.5	10+12+16.5	12+12+16.5
DC motor										
2+2	1+2			2+2		2+2			1+2+2	2+2+2
85										
/										
/										
/										
/										
Φ15.88	Φ19.05					Φ19.05				
Φ31.8	Φ34.9				Φ38.1					
Φ19.05	Φ22.2									
Φ34.9	Φ38.1				Φ41.3					
Φ6.35										

3 modules combination

HP			46	48	50	52	54	56	58	60
Model Name		208~230V/3N/60Hz	CMV-D1290W/XR1	CMV-D1340W/XR1	CMV-D1400W/XR1	CMV-D1455W/XR1	CMV-D1520W/XR1	CMV-D1570W/XR1	CMV-D1620W/XR1	CMV-D1680W/XR1
Max.Connected Indoor Units Quantity			48	48	54	54	54	58	58	58
Cooling	Capacity	kW	129.0	134.0	140.0	145.5	152.0	157.0	162.0	168.0
		Btu/h	440000	457000	477000	496000	518000	535000	552000	573000
		RT	36.6	38.1	39.8	41.3	43.2	44.6	46.0	47.7
	Power input	kW	36.34	38.08	40.30	41.85	43.95	46.08	47.82	50.04
	EER	W/W	3.55	3.52	3.47	3.48	3.46	3.41	3.39	3.36
Heating	Capacity	kW	144.5	150.5	157.5	163.5	169.0	176.0	182.0	189.0
		Btu/h	493000	513000	537000	557000	576000	600000	620000	644000
	Power input	kW	35.67	37.36	39.24	40.86	43.03	44.49	46.18	48.06
	COP	W/W	4.05	4.03	4.01	4.00	3.93	3.96	3.94	3.93
Compressor	Quantity		1+2+2			2+2+2				
	Type		Hermetic scroll							
Refrigerant	Type		R410A							
	Throttle type		EXV							
	Volume	Kg	10+16+16.5	10+15+16.5	10+16.5+16.5	12+16.5+16.5	16+16.5+16.5		15+16.5+16.5	16.5+16.5+16.5
Motor	Type		DC motor							
	Quantity		1+2+2		1+2+2		2+2+2			
	ESP	Pa	85							
Dimension (WxDxH)	Net	mm	/							
	Packing	mm	/							
Net weight		Kg	/							
Sound pressure level		dB(A)	/							
Total equivalent pipeline length<90m	Liquid	mm	Φ19.05		Φ22.2					
	Gas	mm	Φ38.1		Φ44.5					
Total equivalent pipeline length≥90m	Liquid	mm	Φ22.2	Φ25.4						
	Gas	mm	Φ41.3	Φ44.5						
Oil balance pipe		mm	Φ6.35							

4 modules combination

62	64	66	68	70	72	74	76	78	80
CMV-D1752W/XR1	CMV-D1790W/XR1	CMV-D1850W/XR1	CMV-D1900W/XR1	CMV-D1960W/XR1	CMV-D2015W/XR1	CMV-D2070W/XR1	CMV-D2130W/XR1	CMV-D2180W/XR1	CMV-D2240W/XR1
64	64	64	64	64	64	64	64	64	64
175.2	179.0	185.0	190.0	196.0	201.5	207.0	213.0	218.0	224.0
597000	610000	631000	648000	668000	687000	706000	726000	743000	764000
49.8	50.8	52.6	54.0	55.7	57.2	58.8	60.5	61.9	63.6
49.17	50.34	53.02	54.76	56.98	58.53	60.54	62.76	64.50	66.72
3.56	3.56	3.49	3.47	3.44	3.44	3.42	3.39	3.38	3.36
195.4	201.0	207.5	213.5	220.5	224.0	232.0	239.0	245.0	252.0
666000	685000	707000	728000	752000	764000	791000	815000	835000	859000
48.31	49.68	51.69	53.38	55.26	56.88	58.63	60.51	62.20	64.08
4.04	4.05	4.01	4.00	3.99	3.94	3.96	3.95	3.94	3.93
1+2+2+2	2+2+2+2	1+2+2+2				2+2+2+2			
Hermatic scroll									
R410A									
EXV									
10+15+15+15	12+12+16.5+16.5	10+16+16.5+16.5	10+15+16.5+16.5	10+16.5+16.5+16.5	12+16.5+16.5+16.5	16+15+16.5+16.5	16+16.5+16.5+16.5	15+16.5+16.5+16.5	16.5+16.5+16.5+16.5
DC motor									
1+2+2+2	2+2+2+2	1+2+2+2			2+2+2+2				
85									
/									
/									
/									
/									
Φ25.4									
Φ44.5						Φ54.0			
Φ25.4									
Φ44.5	Φ54.0								
Φ6.35									

Note

1.Cooling operating temperature range is from -5℃to 50℃.Heating operating temperature range is from -20℃ to 30℃
2.The cooling conditions: indoor side 27℃(80.6℉)DB,19℃(60℉)WB outdoor side 35℃(95℉)DB
3.The heating conditions: indoor side 20℃(68℉)DB,15℃(44.6℉)WB outdoor side 7℃(42.8℉)DB
4.Sound level: measured at a point 1m in front of the unit at a height of 1.3m.Durging actual operation, these values are normally somewhat higher as a result of ambient conditions.
5.The above data may be changed without notice for future improvement on quality and performance.

CMV-R

380V-415V/50Hz&60Hz
HEAT RECOVERY SYSTEM

			Basic modules				
HP			8	10	12	14	16
Model Name		380~415V/3N/50Hz	CMV-R252W/ZR1	CMV-R280W/ZR1	CMV-R335W/ZR1	CMV-R400W/ZR1	CMV-R450W/ZR1
		380~415V/3N/60Hz	CMV-R252W/YR1	CMV-R280W/YR1	CMV-R335W/YR1	CMV-R400W/YR1	CMV-R450W/YR1
Max.Connected Indoor Units Quantity			13	16	16	20	20
Cooling	Capacity	kW	25.2	28.0	33.5	40.0	45.0
		Btu/h	85000	95000	114000	136000	153000
		RT	7.1	7.9	9.5	11.3	12.7
	Power imput	kW	5.70	6.62	8.03	11.02	13.08
	EER	W/W	4.42	4.23	4.17	3.63	3.44
Heating	Capacity	kW	27.4	31.5	37.5	45.0	50.0
		Btu/h	93000	107000	127000	153000	170000
	Power imput	kW	5.88	7.19	8.80	11.00	12.63
	COP	W/W	4.66	4.38	4.26	4.09	3.96
Compressor	Quantity		1			2	
	Type		Hermatic scroll				
Refrigerant	Type		R410 A				
	Throttle type		EXV				
	Volume	Kg	12			16	
Motor	Type		DC motor				
	Quantity		2				
	ESP	Pa	85				
Dimension (WxDxH)	Net	mm	1260x765x1620				
	Packing	mm	1315x825x1750				
Net weight		Kg	270			310	
Sound pressure level		dB(A)	57		58	60	
Liquid Pipe		mm	Φ15.9				
Low Pressure Gas Pipe		mm	Φ22.2		Φ25.4	Φ28.6	
High Pressure Gas Pipe		mm	Φ19.1			Φ22.2	
High Pressure Gas Balance Pipe		mm	Φ19.1				
Oil Balance Pipe		mm	Φ6.35				

			20HP-32HP							
HP			18	20	22	24	26	28	30	32
Model Name		380~415V/3N/50Hz	CMV-R532W/ZR1	CMV-R560W/ZR1	CMV-R615W/ZR1	CMV-R680W/ZR1	CMV-R730W/ZR1	CMV-R800W/ZR1	CMV-R850W/ZR1	CMV-R900W/ZR1
		380~415V/3N/60Hz	CMV-R532W/YR1	CMV-R560W/YR1	CMV-R615W/YR1	CMV-R680W/YR1	CMV-R730W/YR1	CMV-R800W/YR1	CMV-R850W/YR1	CMV-R900W/YR1
Max.Connected Indoor Units Quantity			20	24	24	28	28	28	32	32
Cooling	Capacity	kW	53.2	56.0	61.5	68.0	73.0	78.5	85.0	90.0
		Btu/h	181600	191000	209000	232000	249000	267000	290000	307000
		RT	14.3	15.9	17.4	19.3	20.7	22.3	24.1	25.5
	Power imput	kW	12.32	13.24	14.65	17.64	19.70	21.11	24.10	26.16
	EER	W/W	4.32	4.23	4.20	3.85	3.71	3.72	3.53	3.44
Heating	Capacity	kW	58.9	63.0	69.0	76.5	81.5	87.5	95.0	100.0
		Btu/h	190960	214000	235000	261000	278000	298000	324000	341000
	Power imput	kW	13.07	14.38	15.99	18.19	19.82	21.43	23.63	25.26
	COP	W/W	4.51	4.38	4.32	4.21	4.11	4.08	4.02	3.96
Compressor	Quantity		1+1			1+2			2+2	
	Type		Hermatic scroll							
Refrigerant	Type		R410A							
	Throttle type		EXV							
	Volume	Kg	12+12			12+16			16+16	
Motor	Type		DC motor							
	Quantity		2+2							
	ESP	Pa	85							
Dimension (WxDxH)	Net	mm	/							
	Packing	mm	/							
Net weight		Kg	/							
Sound pressure level		dB(A)	61		62	63		64		
Liquid Pipe		mm	Φ15.9				Φ19.1			
Low Pressure Gas Pipe		mm	Φ31.8			Φ34.9				
High Pressure Gas Pipe		mm	Φ28.6							
High Pressure Gas Balance Pipe		mm	Φ19.1							
Oil Balance Pipe		mm	Φ6.35							

			34HP-48HP					
HP			34	36	38	40	42	44
Model Name		380~415V/3N/50Hz	CMV-R960W/ZR1	CMV-R1010W/ZR1	CMV-R1065W/ZR1	CMV-R1130W/ZR1	CMV-R1200W/ZR1	CMV-R1250W/ZR1
		380~415V/3N/50Hz	CMV-R960W/YR1	CMV-R1010W/YR1	CMV-R1065W/YR1	CMV-R1130W/YR1	CMV-R1200W/YR1	CMV-R1250W/YR1
Max.Connected Indoor Units Quantity			36	36	36	42	42	42
Cooling	Capacity	kW	96.0	101.1	106.5	113.0	118.0	123.5
		Btu/h	327000	344000	363000	385000	402000	421000
		RT	27.2	28.7	30.2	32.1	33.5	35.1
	Power input	kW	24.26	26.32	27.73	30.72	32.78	34.19
	EER	W/W	3.96	3.84	3.84	3.68	3.60	3.61
Heating	Capacity	kW	108.0	113.0	119.0	126.5	131.5	137.5
		Btu/h	368000	385000	406000	431000	448000	469000
	Power input	kW	25.38	27.01	28.62	30.82	32.45	34.06
	COP	W/W	4.26	4.18	4.16	4.10	4.05	4.04
Compressor	Quantity		1+1+2			1+2+2		
	Type		Hermatic scroll					
Refrigerant	Type		R410A					
	Throttle type		EXV					
	Volume	Kg	12+12+16			12+16+16		
Motor	Type		DC motor					
	Quantity		2+2+2					
	ESP	Pa	85					
Dimension (WxDxH)	Net	mm	/					
	Packing	mm	/					
Net weight		Kg	/					
Sound pressure level		dB(A)	65			66	67	
Liquid Pipe		mm	Φ19.1					
Low Pressure Gas Pipe		mm	Φ41.3					
High Pressure Gas Pipe		mm	Φ34.9					
High Pressure Gas Balance Pipe		mm	Φ19.1					
Oil Balance Pipe		mm	Φ6.35					

			50HP-64HP									
HP			46	48	50	52	54	56	58	60	62	64
Model Name		380~415V/3N/50Hz	CMV-R1300W/ZR1	CMV-R1350W/ZR1	CMV-R1432W/ZR1	CMV-R1460W/ZR1	CMV-R1515W/ZR1	CMV-R1580W/ZR1	CMV-R1650W/ZR1	CMV-R1700W/ZR1	CMV-R1750W/ZR1	CMV-R1800W/ZR1
		380~415V/3N/50Hz	CMV-R1300W/YR1	CMV-R1350W/YR1	CMV-R1432W/YR1	CMV-R1460W/YR1	CMV-R1515W/YR1	CMV-R1580W/YR1	CMV-R1650W/YR1	CMV-R1700W/YR1	CMV-R1750W/YR1	CMV-R1800W/YR1
Max.Connected Indoor Units Quantity			48	48	54	54	54	58	58	58	64	64
Cooling	Capacity	kW	130.0	135.0	143.2	146.0	151.5	158.0	163.0	168.5	175.0	180.0
		Btu/h	443000	460000	488000	498000	516000	539000	556000	574000	597000	614000
		RT	36.9	38.3	40.7	41.5	43.0	44.9	46.3	47.9	49.7	51.1
	Power input	kW	37.18	39.24	38.48	39.40	40.81	43.80	45.86	47.27	50.26	52.32
	EER	W/W	3.50	3.44	3.72	3.71	3.71	3.61	3.55	3.56	3.48	3.44
Heating	Capacity	kW	145.0	150.0	158.9	163.0	169.0	176.5	181.5	187.5	195.0	200.0
		Btu/h	494000	511000	542000	556000	576000	602000	619000	639000	665000	682000
	Power input	kW	36.26	37.89	38.33	39.64	41.25	43.45	45.08	46.69	48.89	50.52
	COP	W/W	4.00	3.96	4.15	4.11	4.10	4.06	4.03	4.02	3.99	3.96
Compressor	Quantity		2+2+2		1+1+2+2			1+2+2+2			2+2+2+2	
	Type		Hermatic scroll									
Refrigerant	Type		R410A									
	Throttle type		EXV									
	Volume	Kg	16+16+16		12+12+16+16			12+16+16+16			16+16+16+16	
Motor	Type		DC motor									
	Quantity		2+2+2+2									
	ESP	Pa	85									
Dimension (WxDxH)	Net	mm	/									
	Packing	mm	/									
Net weight		Kg	/									
Sound pressure level		dB(A)	67		68				69			
Liquid Pipe		mm	Φ19.1		Φ22.2							
Low Pressure Gas Pipe		mm	Φ41.3		Φ44.5							
High Pressure Gas Pipe		mm	Φ34.9		Φ38.1							
High Pressure Gas Balance Pipe		mm	Φ19.1									
Oil Balance Pipe		mm	Φ6.35									

Note

1.Cooling operating temperature range is from -5℃to 55℃.Heating operating temperature range is from -20℃ to 30℃
2.The cooling conditions: indoor side 27℃(80.6℉)DB, 19℃(60℉)WB outdoor side 35℃(95℉)DB
3.The heating conditions: indoor side 20℃(68℉)DB, 15℃(44.6℉)WB outdoor side 7℃(42.8℉)DB
4.Sound level: measured at a point 1m in front of the unit at a height of 1.3 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
5.The above data may be changed without notice for future improvement on quality and performance.

GCHV-Mini

Small Capacity Full DC Inverter VRF Unit

12.5/14/16/18kW

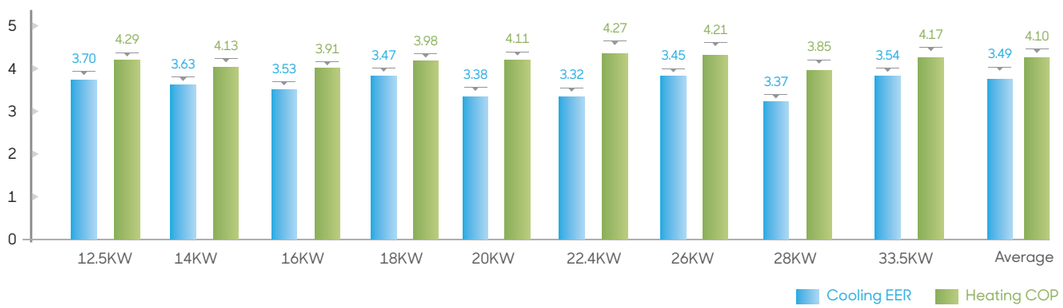
20/22.4kW

26/28/33.5kW

9 Models

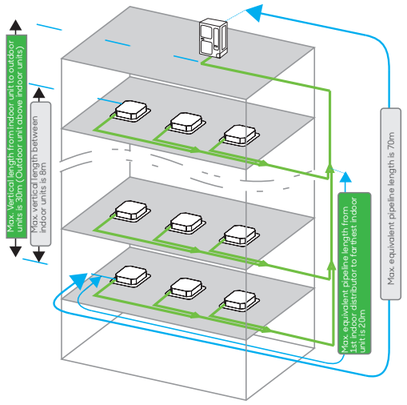
Capacity	12.5kW	14kW	16kW	18kW	20kW	22.4kW	26kW	28kW	33.5kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC
Fan motor	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

EER&COP



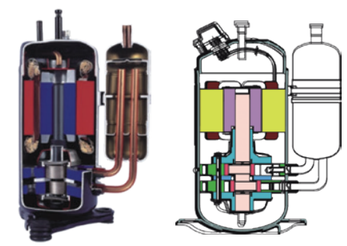
Long Piping & Height Difference

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

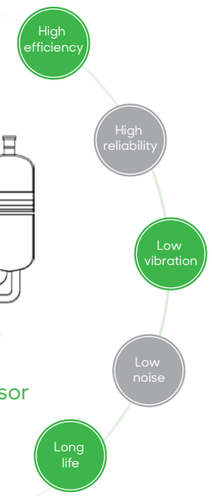


Advantage - GCHV-Mini

High Efficiency DC Inverter Compressor



Twin-rotary inverter compressor



Twin-rotary DC inverter compressor/

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

High Efficiency, Low Noise

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

Environmental Protection

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

Low Vibration

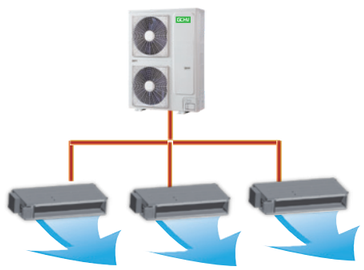
- Reduced the vibration during compressor start and operation by using 2CYL Structure, simplified the match of air-conditioning.

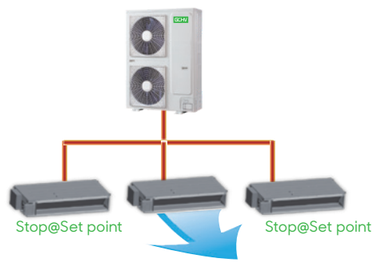
High Efficiency DC Motor

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

Fast Cooling And Heating

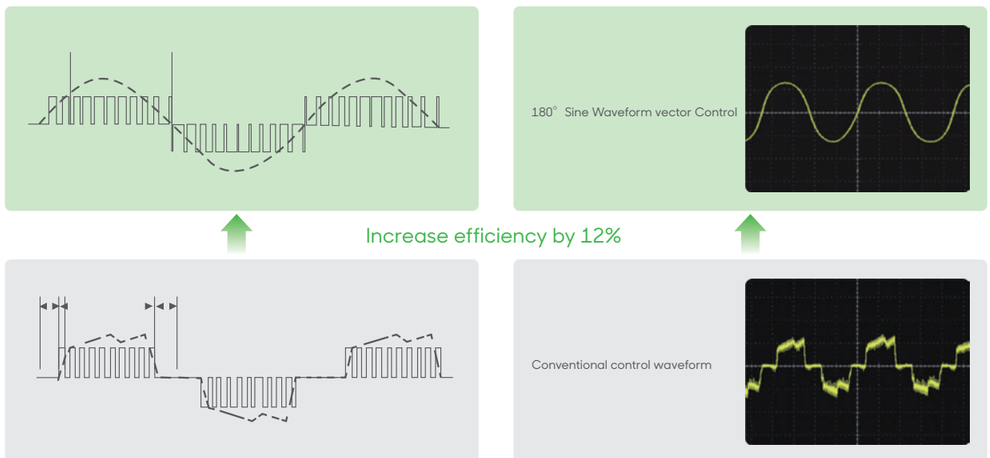
Every rooms meet set point most quickly and comfortably by optimized refrigerant control.



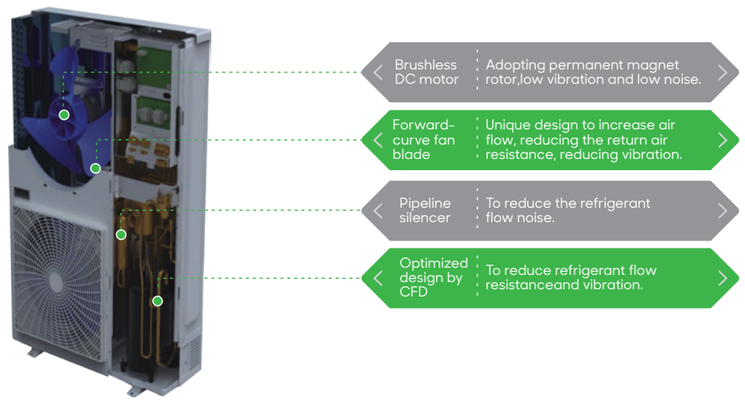


180° Sine Wave Control

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

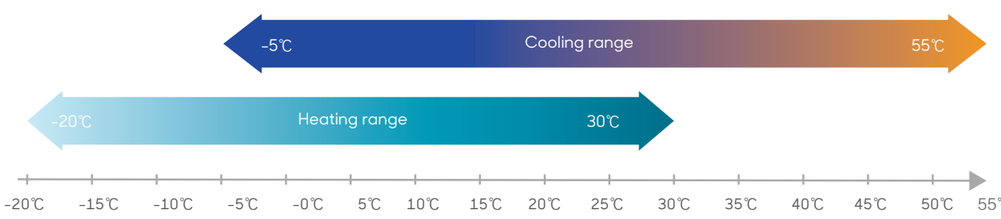


Silent Technology



Wide Outdoor Operation Range

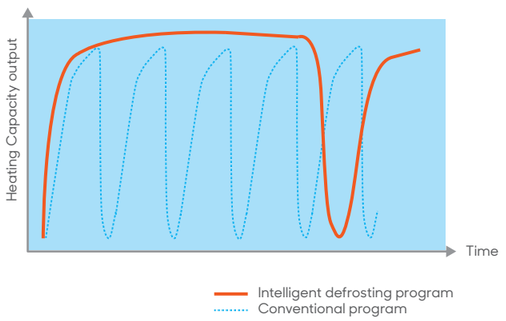
Because global warming is getting worse, Max. cooling operating temperature is designed up to 50℃.
Heating operating temperature is down to -20℃.In the cold winter, system can heat the room continuously.



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

Intelligent Defrosting Program

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



Defrost curve

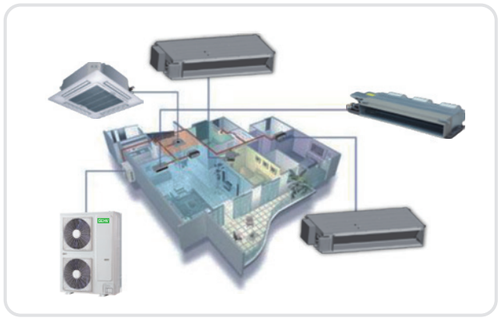
- Conventional unit's defrosting timing & duration is fixed.
- Intelligent defrosting program starts according to heat exchanging efficiency & capacity change due to the frost. Less temperature fluctuations, people feel more comfortable.

Fan Reversal Protection

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

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.



Active PFC Module

Active PFC module board

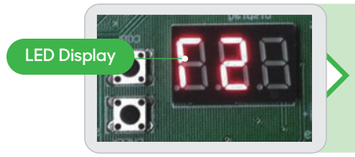
- PFC: Power Factor Corrector.
- There will be a power loss because of the different phases between the voltage and current.
- With the PFC module, the power utilization rate is higher, power factor can be up to 98%.System will be more efficiency.

- Power factor refers to the relationship between effective power and total power consumption, power factor is effective power divided by total power consumption.
- Power factor can measure power utilization rate, the power factor bigger, the higher power utilization rate.

Automatically Addressing

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

LED Display On PCB



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

High Efficiency

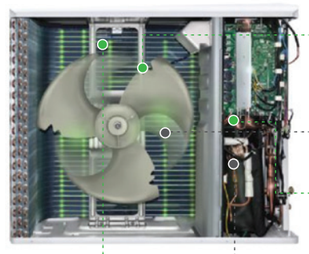
NEW TECHNOLOGY

Refrigerant cooling technology for PCB

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

5 Major Technology Leads to Lower Noise

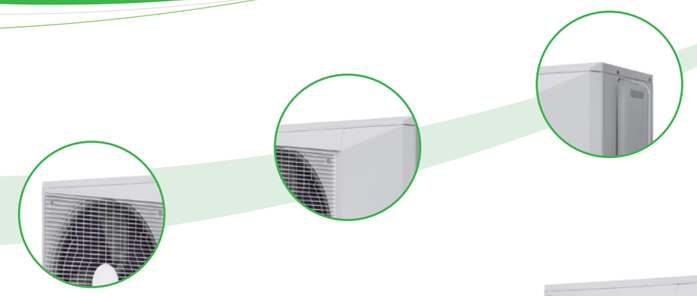
The Min. noise level is 54 dB(A)



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

CHV-mini

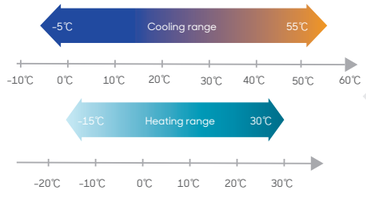
New Generation CHV-Mini
Small Capacity DC Inverter VRF



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

Compact appearance

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

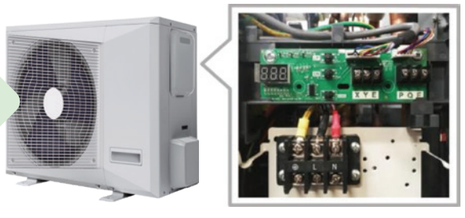


Wide Outdoor Operation Range

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

Easy Maintenance Window

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



GCHV-Mini

Model name	Power type V/N/HZ	Cooling				Heating				Compressor		Motor		Refrigerant		Sound pressure Level	Dimension (WxHxD)		Weight		Connecting		Max Connected indoor units quantity
		Capacity		Power input	EER	Capacity		Power input	COP	Type	Quantity	Type	Quantity	Type	Volume		Packing	Body	Net	Gross	Gas	Liquid	
		KW	Btu/h	KW		KW	Btu/h	KW							kg	DB(A)	mm	mm	kg	kg	mm	mm	
GCHV-D125W/HZR1-050D	380-415/3/50	12.5	42000	3.38	3.70	14	47000	3.26	4.29	DC/ Twin – rotary	1	DC/ fan motor	2	R410a	3.45	56	1010 x 1445 x 415	975 x 1335 x 400	86.6	96.4	Φ15.88	Φ9.52	6
GCHV-D140W/HZR1-050D	380-415/3/50	14	47800	3.80	3.68	16	54000	3.97	4.03						3.8				86.6	96.4			7
GCHV-D160W/HZR1-050D	380-415/3/50	16	54000	4.53	3.53	18	61000	4.61	3.91						3.8	58			90.1	100			8
GCHV-D180W/HZR1-050D	380-415/3/50	18	61000	5.18	3.47	20	68000	5.02	3.98						4.2				94.7	104.4	Φ19.05		9
GCHV-D200W/HZR1-080	380-415/3/50	20	68200	5.92	3.38	22	75000	5.35	4.11						5.3		1095x 1545x 485	1015x 1430x 450	112.7	126.8			10
GCHV-D224W/HZR1-080	380-415/3/50	22.4	76400	6.75	3.32	24	81800	5.62	4.27						5.3				112.7	126.8			10
GCHV-D260W/HZR1-100	380-415/3/50	26	88700	7.54	3.45	28.5	97200	6.77	4.21						6.1		1278 x 1703 x 560	1120 x 1549 x 528	142	162	Φ22.2	Φ12.7	12
GCHV-D280W/HZR1-100	380-415/3/50	28	95500	8.31	3.37	31.5	107500	8.18	3.85						8	60			154	174			15
GCHV-D335W/HZR1-100	380-415/3/50	33.5	114300	9.46	3.54	37.5	128000	8.99	4.17						8				154	174			18

Note

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

CHV-Mini

Model name			GCHV-D080W/HR1	GCHV-D100W/HR1	GCHV-D125W/HR1	GCHV-D125W/HZR1-D01	GCHV-D140W/HR1	GCHV-D140W/HZR1-F01	GCHV-D160W/HR1	GCHV-D160W/HZR1-F01
			GCHV-D080W/HNR1	GCHV-D100W/HNR1	GCHV-D125W/HNR1	GCHV-D125W/HZNR1-D01	GCHV-D140W/HNR1	GCHV-D140W/HZNR1-F01	GCHV-D160W/HNR1	GCHV-D160W/HZNR1-F01
Power supply			220~240V/1N/50Hz	220~240V/1N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz
			220~240V/1N/60Hz	220~240V/1N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz
Performance data										
Cooling	Capacity	kW	8	10	12.5	12.5	14	14	16	16
		Btu/h	27300	34100	42600	42600	47800	47800	54600	54600
	Power input (T1/T3)	kW	2.60	3.00	3.20	3.20	3.75	3.75	4.75	4.75
	Rated current(T1/T3)	A	11.8	13.6	14.5	6.0	17.0	7.0	21.8	8.8
	EER (T1/T3)	W/W	3.08	3.33	3.91	3.91	3.73	3.73	3.37	3.37
Heating	Capacity	kW	9	11	14	14	16	16	17	17
		Btu/h	30700	37500	47800	47780	54600	54600	58000	58020
	Power input	kW	2.65	3.1	3.52	3.52	4	4	4.4	4.4
	Rated current	A	12	14	16.1	16.1	18.2	18.2	20	20
	COP	W/W	3.40	3.55	3.98	3.98	4.00	4.00	3.86	3.86
Compressor data										
DC Inverter compressor	Quantity		1	1	1	1	1	1	1	1
	Type		Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
	Brand		Mitsubishi	GMCC	Mitsubishi	Highly	Mitsubishi	Highly	Mitsubishi	Mitsubishi
Fan data										
Fan motor	Type		DC	DC	DC	DC	DC	DC	DC	DC
	Quantity		1	1	1	1	1	1	1	1
	Power output	W	75	90	180	90	180	180	180	180
Fan blade	Fan Quantity		1	1	1	1	1	1	1	1
	Air flow	m^3/h	3300	4000	5500	5500	5500	5500	5500	5500
Physical data										
Outdoor coil	Fin type		Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil	Hydrophilic Foil
	Number of rows		3	2	2	3	3	3	3	3
	Tube type		Inner-grooved copper tube	Inner-grooved copper tube	Inner-grooved copper tube	Inner-grooved copper tube	Inner-grooved copper tube	Inner-grooved copper tube	Inner-grooved copper tube	Inner-grooved copper tube
Refrigerant	Type		R410a	R410a	R410a	R410a	R410a	R410a	R410a	R410a
	Volume	kg	2.00	2.60	3.00	3.00	3.45	3.45	3.80	3.80
Dimension (WxHxD)	Net	mm	935x702x383	1032x810x445	1100x870x528	1032*810*445	1100x870x528	1100x870x528	1100x870x528	1100x870x528
	Packing	mm	975x770x420	1075x875x495	1140x965x540	1075*875*495	1140x965x540	1140x965x540	1140x965x540	1140x965x540
Weight	Net	kg	47	60	85	67.4	90	90	90	90
	Gross	kg	50	65	95	72.2	100	100	100	100
ODU sound level		dB(A)	≤54	≤56	≤56	≤56	≤57	≤57	≤57	≤57
Operation temperature range										
Cooling	Outdoor side	℃	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55	-5~55
Heating	Outdoor side	℃	-15~30	-15~30	-15~30	-15~30	-15~30	-15~30	-15~30	-15~30

Note

1. The cooling conditions: indoor temp.:27℃ DB(80.6℉),19℃ WB(60℉)outdoor temp.:35℃ DB(95℉)equivalent pipe length:5m drop length:0m.
2. The heating conditions: indoor temp.:20℃ DB(68℉),15℃ WB(44.6℉)outdoor temp.:7℃ DB(42.8℉)equivalent pipe length:5m drop length:0m.
3. Sound level: Anechoic chamber conversion value, measured at point 1 min front of the unit at a height of 1.2m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4. The above data may be changed without notice for future improvement on quality at performance.

INDOOR UNITS

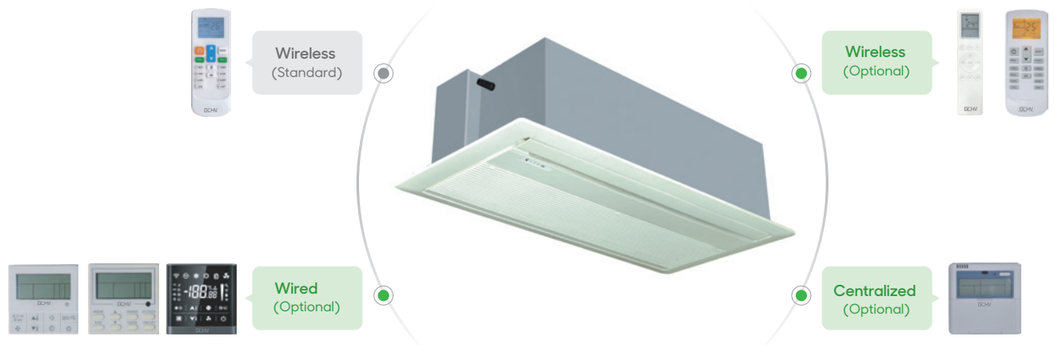
Provide you with fresh air

Indoor Units line Up

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

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

1-way Cassette



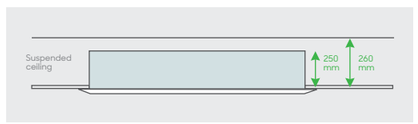
Features

Accessories

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

Slim body, easy to install

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



Built-in with drainage pump

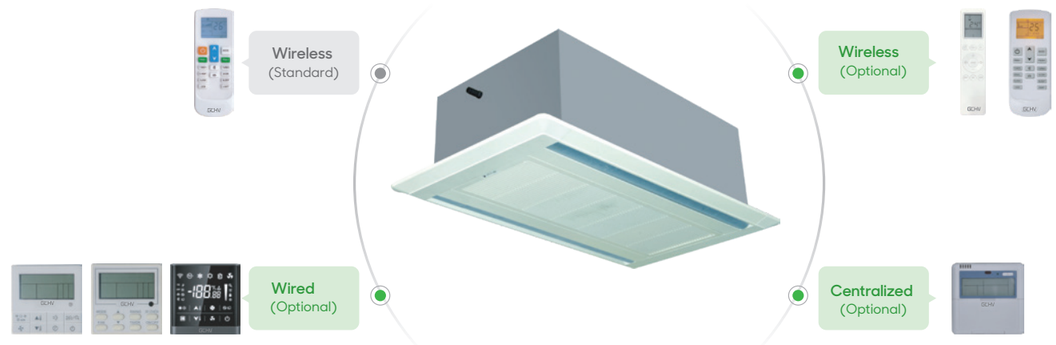
Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.

Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M³/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V22Q1/HR1-B	50Hz	2.2	7.5	2.5	8.5	0.04	520	306	32~36	/	1160 x 275 x 655	994 x 250 x 532	1090 x 65 x 540	1070 x 50 x 520	24/3.6	30/5.0	Φ9.53	Φ6.35	ODΦ25	Remote controller
CMV-V28Q1/HR1-B	50Hz	2.8	9.5	3.2	10.9															
CMV-V36Q1/HR1-B	50Hz	3.6	12.2	4.0	13.6															
CMV-V45Q1/HR1-B	50Hz	4.5	15.3	5.0	17.0	0.05	610	360	36~41		1160 x 315 x 655	994 x 290 x 532	1090 x 65 x 540	1070 x 50 x 520	26/3.6	32/5.0	Φ12.7			
CMV-V56Q1/HR1-B	50Hz	5.6	19.1	6.3	21.4	0.07	750	440	35~41		1470 x 305 x 690	1304 x 290 x 572	1390 x 70 x 560	1380 x 50 x 520	34/3.6	39/5.0				
CMV-V71Q1/HR1-B	50Hz	7.1	24.2	8.0	27.2	0.09	950	550	38~45								Φ15.9	Φ9.53		

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

2-way Cassette



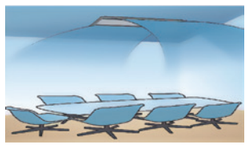
Features

Accessories

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

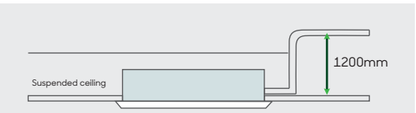
2 way air direction

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



Built-in with drainage pump

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

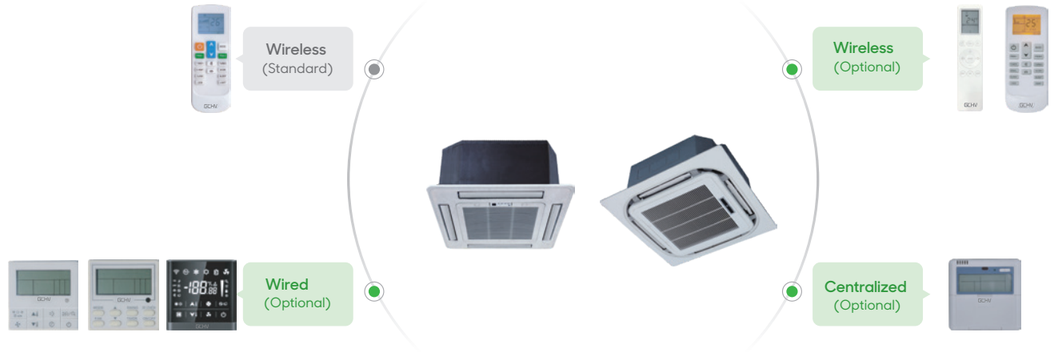


Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M3/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V45Q2/HR1-B	50Hz	4.5	15.3	5.0	17	0.07	800	470	36~42	/	1215 x 365 x 630	1068 x 310 x 517	1235 x 70 x 655	1205 x 50 x 630	33/6.5	36/8.5	Φ12.7	Φ6.35	ODΦ25	Remote controller
CMV-V56Q2/HR1-B	50Hz	5.6	19.1	6.3	21.4															
CMV-V71Q2/HR1-B	50Hz	7.1	24.2	8.0	27.2	0.10	1120	650	40~46		1455 x 365 x 630	1308 x 310 x 517	1475 x 70 x 655	1445 x 50 x 630	40/7.5	47/10.0	Φ15.9	Φ9.53		
CMV-V80Q2/HR1-B	50Hz	8.0	27.2	9.0	30.7															

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

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



Features

Accessories

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

4 way air delivering

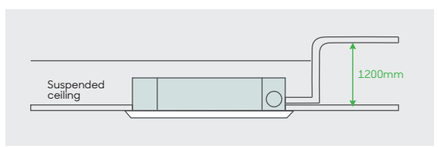
Air flow is soft and smooth, air can be delivered to every corner without dead angle, it makes the room temperature distribution more balance.

360° round panel is optional.

Built-in with drainage pump

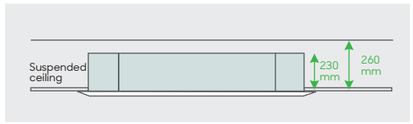
Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.

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



Slim body, easy to install

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



DC fan motor is optional

Specification

4-way Cassette Unit(Compact type)

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M³/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V22Q/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.038	447	263	22~34	/	745 x 375 x 675	653 x 267 x 585	750 x 95 x 750	650 x 30 x 650	17.5	25	Φ9.53	Φ6.35	ODΦ25	Remote controller
CMV-V22Q/HNR1-C	60Hz																			
CMV-V28Q/HR1-C	50Hz	2.8	9.5	3.2	10.9	0.038	447	263	22~34						17.5	25				
CMV-V28Q/HNR1-C	60Hz																			
CMV-V36Q/HR1-C	50Hz	3.6	12.2	4.0	13.6	0.040	515	303	27~38						17.5	25	Φ12.7			
CMV-V36Q/HNR1-C	60Hz																			
CMV-V45Q/HNR1-C	50Hz	4.5	15.3	5.0	17	0.040	515	303	27~38						17.5	25				
CMV-V45Q/HNR1-C	60Hz																			

Round-flow Cassette

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M³/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V56QR/HR1	50Hz	5.6	19.1	6.3	21.4	0.09	860	500	32~39	/	920 x 265 x 985	833 x 232 x 900	1030 x 105 x 1030	950 x 50 x 950	24	30	Φ12.7	Φ6.5		
CMV-V71QR/HR1	50Hz	7.1	24.2	8.0	27.2										24	30				
CMV-V80QR/HR1	50Hz	8.0	27.2	8.8	30										28.5	30				
CMV-V90QR/HR1	50Hz	9.0	30.7	10	34.1	0.18	1200	700	35~39						28.5	30				
CMV-V100QR/HR1	50Hz	10	34.1	11	37.5		1400	820	37~41		920 x 310 x 985	833 x 286 x 900			28.5	35	Φ15.9	Φ9.52	Φ25	Remote controller
CMV-V112QR/HR1	50Hz	11.2	38.2	12.5	42.6										28.5	35				
CMV-V125QR/HR1	50Hz	12.5	42.6	14	47.7										28.5	35				
CMV-V140QR/HR1	50Hz	14	47.7	15	51.1	0.27	1800	1050	38~42						28.5	35				
CMV-V160QR/HR1	50Hz	16	54.5	17	58										28.5	35				

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

Short Ceiling Concealed Ducted Unit

Features

Accessories

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

Short body, easy to install.

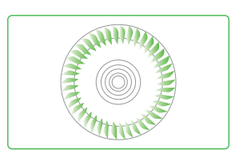
Has short body, minimum 700mm width, It is specially suitable for installation location in entrance ceiling of hotel room. Low noise and light Weight.

Drain pump is optional

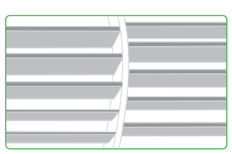
Pumping head is 750mm.

Big air flow low noise centrifugal fan wheel

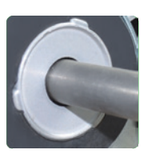
Big air flow low noise centrifugal fan blade with special air tunnel system, and the unique shock absorption measures, making this series ducted units' running noise is as low as 24 dB(A),let users to enjoy the comfort, sleep without any disturbance.



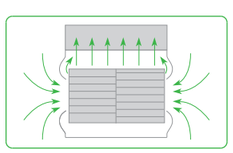
Special resin material fan wheel.



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



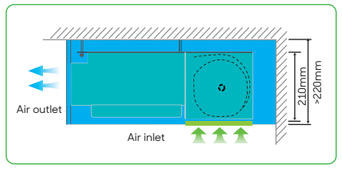
High efficiency low noise motor, motor and support frame with rubber ring isolation, can absorb vibration and reduce noise.



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

Slim body, easy to install

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



DC fan motor is optional

Specification

Round-flow Cassette

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M³/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V22TA/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.05	450	260	24~29	30	910 x 240 x 510	814 x 210 x 467	/	/	16	18.5	Φ9.53	Φ6.35	OD Φ25	Wired controller
CMV-V22TA/HNR1-C	60Hz																			
CMV-V28TA/HR1-C	50Hz	2.8	9.5	3.2	10.9										16	18.5				
CMV-V28TA/HNR1-C	60Hz																			
CMV-V36TA/HR1-C	50Hz	3.6	12.2	4	13.6	0.07	550	324	25~32						16.5	19	Φ12.7			
CMV-V36TA/HNR1-C	60Hz																			
CMV-V45TA/HR1-C	50Hz	4.5	15.3	5	17	0.08	620	360	32~37						16.5	19				
CMV-V45TA/HNR1-C	60Hz																			
CMV-V56TA/HR1-C	50Hz	5.6	19.1	6.3	21.4	0.09	800	520	28~38		1110 x 240 x 510	1010 x 210 x 467			21	24				
CMV-V56A/HNR1-C	60Hz																			
CMV-V71TA/HR1-C	50Hz	7.1	24.2	8	27.2	0.11	1000	640	30~39		1310 x 240 x 510	1214 x 210 x 467			25.5	28.5	Φ15.9	Φ9.53		
CMV-V71TA/HNR1-C	60Hz																			

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

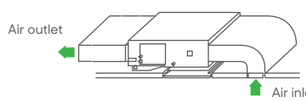
Medium Static Pressure Ducted Unit

Features

Accessories

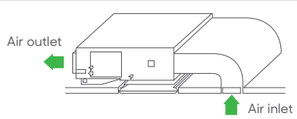
Plenum box	Air filter	EXV	Drain pump	AC Motor	DC Motor
Standard	Standard	Standard(built-in)	Optional	Standard	Optional

Standard ESP is 70Pa , 30Pa can be customized



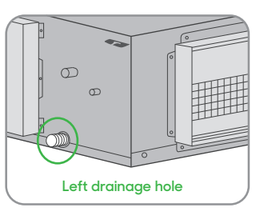
70Pa ESP, suitable for lang distance air supply

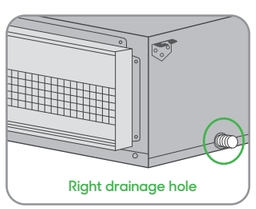
30Pa(can be set on site),suitable for low noise requirement rooms



Convenient in drainage pipe install ation

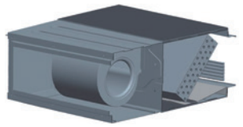
Reserved drainage pipe outlet holes on left side and right side, installer can choose the outlet holes on site as per actual conditions, flexible for drainage pipe installation.

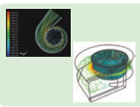




Whole unit low noise design, silent operation

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





Aviation fan wheel, designed by the industry's top design software.

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

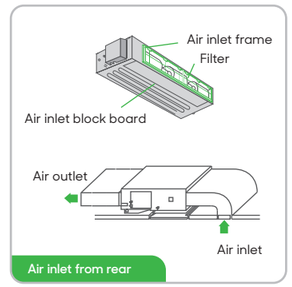
High quality insulation materials, effectively reducing noise diffusion

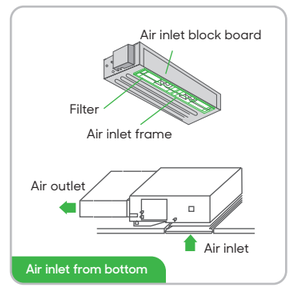
Wheel casing streamline design, reduce the airflow disturbance to lower the noise.

DC fan motor is optional

Two air return installation methods

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





Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M³/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V71TB/HR1-B	50Hz	7.1	24.2	8.0	27.2	0.30	1220	710	36~41	70	1255 x 325 x 720	1209 x 260 x 680	/	/	33	37	Φ15.9	Φ9.53	ODΦ25	Wired controller
CMV-V71TB/HNR1-B	60Hz														33	37				
CMV-V80TB/HR1-B	50Hz	8.0	27.2	9.0	30.7															
CMV-V80TB/HNR1-B	60Hz																			
CMV-V90TB/HR1-B	50Hz	9.0	30.7	10.0	34.1	0.34	1850	1080	38~43		1490 x 325 x 720	1445 x 260 x 680			46	50				
CMV-V90TB/HNR1-B	60Hz																			
CMV-V100TB/HR1-B	50Hz	10.0	34.1	11.0	37.5		2000	1170	40~44						46	50				
CMV-V100TB/HNR1-B	60Hz																			
CMV-V120TB/HR1-B	50Hz	12.0	40.9	13.0	44.3										46	50				
CMV-V120TB/HNR1-B	60Hz																			
CMV-V150TB/HR1-B	50Hz	15.0	51.1	17.0	58										46	50				
CMV-V150TB/HNR1-B	60Hz																			

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

High Static Pressure Ducted Unit

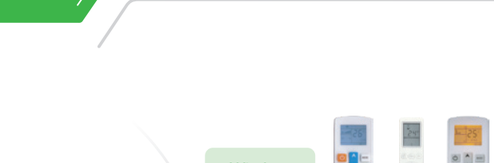
Features

Accessories

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

Slim body, saving suspended ceiling spaces

Slim body, saving suspended ceiling spaces.



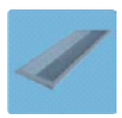
Can be used with various diffusers


Round diffuser


Spiral diffuser


Square diffuser


Linear diffuser

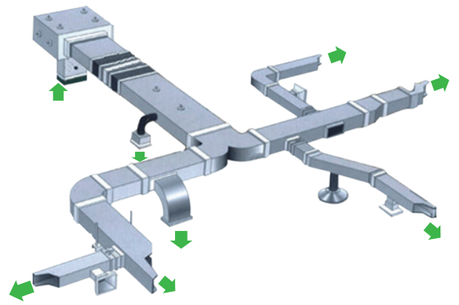

Rectangular diffuser

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

High static pressure

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

High static pressure ducted unit



Long distance multi-point air supply

Specification

Model name	Power type	Capacity Cooling KW	Capacity Cooling KBtu/h	Capacity Heating KW	Capacity Heating KBtu/h	Motor input KW	Air flow M³/h	Air flow CFM	Sound Level DB(A)	ESP Pa	Dimension(WxHxD) Packing mm	Dimension(WxHxD) Body mm	Body Weight Net kg	Body Weight Gross kg	Connecting pipe Gas mm	Connecting pipe Liquid mm	Connecting pipe Drain mm	Standard controller
CMV-V71TH/HR1-B	50Hz	7.1	24.2	7.8	26.6	0.34	1500	880	40~42	150	1490 x 325 x 720	1445 x 260 x 680	46	50	Φ15.9	Φ9.53	ODΦ25	Wired controller
CMV-V71TH/HNR1-B	60Hz																	
CMV-V80TH/HR1-B	50Hz	8.0	27.2	8.8	30								46	50				
CMV-V80TH/HNR1-B	60Hz																	
CMV-V90TH/HR1-B	50Hz	9.0	30.7	10.0	34.1								46	50				
CMV-V90TH/HNR1-B	60Hz																	
CMV-V100TH/HR1-B	50Hz	10.0	34.1	11.0	37.5	0.45	2300	1350	44~52		1245 x 445 x 655	1190 x 370 x 620	47	51				
CMV-V100TH/HNR1-B	60Hz																	
CMV-V120TH/HR1-B	50Hz	12.0	40.9	13.0	44.3								47	51				
CMV-V120TH/HNR1-B	60Hz																	
CMV-V150TH/HR1-B	50Hz	15.0	51.1	17.0	58.0								47	51				
CMV-V150TH/HNR1-B	60Hz																	
CMV-V200TH/HR1-B	50Hz	20.0	68.2	22.0	75.0	1.2	4000	2350	45~53		1510x580x870	1465x448x811	102	113	Φ22.2	Φ12.7	ODΦ30	
CMV-V200TH/HNR1-B	60Hz																	
GCHV-D200TH/HR1-F310	50/60Hz	20.0	68.2	22.0	75.0	1.2	4000	2350	45~50		1515x885x580	1440x811x448						
CMV-V250TH/HR1-B	50Hz	25.0	85.3	27.5	93.8	1.2	4200	2470	45~54		1510x580x870	1465x448x811						
CMV-V250TH/HNR1-B	60Hz																	
GCHV-D250TH/HR1-F310	50/60Hz	25.0	85.3	27.5	93.8	1.2	4400	2580	46~51		1515x885x580	1440x811x448						
CMV-V280TH/HR1-B	50Hz	28.0	95.5	30.8	105.0	1.2	4400	2580	45~55	200	1510x580x870	1465x448x811						
CMV-V280TH/HNR1-B	60Hz																	
GCHV-D280TH/HR1-F310	50/60Hz	28.0	95.5	30.8	105.0	1.3	4800	2820	48~52	150	1515x885x580	1440x811x448						
CMV-V450TH/HZR1-B	50Hz	45.0	153.5	50.0	170.6	1.6	6000	3520	60	200	2267 x 840 x 1050	2165 x 676 x 916	222	260	Φ28.6	Φ15.9	ODΦ32	
CMV-V450TH/HXR1-B	60Hz																	
CMV-V560TH/HR1-B	50Hz	56.0	191.0	63.0	214.9	2.5	8000	4700	64									
CMV-V560TH/HXR1-B	60Hz																	

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

Wall Mounted Unit

Features

Accessories

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

Air supply smoothly

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

2 panels can be chosen, suitable for all kinds of decoration style

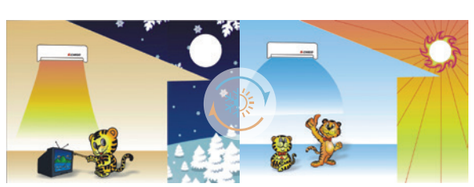
Simple, elegant, stylish, mirror design, suitable for all kinds of decoration style.

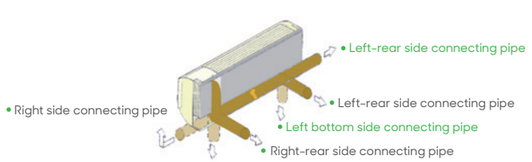
Flexible in installation

Refrigerant pipe can be connected from 3 directions.

Wide adjustable angle air supply

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





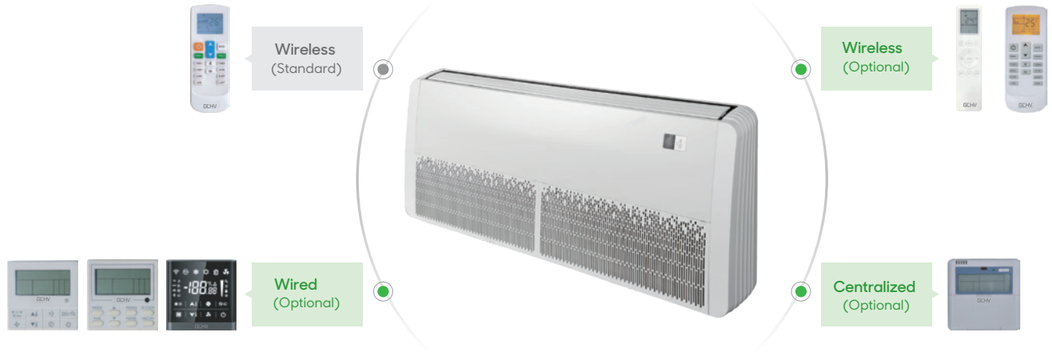
Specification

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/50Hz	220-240V/1N/50Hz	220-240V/1N/50Hz	220-240V/1N/50Hz	220-240V/1N/50Hz	220-240V/1N/50Hz
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power input		W	15	15	18	20	23	35
Fan motor	Type		DC	DC	DC	DC	DC	DC
	Speed (Hi/Med/Low)	r/min	1000/900/870/850	1000/900/870/850	1100/1000/950/900	1050/950/900/850	1100/1000/950/900	1300/1200/1100/1000
Air flow		m^3/h	440/380/360/350	440/380/360/350	500/440/415/380	655/610/565/525	720/645/580/560	890/805/720/645
Sound Pressure level		dB(A)	24~33	24~33	27~36	29~38	32~42	35~43
Body dimension (WxHxD)	Net	mm	864x300x200	864x300x200	864x300x200	972x320x215	972x320x215	972x320x215
	Packing	mm	945x375x290	945x375x290	945x375x290	1060x400x310	1060x400x310	1060x400x310
Body weight	Net/Gross	kg	9.5/12	9.5/12	9.5/12	11.5/14	11.5/14	11.5/14
Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
Throttle type			EXV	EXV	EXV	EXV	EXV	EXV
Liquid pipe/Gas pipe		mm	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.52/Φ15.88
Drainage water pipe (Outer diameter)		mm	Φ20	Φ20	Φ20	Φ20	Φ20	Φ20
Operation temperature		℃	16~32	16~32	16~32	16~32	16~32	16~32

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

Wall Mounted Unit

Floor Ceiling Unit



Features

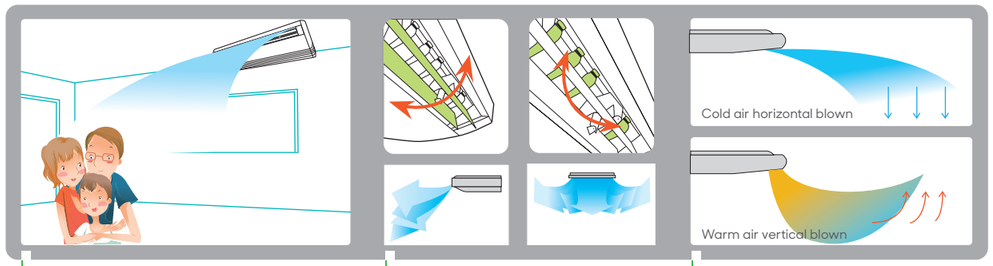
Accessories

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

Suspended installation, saves valuable floor space

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

Wide angle air supply

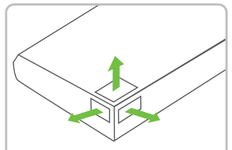


Configured with low noise high performance centrifugal fans, has big air flow and long distance air supply.

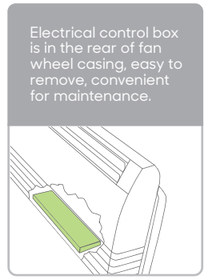
3 dimensional air supply, wide air supply angle, easily supply to every corners.

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

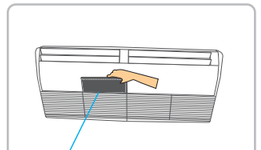
Easy for installtion



Refrigerant pipe can be connected from 3 directions.

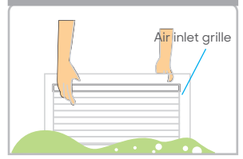


Electrical control box is in the rear of fan wheel casing, easy to remove, convenient for maintenance.



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

Water washable



Floor Ceiling Unit

Specification

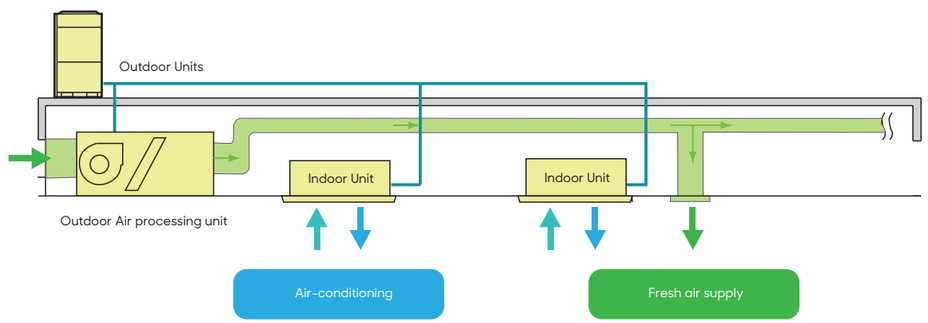
Model name	Power type	Capacity Cooling KW	Capacity Cooling KBtu/h	Capacity Heating KW	Capacity Heating KBtu/h	Motor input KW	Air flow M³/h	Air flow CFM	Sound Level DB(A)	Dimension(WxHxD) Packing mm	Dimension(WxHxD) Body mm	Body Weight Net kg	Body Weight Gross kg	Connecting pipe Gas mm	Connecting pipe Liquid mm	Connecting pipe Drain mm	Standard controller
GCHV-V36UA/HR1-LDBA	50Hz	3.6	12.3	4.0	13.7	0.09	800	470	32~46	1130 x 765 x 330	1050 x 675 x 235	26.5	31.5	Φ12.7	Φ6.35	DN20	Remote controller
GCHV-V36UA/HNR1-LDBA	60Hz																
GCHV-V45UA/HR1-LDBA	50Hz	4.5	15.3	5.0	17												
GCHV-V45UA/HNR1-LDBA	60Hz																
GCHV-V56UA/HR1-LDBA	50Hz	5.6	19.1	6.3	21.4												
GCHV-V56UA/HNR1-LDBA	60Hz																
GCHV-V71UA/HR1-LDBB	50Hz	7.1	24.2	8.0	27.2	0.10	1200	706	41~48	1380 x 765 x 330	1300 x 675 x 235	32.5	37.5	Φ15.9	Φ9.52	DN20	
GCHV-V71UA/HNR1-LDBB	60Hz																
GCHV-V80UA/HR1-LDBB	50Hz	8.0	27.2	8.8	30												
GCHV-V80UA/HNR1-LDBB	60Hz																
GCHV-V90UA/HR1-LDBC	50Hz	9.0	30.7	10.0	34.1	0.20	2000	1177	38~53	1750 x 765 x 330	1670 x 675 x 235	41.0	47.0				
GCHV-V90UA/HNR1-LDBC	60Hz																
GCHV-V112UA/HR1-LDBC	50Hz	11.2	38.2	12.5	42.6												
GCHV-V112UA/HNR1-LDBC	60Hz																
GCHV-V140UA/HR1-LDBC	50Hz	14.0	47.7	15	51.1												
GCHV-V140UA/HNR1-LDBC	60Hz																
GCHV-V160UA/HR1-LDBC	50Hz	16.0	54.5	17	58												
GCHV-V160UA/HNR1-LDBC	60Hz																

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

Fresh Air Processor

Innovative air supply technology for excellent room temperature control

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



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

Features

Accessories

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

Healthy and comfortable

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

100% Fresh air processing unit

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

High external static pressure

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

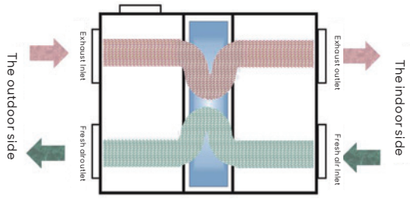
Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	KW	M³/h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
CMV-V140TF/HR1-B	50Hz	14.0	47.7	9.0	30.7	0.45	1400	820	42~48	220	1245 x 445 x 655	1190 x 370 x 620			47	51	Φ15.9	Φ9.53		
CMV-V140TF/HNR1-B	60Hz																			
CMV-V224TF/HR1-B	50Hz	22.4	76.4	16.0	54.5	1.2	2000	1170	45~52	220	1510 x 580 x 870	1465 x 448 x 811			100	111			ODΦ25	
CMV-V224TF/HNR1-B	60Hz																			
CMV-V280TF/HR1-B	50Hz	28.0	95.5	20.0	68.2	1.2	2800	1640	45~52	220	1510 x 580 x 870	1465 x 448 x 811	/	/	100	111	Φ22.2	Φ12.7		Wired controller
CMV-V280TF/HNR1-B	60Hz																			
CMV-V450TF/HZR1-B	50Hz	45.0	153.5	31.4	107.1	1.6	4000	3520	58	300	2267 x 840 x 1050	2165 x 676 x 916			222	260				
CMV-V450TF/HXR1-B	60Hz																			
CMV-V560TF/HZR1-B	50Hz	56.0	191.0	39.0	133.0	2.5	6000	4700	62	300	2267 x 840 x 1050	2165 x 676 x 916			222	260	Φ28.6	Φ15.9	ODΦ32	
CMV-V560TF/HXR1-B	60Hz																			

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

Heat Recovery Ventilator

Features

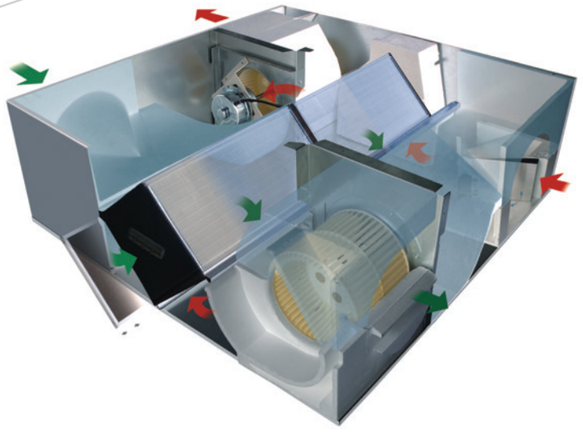


How it works

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

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

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



Specification

Supspended type specification

Model name	Air flow	ESP	Power input	Power suppy (V)	Temperature exhanging efficiency(%)		Enthalpy exhanging efficiency(%)		Noise dB(A)	Body dimension (WxDxH) mm	Weight kg
	M³/h	Pa	W		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℃ DB, 19.5. WB ; outdoor fresh air 35℃ DB, 28℃ ;
2.Heating test condition: indoor side 21℃ DB, 13. WB outdoor fresh air 5℃ DB, 2℃ ;
3.The above data may be changed without notice for future improvement on quality and performance.

Heat Recovery Ventilator

Air Handler Unit

Features

Insulated cabinet

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

Motor & Blower

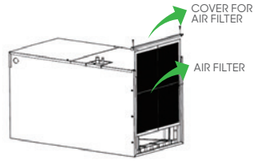
Direct drive motors, 3-speed, provide selections of air flow to meet desired applications.Φ10" big fan, powerful wind.

Coil

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

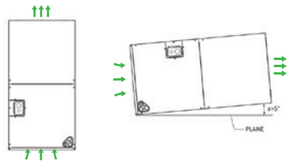
Filter optional

Detachable air filter for cleaning or renewal.



Multi-position installation

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



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

Specification

Model name	Power type	Capacity				Power input	Air flow		Sound Level	ESP	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Body	Packing	Net	Gross	Gas	Liquid	Drain	
		KW	KBtu/h	KW	KBtu/h	W	M³/h	CFM	DB(A)	Pa	mm	mm	kg	kg	mm	mm	mm	
CMV-V71AH/HNR1	60Hz	7.1	24.1	8.0	27.2	290	1500	882.3	51~54	25	774x520x460	834x520x565	36	39	Ø15.88	Ø9.52	Ø20	Wired Controller
CMV-V105AH/HNR1	60Hz	10.5	35.7	11.5	39.1	290	1500	882.3	51~54	37	774x520x460	834x520x565	36	39	Ø15.88	Ø9.52	Ø20	Wired Controller
CMV-V160AH/HNR1	60Hz	16.0	54.4	18.0	61.2	517	2500	1470.6	57~60	50	970x550x500	1030x560x595	48	52	Ø15.88	Ø9.52	Ø20	Wired Controller

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

Controllers & Software

Wireless remote controllers

- Indoor unit address inquiry
- Indoor unit address setting
- Temperature setting
- Operation mode setting
- Fan speed setting
- Timer function

NT-03A NT-05A NT-06A

Wired Controllers


ZKX-C/TE-05


ZKX-C/TE-06

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

Touch Screen Wired Controller

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


ZKX-C/T-07

Simple Centralized Controller

SP-D099

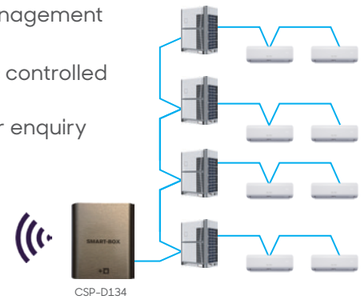
- Easy to install. Controller connects to outdoor units only.
- Able to install this controller after building decoration.
- 1 Controller can control max. 64 indoor units.
- Mode lock function, user can lock the running mode of indoor unit.

CMV-SMART (Smart Centralized Control App)

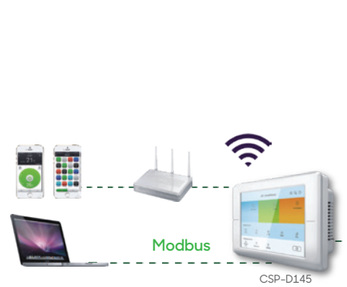
- Available on iOS and Android

- Remote control via cloud server

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


CSP-D134

Touch Screen Centralized Controller



CSP-D145

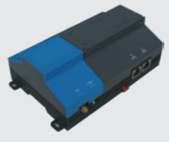
- Build in WIFI modular
- Build in Modbus protocol
- Weekly schedule management
- Operation parameter equiry
- User friendly UI design

CHV-NET (Centralized Control System)

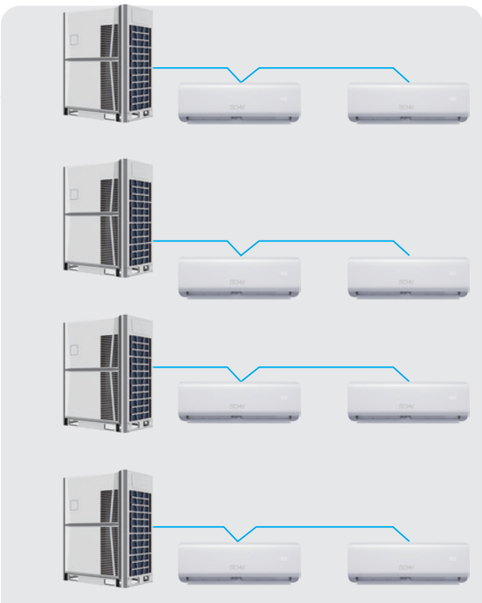

BMS/BAS System


Gateways


Router


Controller

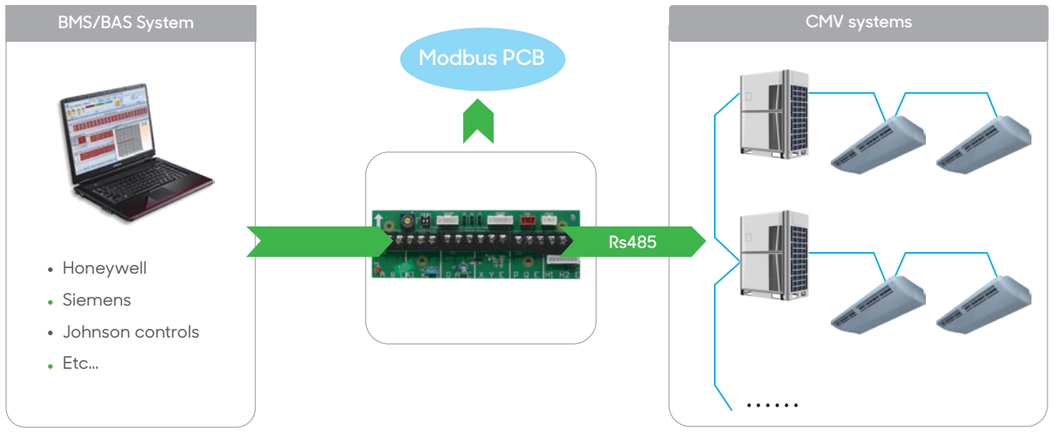
	Centralized control
$	Electricity charge management
	Operation data record
	Schedule management


CMV systems

BMS Gateway

Modbus gateway | Outdoor unit built in with Modbus gateway can be customized

BACnet gateway | Verified by BACnet International, fully compatible with all BACnet protocol product



Doctor Kit Pro

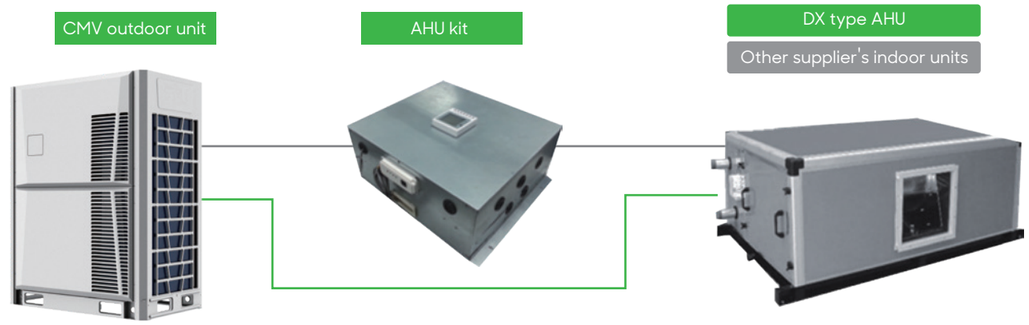
Fast to install, easy to use

Indoor unit can be long distance remote controlled and diagnosed

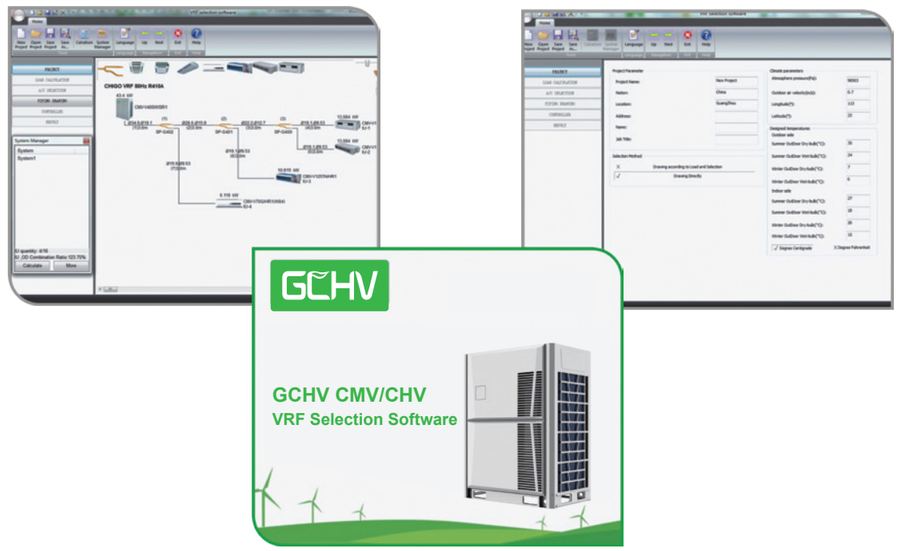
All indoor/outdoor units data can be enquired

AHU Connection Kit

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



VRF Selection Software Pro



PROJECTS

Volgograd Arena ,Important venue of the 2018 Russia World Cup, total VRF capacity 2400KW.

Murtala Muhammed Airport Lagos , total VRF capacity 800KW.

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

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

PROJECTS

Main venue of the Universiade in Shenzhen, total VRF capacity 8000kW.

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

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

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